

# The Status of Nepal's Birds: The National Red List Series





# Volume 1

















































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#### **Front Cover**

Otus bakkamoena
A pair of Collared Scops Owls; owls are highly threatened especially by persecution Raj Man Singh / Brian Hodgson

#### **Back Cover**

Aceros nipalensis
A pair of Rufous-necked Hornbills; species
Hodgson first described for science
and sadly now extinct in Nepal.
Raj Man Singh / Brian Hodgson

The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of participating organizations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. The views expressed in this publication do not necessarily reflect those of any participating organizations.

#### Notes on front and back cover design:

The watercolours reproduced on the covers and within this book are taken from the notebooks of Brian Houghton Hodgson (1800-1894). For 23 years, Hodgson was posted to Nepal as an official of the British East India Company—at a time when Nepal was virtually terra incognita to Europeans. Hodgson was an energetic polymath who, in addition to carrying out his political and diplomatic duties, published widely on the ethnography, linguistics, architecture, religion and natural history of Nepal and the Himalayas. He published more than 140 scientific papers on zoological subjects, ranging from descriptions of new species to checklists of the fauna. A projected massive volume surveying the birds and mammals of the central Himalaya was unfortunately never completed due to lack of funds, but the present paintings are taken from sketchbooks which Hodgson presented to the Zoological Society of London toward the end of his life. These voluminous collections comprise approximately 1500 pages of drawings, studies and miscellaneous notes. The species depictions were done in watercolours very largely by one Nepalese artist, Raj Man Singh trained by Hodgson to paint birds and mammals in a natural, lifelike manner surprisingly modern in comparison with European and American artists of the day.

The Zoological Society of London (ZSL), founded in 1826, is a world-renowned centre of excellence for conservation science and applied conservation (registered charity in England and Wales number 2087282). Our mission is to promote and achieve the worldwide conservation of animals and their habitats. This is realized by carrying out field conservation and research in over 80 countries across the globe and through education and awareness at our zoos, ZSL London Zoo and ZSL Whipsnade Zoo, inspiring people to take conservation action.

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### **Government of Nepal**

# Ministry of Forests and Soil Conservation

Ref. No.



P.O.Box No. 3987 Singha Durbar, Kathmandu

Date :-

#### **Foreword**

Nepal is situated at the heart of the great Himalayan range and at a unique juncture of two of the world's important biogeographic regions. Altitudinal variation over a short span ranges from 60 m above sea-level to 8,848 m, Sagarmatha, the highest point on Earth. Traversing north to south or east to west, one experiences great contrasts in vegetation and wildlife associated. This unique biogeographical setting has bestowed Nepal with rich biodiversity. Nepal is also diverse in its ethnicity, culture and religion, giving it one of the richest social settings in the world.

Nepal is exceptionally rich in terms of avian diversity. So far 878 species of birds have been reported from the country which equals 8% of avifauna recorded in the world. *Danphe*, the national bird of Nepal, is one of the most colourful birds in the world. *Kande Bhyakur* or Spiny Babbler is endemic to our country. Nepal is a very rare country where as many as nine species of vultures are recorded, a high total that no other country of this size can boast. Bar-headed Goose has been recorded flying atop the *Sagarmatha*; the world's largest living woodpecker Great Slaty Woodpecker haunts mature terai forests of west-central Nepal; the world's tallest flying bird *Sarus* dwells in farmlands of central lowland Nepal, whereas the world's largest passerine, Raven guards the mountain villages. Nepal is indeed not a small country when avian diversity is considered.

Much of the biodiversity in the country has been conserved through the establishment and commendable management of the protected area system. Protected areas cover nearly one quarter of the country's land mass and represents diverse ecosystems at various elevations. Unfortunately not all is good with birds. One fifth of Nepal's birds are nationally threatened and several are even extirpated in Nepal. In particular, ecosystems and biodiversity outside the protected areas suffer the greatest threat, primarily due to habitat loss, hunting and disturbance, poisoning, climate change, agrochemicals, and invasive species. All vulture species and birds of prey are in decline, so are many large wading birds of the country. The Nepal government remains committed to reversing this trend and conserve the rich natural heritage that it has been graced with. The Ministry and its various departments especially the Department of National Parks and Wildlife Conservation has been working relentlessly with various conservation partners in a unified way. We must gear up support from all quarters to protect our vanishing avifauna.

This phenomenal and biblical document on birds of Nepal will be an invaluable source of reference to researchers, ornithologists, natural resource managers, conservationists, campaigners, policy makers and planners alike. This document provides important information on taxonomy, distribution, populations, ecology and finally a fair assessment of bird's status applying IUCN regional criteria for threat categories. The information contained here will form the baseline for further development and research in the field of avian conservation in Nepal and in this region. I hope much more bird research and conservation work will be initiated in the future.

I would like to thank the Department of National Parks and Wildlife Conservation, National Trust for Nature Conservation, Zoological Society of London, Himalayan Nature and all other conservation partners and the very large number of individuals who have been involved with coordination, supports and sharing their long-standing knowledge to complete the work. Finally I thank Zoological Society of London for generously supporting this work through the much required resources.

Uday Chandra Thakur Secretary Ministry of Forests and Soil Conservation

**Government of Nepal** 

#### Foreword

My first visit to Nepal was in 1978, having travelled overland with friends from the UK. I will forever remember the remarkable diversity of bird life that greeted us in the Sal forests of the Terai – the feeding parties, seemingly in a hurry, packed full of woodpeckers, drongos, flycatchers, and warblers. Bird after bird was new for me and I was in heaven. Three years later, on a second trip, a stunning male Satyr Tragopan, eventually revealing itself from a bamboo clump on the steep Himalayan slopes above Ghasa, remains one of my most memorable birding experiences.

Then, and now, Nepal's bird life is renowned and enjoyed for its splendour and extraordinary diversity. To date, 878 species of bird have been recorded in the country - putting Nepal in the premier league of bird-rich countries. This bird diversity is however under threat, and as the world over, many species are in decline.

This study has been undertaken to assess for the first time the national conservation status of Nepal's birds, and in particular to identify those species that are threatened with extinction in the country. Such an assessment is vital in order to guide conservation activities in the country. The study has been led by three renowned bird experts, Carol and Tim Inskipp, and Hem Sagar Baral. The study runs to well over 3000 pages, with over 2000 references. It would not have been possible however without the extraordinary contribution from Nepali birders who have contributed an immense amount of original material. During the assessment process two national workshops, each hosted by the National Trust for Nature Conservation, were held, in October 2012 and October 2015. These were each attended by over 60 bird experts, almost all Nepalis and comprised field workers, bird guides, field ornithologists and researchers, NGO staff and government officers who provided invaluable records and comments on the species' assessments. The findings of this review are both revealing and cause for great concern. Nearly 20% of Nepal's birds (167 species) are threatened with extinction in the country (Satyr Tragopan is one of them) including 37 species which are threatened on a global scale. A further 62 species are near-threatened nationally. Nine species are now extirpated in Nepal and have not been recorded since the 19th century. Lowland grassland specialist birds are the most threatened group of birds with 55% of the birds threatened, followed by wetland birds (25%) and tropical and subtropical broadleaved forest birds (24%). Of particular note, is the importance of Nepal for the following globally threatened species, which have globally important populations in the country: Cheer Pheasant Catreus wallichii; Swamp Francolin Francolinus gularis; Bengal Florican Houbaropsis bengalensis; Red-headed Vulture Sarcogyps calvus; White-rumped Vulture Gyps bengalensis; Grey-crowned Prinia Prinia cinereocapilla, and Slender-billed Babbler Turdoides longirostris.

Nepal is a signatory to the United Nations Convention on Biological Diversity, and alongside other nations, has committed by 2020 to prevent species extinction, and to improve the conservation status of threatened species, particularly those that are most in decline. This review therefore provides an excellent basis for putting in place the necessary strategies and action plans, so that this commitment might be met and continued beyond 2020. It further provides a baseline against which progress can be measured, and Nepal's birds can be monitored over the longer term. The Status of Nepal's Birds has been an immense project and is testimony to the dedication and commitment of its main authors. It was only possible due to the contribution of many committed scientists and conservationists, and the close collaboration between: the Government of Nepal, Ministry of Forest and Soil Conservation, Department of National Parks and Wildlife Conservation; the National Trust for Nature Conservation; the International Union for Conservation of Nature (IUCN), and the Zoological Society of London. It is vital that all involved, and others, now rally together to deliver on the conservation actions that are needed. So that Nepal can continue to be proud of its extraordinary and diverse bird life, including the spectacular Satyr Tragopan!

Richard Cummett.

Richard Grimmett, Head of Conservation, BirdLife International

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#### Introduction

#### Objectives and nomenclature

The main objectives of this national Bird Red Data Book are to provide comprehensive accounts of all the bird species found in Nepal, assess their status applying the IUCN Guidelines at Regional Levels (IUCN 2003), identify threats to bird species and recommend the most practical measures for their conservation. The species nomenclature in this Red Data Book follows IUCN approved names which are the same as those used by BirdLife International.

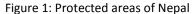
#### Nepal bird Red List assessments

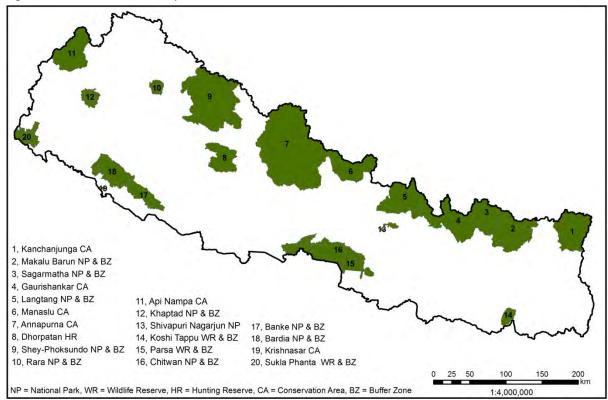
This work highlights species most threatened and under-researched. Through a network of field technicians, scientists and government officials, conservation recommendations have been made to further secure the future of Nepal's bird species. The National Red List Programme under the leadership of the Department of National Parks and Wildlife Conservation (DNPWC) and with major initiation and support from the Zoological Society of London and National Trust for Nature Conservation already assessed mammalian species in 2012 (Jnawali *et al.* 2012) and will continue to assess all major taxa in Nepal including reptiles, amphibians, fish, invertebrates and flowering plants providing a true picture of the overall state of Nepal's biodiversity and producing conservation recommendations to help prevent declines in the future. Each revision of the National Red List will highlight the biodiversity trends of the country, as well as the effectiveness of conservation programmes already in place. This information will also allow the Government of Nepal to monitor its progress towards meeting national and international targets such as those set by the Convention on Biological Diversity.

#### Nepal's diversity

Nepal harbours an extraordinary variety of landscapes, habitats, wildlife and cultures. Although it occupies only 0.1% of the world's total land mass, its diverse physiographic features range from the Arctic high Himalayan peaks (the highest terrestrial ecosystem in the world), to the tropical lowlands of the Terai. Also important is Nepal's geographical position, a region of overlap between the Palearctic realm to the north and the Oriental (Indomalayan) realm to the south.

In a relatively small area of 147,181 km² Nepal is home to 3.2 per cent and 1.1 per cent of the world's known flora and fauna, respectively. This includes 5.2 per cent of the world's known mammals, 8 per cent of birds, and 3.2 per cent of known plant species (MoFSC 2014). Over 23% of the country's landmass is designated as protected area, with 10 national parks, three wildlife reserves, one hunting reserve and six conservation areas (Figure 1).





#### **Important Bird and Biodiversity Areas**

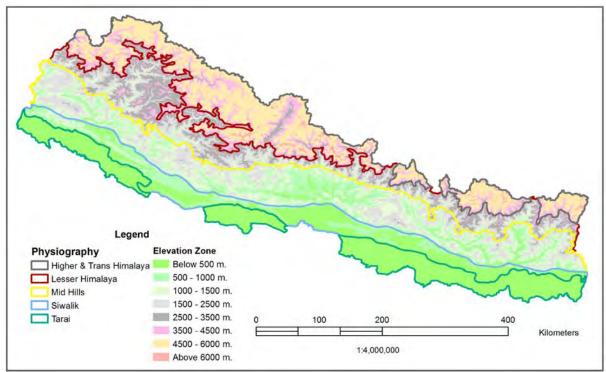
The IBA programme is a worldwide initiative by BirdLife International aimed at identifying, documenting and working towards the conservation and sustainable development of a network of critical sites for the world's birds and other biodiversity, termed Important Bird and Biodiversity Areas or IBAs. Bird Conservation Nepal is leading this initiative in Nepal, aided by the Royal Society for the Protection of Birds, UK and BirdLife International. In 2005 a total of 27 IBAs were identified in Nepal (Baral and Inskipp 2005). Nepal's IBAs are currently under review and the final number will be 36-38 IBAs. In terms of area over 85% of IBAs lie within Nepal's current protected areas' system (BCN and DNPWC in prep.).

#### Location and topography

Positioned between China in the north and India to the south, east and west, Nepal is a land-locked country lying between the Indian subcontinent and Eurasian continent. Most of Nepal's land mass lies in the Himalayas forming the central part of the range. Over a small lateral distance of approximately 200 km, the country undergoes vast altitudinal changes from 60 m along the southern border, up to 8848 m at the peak of Sagarmatha (Mount Everest). This topographical variation causes dramatic changes in Nepal's landscape, climate and vegetation (ICIMOD 2010).

#### Physiographic zones

Figure 2. Map of Nepal's physiographic zones



The country can be broadly divided into five physiographic zones: Terai (<500m), Siwaliks (500-1000m), Middle Mountains (1000-3000m), High Mountains (3000-5000m) and the High Himal in the alpine zone above 5000m.

The Terai is a lowland strip, 25 to 45 km wide running along the southern border of Nepal. Originally, the Terai was covered with dense jungle, mainly composed of sal *Shorea robusta* and mixed hardwoods. Malaria was widespread which prevented human settlement except by the indigenous Tharus who were resistant to the disease. However, after the eradication of malaria in the mid-1950s many areas became habitable and resulted in large scale settlements; today nearly half of Nepal's population resides in the Terai (CBS 2014, Pant 2010). Although the Terai represents only 14% of the country's area, it now contains nearly 50% of the country's total cultivated land due to its highly fertile soils (UNEP 1993).

Large tracts of forest in the Terai can still be found in the Bhabar areas, which are well drained and have a low water table. The Terai is dotted with small lakes and ponds, as well as large perennial rivers that are the habitats of wetland-dependent birds. The southeastern Terai features Nepal's most significant wetland: Koshi Tappu Wildlife Reserve, an Important Bird Area and a Ramsar Site. Tall grasslands in the Terai are important for a number of specialist bird species which are restricted to this habitat.

Beyond the flat lands of the Terai are the Siwaliks, the first of the Himalayan foothills. Hill slopes of the Siwaliks have little potential for agricultural production as the soils are shallow and erodible. This zone consists of subtropical coniferous and mixed hardwood forests, including Chir Pine *Pinus roxburghii*, and subtropical deciduous and evergreen forests.

North of the Siwaliks, runs the Middle Mountains, including the Mahabharat range. This zone has subtropical and lower temperate pine and oak forests which are badly degraded because of high local demands for fodder and fuelwood. In the centre and east, the area is highly cultivated with terraced farming being the predominant agricultural practice. Existing pastureland is also heavily overgrazed.

The High Mountains zone rises up to 4000 m and consists of temperate and subalpine forests and shrublands with both coniferous and broadleaf species including oak *Quercus spp.*, Himalayan fir *Abies spectabilis*, birch *Betula spp.* and mixed broadleaved and rhododendron forests. It includes part of the trans-Himalayan cold semi-desert with a climate and vegetation similar to the Tibetan steppe to the north. The High Mountains region is generally less cultivated and has some of the least disturbed forests probably as a result of relatively low human population.

Along the northern border of Nepal lies the High Himal which includes eight of the ten highest peaks in the world including the highest point: the summit of Sagarmatha at 8848 m. The landscape comprises of alpine vegetation, snow, glaciers and rock (Grimmett *et al.* 2000).

The High Himalayas is one of the most vulnerable global regions to the impacts of climate change. Himalayan glaciers are shrinking and are having major implications for drinking water supplies, biodiversity, hydropower, local industry, agriculture and the threat from glacial lake outbursts (Bajracharya and Mool 2009).

#### Climate

Nepal's climate varies greatly between each of the physiographic regions. It ranges from tropical in the lowlands to arctic in the high peaks. In the humid Terai in the south of the country temperatures can reach more than 40° C in summer, yet at the same time near the country's northern border in places such as Mustang and Solukhumbu temperatures can fall below freezing.

The monsoon season is between June to September and during this period Nepal receives around 80% of its annual rainfall. In addition, there is a less well-defined period of winter rain, falling between December and the end of March. The monsoon rains reach east Nepal first, resulting in the rainfall here being generally higher and lasting for a longer period than in the west. This is the main reason why western Nepal is drier than eastern and central parts of the country. However, there are pockets of high rainfall in the west caused by the topography, notably the area south of Annapurna which is the wettest in the country. Rainfall tends to increase with altitude until about 2500 m by which time clouds have lost most of their moisture. Above this altitude rainfall tends to decrease. The region north of the Himalayan range including Mustang, Manang and Dolpo districts, lies in the rain shadow and has very low rainfall.

Aspect of slope greatly affects the climate; slopes facing south receive more rain and sunshine then north-facing slopes.

The total amount of monsoon rainfall and the length of time over which it falls are very important in determining vegetation type. Local conditions, such as steepness and aspect of slopes are also important, for example steeper and shadier slopes tend to be damper and have more diverse flora (Inskipp and Inskipp 1991, ICIMOD 2010).

#### **Bird migration in Nepal**

Bird migration in Nepal has been described in Nepali folklore. Traditionally people all over Nepal looked out for migrating cranes during April and May as a sign they should sow cucumber and pumpkin seeds in their vegetable gardens. The first sound of Indian Cuckoo *Cuculus micropterus*, popularly known as *Kaphal Pakyo*, meant the arrival of spring and people visited forest lands to harvest ripe fruits and berries. At the same time the sounds of hawk-cuckoos urged villagers to sow seeds on time in their fields – a delay in sowing meant the seeds would lose their fertility. Although folklore relating to bird migration was prevalent in Nepali society and seasonality in bird movements was well known, most people had no idea where the birds came from or where they went. Some in the lowlands thought that species such as Asian Paradise-flycatcher *Terpsiphone paradisi* stayed in the country all year round, but became invisible to human eyes for nearly six months!

Many of Nepal's resident species (approximately 550 species) are seasonal altitudinal migrants. These species breed at higher elevations in mountain areas and descend to lower altitudes for wintering. Examples include Tickell's Warbler *Phylloscopus affinis*, a common altitudinal migrant which mainly summers between 2550 m to 4880 m, and winters in the Terai, occasionally in the lower hills. The level to which birds descend in winter may depend on weather conditions. For example, Red-billed Chough *Pyrrhocorax pyrrhocorax* has been found as high as 7900 m, and usually remains above 2440 m in winter, but has been seen as low as 1450 m in cold weather (Robson 1982).

Nepal receives both long distance winter migrants that breed further north and summer visitors from the south, which mainly migrate over relatively short distances.

Around 62 species are summer visitors or partial migrants to Nepal and include species of cuckoos, swifts, bee-eaters, *Phylloscopus* warblers, flycatchers and drongos. The migration routes of a number of these summer migrants are still poorly understood or unknown, for example Dark-sided Flycatcher *Muscicapa sibirica*, Ferruginous Flycatcher *M. ferruginea* and Fork-tailed Swift *Apus pacificus*. Many of Nepal's summer visitors winter further south in the subcontinent, for instance Large Hawk Cuckoo *Cuculus sparverioides*, Blue-tailed Bee-eater *Merops philippinus*, Eurasian Hoopoe *Upupa epops*, Barn Swallow *Hirundo rustica*, Greenish Warbler *Phylloscopus trochiloides*, Asian Brown Flycatcher *Muscicapa dauurica*, Asian Paradise-flycatcher *Terpsiphone paradisi* and Ashy Drongo *Dicrurus leucophaeus*. A few of Nepal's summer visitors, such as White-throated Needletail *Hirundapus caudacutus*, Asian Emerald Cuckoo *Chrysococcyx maculatus* and Crow-billed Drongo *Dicrurus annectans* move south-east, perhaps as far as Malaysia and Indonesia, However,it is not known whether Nepalese individuals travel so far. Lesser Cuckoo *Cuculus poliocephalus* and Common Swift *Apus apus* winter in Africa.

A total of about 150 species winter in Nepal, originating from a wide area in the Palearctic. These include ducks, geese, birds of prey, waders, pipits, wagtails, thrushes, *Acrocephalus, Locustella* and *Phyllosocopus* warblers, bush warblers, finches and buntings. The Himalayas and the high altitude Tibetan plateau form a great barrier for birds flying southwards from the north. Many bird species are therefore presumed to avoid the Himalayas and to take alternative longer routes to reach their southern wintering grounds.

Thousands of birds of prey, especially *Aquila* eagles, use the Himalayas as an east-west pathway in autumn (Fleming 1983). This migration has been systematically studied just south of the main Himalayan range at Kande and Thulo Kharka, Kaski District in most years since 1999 (e.g. DeCandido *et al.* 2001, Subedi 2015, Subedi *et al.* 2014). The globally and nationally threatened Steppe Eagle *Aquila nipalensis* is the most numerous species. Other nationally threatened birds of prey include: Pallas's Fish Eagle *Haliaeetus leucoryphus*, White-tailed Eagle *H. albicilla*, Eastern Imperial Eagle *Aquila heliaca*, Greater Spotted Eagle *A. clanga*, Western Marsh Harrier *Circus aeruginosus*, Pallid Harrier *C. macrourus*, Northern Harrier *C. cyaneus*, Egyptian Vulture *Neophron percnopterus*, Himalayan Vulture *Gyps himalayensis*, Griffon Vulture *G. fulvus* and Saker Falcon *Falco cherrug* (Subedi 2015).

Several passerine species have been observed undergoing similar movements, including thousands of Redrumped Swallows *Hirundo daurica* and Barn Swallows *H. rustica* and smaller numbers of other species, mainly Plain Martins *Riparia paludicola*, House Swifts *Apus affinis*, Eurasian Crag Martins *H. rupestris*, and Whitethroated Needletails *Hirundapus caudacutus* (de Roder 1985, Subedi *et al.* 2014).

The majority of passerines wintering in Nepal presumably skirt the Himalayas. Populations of Dark-throated Thrush *Turdus ruficollis*, Paddyfield Warbler *Acrocephalus agricola*, Blyth's Reed Warbler *A. dumetorum* and Greenish Warbler *Phylloscopus trochiloides* mainly originate in the west and probably fly round the ranges from this direction. Species such as Siberian Rubythroat *Luscinia calliope*, Taiga Flycatcher *Ficedula parva*,

Brown Shrike *Lanius cristatus*, Black-faced Bunting *Emberiza spodocephala* and Yellow-breasted Bunting *E. aureola*, which chiefly come from the east, probably skirt the eastern end of the Himalayas.

However, there is evidence to show that some species breeding in the Palearctic migrate directly across the Himalayas to winter in southern Asia. Most Trans-Himalayan migrants observed have been non-passerines: cranes, birds of prey, ducks, geese, waders, gulls, terns and also Eurasian Hoopoe *Upupa epops* and Eurasian Wryneck *Jynx torquilla*.

Small numbers of birds have even been observed flying over the highest regions of the Himalayas, so enabling them to shorten their journeys considerably. A flock of Bar-headed Geese *Anser indicus* was seen flying as high as 9375 m over Sagarmatha (Schaller 1980). This species has been frequently quoted in the literature to demonstrate the high flying capacity of birds e.g. Hawkes *et al.* (2011). A Steppe Eagle was found dead at 7925 m on Sagarmatha - Lhotse's South Col (Singh 1961). In spring and autumn, a variety of species, mainly ducks, but also waders, gulls and terns are regularly recorded stopping off at Himalayan lakes including Phewa Tal, Begnas Tal, Rara and frequently as high as 4750 m at Gokyo Lakes in Khumbu (Inskipp and Inskipp 1991). A total 23 species was recorded crossing passes over 5700 m including ten passerines with concentrations of Greater Short-toed Larks *Calendrella brachydactyla*, Hume's Larks *C. acutirostris* and Black Redstarts *Phoenicurus ochruros* (Martens 1971).

Some migrants, mainly cranes and several birds of prey species, follow the main river valleys, such as the Karnali, Kali Gandaki, Dudh Kosi and Arun. The Kali Gandaki valley has been shown to be a significant route for several species including Demoiselle Cranes *Grus virgo*. Raptors using this route in small numbers include Black Kite *Milvus migrans*, Common Buzzard *Buteo buteo*, and Lesser Kestrel *Falco naumanni* (Beaman 1973, Thiollay 1979, Christensen *et al.* 1984, Beaman 1973, Thiollay 1979).

#### Status of Nepal's birds

#### Bird species

A total of 878 bird species has been recorded in Nepal, including 74 vagrants (i.e. species which have been recorded 10 times or less) (see Appendix 7). The total does not include nine species which have been split and are recognised in Grimmett *et al.* (in press).

#### Globally threatened and near-threatened species

A total of 37 of Nepal's bird species was assessed as Globally threatened species including two vagrants and three Regionally Extinct species. Thirty species were assessed Near Threatened including three vagrants (BirdLife International 2015). These species are listed in the Appendices 4 and 5.

#### Restricted-range species

BirdLife International has analysed the distribution patterns of birds with restricted ranges that is land-bird species, which have, throughout historical times (i.e. post 1800), had a total global breeding range of below 50,000 km² (Stattersfield *et al.* 1998). Nepal's restricted-range species are listed in Appendix 6.

#### **Endemic species**

Spiny Babbler *Turdoides nipalensis* is Nepal's only endemic bird species. It is fairly widespread and found from east to west Nepal. Spiny Babbler inhabits dense secondary scrub, particularly away from cultivation, where the undergrowth is usually thicker. It is probably under-recorded as it is difficult to observe and is more often heard than seen (Grimmett *et al.* in press, Inskipp and Inskipp 1991).

#### Assessments of Nepal's threatened birds

Fleming *et al.* (1976, 1979, 1984) and Inskipp (1989), Inskipp and Inskipp (1985, 1991) produced the first comprehensive accounts of Nepal's birds. These publications used a different measure to assess the status of species to that used by the IUCN criteria.

The status of Nepal's birds using IUCN criteria was first assessed in 1996 (Baral *et al.* 1996) followed by Baral and Inskipp (2004) and Bird Conservation Nepal (BCN) and DNPWC (2011). The last two resources provide detailed accounts of Nepal's Endangered and Critically Endangered bird species.

However, this is the first comprehensive status assessment of all Nepal's bird species using the IUCN Categories and Criteria, which is internationally recognized as the world's most authoritative and objective method for classifying extinction risk. Detailed species accounts have been written for all species except vagrants. Status of species in the accounts is described as common, fairly common, frequent, uncommon and rare.

Species distribution maps have been produced for all of Nepal's bird species except vagrants. The same mapping system was used as in Inskipp and Inskipp (1991), which mapped all bird species recorded up to 1990 so that distribution comparisons can be made between pre-1990 and post-1990 bird distributions. The country has been divided up into squares (based on geographical coordinates for ease of reference), each one being half a degree square. Each square is designated by the coordinates of the left hand bottom corner. Where species have been recorded in squares pre-1990 they are marked with a closed circle and where they have been recorded post-1990 they are marked with a square. Population surveys have not been carried out for the large majority of species, so the comparison of species' distributions post-1990 with pre-1990 was useful in assessing species threat status.

During the assessment process two national workshops, each hosted by the National Trust for Nature Conservation, were held, in October 2012 and October 2015. These were each attended by over 60 bird experts, almost all Nepalese and comprised field workers, bird guides, field ornithologists and researchers, NGO staff and government officers who provided invaluable records and comments on the species' assessments. Participants also reviewed the list of bird species recommended for protection submitted by Himalayan Nature as part of a CEPF/WWF funded project.

#### **Summary of findings**

Since 1990, a higher level of coverage of the country was achieved then the period up to 1990, which was to be expected considering the much larger number of observers, mainly Nepalis. The Terai and Kathmandu Valley are much better recorded than the mountains as most recorders live there. With the exception of a few mountain conservation areas designated very recently (Api Nampa, Manaslu and Gaurishankar Conservation Areas) mountain protected areas (national parks, Dhorpatan Hunting Reserve and conservation areas) are much better recorded than areas outside. This is especially true of high altitude areas.

Many species showed an increase in distribution in the west and the distributional range of a number of species was significantly extended e.g. Himalayan Cutia *Cutia nipalensis*. This must be mainly due to better coverage as the west was poorly recorded up to at least 1990 (Inskipp and Inskipp 1991). However, despite improved coverage in central Nepal and the east, especially in the far east, the distributions of many species e.g. Red-headed Vulture *Sarcogyps calvus* were found to have reduced compared to pre-1990 distributions. This is probably due to loss and deterioration of habitats, which has been greater in central and eastern Nepal compared to the west.

A number of species are now only found or very largely found in protected areas e.g. Swamp Francolin *Francolinus gularis*, Bengal Florican *Houbaropsis bengalensis*, Chestnut-capped Babbler *Timalia pileata*, Yellow-

eyed Babbler *Chrysomma sinense*, Jerdon's Babbler *C. altirostre*, Yellow-bellied Prinia *Prinia flaviventris*, Greycrowned Prinia *P. cinereocapilla*, Striated Grassbird *Megalurus palustris* and Rufous-rumped Grassbird *Graminicola bengalensis*.

In recent years a significant number of species have been found at higher altitudes than previously. This can be partly explained by improved coverage but also probably partly as a response to climate change. For example, Yellow Bittern *Ixobrychus sinensis* was found breeding in the Pokhara valley, Kaski District in June and July 2015 for the first time (Manshanta Ghimire); previously it was only recorded up to 250 m. Other examples include increasing sightings of Little Cormorant *Phalacrocorax niger* and large numbers of Purple Swamphen *Porphyrio porphyrio* in Pokhara valley. Several species from lower altitudes which have previously not been recorded in the Kathmandu Valley or only recorded very rarely, are now resident or are regular summer visitors, for example Pale Blue Flycatcher *Cyornis unicolor* and Greater Coucal *Centropus sinensis*. House Crow was recorded moving up by an altitude of 136 m annually on average from 2000 to 4200 m between 1999 and 2011 by Acharya and Ghimirey (2013) who suggested that climate change was a possible reason for this upward movement.

#### Summary of threatened species

Of the 878 bird species recorded in Nepal, 167 species (19%) have been assessed as nationally threatened. The nationally threatened species comprise 67 (40%) which are considered Critically Endangered, 38 (23%) Endangered and 62 (37%) Vulnerable species. A total of 62 species has been assessed as Near Threatened (Table 1). Nine species (1% of the total threatened) are Regionally Extinct; none of these have been recorded in Nepal since the 19<sup>th</sup> century. A total of 22 species (2.5% of the total) is considered Data Deficient (Table 2).

Table 1. Birds nationally assessed as Regionally Extinct (RE), Threatened (Critically Endangered (CR), Endangered (EN) and Vulnerable (VU)), and Near Threatened (NT)

RE	CR	EN	VU	NT
Black-breasted	Asian Fairy Bluebird	Abbott's Babbler	Asian Openbill	Alexandrine Parakeet
Parrotbill	Irena puella	Malacocincla abbotti	Anastomus oscitans	Psittacula eupatria
Pariotoni Paradoxornis	пени риени	mucoemen abboili	musionus osciidiis	г зишсиш вирини
flavirostris				
Brown Bush	Baer's Pochard	Black Bittern	Baillon's Crake	Ashy-headed Green
Warbler	Aythya baeri	Dupetor flavicollis	Porzana pusilla	Pigeon
Bradypterus	Ayınya baeri	Dupetor jiavicouis	Porzana pusitia	Treron phayrei
* *				Treron phayrei
luteoventris Green Cochoa	Bengal Florican	Blue-eared Kingfisher	Barn Owl	Asian Woollyneck
	Houbaropsis bengalensis			
Cochoa viridis	Black-bellied Tern	Alcedo meninting	Tyto alba  Barred Cuckoo Dove	Ciconia episcopus  Bar-headed Goose
Jungle Bush	Sterna acuticauda	Blue-naped Pitta		
Quail <i>Perdicula</i>	Sierna acuitcauaa	Pitta nipalensis	Macropygia unchall	Anser indicus
asiatica Pink-headed	Black-necked Stork	Broad-billed Warbler	Black Stork	Bay Woodpecker
Duck				
	Ephippiorhynchus asiaticus	Tickellia hodgsoni	Ciconia nigra	Blythipicus pyrrhotis
Rhodonessa caryophyllacea				
Red-faced	Blackish-breasted Babbler	Cheer Pheasant	Black-breasted Weaver	Baya Weaver
Liocichla		Catreus wallichii		
Liocichla	Sphenocichla humei	Catreus waiticnii	Ploceus bengalensis	Ploceus philippinus
phoenicea	Pl O!1	Chartest Mania	D111	D11- D
Rufous-necked	Blue Quail	Chestnut Munia	Black-chinned Yuhina	Black Baza
Hornbill	Coturnix chinensis	Lonchura atricapilla	Yuhina nigrimenta	Aviceda leuphotes
Aceros				
nipalensis	D1 1D 1	Cinereous Vulture	D1 1 C 1D C	D1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Silver-breasted	Blue-eared Barbet		Black-faced Bunting	Black-headed Ibis
Broadbill	Megalaima australis	Aegypius monachus	Emberiza spodocephala	Threskiornis
Serilophus				melanocephalus
lunatus	D1 (11 TZ' C' 1	C 11 P 111	DI 11 11D 2	DI 1 - 11 - 10 - 1 - 1:
White-bellied	Blyth's Kingfisher	Golden Babbler	Black-headed Bunting	Black-tailed Godwit
Heron	Alcedo hercules	Stachyris chrysaea	Emberiza melanocephala	Limosa limosa
Ardea insignis	D 1 1 77		71 1 1 1 1 1 1 1 1	
	Brahminy Kite	Gould's Shortwing	Black-headed Gull	Blossom-headed Parakeet
	Haliastur indus	Brachypteryx stellata	Larus ridibundus	Psittacula roseata
	Caspian Tern	Great Bittern	Black-headed Shrike-	Blue-winged
	Sterna caspia	Botaurus stellaris	babbler <i>Pteruthius</i>	Laughingthrush Garrulax
	G 11.111 1.0		rufiventer	squamatus
	Coral-billed Scimitar	Great Hornbill	Bristled Grassbird	Chestnut-capped Babbler
	Babbler Pomatorhinus	Buceros bicornis	Chaetornis striata	Timalia pileata
	ferruginosus	G (G) W 1 1	D Filo I	G 1.G . 1
	Dusky Eagle Owl	Great Slaty Woodpecker	Brown Fish Owl	Chestnut-winged Cuckoo
	Bubo coromandus	Mulleripicus	Ketupa zeylonensis	Clamator coromandus
	F	pulverulentus	D D 131	CI I D : II
	Eastern Grass Owl	Ibisbill	Brown Parrotbill	Chukar Partridge
	Tyto longimembris	Ibidorhyncha struthersii	Paradoxornis unicolor	Alectoris chukar
	Eastern Imperial Eagle	Indian Courser	Brown Wood Owl	Clamorous Reed Warbler
	Aquila heliaca	Cursorius	Strix leptogrammica	Acrocephalus stentoreus
	Expension C1	coromandelicus	Brown-headed Gull	Collored E-1
	Eurasian Curlew	Indian Nightjar		Collared Falconet
	Numenius arquata	Caprimulgus asiaticus	Larus brunnicephalus	Microhierax caerulescens
	Eurasian Spoonbill	Knob-billed Duck	Common Babbler	Common Crane
	Platalea leucorodia Falcated Duck	Sarkidiornis melanotos	Turdoides caudata	Grus grus
		Northern Pintail	Cotton Pygmy-goose	Common Pochard
	Anas falcata	Anas acuta	Nettapus coromandelianus	Aythya ferina
	Great Grey Shrike	Painted Stork	Dark-sided Thrush	Common Tern
	Lanius excubitor	Mycteria leucocephala	Zoothera marginata	Sterna hirundo
	Great Thick-knee	Purple Cochoa	Demoiselle Crane	Crested Lark
	Esacus recurvirostris	Cochoa purpurea	Grus virgo	Galerida cristata
	Greater Adjutant	Red-headed Trogon	Egyptian Vulture	Ferruginous Flycatcher
	Leptoptilos dubius	Harpactes	Neophron percnopterus	Muscicapa ferruginea
	1 2 2 2 2 2	erythrocephalus		
	Grey-crowned Prinia	Red-headed Vulture	Ferruginous Duck	Golden-headed Cisticola
	Prinia cinereocapilla	Sarcogyps calvus	Aythya nyroca	Cisticola exilis
	Grey-headed Fish Eagle	Red-necked Falcon	Fulvous Parrotbill	Great Cormorant
1	1 1 - (1 1 1 - (1	L Ealoo objection	Paradoxornis fulvifrons	Phalacrocorax carbo
	Icthyophaga ichthyaetus	Falco chicquera		
	Gull-billed Tern Sterna nilotica	Ruby-cheeked Sunbird  Anthreptes singalensis	Garganey Anas querquedula	Grey-cheeked Warbler Seicercus poliogenys

Rynchogs albicollis   Dengelarists   Dender is Babbler   Russy-fronted Barwing   Chrysoman altirostree   Russy-fronted Barwing   Constant common altirostree   Russy-fronted Barwing   Constant common   Constant comm	T 1: 01:	Ι,	D C 1		
Jerdon's Baibbler   Chrysoman altirostre   Actinodane agertoni   Falco cherring   Primophetesi epualten   Lophophorasi mojejum   Imalayan Storica   Actinoda jerdoni   Statischa   Ecolorist argentanist   Lotorista argentanista   Lotorista argentanist	Indian Skimm	ner I	Rufous-rumped	Golden Eagle	Greylag Goose
Sertion's Babbiler   Chrysomen districts*   Asicipe chrossed Fuburta   Asicipe chrysoit:   Alciped per special   Asicipe chrysoit:   Alciped per special   Asiciped per special   Asi	Rynchops alb			Aquila chrysaetos	Anser anser
Chrysoma altirostre   Actinodara egeroni   Acippe chrysotis   Jerdon's Bazza   Sake Falcon   Aviceda jerdoni   Ecleoc cherring   Pyrrhopheres equateta   Laphophorus impojunt   Jerdon's Bushchat   Sieve-aerod Mesia   Great Partobill   Laphophorus impojunt   Lagas Falcon   Staly-legged Crake   Falco jugger   Railina eurizonoides   Laighinghrush Garrafuax   Falco jugger   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Lesser Fish Eagle   Lesser Fish Eagle   Spot-bellied Eagle Owl   Lesser Fish Eagle   Lagas Halle   Lesser Fish Eagle   Lagas Halle   Lesser Fish Eagle   Lagas Halle   Lesser Fish Eagle   Lesse					
Jerdon's Baza					-
Aviceda jerdoni Folco cherrug Pyrrhophectes epauletta Lophophorus impejant Jerdon's Bushchat Stavicola jerdoni Leiohriz argentauris Grava Parrotbill Himalayan Sowocock Falco jugger Rallina curizonoides Leser Fish Eagle Rallina curizonoides Laughinghrush Garrulax percoristants Percoristants Apalla clanga Melanoides Leser Fish Eagle Relivophaga humilis Robo nipelarists Aquila clanga Miltora grandis Syphendiesi indicus Melanoidora sultanta Syphendiesi indicus Swamp Francolin Grey sided Laughinghrush Leser Rost Large-tailed Nightjar Grava Cardina indicus Swamp Francolin Grey sided Laughinghrush Leser Kestrel Heterophasis picuoides Dumeita hyperpriva Gyps himalayan Vulture Leser Kestrel Heterophasis picuoides Dumeita hyperpriva Gyps himalayan Vulture Leser Sand Plover Ditta Symmetria Grava indicus indicus Sultan Tita Symmetria Mahayan Night Heron Thick-billed Green Pitas with the Circus pygargus Alophotus flaveolus Montata Imperal Pigeon Mountain Imperal Pigeon Promo Pitas with Sanciola insignis Oriental Hobby Venlus vanellus wanelus wanelus wanelus Saciola insignis Oriental Hobby Pilosopus cantanto Pulas Sariola insignis Apula histata Anthropotato With Chroaced Bublu Hume's Bush Warbler Circus pygargus Hume Saciola insignis Apula histata Anthropotato Pulas Sariola insignis Apula histata Anthropotato Pulas Pul					
Jardnoin   Bushchat   Silver-aeral Mesia   Saxicola perloni   Lagar Falcon   Slaty-legged Crake   Falco jugger   Reliborativa composition   Creates Proceedings   Palco jugger   Reliborativa composition   Lagar Falcon   Lesser Fish Eagle   Reliboration   Relib					
Saxicola ferdoni				Pyrrhoplectes epauletta	Lophophorus impejanus
Lagar Falcon Folco jugger   Slay-jegged Crake Folco jugger   Reline aurizondes L auginistrush Garrulax   Pavo cristatus   P	Jerdon's Bush			Great Parrotbill	Himalayan Snowcock
Elesser Fish Eagle   Spot-bellied Eagle Owl   Greater Spotted Eagle   Large Niltawa   Procession   Lesser Fish Eagle   Rethyophaga hamilis   Long table nigalaris   Aquila clanga   Niltawa grandis   Lesser Florican   Sultan Til   Syphendist indicas   Malanochlora sultanea   Grey Francolin   Suphendist indicas   Niltawa grandis   Grey Francolin   Grey sided Laughinghrush   Carprinalged Nighting   Grey Sided Laughinghrush   Carprinalged Nightinghrush   Carprinalged Nighting	Saxicola jerdo			Conostoma oemodium	Tetraogallus himalayensis
Lesser Fish Eagle   Rely populage humilis   Bubo inpolensis   Aquilla clanga   Aquilla cl	Laggar Falcor	n S	Slaty-legged Crake	Greater Necklaced	Indian Peafowl
Lesser Fish Eagle   Spot-hellied Eagle ON   Greater Spotted Eagle   Large Niltawa   Rubo nipalensis   Aquila clanga   Niltawa grandis   Lesser Florican   Sysheotides indicas   Sultan Tit   Sysheotides indicas   Large-tailed Nightjar   Grey Francolina   Grey Francolina   Carriage and Carriage   Carriage and Carriage   Carriage and Carriage   Carriage and Carriage an	Falco jugger	i	Rallina eurizonoides	Laughingthrush Garrulax	Pavo cristatus
Lesser Florican   Sultan Til   Lesser Florican   Sypheotides indicase   Medanochlora sultanea   Francolina   Large-tailed Njghjar   Caprimalgus macranua   Little Spiderhunter   Arachondhera longirostra   Kwamp Francolina   Garralax accardiata   Francolina   Francolina   Garralax accardiata   Folico naumami   Folico nauma					
Lesser Florican   Sultan Til   Lesser Florican   Sypheotides indicase   Medanochlora sultanea   Francolina   Large-tailed Njghjar   Caprimalgus macranua   Little Spiderhunter   Arachondhera longirostra   Kwamp Francolina   Garralax accardiata   Francolina   Francolina   Garralax accardiata   Folico naumami   Folico nauma	Lesser Fish E	agle S	Spot-bellied Eagle Owl	Greater Spotted Eagle	Large Niltava
Lesser Florican Sypheotides indicus			Bubo nipalensis		
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Little Spiderhunter Arachmothera longivistrs   Allayam Night Heron   Gorachius melanolophus   Malayam Night Heron   Gorachius melanolophus   Montagu's Harrier   Circus pygargus   Alophotius flavealus   Mountain Imperial Pigeon   Daucala badua   Alophotius flavealus   Mountain Imperial Pigeon   Daucala badua   Alophotius flavealus   Alophotius flavealus	Sypheotides in	ndicus 1	Melanochlora sultanea		
Arachinothera longivistra   Francolinus galaris   Garralax caeradatas   Falco naumanni   Long-tailed Shiba   Tawny-bellied Babbler   Himalayan Vulture   Grys himaloyensis   Charadrius mangolus   Malayan Night Heron   Dinck billed Green   Hooded Pitta   Northern Lapwing   Vanellus vanellus   Vanellus vanellus   Charadrius mangolus   Vanellus vanellus   Vanellus v		unter 5			
Long-tailed Sibia   Tawny-bellied Babbler   Henalayan Vulture   Chross phandizan proposition   Malayan Night Heron   Thick-billed Green   Pigeon Treron   Pitta sordida   Vanellus vanellus curvirostra.					
Heterophasia picaoides   Dumeita hyperythra   Grys himalavensis   Charadrius mongolus				Himalayan Vulture	
Malayan Night Heron   Gorsachius melanolophus   Pigon Terem   Pigon Muntain Imperial Pigon   White-throated Bubul   Alophoixus flaveolus   Alophoixus flaveolus   Anhinacaeres   Anhinga melanogaster   Anhinga melanogaster   Anhinga melanogaster   Anhinga melanogaster   Anhinga melanogaster   Anhinacaeres albiross   Anhinacaeres a					
Gorsachius melanolophus   Pigeon Treron   Curvirostra   Pitta sordida   Vanellus vanellus   Curvis pryagrus   White-throated Bulbul   Alophoixus flaveolus   Alophoixus flaveolus flaveolus   Alophoixus flaveolus flaveolus   Alophoixus flaveolus fl	Malayan Nigh	nt Heron		Hooded Pitta	Northern Lanwing
Montagu's Harrier   White-throated Bulbul   Alophoixus flaveolus   Cettia brunnescens   Anhinga melanogaster   Anhinga melanogas   Anhin					
Montagu's Harrier   Circus pygargus   Alophoixus flaveolus   Cettia brunnescens   Anhinga melanogaster	Gorsachus m	controlophus 1		in sorum	, ancims vanciins
Circus pygargus   Alophoixus flaveolus   Cettia brunnescens   Anhinga melanogaster	Montagy's Us			Hume's Rush Warblar	Oriental Darter
Mountain Imperial Pigeon   Ducula badia   Saxical ansignis   Aquila hastata   Aquila hastata   Anthraocearos albiros   Aquila hastata   Anthraocearos albiros   Aquila hastata   Anthraocearos albiros   Anthraocearos   Anthraocearos albiros   Anthraocearos albiros   Anthraocearos   Anthraocearos albiros   Anthraocearos   Anthraocear					
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Pale-headed Woodpecker   Yellow-rumped   Factor severus   Honeyguide Indicator   Ficedula subrubra   Gareola maldivarum   Factor sumbonoius   Pale-headed Woodpecker   Yellow-vented Warbler   Gecinulus grantia   Phylloscopus cantator   Pucrasia macrolopha   Pluvialis fulva   Pallas's Fish Eagle   Haliaeetus leucoryphus   Haliaeetus leucoryphus   River Term   Lesser Adjutant   Plain Martin   Sterna aurantia   Leptopiltos javanicus   Riparia paludicola   River Term   Lesser Necklaced   Red Avadavat   Laughinghrush   Garrulax monileger   Gypaetus barbatus   Treon aurantia   Leptopiltos javanicus   Riparia paludicola   River Lapwing					
Honeyguide Indicator	Ducula badia	L L		Aquua nastata	
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Pallas's Fish Eagle					- 12 2 11 51
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Rufous-throated Wren   Pallid Harrier   Sapphire Flycatcher   Babbler Spelaeornis   Circus macrourus   Ficedula sapphira					
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Prinia burnesii       Hydrophasianus chirurgus       Caprimulgus affinis         Scarlet-backed       Pied Harrier       Scaly Laughingthrush         Flowerpecker Dicaeum       Circus melanoleucos       Garrulax subunicolor         Slaty-bellied Tesia       Red-breasted Parakeet       Scarlet Finch         Tesia olivea       Psittacula alexandri       Haematospiza sipahi         Slender-billed Babbler       Rock Eagle Owl       Slaty-backed Flycatche         Turdoides longirostris       Bubo bengalensis       Ficedula hodgsonii         Slender-billed Vulture       Sarus Crane       Small Buttonquail         Gyps tenuirostris       Grus antigone       Turnix sylvaticus         Spot-billed Pelican       Satyr Tragopan       Small Pratincole         Pelecanus philippensis       Tragopan satyra       Glareola lactea         Spotted Wren Babbler       Short-eared Owl       Spot-billed Duck         Asio flammeus       Anas poecilorhyncha         Streaked Weaver       Slender-billed Scimitar       Spot-winged Grosbeak         Ploceus manyar       Babbler Xiphirhynchus       Mycerobas melanozana		d Prinia		Pheacant-tailed Income	Savanna Nightian
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	Ploceus many	var			Mycerobas melanozanthos
1 Super control				superciliaris	· ·
Striated Grassbird Steppe Eagle Watercock	Striated Grass	sbird			Watercock
Megalurus palustris Aquila nipalensis Gallicrex cinerea					

Tawny Fish Owl	Tibetan Sandgrouse	White-browed Scimitar
Ketupa flavipes	Syrrhaptes tibetanus	Babbler Pomatorhinus
		schisticeps
Vernal Hanging Parrot	Tibetan Serin	White-rumped Spinetail
Loriculus vernalis	Serinus thibetanus	Zoonavena sylvatica
Water Rail	Western Marsh Harrier	White-tailed Stonechat
Rallus aquaticus	Circus aeruginosus	Saxicola leucurus
White-browed Piculet	White-gorgeted Flycatcher	White-throated Munia
Sasia ochracea	Ficedula monileger	Lonchura malabarica
White-hooded Babbler	Wood Snipe	Yellow-bellied Prinia
Gampsorhynchus rufulus	Gallinago nemoricola	Prinia flaviventris
White-naped Yuhina	Yellow-bellied Warbler	Yellow-eyed Babbler
Yuhina bakeri	Abroscopus superciliaris	Chrysomma sinense
White-rumped Vulture	Yellow-wattled Lapwing	Yellow-legged
Gyps bengalensis	Vanellus malabaricus	Buttonquail
		Turnix tanki
White-tailed Eagle		
Haliaeetus albicilla		
Yellow Weaver		
Ploceus megarhynchus		
Yellow-breasted Bunting		
Emberiza aureola		
Yellow-cheeked Tit		
Parus spilonotus		
Yellow-vented		
Flowerpecker		
Dicaeum chrysorrheum		

Table 2. Data Deficient species

•
Alauda arvensis, Eurasian Skylark
Aquila rapax, Tawny Eagle
Amaurornis bicolor Black-tailed Crake
Brachypteryx leucophris, Lesser Shortwing
Bubo bubo, Eurasian Eagle Owl
Buteo hemilasius, Upland Buzzard
Carduelis flavirostris, Twite
Ficedula parva, Red-breasted Flycatcher
Grus nigricollis, Black-necked Crane
Gyps fulvus, Griffon Vulture
Hierococcyx fugax, Hodgson's Hawk Cuckoo
Melanocorypha maxima, Tibetan Lark
Mirafra cantillans, Singing Bush Lark
Mycerobas icterioides, Black-and-yellow Grosbeak
Oriolus chinensis, Black-naped Oriole
Orthotomus cuculatus, Mountain Tailorbird
Otus sunia, Oriental Scops Owl
Phylloscopus tytleri, Tytler's Leaf Warbler
Rimator malacoptilus, Long-billed Wren Babbler
Riparia diluta, Pale Martin
Riparia riparia, Sand Martin
Strix ocellata, Mottled Wood Owl

Ten species are very rare passage migrants and sometimes over-winter, but their recorded pattern of occurrence and numbers of individuals have not changed when pre-1990 and post-1990 records are compared. None of these species are globally or regionally threatened and Nepal seems to be on the fringe of their migratory routes so they have been assessed as Least Concern. These species are: Common Goldeneye *Bucephala clangula*, Common Shelduck *Tadorna tadorna*, Black-winged Stilt *Himantopus himantopus*, Pied Avocet *Recurvirostra avosetta*, Ruff *Philomachus pugnax*, Jack Snipe *Lymnocryptes minimus*, Long-billed Plover *Charadrius placidus*, White-winged Tern *Chlidonias leucopterus*, Merlin *Falco columbarius* and Rufous-tailed Shrike *Lanius isabellinus*.

Figure 3. Status of Nepal's threatened and near threatened birds

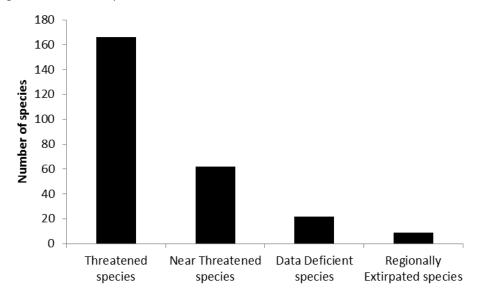


Figure 4. Number of Nepal's threatened and near threatened bird species in different threat categories

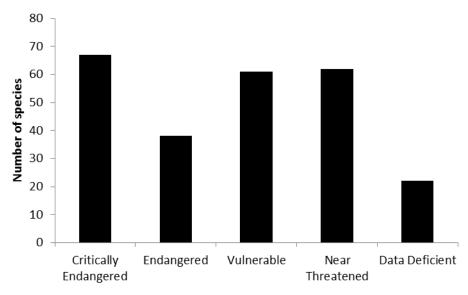


Figure 5. Percentage of threatened species in different habitats

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Lowland grassland specialist birds

Lowland grassland specialist birds are the most threatened group of birds with 55% of lowland grassland specialists threatened, followed by wetland birds (25%) and tropical and subtropical broadleaved forest birds (24%).

Tropical and subtropical

broadleaved forest birds

Wetland birds

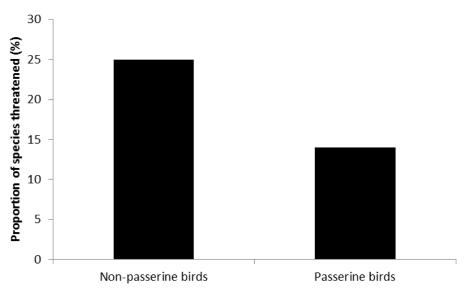


Figure 6. Percentage of threatened species in the non-passerines and passerines

A total of 98 (25%) of non-passerines and 67 (14%) of passerines are threatened. Larger birds are therefore more threatened than smaller birds.

Figures 7 and 8 show the most threatened non-passerine and passerine groups

Figure 7. The most threatened non-passerine orders: Ciconiiformes (storks), Falconiformes (birds of prey), Strigiformes (owls), Charadriiformes (waders, gulls, terns, Indian Skimmer), Galliformes (pheasants and partridges)

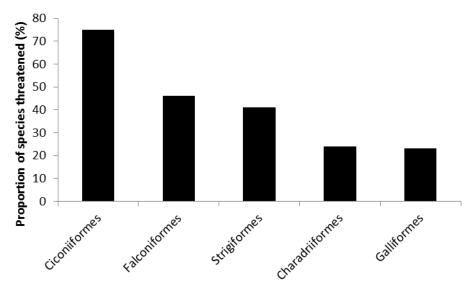
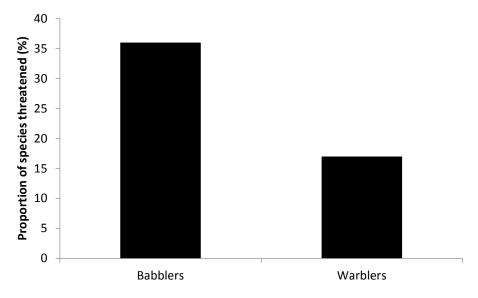


Figure 8. The most threatened Passeriforme groups



## Threats to Nepal's birds

Whilst Nepal is rich in biodiversity, it is one of the poorest and least developed countries in the world, ranked in the low human development category, positioned at 145 out of 187 countries and territories in 2014 (UNDP 2014). The country's rapidly increasing human population is putting huge pressure on natural resources and wildlife and with shortages of water and electricity; even meeting basic human needs is a struggle. Threats extend into protected areas, although to a lesser extent than outside. Park staff often lack sufficient resources to implement regulations and improve their own management skills. Throughout the Red Listing process and the two national workshops, a range of threats was identified for bird species in Nepal. A broad spectrum of these threats are summarised below (Tables 3 and 4). More species specific threats are listed in the species accounts.

#### Habitat loss, degradation and fragmentation

Habitat loss, degradation and fragementation are the most important threats to Nepal's birds. These include loss of forests, wetlands and grasslands due to the encroachment of settlements and especially due to agriculture and unsustainable resource extraction such as logging for local and commercial use, and sand and gravel mining of river beds. Habitats in the Terai and in the Kathmandu and Pokhara Valleys are under the most pressure as these are the most densely populated.

Fragmentation of habitats is particularly affecting lowland grassland bird specialists. Outside protected areas there are no significant remaining grassland areas that are capable of supporting threatened birds, as most are heavily grazed by domestic livestock, harvested for thatch or paneling walls, and subject to overwhelming levels of human disturbance (Baral 2001).

Forests and grasslands are being degraded by overgrazing and excessive burning. In addition, forests are being depleted of undergrowth, tree branches and foliage to provide fodder for livestock. One quarter of Nepal's forest area is heavily degraded (World Bank 2008). The 2015 India/Nepal border blockade has lead to a fuel crisis which has resulted in widespread forest losses.

Lowland grasslands in protected areas are suffering from inappropriate grassland management including intensive annual cutting and burning which alter species composition, and also ploughing (Baral 2001). Overgrazing by domestic livestock, fodder collection and human disturbance are also degrading grasslands at Shukla Phanta Wildlife Reserve (Baral 2000) and at Koshi Tappu Wildlife Reserve.

Water pollution from households and industrial discharges and agricultural run-off is seriously degrading lowland wetlands. Diffuse pollution from fertilisers has led to over-enrichment in many wetlands in the lowlands. The impacts of diffuse pollution from pesticides in agricultural run-off on wildlife are very poorly understood in Nepal, but are likely to be highly significant and could be a major factor in the decline of large wading birds.

In Europe, use of some pesticides has been shown to cause widespread declines of numerous bird species, many of which were previously common, including birds of prey and finches (Tucker and Heath 1994). One example of poisoning in the Indian subcontinent took place in November 2000, when 15 Sarus Crane *Grus antigone* (globally and national threatened) were found dead in a field near their wintering grounds in Keoladeo National Park, northern India (Pain *et al.* 2004). The cranes had died after eating recently sown wheat treated with monocrotophos. Such pesticide poisoning is known as a direct cause of mortality in many crane species (Meine and Archibald 1996).

While the effect of pesticides on wildlife and the environment in Nepal is poorly known, the over-use of pesticides in the country and evidence of failing to adhere to government regulations for pesticide use has been well documented (e.g. Nepal Forum for Justice 2006, Palikhe 2005, Paudel 2009a,b).

Poisoning by diclofenac, a drug used to treat livestock ailments was identified as the cause of drastic vulture declines in the Indian subcontinent, including Nepal (e.g. Oaks *et al.* 2004, Shultz *et al.* 2004, Cuthbert *et al.* 2006).

Nepal's high annual precipitation and dense river networks provide high potential for hydroelectricity resulting in a significant increase in hydropower plants in recent years. While this is a positive step towards meeting energy deficits, construction of hydroelectric dams brings substantial threats to birds and other wildlife. Dams can inundate important habitats, lead to associated development, displace people into new sensitive habitats, and can alter local microclimates.

Currently, grassland management measures are carried out specifically for mammals and not for birds. For example, in Chitwan National Park's new management plan, cutting and/or controlled burning are planned to remove dry, coarse and unpalatable grasses and produce new flush which will be highly palatable and nutritious for some mammals. These are inappropriate management practices for birds and are reducing the area of ideal grassland habitat for some globally threatened species such as Bengal Florican which has declined in the park. Areas of shorter grassland favoured by the floricans have succeeded to taller *Narenga* and *Saccharum* dominated grassland. In addition, burning is sometimes inadvertently carried out in the birds' breeding season (e.g. Poudyal *et al.* 2008a,b).

In recent years agriculture has been intensified in many areas, especially in the Terai. This has lead to a loss of uncultivated field corners and edges which often supported bushes and herbaceous vegetation. Trees have been lost from field boundaries. All these microhabitats form valuable feeding and breeding sites for birds and as a result many farmland birds have undergone significant declines (Inskipp and Baral 2011).

The spread of invasive plant species is making it very difficult for birds to feed. Two rapidly spreading invasives are *Mikania micrantha* (mile a minute weed) which can blanket all types of terrestrial vegetation (Baral 2002a) and Water Hyacinth *Eichhornia crassipes* that rapidly covers water surfaces (Dahal 2007).

Disturbance is a widespread threat to bird populations, especially during the breeding season, for example exploitation of river beds for gravel is a serious threat to riverine breeding birds including Black-bellied Tern *Sterna acuticauda*, Great Stone Plover *Esacus recurvirostris* and Small Pratincole *Glareola lactea*.

#### Over-exploitation

#### **Hunting and trapping**

Hunting and trapping are contributing to the decline of many bird species identified as nationally threatened and in some areas are increasing as traditional values wane. Galliformes (pheasants, partridges and francolins) are popular targets for hunters and trappers in some parts of Nepal resulting in much reduced populations, even in protected areas, for example in Kanchenjunga Conservation Area (Inskipp *et al.* 2008). The hunting of owls for meat has been reported in Patariya VDC, Kapilvastu District. As they are cheaper than chicken they are preferred by many people (Paudel 2016). The slaughter of many larks and buntings for sale as snacks (locally known as *bagedi*) was recently seen in the Terai (Hem Sagar Baral pers. obs.).

Some birds are hunted for traditional medicine. For example, the oil from the casque and the beak of the nationally threatened Great Hornbill *Buceros bicornis* is much valued (Fleming *et al.* 1984). Other species affected are Himalayan Monal *Lophophorus impejanus*, Indian Peafowl *Pavo cristatus*, quails *Coturnix* spp., Great Cormorant *Phalacrocorax carbo* and shrikes *Lanius* spp.

Eggs are stolen from species such as lapwings *Vanellus* spp., quails *Coturnix* spp., terns *Sterna* spp., pratincoles *Glareola* spp., Indian Peafowl *Pavo cristatus*, Sarus Crane *Grus antigone*, Plain Martin *Riparia paludicola*, egrets *Egretta* spp., Red Junglefowl *Gallus gallus*, doves, and gamebirds.

Nepal is often a safe market for illegal bird traders. Several nationally threatened bird species including Cheer Pheasant *Catreus wallichii*, and owls have been found to be traded (Thapa and Thakuri 2009). A wide-ranging owl trade, mainly of Rock Eagle Owl *Bubo bengalensis* takes place in Nepal from where the birds are illegally exported to India, Bangladesh, China and the Middle East (Acharya and Ghimirey 2009).

Some bird species, notably owls are persecuted because of negative social and cultural beliefs, while some young people kill birds, often using catapults purely for entertainment (Acharya and Ghimirey 2009).

#### Overfishing

Overfishing, which has lead to a marked fish decline in wetlands especially in the Terai, is a major threat to all large fish-eating birds such as Pallas's Fish Eagle *Haliaeetus leucoryphus*, Black-bellied Tern *Sterna acuticauda*, Indian Skimmer *Rynchops albicollis* and Tawny Fish Owl *Ketupa flavipes* (BCN and DNPWC 2011).

#### **Exploitation of NTFPs and MAPs**

The gathering of NTFPs (non-timber forest products) including the highly valuable yarsagumba and MAPs (medicinal and aromatic plants) by influxes of large numbers of people annually is affecting many high altitude protected areas, for example the Annapurna and Api Nampa Conservation Areas and Khaptad, Makalu Barun and Rara National Parks. This is leading to high levels of disturbance to birds, poaching especially of pheasants, and forest losses and degradation due to fuelwood collection. The problem of disturbance is especially high because NTFPs and MAPs are gathered during the breeding season of most bird species (BCN and DNPWC in prep.).

#### Climate change

The impacts of climate change on Nepal's birds are poorly understood. One of the likely impacts is that the range of many species will move upward in elevation from their current locations. Some species will be able to migrate through fragmented landscapes whilst others may not be able to do so. These assessments have revealed occurrence of a significant number of species at higher altitudes than previously.

Some of Nepal's threatened birds are largely confined to protected areas, notably grassland birds. As the climate changes, habitats, particularly floodplain grasslands, in these protected areas may eventually become no longer suitable for these birds. Furthermore, as natural habitats outside protected areas have been converted to agriculture or developed, the grassland birds will have no suitable habitat to colonise (BCN and DNPWC 2011).

Many forest birds, including a high proportion of threatened forest species depend on moist forests and are likely to lose their habitat if the climate becomes drier (BCN and DNPWC 2011).

#### Out-of-date legal protection for birds

Only nine bird species are legally protected in Nepal and are covered by the National Parks and Wildlife Conservation Act (1973). The revision and expansion of this list is long overdue. A list of these protected species is given in Appendix 8.

#### Lack of conservation awareness

Despite the many conservation awareness programmes on bird conservation that have taken place in the country, especially in recent years, there is still an urgent need for the continuation of such programmes with innovative ideas to put across the conservation message and more widely throughout Nepal. An effective awareness programme leads to changes in the behaviour of people which can be beneficial for bird conservation.

#### Limited capacity of wildlife agencies in bird conservation

Nepal's national policy and research priorities are ambitious, but targets have not been met due to lack of funding and support in already poorly resourced government departments. Since the early years of its establishment, the DNPWC has been under-resourced in terms of finances and trained manpower, so crippling its effective conservation work in the country.

#### Limited bird research

Bird research and their conservation are heavily biased in Nepal because overseas conservation agencies which have very largely funded this work are interested mainly in the globally prioritized list of species i.e. globally threatened and near-threatened species while species which are only nationally threatened have been very largely unstudied.

#### Limited effective conservation strategies

While a successful Vulture Conservation Programme has been implemented, conservation strategies are lacking for most threatened bird species and conservation priorities have been given to mammals, rather than birds.

Table 3. Summary of the main threats to threatened bird species of Nepal

Colour red	Primary threat
Colour orange	Secondary threat
Colour grey	Potential/suspected threat
	Specific key threats/drivers to species declines
	Habitat loss, degradation and fragmentation
1	Degradation of forests (fuel and fodder collection, logging, selective timber felling,
	burning, overgrazing)
2	Degradation of grasslands and pastures (livestock over-grazing, inappropriate
	grassland management in protected areas, vegetation succession leading to scrub
	encroachment)
3	Fragmentation (human encroachment, clearance for agriculture, urbanization)
4	Wetland habitat loss and degradation
5	Invasive plant species
6	Water pollution (agricultural, domestic, industrial)
7	Pesticides
8	Diclofenac use
9	Disturbance (to breeding, roosting and feeding areas)
10	Sand and gravel mining of river beds and other surface quarrying
11	Dams
12	Climate change
	Over-exploitation
13	Hunting and trapping for food and for medicinal purposes
14	Persecution
15	Illegal bird trade
16	Over-fishing (leads to reduction in food for fish-eating birds)
17	Exploitation of NTFPs and MAPs
	Other
18	Predation (feral dogs)
19	Competition with introduced species
20	Intensification of agriculture
21	Predators at unnaturally high population levels
22	Conflict with local communities
23	Electric power cables
24	Loss of open stony habitat

Table 4. Primary, secondary and potential/suspected threats to threatened bird species of Nepal

Icthyophaga humilis, Lesser Fish Eagle1,3,4,7,916Icthyophaga ichthyaetus, Grey-headed Fish Eagle1,3,4,7,916Irena puella, Asian Fairy Bluebird1,3Ketupa flavipes, Tawny Fish Owl1,3,914,15,16Lanius excubitor, Great Grey Shrike720	Other	9	<b>₹9</b>	<b>Ι</b>	$\sim$
Alcedo hercules, Blyth's Kingfisher  Anas falcata, Falcated Duck  Aquila heliaca, Eastern Imperial Eagle  Arachnothera longirostra, Little Spiderhunter  1,3  Aviceda jerdoni, Jerdon's Baza  Aythya baeri, Baer's Pochard  Bubo coromandus, Dusky Eagle Owl  Chrysomma altirostre, Jerdon's Babbler  Circus pygargus, Montagu's Harrier  Coturnix chinensis, Blue Quall  Dicaeum cruentatum, Scarlet-backed Flowerpecker  Dicaeum cruentatum, Scarlet-backed Flowerpecker  Dicaeum cruentatum, Scarlet-backed Flowerpecker  Dicaeum cruentotum, Scarlet-backed Stork  Escaus recurvirostris, Great Thick-knee  4,9,7  Escaus recurvirostris, Great Thick-knee  4,9,10,11  Falco jugger, Laggar Falcon  Falco severus, Oriental Hobby  Garnulox ruficollis, Rufous-necked Laughingthrush  Garrulox ruficollis, Rufous-necked Laughingthrush  Gorsochius melanolophus, Malayan Night Heron  Gyps bengalensis, White-rumped Vulture  1,7,8,9  Gyps tenuirostris, Slender-billed Vulture  Haliaeetus albicillo, White-tailed Eagle  Haliaeetus albicillo, White-tailed Eagle  Haliaeetus albicillo, White-tailed Eagle  Landa (A,6,7,9  13,16  Haliaeetus alpicores, Sengal Florican  Landa (A,6,7,9  13,16  Haliaeetus alpicolophus, Pallas's Fish Eagle  1,3,4,7,9  16  Icthyophoga humilis, Lesser Fish Eagle  Icthyophoga ichthyaetus, Grey-headed Fish Eagle	exploitation	er-exploitation	abitat loss, egradation and agmentation	pecies	Category of threat
Alcedo hercules, Blyth's Kingfisher  Anas falcata, Falcated Duck  Aquila heliaca, Eastern Imperial Eagle  Arachnothera longirostra, Little Spiderhunter  1,3  Aviceda jerdoni, Jerdon's Baza  Aythya baeri, Baer's Pochard  Bubo coromandus, Dusky Eagle Owl  Chrysomma altirostre, Jerdon's Babbler  Coturnix chinensis, Blue Quall  Dicaeum cruentatum, Scarlet-backed Flowerpecker  Dicaeum cruentatum, Scarlet-backed Flowerpecker  Dicaeum cruentatum, Scarlet-backed Flowerpecker  Dicaeum cruentatum, Scarlet-backed Stork  Escus recurvirostris, Great Thick-knee  4,9,10,11  Falco jugger, Laggar Falcon  Falco severus, Oriental Hobby  Garnoshynchus rufloilis, Rufous-necked Laughingthrush  Gerinulus grantia, Pale-headed Woodpecker  1,3  Gyps bengalensis, White-rumped Vulture  Gyps tenuirostris, Siender-billed Vulture  Haliaeetus albicilla, White-tailed Eagle  Haliaeetus albicilla, White-tailed Eagle  Haliaeetus albicilla, Wite Bengal Florican  Haliaeetus albicilla, White-tailed Eagle  Haliaeetus plaenis, Sengal Fish Gwl  Heterophosia picaoides, Long-tailed Sibia  Heterophosia picaoides, Long-tailed Sibia  Houbaropsis bengalensis, Bengal Florican  Lanius excubitor, Great Grey Shrike  7  20  1,3,9  1,4,15,16  Lanius excubitor, Great Grey Shrike  7  20  1,3,9  1,4,15,16  Lanius excubitor, Great Grey Shrike			1 2	Abrascanus albaquiaris Pufaus-faced Warbler	CP
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Ketupa flavipes, Tawny Fish Owl1,3,914,15,16Lanius excubitor, Great Grey Shrike720		16		Icthyophaga ichthyaetus, Grey-headed Fish Eagle	
Lanius excubitor, Great Grey Shrike 7 20			1,3	Irena puella, Asian Fairy Bluebird	
		14,15,16	1,3,9	Ketupa flavipes, Tawny Fish Owl	
	20		7	Lanius excubitor, Great Grey Shrike	
Leptoptilos dubius, Greater Adjutant 4,7,9 13		13	4,7,9	Leptoptilos dubius, Greater Adjutant	
Lophotriorchis kienerii, Rufous-bellied Eagle 1,3				Lophotriorchis kienerii, Rufous-bellied Eagle	
Loriculus vernalis, Vernal Hanging Parrot 1,3			1,3	Loriculus vernalis, Vernal Hanging Parrot	
Megalaima australis, Blue-eared Barbet 1,3			1,3	Megalaima australis, Blue-eared Barbet	
Megalurus palustris, Striated Grassbird 2,3,5,12			2,3,5,12	Megalurus palustris, Striated Grassbird	
Numenius arquata, Eurasian Curlew 4,9 13		13	4,9	Numenius arquata, Eurasian Curlew	
Parus spilonotus, Yellow-cheeked Tit 1,3			1,3	Parus spilonotus, Yellow-cheeked Tit	
Pelecanus philippensis. Spot-billed Pelican 4.9 13.16		13,16	4,9	Pelecanus philippensis, Spot-billed Pelican	
		13	4	Platalea leucorodia, Eurasian Spoonbill	

Category of threat	Species	Habitat loss, degradation and fragmentation	Over-exploitation	Other
	Ploceus manyar, Streaked Weaver	3,4		
	Ploceus megarhynchus, Yellow Weaver	2,3,12		
	Pomatorhinus ferruginosus, Coral-billed Scimitar Babbler	1,3		
	Prinia burnesii, Rufous-vented Prinia	2,3,12		
	Prinia cinereocapilla, Grey-crowned Prinia	2,3,12		
	Rallus aquaticus, Water Rail	4,9	13	
	Rynchops albicollis, Indian Skimmer	4,9	13,16	
	Sasia ochracea, White-browed Piculet	1,3		
	Saxicola jerdoni, Jerdon's Bushchat	2,3,12		
	Spelaeornis caudatus, Rufous-throated Wren Babbler	1,3		
	Spelaeornis formosus, Spotted Wren Babbler	1,3		
	Sphenocichla humei, Blackish-breasted Babbler	1,3	12.16	-
	Sterna acuticauda, Black-bellied Tern	4,9,10,11	13,16	-
	Sterna aurantia, River Tern	4,9 4,9	13,16	
	Sterna caspia, Caspian Tern Sterna nilotica, Gull-billed Tern	4,9	13,16 13,16	
	Sypheotides indicus, Lesser Florican	2,3,9,5,12	13,17	18,21
	Tesia olivea, Slaty-bellied Tesia	1,3	13,17	10,21
	Turdoides longirostris, Slender-billed Babbler	2,3,12		
	Tyto longimembris, Eastern Grass Owl	2,3,12	13,14,15	
	Yuhina bakeri, White-naped Yuhina	1,3	13)11)13	
EN	Actinodura egertoni, Rusty-fronted Barwing	1,3		
	Aegypius monachus, Cinereous Vulture	8		
	Alcedo meninting, Blue-eared Kingfisher	1,3,6,9		
	Alophoixus flaveolus, White-throated Bulbul	1,3		
	Anas acuta, Northern Pintail	4,5,9	13	
	Anthreptes singalensis, Ruby-cheeked Sunbird	1,3		
	Botaurus stellaris, Great Bittern	3,4,7,9	13	
	Brachypteryx stellata, Gould's Shortwing	1,3		
	Bubo nipalensis, Spot-bellied Eagle Owl	1,3,9	13,14,15	
	Buceros bicornis, Great Hornbill	1,3	13	
	Caprimulgus asiaticus, Indian Nightjar	7		
	Catreus wallichii, Cheer Pheasant	1,3,9	13	
	Cochoa purpurea, Purple Cochoa	1,3		
	Cursorius coromandelicus, Indian Courser	9	13	24
	Dumetia hyperythra, Tawny-bellied Babbler	2,3,12		
	Dupetor flavicollis, Black Bittern	4,7,9	13	
	Falco cherrug, Saker Falcon	7	15	
	Falco chicquera, Red-necked Falcon	7	10	
	Francolinus gularis, Swamp Francolin	2,3,5,9,12	13	21
	Graminicola bengalensis, Rufous-rumped Grassbird	2,3,5,9,12		
	Harpactes erythrocephalus, Red-headed Trogon	1,3	12	
	Ibidorhyncha struthersii, Ibisbill	4,6,9,10,12	13	
	Indicator xanthonotus, Yellow-rumped Honeyguide	1,3	17	
	Leiothrix argentauris, Silver-eared Mesia	1,3		10
1	Lonchura atricapilla, Chestnut Munia  Malacocincla abbotti, Abbott's Babbler	2,3,4 1,3		19

Category of threat	Species	Habitat loss, degradation and fragmentation	Over-exploitation	Other
	Melanochlora sultanea, Sultan Tit	1,3		
	Mulleripicus pulverulentus, Great Slaty Woodpecker	1,3		
	Mycteria leucocephala, Painted Stork	4,9	13	
	Phylloscopus cantator, Yellow-vented Warbler	1,3		
	Pitta nipalensis, Blue-naped Pitta	1,3		
	Rallina eurizonoides, Slaty-legged Crake	1,3,4,9	13	
	Sarcogyps calvus, Red-headed Vulture	1,7,8		
	Sarkidiornis melanotos, Knob-billed Duck	4,9	13	
	Saxicola insignis, White-throated Bushchat	2,9		
	Stachyris chrysaea, Golden Babbler	1,3		
	Tickellia hodgsoni, Broad-billed Warbler	1,3		
	Treron curvirostra, Thick-billed Green Pigeon	1,3		
VU	Abroscopus superciliaris, Yellow-bellied Warbler	1,3		
	Alcippe chrysotis, Golden-breasted Fulvetta	1,3		
	Anas querquedula, Garganey	4,5,7,9	13	
	Anastomus oscitans, Asian Openbill	4,7,9	13	
	Aquila chrysaetos, Golden Eagle	7	14	22
	Aquila clanga, Greater Spotted Eagle	7		
	Aquila hastata, Indian Spotted Eagle	7		23
	Aquila nipalensis, Steppe Eagle	7		
	Asio flammeus, Short-eared Owl	2,3	13,14,15	
	Aythya nyroca, Ferruginous Duck	4	13	
	Bubo bengalensis, Rock Eagle Owl	1.0	13,14,15	
	Cettia brunnescens, Hume's Bush Warbler	1,3		
	Cettia pallidipes, Pale-footed Bush Warbler	2,3,5		
	Chaetornis striata, Bristled Grassbird	2,3,5	12	
	Ciconia nigra, Black Stork	3,4,7,9	13	
	Circus aeruginosus, Western Marsh Harrier	4,7		
	Circus cyaneus, Northern Harrier	7		
	Circus macrourus, Pallid Harrier	7		
	Circus melanoleucos, Pied Harrier Conostoma oemodium, Great Parrotbill			
	Emberiza melanocephala, Black-headed Bunting	1,3	13	
	Emberiza meianocephaia, Black-Headed Bunting  Emberiza pusilla, Little Bunting	2,3 7	7	20
	Emberiza spodocephala, Black-faced Bunting	2,3,4	13	20
	Ficedula monileger, White-gorgeted Flycatcher	1,3	13	
	Ficedula subrubra, Kashmir Flycatcher	1,3		
	Francolinus pondicerianus, Grey Francolin	7,9	13	20
	Gallinago nemoricola, Wood Snipe	1,3,4,9	15	20
	Garrulax caerulatus, Grey-sided Laughingthrush	1,3		
	Garrulax monileger, Lesser Necklaced Laughingthrush	1,3		
	Garrulax pectoralis, Greater Necklaced Laughingthrush	1,3		
	Grus antigone, Sarus Crane	3,4,7,9,12	14	23
	Grus virgo, Demoiselle Crane	4,7,9	13	
	Gypaetus barbatus, Lammergeier	7,8	14	
	Gyps himalayensis, Himalayan Vulture	7,8		
	Hydrophasianus chirurgus, Pheasant-tailed Jacana	4,9	13	

Category of threat	Species	Habitat loss, degradation and fragmentation	Over-exploitation	Other
	Ketupa zeylonensis, Brown Fish Owl	1,3,9	14,15,16	
	Larus brunnicephalus, Brown-headed Gull	4,5,	16	
	Larus ridibundus, Black-headed Gull	4,5	16	
	Leptoptilos javanicus, Lesser Adjutant	3,7,9,	13	
	Macropygia unchall, Barred Cuckoo Dove	1,3		
	Neophron percnopterus, Egyptian Vulture	1,8,9		
	Nettapus coromandelianus, Cotton Pygmy-goose	4,9	13	
	Paradoxornis fulvifrons, Fulvous Parrotbill	1,3		
	Paradoxornis unicolor, Brown Parrotbill	1,3		
	Pitta sordida, Hooded Pitta	1,3		
	Ploceus bengalensis, Black-breasted Weaver	2,3,12		
	Porzana pusilla, Baillon's Crake	4,5		
	Psittacula alexandri, Red-breasted Parakeet	1,3	15	
	Pteruthius rufiventer, Black-headed Shrike-babbler	1,3		
	Pucrasia macrolopha, Koklass Pheasant	1,3,9	13,17	
	Pyrrhoplectes epauletta, Golden-naped Finch	1,3		
	Serinus thibetanus, Tibetan Serin	12		
	Sterna albifrons, Little Tern	4,9,11,	13,16	
	Strix leptogrammica Brown Wood Owl	1,3	13,14,15	
	Syrrhaptes tibetanus, Tibetan Sandgrouse	2,9	13	
	Tragopan satyra, Satyr Tragopan	1,3,9	13,17	
	Turdoides caudata, Common Babbler	7		20
	Tyto alba, Barn Owl	7	13,14,15	20
	Vanellus malabaricus, Yellow-wattled Lapwing	2,9		
	Xiphirhynchus superciliaris, Slender-billed Scimitar Babbler	1,3		
	Yuhina nigrimenta, Black-chinned Yuhina	1,3		
	Zoothera marginata, Dark-sided Thrush	1,3		
NT	Acrocephalus stentoreus, Clamorous Reed Warbler	4		
	Alectoris chukar, Chukar Partridge	7	13,15	
	Amandava amandava, Red Avadavat	2,3,4	15	
	Anas poecilorhyncha, Spot-billed Duck	4,7,9	13	
	Anhinga melanogaster, Oriental Darter	4,5	16	
	Anser anser, Greylag Goose	4,9	13	
	Anser indicus, Bar-headed Goose	4,6	13	
	Anthracoceros albirostris, Oriental Pied Hornbill	1,3	13	
	Arborophila rufogularis, Rufous-throated Partridge	1,3,9	13	
	Aviceda leuphotes, Black Baza	1,3	_	
	Aythya ferina, Common Pochard	4,9	13	
	Blythipicus pyrrhotis, Bay Woodpecker	1,3	_	
	Caprimulgus affinis, Savanna Nightjar	2,7	13g	
	Caprimulgus macrurus Large-tailed Nightjar	1,7	13g	
	Charadrius mongolus, Lesser Sand Plover	3,9,10	13	
	Chrysomma sinense, Yellow-eyed Babbler	2,3,12		
	Ciconia episcopus, Asian Woollyneck	4,7,9,	13	
	Cisticola exilis, Golden-headed Cisticola	2,3,12		
	Clamator coromandus, Chestnut-winged Cuckoo	1,3	13	
	Cutia nipalensis, Himalayan Cutia	1,3		

Category of threat	Species	Habitat loss, degradation and fragmentation	Over-exploitation	Other
	Falco naumanni, Lesser Kestrel	7		
	Ficedula hodgsonii, Slaty-backed Flycatcher	1,3		
	Ficedula sapphira, Sapphire Flycatcher	1,3		
	Galerida cristata, Crested Lark	7		20
	Gallicrex cinerea, Watercock	4,7	13	
	Garrulax rufogularis, Rufous-chinned Laughingthrush	1,3		
	Garrulax squamatus, Blue-winged Laughingthrush	1,3		
	Garrulax subunicolor, Scaly Laughingthrush	1,3		
	Glareola lactea, Small Pratincole	4,7,9,10, 11	13	
	Glareola maldivarum, Oriental Pratincole	4,9	13	
	Grus grus, Common Crane	4,7,9	13	20
	Haematospiza sipahi, Scarlet Finch	1,3		
	Limosa limosa, Black-tailed Godwit	4,9	13	
	Lonchura malabarica, White-throated Munia	2	13,15	20
	Lophophorus impejanus, Himalayan Monal	1,3,9	13,17	
	Microhierax caerulescens, Collared Falconet	1,3		
	Muscicapa ferruginea, Ferruginous Flycatcher	1,3		
	Mycerobas melanozanthos, Spot-winged Grosbeak	1,3		
	Niltava grandis, Large Niltava	1,3		
	Pavo cristatus, Indian Peafowl	1,3,9		
	Phalacrocorax carbo, Great Cormorant	4,7,9,	13,16	
	Ploceus philippinus, Baya Weaver	7	13	20
	Pluvialis fulva, Pacific Golden Plover	7,9		
	Pomatorhinus schisticeps, White-browed Scimitar Babbler	1,3		
	Prinia flaviventris, Yellow-bellied Prinia	2,3,12		
	Psittacula eupatria, Alexandrine Parakeet	1,3	15	
	Psittacula roseata, Blossom-headed Parakeet	1,3		
	Riparia paludicola, Plain Martin	10		
	Saxicola leucurus, White-tailed Stonechat	2,3,12		
	Seicercus poliogenys, Grey-cheeked Warbler	1,3		
	Sterna hirundo, Common Tern	4,9	13,16	
	Tadorna ferruginea, Ruddy Shelduck	4,5,7,9	13	
	Tetraogallus himalayensis, Himalayan Snowcock	9,12	13,17	
	Threskiornis melanocephalus, Black-headed Ibis	4,7,9	13	
	Timalia pileata, Chestnut-capped Babbler	2,3,12		
	Treron apicauda, Pin-tailed Green Pigeon	1,3		
	Treron phayrei, Ashy-headed Green Pigeon	1,3		
	Turnix sylvaticus, Small Buttonquail	2,3,5		
	Turnix tanki, Yellow-legged Buttonquail	2,3,5		
	Vanellus duvaucelii, River Lapwing	6,9,10,	13	
	Vanellus vanellus, Northern Lapwing	4,7,9	13	
	Zoonavena sylvatica, White-rumped Spinetail	1,3		
DD	Alauda arvensis, Eurasian Skylark			20
	Amaurornis bicolor, Black-tailed Crake	4,9	13	
	Aquila rapax, Tawny Eagle	7		
	Brachypteryx leucophris, Lesser Shortwing	1,3		
	Bubo bubo, Eurasian Eagle Owl		13,14,15	

Category of threat		Species	Habitat loss, degradation and fragmentation	Over-exploitation	Other
	Buteo hemilasius, Upland Buzzard		7		
	Carduelis flavirostris, Twite		unknown		
	Ficedula parva, Red-breasted Flycatcher		1		
	Grus nigricollis, Black-necked Crane		9	13	
	Gyps fulvus, Griffon Vulture		8		
	Hierococcyx fugax, Hodgson's Hawk Cuckoo		1,3	13	
	Melanocorypha maxima, Tibetan Lark		unknown		
	Mirafra cantillans, Singing Bush Lark		2,3		
	Mycerobas icterioides, Black-and-yellow Grosbeak		unknown		
	Oriolus chinensis, Black-naped Oriole		1		
	Orthotomus cuculatus, Mountain Tailorbird		1,3		
	Otus sunia, Oriental Scops Owl		1,3	13,14,15	
	Phylloscopus tytleri, Tytler's Leaf Warbler		unknown		
	Rimator malacoptilus, Long-billed Wren Babbler		1,3		
	Riparia diluta/riparia, Pale/Sand Martin		unknown		
	Strix ocellata, Mottled Wood Owl		1,9	14,15	

#### **Conservation Recommendations**

#### Reduce habitat losses, degradation and fragmentation

#### <u>Forests</u>

There is enormous potential for improved management of existing low density and depleted forests. The 2014-2020 National Biodiversity Strategy and Action Plan includes a target of a significant reduction (by at least 75% of the current rate) in the loss and degradation of forest. Another valuable target is the promotion of alternative energy sources (such as biogas, solar energy, and hydropower) and fuel-efficient technologies (such as bio-briquettes, improved stoves) to reduce demand of firewood (MoSFC 2014). Other important targets include the development and implementation of plans to reduce occurrence of forest fires and overgrazing; reclaiming at least 10,000 ha of encroached forestland through effective implementation of the Forest Encroachment Control Strategy (2012) and the establishment of protected forests where necessary and feasible (MoFSC 2014). The provision of more resources to park and forestry field staff should help improve their monitoring of forest exploitation.

Degraded forests with on-going people pressure can be handed over to the community for management through the District Forest Office. Under community management, protection of most forest areas has been extremely successful and regeneration of lost cover has been phenomenal. Communities throughout Nepal have demonstrated that they can effectively protect and sustainably use the forests under their care. The community forestry programs should therefore be extended and strengthened (MoFSC 2014). MoFSC (2014) also aims to improve conservation of biodiversity in community-managed forest. Another target is to promote mixed forests of native plant species in community managed forests (MoFSC 2014).

Effective control of NTFP and MAP harvesting would reduce pressure on forests which annually results from the influx of huge numbers of people to harvest these products. This will also reduce disturbance to bird and other wildlife, especially during the breeding season MOSFC (2014).

#### Wetlands

The effective implementation of Nepal's National Wetland Policy is urgently needed. This policy aims to put people at the centre of conservation and natural resource management. While all communities benefit from wetlands, about 17% of the population from 21 ethnic communities have traditionally based their livelihoods on wetlands. These are some of the most marginalised and poorest people in Nepal.

The participation by user groups and community-based organisations in collaborative management of wetland resources, as advocated in Nepal's Wetland Policy, will be key to achieving sustainable resource use. These measures should help to prevent over-exploitation including over-fishing, the use of poisons to kill fish, over-grazing and excessive grass cutting along watercourses.

Control of sand and gravel mining of rivers is urgently needed. MoFSC (2014) includes a target for the development and implementation, by 2015, of an effective mechanism to control mining of gravel and sand from rivers and streams. Areas suitable for sand mining and quarrying should be identified and designated and mining banned in the protected areas and Important Bird Areas.

#### <u>Pollution</u>

Reducing pollution of wetlands is very important, especially in the rivers of Chitwan National Park which are particularly affected. Enforcement of the Industrial Policy (2011) should help reduce water pollution. MoFSC (2014) states that plans should be developed and implemented to control industrial pollution in five major rivers and five major wetlands, by 2020. MoFSC (2014) also includes a target to control encroachment and eutrophication in at least ten major wetlands and restore at least five major degraded wetlands by 2020.

Strict enforcement of Nepal's already existing pesticide regulations would greatly reduce the threat from pesticides to people, wildlife and the environment. The Integrated Pest Management (IPM) approach was emphasized in Nepal's National Agricultural Perspective Plan to try and reduce pesticide use. An increase in training of IPM use is badly needed. The use of effective microorganisms (EM) technology should be encouraged by running training camps for farmers in the buffer zones of lowland protected areas, modeled on those run by the Bird Education Society in Chitwan National Park's buffer zone. Using EM technology a combination of various beneficial organisms is formed, that is helpful for plant growth, acting as a fertiliser. The combination of organisms can also act as a bio-pesticide.

#### Grasslands

Effective grassland management is vital for biodiversity conservation; grassland birds are often highly sensitive to changes in habitat quality and the microenvironment around them (Baral 2001). People are allowed into Terai protected areas for three to ten days annually to cut grass, at which time the grasslands are also burned; in the case of Chitwan this involves an influx of many thousands of people (Peet *et al.* 1999). Management should therefore aim to maintain areas of intact grassland that are not cut or burnt, on a rotational basis, whilst allowing other areas to be harvested by local people (Peet 1997, Peet *et al.* 1999). Saplings of various trees and bushes should be removed from grasslands to prevent succession to shrubland and eventually forest. Ploughing has been found to be counterproductive and should be avoided (Peet 1997, Baral 2001). Burning is an important management tool for the conservation of threatened grassland taxa (Baral 2001) and should be carried out on a rotational basis before or after the birds' breeding season (Inskipp and Inskipp 1983). In addition to better management of existing grasslands, the expansion and conservation of new grassland areas are recommended (Baral 2001, Poudyal *et al.* 2008a,b) and degraded grasslands should be restored. Livestock grazing should be stopped in protected areas by improving law enforcement. Livestock management practices should be improved, for example by including stall feeding. Grazing pastures outside protected areas should be identified, promoted and managed.

More community-managed grasslands should be set up in lowland Nepal as recommended by Baral (2001). This is already happening in Chitwan National Park buffer zone in Nawalparasi District where a community-managed grassland is working along similar lines to that of community forestry and fulfills the needs of local village people for cattle fodder and thatch grasses (DB Chaudhary).

# Fragmented habitats

Corridors to connect fragmented habitats such as isolated grasslands and forest patches should be restored and land use planning and policies should be improved to ensure these areas are conserved.

#### **Invasive plants**

Urgent action is needed to control the spread of invasive alien plant species, especially *Mikania micrantha* and Water Hyacinth *Eichhornia crassipes*. MoFSC (2014) includes a target for nation-wide survey and research on the control of at least five most problematic invasive alien plant species by 2020, although no specific species has been suggested.

#### <u>Habitat disturbance</u>

Nesting colonies e.g. vultures, storks should be identified and protected through community awareness. The erection of nest boxes, e.g. for owls, should be encouraged. A code of good conduct should be established for photographers, birders and researchers.

### <u>Urban habitat enrichment</u>

The plantation of fruiting trees including fig trees and flowering trees should be carried out especially in urban areas and along highways. In towns and cities, people should be encouraged to put up nest boxes and bird feeders, and put out water for birds in their gardens.

# **Development projects**

Environmental Impact Assessments should be ensured with compulsory input from bird experts on development projects including hydropower dams and infrastructure such as road construction, power lines and bridges. The long term impacts of large scale development projects, such as hydropower dams, on birds and other wildlife should be studied. There is an on-going national debate on the construction on the east west railway network and postal road (Hulaki Sadak) that may pass through some of the lowland protected areas as well as the construction of an international airport near Nijgadh, Bara District. Some of these projects would be highly detrimental to wildlife including birds.

# Reduce over-exploitation

### **Hunting and trapping**

The current legislation to protect birds from hunting and trapping should be enforced and strengthened. At present only nine bird species are protected by law (see Appendix). This list should be expanded to include other threatened birds.

There should be a strict ban on catapult selling and illegal firearms should be confiscated. Studies on factors driving hunting should also be carried out.

More conservation awareness programmes should be carried out, especially in buffer zones of protected areas. These should be targeted at local communities and schools, also in the army camps stationed in protected areas. Influential local people in communities, such as religious and political leaders, and witch doctors should also be targeted to raise conservation awareness. It is recommended that programmes are modeled on the successful owl conservation awareness programmes that have been carried out by Friends of Nature in communities and schools.

#### Overfishing

In protected areas laws should be enforced by monitoring through river patrols especially during the breeding season. High priority areas for monitoring and strict enforcement should be identified. Here fishermens' camps should be detected and removed. The currently used highly destructive fishing methods of poisoning, electrocution and gill-nets should be stopped. Outside protected areas fishing should be reduced or banned during the breeding seasons in wetlands. All licences to fish inside protected areas should be stopped. Alternative livelihoods for the fishing (local) communities should be promoted.

# Improve legal protection for birds

The current list of birds protected by law in the country is in urgent need of revision and expansion to cover many more bird species than the nine species currently protected. Recommendations for updating this list were made by Himalayan Nature to the DNPWC in 2010.

# Extend protected area system to cover unprotected Important Bird and Biodiversity Areas

Currently unprotected forested IBAs, such as Reshunga IBA could be designated Protected Forests. Other unprotected IBAs, such as the Ghodaghodi Tal area, a Ramsar site which is under high pressure from local communities, could be designated wildlife reserves.

# More conservation engagement programmes

More conservation engagement programmes are urgently needed. This should include capacity building of local communities including active participation of local people in bird monitoring. These should also aim to improve understanding of the global and national importance of Nepal's IBAs amongst government and civil society. Nature clubs should be established in schools and within communities and bird watching activities carried out regularly for school children of SLCs and Plus 2 levels.

Bird conservation awareness activities should be targeted at schools, colleges, community groups, farmers, and army staff in protected areas using electronic and print media, radio and TV programmes, street dramas, talks and presentations, bird fair / festivals, media campaigns, celebrities, sports icons and documentaries. It is important that conservation messages are relevant and effective. Awards and recognition of local achievements should be established.

A National Bird Day could be introduced; each district could adopt its own bird species to celebrate.

### Improve capacity of wildlife agencies in bird conservation

Protected areas' staff and the Nepal Army working in protected areas should be trained in the importance of bird conservation. The DNPWC urgently needs adequate funding for protection and management. Protected areas' staff should also be provided with adequate resources including field equipment such as binoculars and field guides and training so they can carry out regular bird population monitoring in protected areas.

The Government should establish strong networking between national and local NGOs and agencies; annual national meetings should be held with representatives from relevant organizations ensuring implementation and enforcement of existing laws for the protection of birds.

# Research on nationally threatened species and on data deficient species

Key bird research projects need to be identified, especially on nationally threatened species and data deficient species. Collaboration between universities and NGOs needs to be developed. An annual funding programme should be established with a committee set up to review proposals and monitor research projects, so enabling bird research capacity to be developed.

# Set up a Nepal bird status and distribution database

An online system for storing and reporting bird sightings (e.g. eBird) should be developed and maintained. This could be done in collaboration with the DNPWC.

# Local livelihoods support

Bird conservation projects should support livelihood development of local communities to ensure their active participation.

# Develop effective conservation strategies for birds

Conservation strategies for threatened groups of bird species based on appropriate baseline data should be developed and implemented. Birds could be used as indicator species in forest management programmes e.g. Green Forest.

# **Format of Species Accounts**

#### Scientific name

The species nomenclature in this red data book follows IUCN approved names which are the same as those used by BirdLife International.

#### **Common names**

(English and Nepali names)

#### Distribution

(in Nepal and globally by country)

#### Elevation

Elevation limits of the species occurrence

#### **Population**

Species are described as: very common, common, fairly common, frequent, uncommon, very uncommon, rare or vagrant. Minimum and maximum population size is also provided where documented.

### **Habitat and ecology**

A description of habitats and ecology of the species

#### **Threats**

Major threats to the species as identified in the two Red List workshops, government and non-government documents and expert opinion.

### **Conservation measures**

Research, conservation projects and/or management plans undertaken or in place for species or groups of species.

# **Conservation status**

Global: Global risk of extinction. Based on BirdLife International (2015).

Regional: Extinction risk of species in Nepal. Using the 'IUCN Categories and Criteria: Version 3.1' (IUCN 2001) applied at the regional level using 'Guidelines for Application of IUCN Red List Criteria at Regional Levels: Version 3.0' (IUCN, 2003). Where species are endemic to Nepal the assessment will be identical to that of the global assessment.

# **Rationale for the Red List assessment**

Assessment justification including statement on population trend

# **Bibliography (citations)**

### Illustrations

Each species is illustrated either by a photograph or painting. Wherever possible the photographs were taken in Nepal, although some were taken in India, but are of Nepalese subspecies. The paintings were produced in the 19<sup>th</sup> century by a Nepalese artist, Raj Man Singh, who worked for the then British Resident, Brian Houghton Hodgson in Kathmandu. Hodgson commissioned the paintings for a great work he planned to publish on birds of the Himalayas. Very unfortunately the book was never published because of a lack of subscribers and Hodgson donated the paintings to the Zoological Society of London. Most of the paintings included here have never been previously published.

# **Galliformes**



Koklass Pheasant *Pucrasia macrolopha*Raj Man Singh / Brian Hodgson

# Coturnix chinensis (Linnaeus, 1766) CR

Subspecies: Coturnix chinensis chinensis

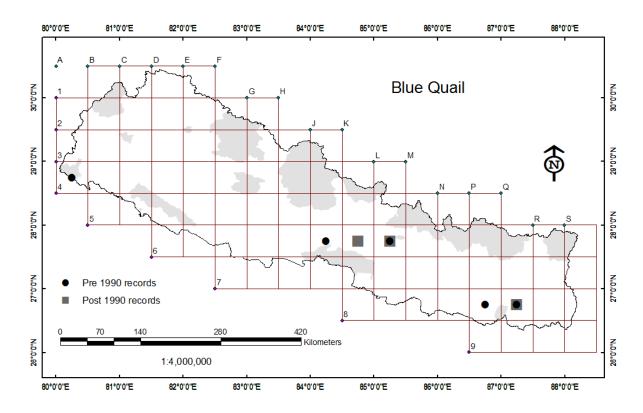
Common Name

Blue Quail (English), Khar Battai (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Blue Quail is very rare. The species has chiefly been found in the lowlands.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844) when at least five specimens were collected in April and May (year unknown), including one in breeding condition from the Kathmandu Valley (Hodgson 1829).

Bailey (1938) collected single birds from the far east and far west: Haraincha, Morang District in March 1936; Bilauri, Kanchanpur District in February 1937, and by the Koshi River, Sunsari District in February 1938. Single birds were also collected in the Kathmandu Valley in June 1963 (Fleming and Traylor 1968) and in April 1966 at Trichanda College (Field Museum Chicago undated).

Fleming *et al.* (1976) described Blue Quail as a scarce and widespread resident in the terai. There were three sightings from Chitwan National Park before 1990: singles in November 1979 (Woodcock 1979) and April 1980 (Inskipp and Inskipp 1980) and two in March 1987 (Meilstrup and Olsen 1987).

Inskipp and Inskipp (1991) considered the species as possibly resident in Chitwan National Park and scarce in the country. However, there have been only four known records in the country since 1990: one seen in

Chitwan National Park in April 2001 (Malling Olsen 2004), two at Koshi in March 2002 (Som GC in Baral 2002), one reported from Shivapuri Nagarjun National Park in July 2008 (Thakuri and Thapa 2009) and a female flushed near Kosi Bird Observatory, Sunsari District in October 2012 (Inskipp and Inskipp 2012).

Globally Blue Quail is very widespread and has also been recorded from Angola, Australia, Brunei, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Ethiopia, Gabon, Ghana, Guam (to USA), Guinea, Guinea-Bissau, India, Indonesia, Kenya, Laos, Liberia, Malawi, Malaysia, Mali, Mozambique, Myanmar, Nigeria, Papua New Guinea, Philippines, Rwanda, Sierra Leone, Singapore, South Africa, South Sudan, Sri Lanka, Sudan, Taiwan (China), Tanzania, Thailand, Timor-Leste, Togo, Uganda, Vietnam, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 1350 m; lower limit: 75 m

# **Population**

No species surveys have been carried out for Blue Quail in Nepal. Even bearing in mind the species can be overlooked (see Habitat and Ecology section) the lack of recent records compared to 40 years ago despite better recording in recent years, indicates that Blue Quail has declined during the period.

# **Total Population Size**

Minimum population: 10; maximum population: 50

# **Habitat and Ecology**

Blue Quail inhabits the edges of marshes, tall grassland and fields, also dense grass in scrubland (Fleming *et al.* 1976; Inskipp and Inskipp 1991). It feeds chiefly on grass and millet seeds, also small insects, especially termites (Ali and Ripley 1987). Blue Quail is secretive and usually keeps within cover (Grimmett *et al.* 1998). It is locally migratory, depending on rainfall (Grimmett *et al.* 1998).

#### **Threats**

Blue Quail is threatened by the loss and degradation of uncultivated field edges, lowland grassland, marshes and scrub. Hunting, trapping and disturbance are also considered threats to the species.

# **Conservation Measures**

No conservation measures have been carried out specifically for Blue Quail. It has been recorded in two protected areas: Chitwan National Park, although not since 2001, and there is one recent record from Shivapuri Nagarjun National Park.

# Regional IUCN Status

Critically Endangered (CR A2acd, D1) upgraded from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Blue Quail has been assessed as Critically Endangered based on the criteria A2acd and D1. The species is now very rare. Even bearing in mind that it can be overlooked the lack of recent records compared to 40 years ago despite better recording in recent years, indicates that Blue Quail has declined during the period. The species

is seriously threatened by a combination of habitat loss, hunting, trapping and disturbance. Since 1990 it has been recorded in two national parks.

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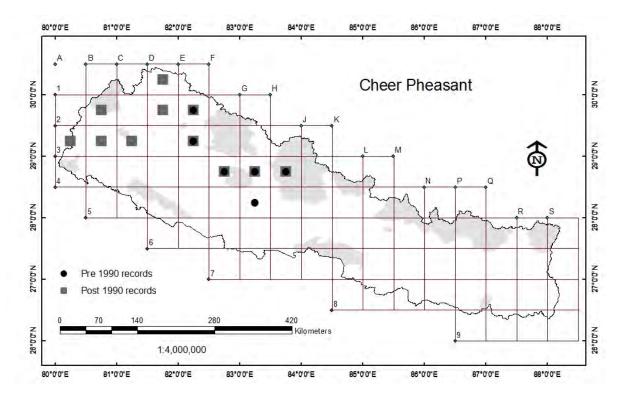
# Catreus wallichii (Hardwicke, 1827) EN

<u>Common Name</u> Cheer Pheasant (English), Cheer (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Cheer Pheasant (hereafter Cheer) is a local resident in the west; locally frequent in and around Dhorpatan Hunting Reserve and scarce elsewhere. The first Nepal record of the species was in the 19th century (Hodgson 1844). Fleming *et al.* (1976) described it as a scarce resident, while Inskipp and Inskipp (1991) reported the species was a resident of uncertain status found east to the Kali Gandaki valley. Subsequently a number of surveys for the species have been carried out and its Nepal distribution is better, although still not fully known.

The most important known area for Cheer in Nepal and indeed, within its entire global range, is in and around Dhorpatan Hunting Reserve (DHR) (Garson and Baral 2007); however, in 2014 for the first time this population was found to be declining (see Population section). This population has been known since the 1970s (Fleming et al. 1976) and Sherpas from Mountain Travel Ltd subsequently reported Cheer from the valley east of Dhorpatan in 1976/77 (Singh et al. 2011). The proposed buffer zone of DHR was surveyed in 2005 where Cheer was found in Bobang and Muri areas (Singh et al. 2006, Singh 2007, Singh et al. 2011).

Cheer also occurs in the lower Kali Gandaki valley, Mustang District Annapurna Conservation Area. The species has been regularly recorded by birdwatchers above Ghasa since 1982 (Inskipp and Inskipp 1991; 2003). However, the lower Kali Gandaki valley was first surveyed for the species in 2004 and populations of Cheer were discovered at five of seven sites selected (in addition to Ghasa) (Acharya 2004). The survey also

confirmed the presence of Cheer east of the Kali Gandaki for the first time. It was found 4 km east of the river from several places in Kunjo Village Development Committee (VDC), Annapurna Conservation Area (Acharya 2006). A Bird Conservation Nepal team suspected the presence of Cheer in Pipar (upper Seti valley), also in the Annapurna Conservation Area, based on descriptions by World Pheasant Association guards; however, confirmation is desirable (Baral *et al.* 2001).

In 2005 Cheer was found at five of the six sites surveyed near Rara Lake in Rara National Park and was found to be locally distributed (Budhathapa 2006). A 2008 survey of Rara National Park buffer zone found that, although the species had been present previously, it had sharply declined and had virtually disappeared (Singh 2009). During an April/May 2012 survey for the species it was found in the buffer zone on the north side of Rara National Park, an area which had not been surveyed previously (Thakuri 2012).

The first known record from the far west was one seen at Kasanidada, Kulau VDC, Baitadi District. The species was also reported by local people from Kaphalpani and Dhaukudi, Kulau VDC. In addition, locals reported Cheer from the Tisimi dad, Kanachaur VDC, Doti District; Dhapa VDC, Jumla; Dhanaikot VDC, Mugu and in Basti, Balata, Kuntibandali and Bhairabsthan VDC in Achham District (Budha 2006). Further evidence of the occurrence of Cheer in the far west was obtained by BIOCOS-Nepal broadcasting a regular radio programme on birds and their conservation in the area in 2009. Scripts on Cheer and calls of the species were broadcast in every episode. Listeners were asked to report if they had heard/seen the species. Radio audiences reported Cheer from seven VDCs of Accham District, one VDC of Doti District and one VDC of Baitadi District. All these areas are new sites for the species. A follow-up field survey is planned in all the areas to confirm the species' presence (Poudyal 2010).

Cheer was reported to be breeding in captivity in Dolpa in 2006 (Raju Acharya).

In May 2011 local people reported Cheer from the Yalbang area in Humla (alongside the Karnali River at c. 2800 m) and around Simikot, Humla District (Ghimirey 2011). In Jumla Bazaar, Cheer Pheasants were sold live until recently (H. S. Baral).

Cheer was also recorded at Kshetti, Api Nampa Conservation Area in April or May 2011 (Thakuri and Prajapati 2012).

Globally the species has also been recorded from India, Pakistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 3050 m; lower limit: 1445 m

# **Population**

The first survey of DHR was carried out in 1981 when a total of 50 to 100 birds was estimated (Lelliott 1981). The next survey, 22 years later in May and June 2003 found estimates of calling birds did not differ significantly from those of Lelliott (1981). The Dhorpatan valley (inside DHR) was found to support an estimated Cheer population of between 179 and 229 pairs (Subedi 2003, Singh *et al.* 2011). A 2006 survey in the DHR buffer zone was estimated to support 148-188 pairs (Singh *et al.* 2006, Singh *et al.* 2011). In total the Dhorpatan area had an estimated Cheer population of 327-417 pairs and the population densities were the highest recorded in Nepal – 7.5-9 pairs per km² (Singh *et al.* 2011).

However, a 2014 survey of Cheer in DHR found that the species had significantly declined. A comparison of the same 13 call count stations with those studied by Subedi (2003) indicated a 36.7% decrease in population density in the Dhorpatan valley. The total population size of the species in Dhorpatan valley was found to be 143-156 pairs. A significant population decline was observed in Kandedanda area where a population density of 18.4 per km² was estimated by Subedi (2003) but no calls have been heard from the same call survey point and at Lamathan, where 17.69 birds/km² were recorded previously, the estimate in the 2014 study was only 1.18 birds/km². A decline of around 50% was also recorded from Chhentung and Bartanchaur areas (Hari Basnet *in litt*. to C. Inskipp, 12 April 2015).

In the lower Kali Gandaki valley the population was estimated to be 85-111 pairs in June 2004 (Acharya 2004) and 20-97 pairs in June 2006, a marginal decline, but considered statistically insignificant (Acharya et al. 2006).

A June 2009 survey of the valley estimated a population of 25-37 pairs, a marginal decline and a low population density of 1 pair per km² (Subedi 2009, Subedi 2013). Comparing the 2009 survey results with the previous studies in 2004 and 2006, the mean number of calling birds was found to have declined by more than 54%, but when statistical adjustments are made the population was found to have only declined marginally, suggesting that Cheer still survives in good numbers in this study area (Subedi 2013). This finding was confirmed in December 2015 when a survey for the species found 32 birds in six flocks in the west and east sector above Ghasa and heard more calls in the north-east sector (Manshanta Ghimire and Abinash Nepali).

In Rara National Park a 2005 survey found the species had a population of 9.48 to 14.22 pairs and a low population density of 2 pairs per km<sup>2</sup> (Budhathapa 2006, Singh 2009).

Only 2 calling birds were recorded in Rara National Park buffer zone during a 2009 survey (Singh 2009b, Singh and KC 2008). However, an April/May 2012 survey of a different area of the buffer zone to the north located 33 calling birds (Thakuri 2012).

#### **Total Population Size**

Minimum population: unknown; maximum population: <1000

#### **Habitat and Ecology**

Cheer Pheasant favours very precipitous terrain with scrub, tall grasses and stunted trees, particularly where interspersed with rocky crags, steep, craggy hillsides supporting scrub and stunted trees (Singh *et al.* 2011). In the Dhorpatan valley the species also frequents burnt, felled and cut over areas with secondary growth in pine/juniper/fir/rhododendron forest (Lelliott 1981). In the Kali Gandaki valley, ACA Cheer is found utilising steep slopes with dense ground cover and very open crown cover (Acharya 2004). The bird prefers open forest with grass coverage and rocky crags, as it needs sufficient grass coverage and rocky crags to protect it and its nest (Singh *et al.* 2011). Cheer Pheasant is generally scarce because of the patchy distribution of its specialised habitat. The species is a resident with an altitudinal range of 1800-3050 m and apparently little seasonal altitudinal movements (Inskipp and Inskipp), but down to 1445 m and possibly lower in the far west, where the climate is more temperate and the tree line is lower (Budha 2006). The first nest of Cheer Pheasant found in Nepal was located 4 km east of the Kali Gandaki valley in Kunjo VDC, ACA (Acharya 2006). It digs for roots and tubers, and also eats seeds, berries, insects and grubs (Ali and Ripley 1987).

# **Threats**

Snaring, hunting, overgrazing (which causes grassland loss, promotes unpalatable species and finally changes the habitat structure), deforestation and uncontrolled forest fires to promote grazing have been identified as the main threats to Cheer in Nepal (Subedi 2003, Singh *et al.* 2006; 2011). Hunters catch Cheer in a variety of ways, using captive Cheer as lures, trapping or shooting (Acharya *et al.* 2006, Singh *et al.* 2006, Subedi 2003). Cheer seems to suffer disproportionately from hunting, perhaps because it roosts communally at lower elevations and close to inhabited areas than do most other Himalayan Galliformes (Kalsi 1999). Cheer is sedentary, easily detected by it calls and occupies open habitats, with the result that it is extremely vulnerable to hunting and susceptible to local eradication (Kalsi 1999, Young *et al.* 1987).

Singh et al. (2011) found it difficult to find evidence of snaring and hunting in DHR because of Cheer's legal status. However according to local informants Cheer are still hunted there (Singh et al. 2011).

In Rara National Park, Cheer are in peril because of snaring (by using captive Cheer as lures), which was found to be a frequent practice (Budhathapa 2006). Other threats are destruction of nests and eggs by herders when they find them, livestock overgrazing and forest fires (Budhathapa 2006). In the park's buffer zone Cheer was seriously threatened by habitat fragmentation, hunting, snaring, egg collection and overgrazing. The proposed buffer zone forest management regimes had not been implemented (Singh and KC 2008, Singh 2009).

In 1987 above Ghasa, Annapurna Conservation Area, locals reported Cheer was declining because of hunting pressure (Gawn 1987). According to Acharya (2004) after the intervention of the ACA Project and handover of firearms by local people to security forces, hunting was decreasing, but still existed. Livestock grazing and slash and burn practices were also recognized as threats (Acharya 2004). In the Kali Gandaki valley in 2009, snaring,

overgrazing, firewood collection, timber harvesting, collection of eggs, slash and burn cultivation, and nest damage by dogs during breeding are the major threats identified for Cheer (Subedi 2013).

In remote areas of the mid-west and far west, people still rely on biological resources to treat illness. The main reason for Cheer hunting here is to provide a traditional treatment of asthma and body pain or uncured fever, through eating the meat (Budha 2006). Around Simikot, Humla District the species may be traded locally, although the people of Yalbang, also in Humla District, strictly prohibit hunting (Ghimirey 2011).

#### **Conservation Measures**

The National Parks and Wildlife Conservation Act (1973) lists Cheer Pheasant as a protected species. In 1977 the Nepal Post Office brought out a Cheer Pheasant stamp, as part of a bird series publication, aiming to increase public awareness that this species is protected by law.

A Cheer Pheasant conservation summit was held in Kathmandu in April 2006 to summarise findings of the previous three years and to plan ahead. Participants were fieldworkers who had led or participated in Cheer population surveys during 2003-05, and representatives from the Pheasant Specialist Group/World Pheasant Association and Bird Conservation Nepal (Garson and Baral 2007).

Madge and McGowan (2002) pointed out that the species inhabits early successional grassy habitats and always occurs near habitation and cultivation, so striking a balance between the disturbance necessary to prevent sites scrubbing over, but avoiding overgrazing and hunting, is likely to be the key to the species' survival.

Cheer has been recorded in Dhorpatan Hunting Reserve, and Api Nampa and Annapurna Conservation Areas, and Rara National Park. No other conservation measures specifically for Cheer Pheasant have been carried out.

### **Regional IUCN Status**

Endangered (EN A2acd, C2a(i)) upgraded from the Global Red List status: Vulnerable (VU)

# Rationale for the Red List Assessment

Cheer Pheasant has been assessed as Endangered based on the criteria A2acd and C2a(i). The species is a local resident in the west, locally frequent in and around Dhorpatan Hunting Reserve (DHR) and scarce elsewhere. Further fieldwork is needed in the far west to properly assess its distribution and status there. The majority of the known population occurs in and around DHR but the species is now declining here, as well as elsewhere in Nepal. Its specialised habitat has a patchy distribution. Snaring, hunting, overgrazing (which ultimately changes the habitat structure), deforestation and uncontrolled forest fires to promote grazing are the main threats. Snaring and hunting are probably the most serious threats. Cheer seems to suffer disproportionately from hunting, perhaps because it roosts communally at lower elevations and close to inhabited areas compared to Himalayan pheasant; also because it is sedentary and can be easily detected by its calls. Post-1990 Cheer Pheasant has been recorded in four protected areas.

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# Francolinus gularis (Temminck, 1815) EN

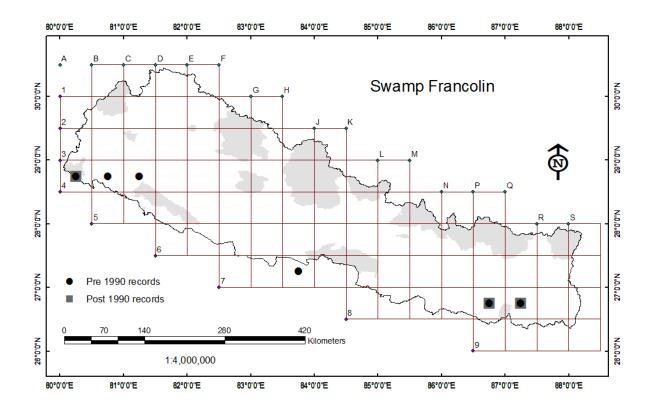
Common Name

Swamp Francolin (English), Sim Titra (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Swamp Francolin is a very local resident. The first Nepal record of the species was in the 19th century (Hodgson 1844).

Single specimens were taken from Bilauri, Kanchanpur District in January 1937 and from Tribeni, Nawalparasi District in November 1935 (Bailey 1938). One was also collected from a covey at Seti Bazaar, Kailali District in January 1953 and at least one other covey was found in the far west on the same expedition (Rand and Fleming 1957). Another specimen was taken from Sati, Kailali District (51 km east of Dhanghadi) in January 1961 (Fleming and Traylor 1964). The species was found in Bardia National Park District in March 1986 (Roberts 1990). There are no later records of Swamp Francolin at any of the above localities. Before the 1990s there were only two records from Sukla Phanta Wildlife Reserve – Fleming (1977) and Inskipp and Inskipp (1982); this can be attributed to poor recording of the reserve until the 1990s. The species was listed as a fairly common breeding resident in the reserve by Baral and Inskipp (2009).

Swamp Francolin was found to be common in Koshi Tappu Wildlife Reserve since 1986 (Inskipp and Inskipp 1991); there is only one earlier report from the reserve, of two birds in February 1984 (Hornskov 1984). Roberts (1990) suggested that changes in the course of the Koshi River during the 1986 monsoon moved a

population of the species into the reserve. A few birds were occasionally seen near Koshi Barrage between 1981 and 1990, e.g. Inskipp and Inskipp (1981), Harrap (1985), Andrews (1986), Eve and Hibberd (1987), and Gardiner (1990). Singles were seen in December 2000 and in December 2006 at Bankatta, close to the Reu River, Bankatta in Chitwan National Park (Kalu Ram Tamang).

The species was once thought to be present throughout the Nepal lowlands (Baral 1998), but Sukla Phanta Wildlife Reserve and Koshi Barrage/Koshi Tappu Wildlife Reserve are now the only sites where the species has been recorded recently.

Globally the species has also been recorded from Bangladesh, India (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### Elevation

Upper limit: 250 m; lower limit: 75 m

# **Population**

Almost the entire known population occurs in Sukla Phanta and Koshi Tappu Wildlife Reserves. A population of 28 was estimated, based on a partial survey of Sukla Phanta Wildlife Reserve in 1995 (Baral 1998); a later survey estimated a population of over 100 birds (Baral 2000). In 2004 a partial survey estimated a breeding population of 46 pairs (Singh 2004; 2007). A survey of the whole of Sukla Phanta Wildlife Reserve was carried out for the first time in 2010-11, when the population was estimated as 184±52 birds (Singh 2012). A total of 90 birds was counted in Koshi Tappu Wildlife Reserve in 1999 during a partial survey (Dahal 2002), and an abundance estimate of 15.5 +/- 2.50 birds/km<sup>2</sup> was made in 2004 (Dahal et al., 2009). In 2010 the Koshi Tappu Wildlife Reserve Office and Conservation and Sustainable Use of Wetlands in Nepal (CSUWN) initiated a participatory monitoring programme of Swamp Francolin that will take place annually. The latest CSUWN count data available are from February 2011 when 57 pairs (114 birds) were counted (CSUWN 2011). In addition, a separate 2012 survey counted 84 birds in a new area, which had not been surveyed previously in the west of the reserve; an additional 14 birds were counted in the east of the reserve. This total of 98 birds is a separate population from those counted during the CSUWN biannual monitoring scheme (Baral et al. in press). Combining the count of 98 birds with the CSUWN figure of 114 birds, gives a total of 212 birds. This is estimated to be 80% of the total Koshi population, considering the available suitable habitat. Allowing for the remaining 20% of habitat the total Koshi population is calculated to be 212-265 birds.

# **Total Population Size**

Minimum population: 350; maximum population: 500

### Habitat and Ecology

The species inhabits tall wet grassland and swamps (Grimmett *et al.* 1998). In Sukla Phanta Wildlife Reserve marshes and tall grass dominated by *Saccharum spontaneum*, *S. benghalensis* and *Phragmites karka* were found to be the preferred habitat of Swamp Francolin (Singh 2012). In Koshi Tappu Wildlife Reserve it has been recorded in dense tall to medium grasslands and scrub and lightly wooded forests adjacent to these (Baral *et al.* in press). The species is resident. It eats seeds and insects and is thought to be omnivorous (Ali and Ripley 1987).

### **Threats**

In Sukla Phanta Wildlife Reserve the species is threatened by habitat loss and damage caused by overgrazing, unintentional fire, hunting, use of poison for fishing, disturbance, predators, the drying of swamps during the breeding season, and successional change as the grasslands have been invaded by other vegetation such as *Bombax ceiba* and *Dalbergia sissoo*. Livestock overgrazing is a particularly serious threat, leading to severe grassland degradation (Singh 2007, 2012). At Koshi excessive extraction of fuel wood, fodder, and grasses and

overgrazing by hundreds of livestock pose serious threats; in 2009 disturbance significantly increased during reconstruction work of the embankment that was breached as a result of the previous year's monsoon flood (Dahal 2009).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Swamp Francolin. It mainly occurs in two protected areas: Sukla Phanta Wildlife Reserve and Koshi Tappu Wildlife Reserve and also in small numbers in the adjacent Koshi Barrage area which is outside the protected areas' system. It has been recorded marginally in Chitwan National Park.

# **Regional IUCN Status**

Endangered (EN A2acde, B2a,b (iii,v)) upgraded from the Global Red List status: Vulnerable (VU)

# Rationale for the Red List Assessment

Swamp Francolin has been assessed as Endangered based on the criteria A2acde and B2a, b(iii,v). The species is thought to have once occurred throughout the Nepal terai, but is now almost confined to grasslands in two protected areas (Sukla Phanta Wildlife Reserve and Koshi Tappu Wildlife Reserve, and an adjacent site outside the protected areas system near Koshi Barrage. These localities lie in the far west and far east terai and so their grasslands and associated species' populations are highly fragmented. Excessive extraction of fuel wood, fodder, and grasses, and possibly livestock overgrazing pose serious threats to the remaining Koshi population. In Sukla Phanta Wildlife Reserve the species is especially threatened by overgrazing, which leads to grassland degradation. Habitat loss and damage are also caused at Sukla Phanta by unintentional fire, disturbance, the drying of swamps during the breeding season, and successional change as the grasslands have been invaded by other vegetation such as *Bombax ceiba* and *Dalbergia sissoo*. Hunting, the use of poison for fishing, and predators are also threatening the species.

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# *Francolinus pondicerianus* (J. F. Gmelin, 1789) VU

Subspecies: Francolinus pondicerianus interpositus

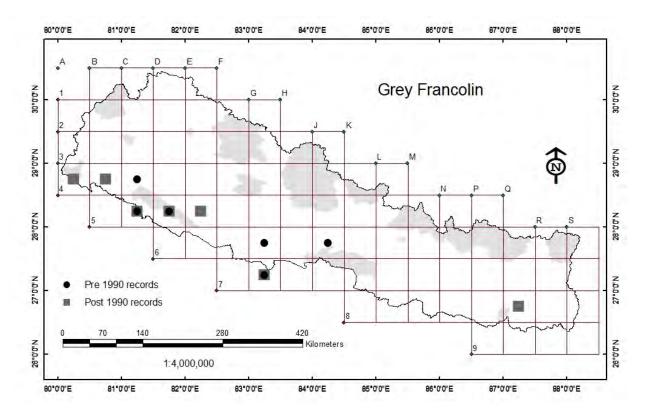
### Common Name

Grey Francolin (English), Kapinjal Titra (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Grey Francolin is a local resident mainly occurring in the western lowlands, with a few recent records from the far east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844). It occurs from Sukla Phanta Wildlife Reserve (GC 2010) in the far west and Koshi Bird Observatory, Sunsari District (Suchit Basnet and Badri Chaudhary).

Pre-1990, the species was reported from Bardia National Park (Bolton 1976, Dinerstein 1979) (no further details are available), and one was seen in the park in May 1982 (Inskipp and Inskipp 1982). A specimen was collected from Kauriala Ghat, Bardia District in 1948 (Ripley 1950). One was seen between the park and Nepalganj, Banke District in May 1982 (Inskipp and Inskipp 1982). Vyas (1988) found it to be common in Kohalpur, Banke District in March 1988. A specimen was collected from Butwal, Rupandehi District in February 1950 (Rand and Fleming 1957). An adult with young was seen near Tilaurakot, Kapilvastu District in 1978 (Cox 1982), and the species was recorded at Sonauli, Rupandehi District in March 1959 (Fleming 1959).

Post-1990, two were seen near the Arjune checkpost in Sukla Phanta Wildlife Reserve in May 2003 (Hem Subedi) and ten in the reserve in January 2009 (GC 2010). It was also recorded outside the reserve at Daiji,

Kanchanpur District in May 2003 (Hem Subedi) and five at Ghodaghodi Tal, Kailali District (GC 2010). Grey Francolin is listed as a rare resident in Bardia National Park (Kaluram Tamang undated in Inskipp 2001), and two birds were recorded there in March 2006 (Shahi 2010). It has been recently recorded in the Blackbuck Conservation Area (Kunwar 2015). Six were sighted in Nepalgunj, Banke District in October 2009 (GC 2010). Cox (2008) reported the species was fairly common in Dang Deukhuri Important Bird Area, Dang District in May 2007 and one was recorded there in October 2008 (Thakuri 2009, 2010).

The species has been regularly recorded from the Lumbini area, Rupandehi District since 2006 (the area was probably under-recorded before this date), e.g. 12 in October 2006 (Giri 2010) and eight from April to June 2009 (Ramond and Giri 2009).

In March 2011 and 2012 Grey Francolin was recorded in the far east at Koshi Bird Observatory (Suchit Basnet and Badri Chaudhary).

Globally the species has also been recorded from Bangladesh, India, Pakistan, Sri Lanka, Iran, and introduced to Indian Ocean islands and Middle East (BCN and DNPWC 2011).

# **Elevation**

Upper limit: 200 m; lower limit: 90 m

# **Population**

A study of Grey Francolin in the Lumbini farmlands Important Bird Area found 12 pairs along the Telar River transect and three pairs within the Lumbini Development Trust area (Baral 2012). No other surveys have been carried out for the species, but observations and lack of suitable habitat indicate the population must be small. Although the number of localities pre-1990 (seven) is about the same as post-1990 (six) this is not significant as the western lowlands, where the species is resident, are better recorded in recent years than in the past.

### **Total Population Size**

Minimum population: unknown; maximum population: <500

# **Habitat and Ecology**

Grey Francolin is found in dry grassy and scrubby areas near cultivation in the terai (Fleming *et al.* 1976); also in dry cultivation (Inskipp and Baral 2011) and in trails in thinly wooded areas (Vyas 1988). A study of the species concluded that it has a preference for farmlands and riverine scrub (Baral 2012). The species is resident and not recorded to undertake movements. It feeds on weed seeds, cereal grains, shoots of grass and crop plants, berries and insects, e.g. grasshoppers, termites and maggots (Ali and Ripley 1987).

#### **Threats**

Grey Francolin is seriously threatened by changes in agricultural practices, including the loss of herbaceous vegetation and scrub at field edges and corners and, probably indirectly by pesticides, which reduce their insect food sources (Inskipp and Baral 2011); also by hunting, trapping and disturbance. A study of the species by Baral (2012) concluded that changes brought about in its habitat and the loss of traditional farmland habitats have resulted in a significant decline in the population.

# **Conservation Measures**

No conservation measures have been carried out specifically for Grey Francolin. The species has only been recorded in three protected areas: Sukla Phanta Wildlife Reserve, Blackbuck Conservation Area and Bardia National Park, where it is rare.

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#### **Regional IUCN Status**

Vulnerable (VU A3c, C1, D1) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Grey Francolin has been assessed as Vulnerable based on the criteria A3c, C1 and D1. The species is a local resident, mainly occurring in the western lowlands with a few recent records from the far east. It is chiefly found outside the protected areas' system. In the west its habitat has been poorly recorded until the last few years, so it has not been possible to determine the population trend. It is rare in Sukla Phanta Wildlife Reserve and Bardia National Park. It has also been recorded in Blackbuck Conservation Area. A population reduction is suspected to take place in future and may already be underway because of changes in agricultural practices, which are currently taking place. These include the loss of herbaceous vegetation and scrub at field edges and corners and probably pesticide use, which reduces their insect food sources. Hunting, including trapping and disturbance are also important threats to the species.

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# Pucrasia macrolopha (Lesson, 1829) VU

Subspecies: Pucrasia macrolopha nipalensis

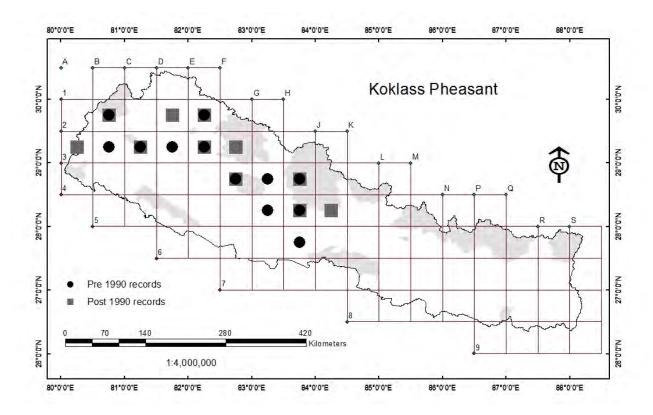
# Common Name

Koklass Pheasant (English), Koklas/Fokras (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Koklass Pheasant is a local resident in west and west-central Nepal, mainly occurring in mountain protected areas.

The first Nepal record of the species was in the 19th century, but the locality and date are unknown (Hodgson 1843).

Fleming *et al.* (1976) described it as an occasional resident, while Inskipp and Inskipp (1991) reported that the species was locally fairly common.

Koklass has been recorded as fairly common in Api Nampa Conservation Area (Thakuri and Prajapati 2012).

In Khaptad National Park it was found to be a common resident in 1988 (Inskipp and Inskipp 1988), but was considered an endangered resident there in 1996 (Khadka 1996).

The species was listed for Shey-Phoksundo National Park (Priemé and Øksnebjerg, 1995), who did not find it in their 1992 survey, but quoted its occurrence from Yonzon (1991).

The species was recorded in Rara National Park in 1979 (Pritchard 1980) and in 1982/83 (Pritchard and Brearey 1983). It was described as a rare resident in Rara National Park by Giri (2005), quoting only a record in April/May 1995 by White and White (1995). It was found to be very uncommon in the park buffer zone in May 2008 (Singh and KC 2008) (see Population section).

Koklass Pheasant was found to be a common resident in the Dhorpatan valley, Dhorpatan Hunting Reserve in May/June 1981 (Lelliott 1981) (see Population section), and counts were made of calling birds in spring 2003 (Subedi 2003). It was also common in Taksera and Maikot VDC, Rukum District (F4) in 2003 (Poorneshwor Subedi)].

The species is a generally an uncommon resident in the Annapurna Conservation Area (ACA), although rather more often recorded in the Kali Gandaki valley (see Population section). Single specimens were collected at Dana and Tukuche in December 1949 (Rand and Fleming 1957). During galliform surveys it has been regularly recorded at Pipar, Seti Khola watershed, ACA since 1979, although apparently absent in 2011, but recorded in Pipar in 2012. It has also been recorded during galliform surveys at Santel in the Seti Khola watershed, ACA in 2001 and 2005 (see Population section). In addition, Koklass has been regularly recorded above Ghasa and near Ghorepani, ACA (see Population section),

Elsewhere in ACA there are a few known records from Kalopani, e.g. in March 1981 (Mills and Preston 1981), three in March 1983 (Alström and Olsson 1983), also recorded there in March 1986 (Heath 1986), one recorded at Taadapani, east of Ghorepani, ACA in December 2000 (Scharringa 2000), below Isharu, Ghandruk VDC May 2012, (Paras Bikram Singh and Rishi Ram Subedi). The species has been found as far east as Santel, east of the Seti Khola, ACA (Baral *et al.* 2001) and also Siklis village, where a bird was trapped in 2011 (Raju Acharya) and another hunted bird was found in January 2012 (Yadav Ghimirey and Raju Acharya). It may also be present in the Marsyangdi Khola valley further east (Roberts 1980), but this has not been confirmed.

There are few records from outside the protected areas' system, both pre- and post-1990. It was recorded in October 1959 at Baitidi, Baitadi District (Fleming and Traylor 1961). A maximum of three was seen in Dadeldhura District in May 2010 (Baral *et al.* 2010). Scully (1879) obtained seven specimens from Jumla in 1877, when he was informed that the species was plentiful in the area. Rand and Fleming (1957) reported two specimens, which were said to have come from Jumla in 1939. Koklass was also recorded in Jumla District in 1952 (Polunin 1952), and a pair was seen at Bung Lagna north of Jumla, Jumla District in May 1985 (Cox 1985). This species may occur at Humla where its known as khok – perhaps indicating its voice (Yadav Ghimirey); further confirmation is needed.

Globally it has also been recorded from Afghanistan, China (mainland), India, Pakistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 3200 m (- 3500 m) (summer), (- 32)89 m (winter); lower limit: 2135 m (winter), 2680 m (summer)

# **Population**

The populations of Koklass Pheasant have been studied as part of galliform community monitoring in Pipar and Santel forests in the Seti Khola watershed in the Annapurna Conservation Area. The minimum number of calling birds in Pipar was 12 in May 1985 (Picozzi 1986), 30 in April 1987 (Picozzi 1987), 18 in April 1991 (Howman and Garson 1993), 16 in October 1995 (Kaul 1995), nine in April 1997 (Emmanuel *et al.* 1997), 12 in May 1998 (Kaul and Shakya 1998, 2001); 20 in May 2005 (Poudyal *et al.* 2009), and 18 in May 2008 (Poudyal 2008). Two were observed at 3289 m altitude on the western slope of Pipar Kharka on the edge of rhododendron forest and grassland in February 2008 (Poudyal *et al.* 2012). Koklass was also recorded in May 2009, but a declining trend in its population was highlighted (Subedi 2010). In May 2011 Koklass was not recorded from the listening stations around the Pipar bowl (Sharma 2011), although a few birds were heard in nearby Khumai during the same survey (Sharma 2011). Analysis of long-term data showed a slow, but non-significant decline in call counts from 1979 until 2008, followed by a dramatic decline in 2009, leading to complete absence in 2011 (Poudyal *et al.* 2011). However, two birds were heard in June 2012; four in May 2013 and six in May 2014 (Poudyal 2013, Poudyal and Dahal 2014).

#### **Total Population Size**

Minimum population: 500; maximum population: 1000

# **Habitat and Ecology**

Koklass Pheasant frequents conifer, oak and rhododendron forest (Inskipp and Inskipp 1991) with dense undergrowth of bushes and ringal bamboos (Grimmett *et al.* 1998). It is a resident, subject to altitudinal movements according to the season (Inskipp and Inskipp 1991). This species is very secretive and wary. When disturbed, it runs away quickly through undergrowth, or bursts upwards giving a noisy alarm before hurtling down the slope, twisting between the trees at great speed (Grimmett *et al.* 1998). It is mostly found singly or in pairs, although sometimes seen in flocks (Ali and Ripley 1987). It mainly feeds on shoots, buds, tubers, leaves, berries, acorns, seeds and insects (Ali and Ripley 1987). The species is said to be highly territorial (Grimmett *et al.* 1998).

Breeding behaviour of the endemic *P. macrolopha nipalensis* is very little known (Inskipp and Inskipp 1991). Eggs start to be laid in the middle of June (Hodgson 1829). A female with chicks was photographed at Pipar in May 1985 (Picozzi 1985, Warwick 1986). Chicks have also been found in June (Fleming *et al.* 1976).

### **Threats**

Koklass Pheasant is threatened by hunting, trapping and disturbance, especially outside protected areas. Habitat destruction is one of the primary causes of concern. It appears to prefer a significant understorey and where this is being degraded through grazing or collection of fodder for domestic stock or firewood, the species is probably under pressure (Madge and McGowan 2002).

In Rara National Park, a 2006 Cheer Pheasant survey concluded that Cheer (and presumably other pheasant species) were seriously threatened by hunting and snaring, forest fire and destruction of nests and eggs Budhathapa (2007). A 2008 Cheer Pheasant survey of the park buffer zone hunting found that snaring, collection of eggs and overgrazing were found to be impacting upon pheasant populations (Singh and KC 2008).

No explanation has been forthcoming so far for the decline of Koklass from the Pipar bowl; other pheasant species including Satyr Tragopan *Tragopan satyra* and Himalayan Monal *Lophophorus impejanus* were still present (Sharma 2011). Poudyal *et al.* (2011) suggested there may, however, be other explanations for the lack of calls, even if birds had been present: the field visit was relatively late compared to previous years, so calling may have ceased; other factors such as changes in weather patterns, or even climate change, may have encouraged an earlier breeding season, resulting in cessation of calls; the unusual weather conditions, especially overnight rain, may have discouraged calling birds; there was an unusually high degree of disturbance caused by Yarsagumba collectors, which could have caused the birds to remain silent or even move away temporarily. However, these suggestions may not account for the ongoing decline of Koklass since 1979.

Effects of fire may be quite significant to the breeding of this species, as with all other Galliformes, but this has not yet been assessed.

### **Conservation Measures**

No conservation measures have been carried out specifically for Koklass Pheasant. However, it has been recorded in the Annapurna Conservation Area, Khaptad National Park, Dhorpatan Hunting Reserve and marginally in Rara National Park.

# **Regional IUCN Status**

Vulnerable (VU A2cd) upgraded from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Koklass Pheasant has been assessed as Vulnerable based on the criteria A2acd. The species is a local resident in west and west-central Nepal, now mainly occurring in mountain protected areas. It is currently rare in Rara National Park and very uncommon in the park buffer zone, and generally uncommon in the Annapurna Conservation Area (ACA). Regular monitoring has shown that since 1979 it has undergone a decline in the Pipar bowl, upper Seti Khola valley, ACA, near the limit of its distributional range. However, there is no indication of a decline elsewhere in ACA. Koklass was common in Khaptad National Park in 1988 and in 1996, but was considered endangered in 2006. By 2003 it had declined in Dhorpatan Hunting Reserve where it was common in 1981. There are very few recent records outside protected areas. Koklass is seriously threatened by hunting and snaring, especially outside of protected areas. Degradation of the forest understorey by livestock overgrazing or over-collection of fuelwood or livestock fodder is also a primary concern.

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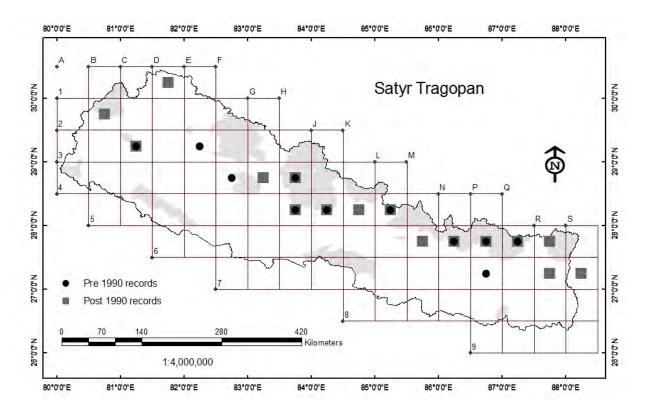
# Tragopan satyra (Linnaeus, 1758) VU

Common Name
Satyr Tragopan (English),
Munal (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Satyr Tragopan is an uncommon resident that mainly occurs in protected areas. The first Nepal record of the species was in 1793 (month and locality details are unknown) (Kirkpatrick 1811).

Inskipp and Inskipp (1991) noted that known records suggested that it was uncommon, although it was perhaps under-recorded (see Habitat and Ecology section). The species has been reported from Api Nampa Conservation Area in the far west (Thakuri and Prajapati 2012) east to the Kanchenjunga Conservation Area (Inskipp *et al.* 2008) and above Mai Majhuwa, upper Mai Valley, Mai Valley Important Bird Area, Ilam District (Robson *et al.* 2008).

In protected areas in the west, it was recorded from Khandeshwori and Dahibat, Api Nampa Conservation Area in April 2012 (Thakuri and Prajapati 2012); Inskipp and Inskipp (1988) found it rare and Khadka (1996) recorded it throughout the year in Khaptad National Park. It was recorded in Dhorpatan Hunting Reserve in May 1981 without details (Lelliott 1981); two birds were heard calling during a May 2003 Cheer Pheasant of the reserve (Subedi 2003), and it was recorded in 2012 (Panthi 2013).

The most important known area for the species in Nepal is the Annapurna Conservation Area (Inskipp and

Inskipp 2003), especially on the western slopes of the Seti River in what is popularly known as the Pipar Pheasant Reserve. This reserve was first recognized as being rich in pheasant species in 1977. Across the Seti River from Pipar is the Santel area which was explored ornithologically for the first time in 1998 and found to be similar to Pipar in Galliformes abundance, including that of Satyr Tragopan (Poudyal *et al.* 2009). Inskipp and Inskipp (2003) reported that elsewhere in the Annapurna Conservation Area the species was scarce and had been more regularly recorded in the 1980s, e.g. Mills and Preston (1981), Grimmett (1982), Heath (1986), and Lege (1987). By 2003 the species may have disappeared from the forests around Ghorepani and between Ghorepani and Ghandrung (Inskipp and Inskipp 2003). During a June 2009 survey of Cheer Pheasant *Catreus wallichii* in the Kali Gandaki valley no Satyr Tragopans were heard from seven listening stations around the valley (Subedi 2010). The only known locality in the Kali Gandaki valley in 2004 and 2006 was east of Ghasa (Raju Acharya *in litt.* to C. Inskipp May 2012). However, a December 2015 pheasant survey above Ghasa located 11 birds (Manshanta Ghimire and Abinash Nepali). Droppings were recorded at Sikles in January and February 2012 (Yadav Ghimirey and Raju Acharya).

In protected areas in central Nepal Satyr Tragopan has been recorded in the Manaslu Conservation Area in 1998 (KMTNC 1998) and 2011 (Katuwal *et al.* 2013).

The species has also been regularly recorded from a few locations in Langtang National Park since 1980, especially near Ghopte Cave (e.g. Cooper and Cooper 1997, Inskipp and Inskipp 1980, Lama 1995, Wheeldon 1999, O'Connell Davidson *et al.* 2001) and near Chandanbari (e.g. Chaudhary 2007, O'Connell Davidson *et al.* 2001, Robson 1982, Robson 1997).

It was recorded in Gaurishankar Conservation Area in May 2009 (Baral and Shah 2009).

Satyr Tragopan is uncommon in Sagarmatha National Park, although much of the park is too high for it (Basnet 2004).

It is also uncommon in Makalu Barun National Park (Cox 1999, Inskipp *et al.* 2005, Cox 2009). One was camera trapped and five others seen in Saldim Valley, in the park in November/December 2001 (Yadav Ghimirey), and one was camera-trapped in Sisuwa valley in the park in June 2010 (Yadav Ghimirey). One dead bird was found in Walung Forest in the park buffer zone in June 1998 (Hathan Chaudhary).

It is rare in Kanchenjunga Conservation Area (Inskipp *et al.* 2008). Known post-1990 records are: recorded on the descent from Deura Danda to Hellok and at Amji Kharka in May 1988 (Martens and Eck 1995); recorded in the conservation area in 1995 (Carpenter *et al.* 1995); a male feather was found in the Amji Khola valley in April 1997 (White and White 1999); one was heard between Gyabla and Ghunsa and one seen at Lamite Bhanjyang in April 2008 (Inskipp *et al.* 2008).

There are several known records outside protected areas pre-and post-1990, including reports by local people from Yalbang area, Humla District (Yadav Ghimire May 2011); two specimens obtained from Jumla in 1952 (Rand and Fleming 1957); four collected from Bigu, Dolakha District in May 1962 (Diesselhorst 1968); two seen between Tarkeghyang and Sermathang in Helambu, Sindhupalkchok District in May 2007 (Byskov 2007); one east of Kutumsang, Sindhupalchok District in January 2012 (Dymond 2012); remains of a male were found on the Tinjure Danda, Terhathum District in January 1949 (Ripley 1950) and the species was also recorded there in 1997/98 (Rai 2003); a pair near Yamphudin, Taplejung District in March 2010 (Tulsi Subedi); one below Gupha Pokhari, Taplejung District in April 2008 (Inskipp *et al.* 2008), and one above Mai Majhuwa, upper Mai valley, Mai Valley Important Bird Area, Ilam District in March 2008 (Robson *et al.* 2008).

Globally the species has also been recorded from Bhutan, China (mainland), India (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 3800 m; lower limit: 2590 m (summer); 2100 m (winter)

### Population

The Satyr Tragopan population at Pipar, Annapurna Conservation Area has been surveyed ten times between 1979 and 2011 and, together with surveys of the other Pipar Galliformes, is the longest running bird population survey in Nepal. Surveys between late 1979 and 2005 found that the Pipar population of the

species was stable – a minimum of 29 calling males were heard (Poudyal *et al.* 2009). Surveys in 2009 and 2011 also concluded that no significant population changes had taken place (Subedi 2010, Poudyal *et al.* 2011). Populations at Santel on the opposite bank of the Seti River which were first surveyed in 2001 (28 calling males) were similar to those in 2005 (31 calling males) (Poudyal *et al.* 2009). Calling bird densities were found to be 18.3 birds/km² at Santel and 17.0 birds/km² at Pipar in 2005 (Poudyal *et al.* 2009). The numbers of calling birds at Santel were also similar in 2001 (36), 2005 (32) and in 2008 (33). However, only 20 calling birds were counted in 2012, a considerably lower figure (Anon. 2012).

A 2008 survey of Seti Khola valley forests found a bird frequency of 0.4 birds/km in trail walks (Paudyal et al. in press).

Satyr Tragopan seems to have declined elsewhere in the Annapurna Conservation Area since the 1980s and has disappeared from some localities. However, a December 2015 pheasant survey above Ghasa located 11 birds (Manshanta Ghimire and Abinash Nepali) (see Distribution section).

Around Ghopte cave, in Langtang National Park, local villagers reported in 1997 that the species had been common up to ten years before (Cooper and Cooper 1997), but the number of known records indicate that it is very uncommon in the area today. At Chandanbari six were recorded in April 1999, and just single birds in March and May 2012 (Hathan Chaudhary).

Only two males were heard in a bird survey of Khaptad National Park between 20 April and 28 May 1988, although suitable habitat appeared to be limited (Inskipp and Inskipp 1988).

### **Total Population Size**

Minimum population: 600; maximum population: <1000

### Habitat and Ecology

Satyr Tragopan inhabits moist, temperate broadleaved and rhododendron forest with dense undergrowth including bamboo (Inskipp and Inskipp 1991, Poudyal *et al.* 2011). The species is resident subject to some seasonal altitudinal movements (Inskipp and Inskipp 1991). It feeds on petals, berries, buds, leaves and invertebrates (Madge and McGowan 2002). Inskipp and Inskipp (1991) considered that the species was perhaps under-recorded due to its shy and wary nature. However, males can be readily detected by their distinctive call in the breeding season (Grimmett *et al.* 1998).

### **Threats**

Hunting is a major cause of declining populations of Galliformes in Nepal (Baral 2005). Hunting and snaring are serious threats to Satyr Tragopan throughout most of its Nepal range. Tragopan feathers are used to make crowns by conjurors (Poudyal *et al.* 2011). Ripley (1950) reported that the species had been so much shot and trapped by local people that they had retreated above 3050 m in eastern Nepal. Around Gapte cave in Langtang National Park local villagers reported in 1997 that the species had been widely shot for food during the previous ten years and also that pheasants, including this species, were being snared at Thare Pati (Cooper and Cooper 1997). Pheasants were found to be regularly trapped for food by Nepalis living nearby and outside Makalu Barun National Park (Inskipp *et al.* 2005). In Kanchenjunga Conservation Area only two males were heard during a 12 day bird survey, despite widespread good habitat for the species. Similarly, in the Annapurna Conservation Area (with the exception of the Pipar and Santel areas), and in Langtang and Makalu Barun National Parks, the species is surprisingly low in numbers compared to the extensive high quality habitat available, indicating that hunting and snaring are probably prevalent.

Interviews with local people in the Santel area revealed an increase in reports of pheasant hunting, including of Satyr Tragopan. One villager admitted he had set 130 traps in summer 2008. It is important to know whether the increase in hunting reports is due to an improvement in knowledge because of a closer relationship between villagers and researchers, or if it is a sign of a recent increase in hunting and trapping (Tamraker and Waylen 2010).

In the Pipar area, while no significant population changes were observed in 2009 compared to previous years,

poaching by hunting and trapping were found to be increasing. These activities were carried out by outsiders, notably collectors of yarsagumba (a highly valuable medicinal herb which has only started to be collected in the Pipar area in the last few years) (Subedi 2010). Trapping was considered the greatest threat to the survival of Galliformes in Pipar and its adjoining areas; a total of 27 traps was found in the Pipar bowl in 2009 (Subedi 2010). In 2008, 33 traps and five poacher camping sites were located in the same area (Poudyal 2008).

Satyr Tragopan is also significantly threatened by loss and degradation of its forest habitats throughout almost all of its Nepal range, including in protected areas. Above Syabru in Langtang National Park the species' habitat is being degraded mainly by overgrazing by goats (Cooper and Cooper1997). The 2011 Galliformes survey at Pipar also identified threats from buffalo and sheep grazing and bamboo (nigalo) collection, which both result in habitat degradation. Other threats at Pipar were found to be haphazard construction of shelter camps, unmanaged tourism and collection of medicinal plants (Poudyal *et al.* 2011). It is easily located by hunters by its distinctive call.

#### **Conservation Measures**

The World Pheasant Association (WPA) has been working very successfully with village communities near Pipar in the Annapurna Conservation Area since 1983. Pipar is a 42 km² forest in Annapurna Conservation Area that supports five out of six of Nepal's Himalayan pheasant species. WPA has made a long-standing commitment to education in Pipar's surrounding villages by funding teachers' salaries, and building and renovating schools and their classrooms. This has vastly improved the availability of education to many children in the area, who previously had to walk up to four hours to get to school. WPA has also carried out a successful conservation awareness programme at Pipar. In recent years WPA's education and conservation awareness programme has greatly expanded and has extended to other villages in surrounding areas (Anon. 2010).

To match WPA's assistance in education, local villagers give their support to conserving the rich surrounding forests. The villagers are asked not to hunt in the spring, during the pheasant breeding season, but in autumn instead and only for subsistence purposes, not commercial gain. They also agree only to collect timber for their own needs and not to sell commercially. This has provided a sound understanding that support for the schools is linked to the quality of the forest and the health of the pheasant populations as well as many other species (Anon. 2010).

The National Parks and Wildlife Conservation Act (1973) lists Satyr Tragopan as a protected species.

No other conservation measures specifically for Satyr Tragopan have been carried out. The species has recently been recorded in the Api Nampa, Khaptad, Annapurna, Manaslu, Gaurishankar and Kanchenjunga Conservation Areas, Langtang, Makalu Barun and Sagarmatha National Parks, and in Dhorpatan Hunting Reserve.

# Regional IUCN Status

Vulnerable (VU A2acd, C2a(i)) no change from the Global Red List status: Vulnerable (VU)

# Rationale for the Red List Assessment

Satyr Tragopan has been assessed as Vulnerable based on the criteria A2acd, C2a(i). The species is an uncommon resident that mainly occurs in protected areas. It has declined in parts of Annapurna Conservation Area (ACA) and Langtang National Park and possibly elsewhere. Results of regular monitoring surveys that have been running in the Pipar area of ACA since 1979 indicate that the population there is stable; this is due to conservation efforts made by the World Pheasant Association working with local communities. Hunting, including snaring, are serious threats to Satyr Tragopan throughout most of its Nepal range. Pheasants were found to be regularly trapped for food in Langtang and Makalu Barun National Parks. In the Kanchenjunga and Annapurna Conservation Areas and in Langtang and Makalu Barun National Parks the species is surprisingly low in numbers compared to the extensive high quality habitat available, indicating that hunting including snaring is probably prevalent. In addition, throughout almost all of its Nepal range, including in protected areas, it is also significantly threatened by loss and degradation of its habitat of moist, temperate oak and rhododendron forest with dense undergrowth including bamboo. Post-1990 Satyr Tragopan mainly occurs in

protected areas but there are widespread records outside the protected area system from Humla District in the far west east to the upper Mai valley in the far east.

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## Alectoris chukar (J. E. Gray, 1830) NT

Subspecies: Alectoris chukar chukar

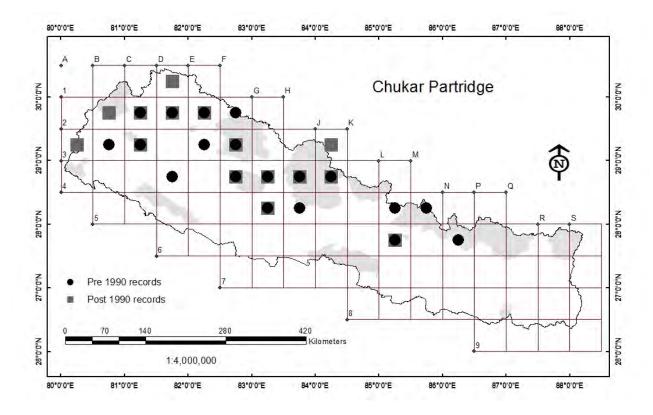
Common Name

Chukar Partridge (English), Chukar or Chyakhura (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Chukar Partridge is a locally common resident, distributed from Dadeldhura District in the far west east to Manang District in west-central Nepal.

The first Nepal record for the species was in 1793 (Kirkpatrick 1811). The species was described breeding in the hills surrounding the Kathmandu Valley in the 19<sup>th</sup> century (Hume and Oates 1890, Scully 1879) and was common in parts of the hills surrounding the Valley in 1877 (Scully 1879). There have only been two later records of the species from the Valley (Proud 1961) and a specimen collected in the Shivapuri-Nagarjun National Park area (SNP and BCN 2007, Nepali undated).

It was described as a fairly common resident by Fleming et al. (1976) and Inskipp and Inskipp (1991).

The species' post-1990 status in protected areas is: in Api Nampa Conservation Area (Thakuri and Prajapati 2012), a common breeding resident in Khaptad National Park (Regmi and Khadka 1996), a common resident in Rara National Park (Giri 2005), resident in Shey-Phoksundo National Park, (Priemé and Øksnebjerg 1995), resident in Dhorpatan Hunting Reserve (Poorneshwor Subedi) and fairly common resident in Annapurna Conservation Area (Inskipp and Inskipp 2003), including several records from Upper Mustang (J3): June-August

1993-2011 (Raju Acharya), August 2005 (Bharat Subba) and in September 2009 (Som GC). It was recorded in Kachchya and Romo in the buffer zone of Rara National Park in April 2012 (Jyotendra Thakuri).

Since 1990 outside the protected areas' system it has been reported as uncommon to locally common (see map and text below). Records include: from Dadeldhura District, two in cages in Dadeldhura Bazaar in May 2010 (Baral *et al.* 2010) and one again in Dadeldhura in April 2012 (Jyotendra Thakuri) and 11 in Chorela village in June 2010 (Karan Shah). It was recorded in Silgadhi (C3), Doti District (Rupendra Karmacharya), between Muchu and Yari (D1), Humla District up to five sightings of pairs in April 2008 and in May 2011 (Yadav Ghimirey). Additionally, two birds were noted in Limi Valley, (D1) Humla District in May 2008 (Yadav Ghimirey), it was recorded as frequent in upper Humla (D1), Humla District (Kusi *et al.* 2015) and recorded in Simikot (D2), Humla District (Grimm and Fischer 2003). It has been seen in Rukum and Myagdi Districts in 1998 and 2010 (Poorneshwor Subedi), and is resident in Balewa, Baglung District (Basnet 2009). Manang (J4) is the most easterly locality where the species has been regularly recorded, including in 2000 and 2003 (Raju Acharya), in 2003 (Kapil Pokharel) and in April 2005 and May 2010 (Som GC). A total of 22 was counted in Manang in September 2012 (Paras B Singh).

There have been only a few records east of Manang, and none since March 1993. Records include: one collected in October 1935 from Dhunsi (=Dhunche?), Rasuwa District (Bailey 1938), recorded in upper Langtang, Langtang National Park in 1975 (Muston 1975), two seen between Betrawati and Thade just south of Langtang National Park in October 1975 (Byrne and Harris 1975), and eight seen between Hoku and Gre, Rasuwa District in October 1980 (Madge and Appleby 1980). Chukar was recorded in Jiri, Dolakha District in December 1960 (Fleming and Traylor 1964) and two birds were seen in Dolakha District in March 1993 (Poulsen 1993).

Globally the species has also been recorded from Afghanistan, Armenia, Azerbaijan, Bahrain, Bulgaria, Canada, China (mainland), Cyprus, Egypt, France, Georgia, Germany, Greece, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Macedonia, the former Yugoslav Republic of, Mongolia, New Zealand, Norway, Oman, Pakistan, Palestinian Authority Territories, Portugal, Russia (Central Asian), Russia (European), Saudi Arabia, South Africa, Spain, St Helena (to UK), Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, United Arab Emirates, USA, Uzbekistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 3690 m; lower limit: 1300 m

## **Population**

The best population figures are available from Annapurna Conservation Area: 30 birds were recorded in Jharkot and Muktinath in December 1977 (Inskipp and Inskipp 1977); more than 14 between Jomosom and Muktinath in March 1982 (Mills *et al.* 1982); several between Marpha and Muktinath in March April 1983 (Alström and Olsson 1983); up to eight between Khangsar Khola and Tilicho Lake in November 1987 (Bolding and Jorgensen 1987), up to six between March and April 1989 (Babbington 1989); eight near Muktinath in March 1983 (Puckrin 1993); 50 on the Annapurna Circuit Trek in March 1996 (Daulne and Goblet 1996), 10 in Jomosom area in February 1997 (Baral 1997); 11 in Kagbeni in February 1998 (Chaudhary 1998), up to 38 on the Annapurna Circuit Trek in October 1998 (Chaudhary 1998), nine in February 1999 (Basnet 1999); up to 56 between Kagbeni and Samar in upper Mustang in November 1999 (Baral 2000), 12 between Marpha and Jharkot in February 2002 and 15 between Muktinath and Marpha in April 2002 (Chaudhary 2002); 22 in Muktinath in November 2003 (Chaudhary 2003), 39 on the Annapurna Circuit Trek in November-December 2005 (Naylor and GC 2005), 17 on the Annapurna Circuit Trek in November-December 2007 (Naylor and Metcalf 2007) and 41 on the Annapurna Circuit Trek in November-December 2008 (Naylor and Turner 2008), and 14 in Jomosom in June 2009 (Paras Bikram Singh).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Chukar Partridge frequents open, arid rocky hills, barren hillsides with scattered scrub, grassy slopes, dry terraced cultivation and stony ravines, often near a water source (Inskipp and Inskipp 1991). Breeding was proved in the hills surrounding the Kathmandu Valley in the 19<sup>th</sup> century and in Mugu District (Hillard and Jackson 1989). Chukar feeds on bulbous roots, grain and green vegetable matter including grass, wheat and barley shoots; also insects, especially termites (Ali and Ripley 1987).

#### **Threats**

The species is hunted and trapped throughout its entire distributional range in Nepal, and is especially at risk outside protected areas. A pair of Chukar kept as pets was seen in Dadeldhura Bazaar, Dadeldhura District, indicating live trade in the species (Hem Sagar Baral 2010). Fleming *et al.* (1976) described the species as a 'good pet – young ones', indicating live trade at that time and possibly before. The species is also used for sport fighting (NTNC Chitwan workshop 2012). It may also be at risk from habitat loss and deterioration.

#### **Conservation Measures**

No specific conservation measures have been made targeting this species. However, it occurs in Shey-Phoksundo National Park, Khaptad National Park, Rara National Park, Dhorpatan Hunting Reserve and Annapurna Conservation Area.

## **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Chukar Partridge has been assessed as Near-threatened. The species is a locally common resident in the west. It has disappeared from localities east of Manang, west-central Nepal which is near the eastern limit of its range, although it was previously rare in all these areas, at least in the 20<sup>th</sup> century. The species is seriously threatened by hunting and trapping outside of protected areas and is at risk in some protected areas. It may also be threatened by habitat loss and deterioration. It has been recorded in several protected areas in the west and from a number of western localities outside the protected areas system.

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# **Arborophila rufogularis** (Blyth, 1849) **NT** Subspecies: *Arborophila rufogularis rufogularis*

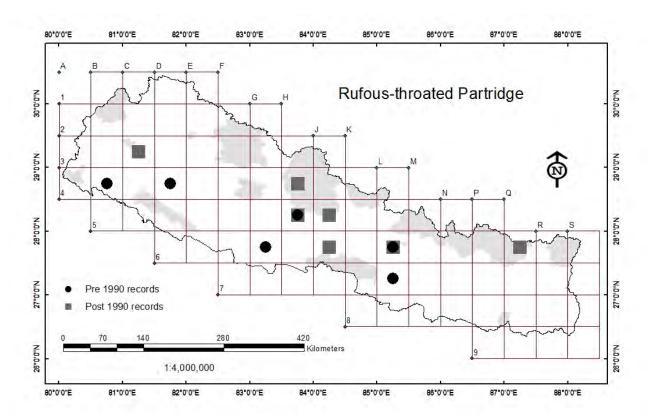
## Common Name

Rufous-throated Partridge (English), Lalkanthe Pyura (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Rufous-throated Partridge is a rare and local resident. The first Nepal record for the species was in the 19<sup>th</sup> century (Hodgson 1844) from the lower hills (date and locality unknown) (Hodgson 1829). It is similar in appearance to Hill Partridge which has a distribution overlapping this species, although usually Rufous-throated is found at a lower altitude than Hill Partridge (Fleming *et al.* 1976, Proud 1955, Inskipp and Inskipp 1991).

This species was described as an occasionally recorded resident by Fleming *et al.* (1976) and a rare resident by Inskipp and Inskipp (1991).

Scully (1879) found it on the hills around the Kathmandu Valley in about the same numbers as Hill Partridge *Arborophila torgueola* in 1877. The species was heard on Phulchoki in April 1947 (Ripley 1950) and found at Godaveri in May 1947 (Biswas 1960). Rand and Fleming (1957) described the species as the common hill partridge in the lower parts of the Valley and collected a female at Godaveri in January 1953 and a chick there in May 1954; Fleming (1953) also reported its presence at Godaveri in January 1953. Proud (1955) found it on the hills surrounding the Valley in 1952/53 and most common between 1525 m and 1830 m.

The species has declined in the Kathmandu Valley since the early 1950s. All later records have been from Phulchoki, except for one from Nagarjun in what is now the Shivapuri-Nagarjun National Park in April 2001 (Malling Olsen 2004). Known Phulchoki records are: in 1979 (Robson 1979), two birds seen in January 1982 and one singing in May 1982 (Robson 1982), one seen in January 1986 (Heath 1986), four in December 2001 (Naylor *et al.* 2002a), one in March 2002 (Naylor *et al.* 2002b), heard in April 2003 (O'Connell Davidson *et al.* 2003) and heard in May 2004 (C. Inskipp and H. S. Baral in Mallalieu 2008).

On a very few occasions in May/June 1947 the species was recorded in the central dun and a male plus a chick were collected at Hetauda, Makwanpur District (Biswas 1960). There are no known later records from Makwanpur District.

It was collected at Rekcha, Dailekh District in December 1948, where it was common (Ripley 1950). One specimen was taken from Marek, Palpa District in February 1950 and two from Belbahadi, Doti District in December 1952 (Rand and Fleming 1957). There are no known later records from these Districts.

A specimen was collected at Ulleri in what is now the Annapurna Conservation Area (ACA) in December 1949 (Rand and Fleming 1957). Although Ulleri has been well-visited by birdwatchers in later years, the species has not been found there again. It was recorded south of Annapurna (probably in ACA) in 1977 (Thiollay 1980). Inskipp and Inskipp (2003) listed the species as a rare resident in ACA.

There are a few records of Rufous-throated Partridge at Pipar, Seti Khola valley, ACA, where it is rare. Calls thought to be of the species were heard from Diphrang area in May 1998, but visual confirmation was thought to be required (Kaul and Sakya 1998). Other Pipar sightings are a pair in February 2008 (Poudyal 2008) and one heard in May 2011 (Poudyal *et al.* 2011).

The species has also been recorded in ACA on the Annapurna Base Camp trek in the Modi Khola, all from the east side of the river, i.e. on the opposite side from the trail. At least five birds were heard from three sites in November and December 2004 (Naylor *et al.* 2004), one heard in December 2006 (Naylor *et al.* 2006) and one heard in February 2009 (Naylor *et al.* 2009).

It has been recorded in Pokhara, Kaski District only once - in February 1971 (Meilstrup 1971), despite the area being well recorded.

The species is frequent in Khaptad National Park (Khadka 1996), in Annapurna Conservation Area (Naylor 2004, 2006, 2009), and it has been recorded in Shivapuri Nagarjun National Park (Malling Olsen 2004) and in the buffer zone of Makalu Barun National Park (Cox 2009)

It has also been found near a waterfall in Shaktikhor (J6), Chitwan District on 15 March 1999 (Karmacharya *et al.* 2002). Five birds were seen in Upper Dang Gaddhi, Siraichuli, Chitwan in April 2009 (Hem Subedi)

Rufous-throated Partridge was recorded in Makalu-Barun National Park buffer zone in 2009: singles on five dates in May and in June singles on four dates and two on another date; all records were from different localities (Cox 2009). Two individuals were camera trapped between Dobatak and Ghong Tal village, in the MB NP buffer zone (Yadav Ghimirey).

Globally the bird has also been recorded from Bangladesh, Bhutan, China (mainland), India, Laos, Myanmar, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 1830 m (- 2050 m); lower limit: 1450 m (- 250m)

#### Population

No population surveys have been carried out for Rufous-throated Partridge. However, observations indicate that it is rare. The population has declined on the hills surrounding the Kathmandu Valley, where it is now mainly found only on Phulchoki. It has also disappeared from several areas, e.g. Doti, Palpa, Kaski and Makwanpur Districts (see Distribution section).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Rufous-throated Partridge inhabits dense secondary growth and thick understorey of broadleaved, evergreen forests (Inskipp and Inskipp 1991), mainly in the subtropical zone and also in the lower temperate. Because the species is widely hunted, the species is often very secretive, keeping in dense cover. Distinguishing this species from the similar-looking Hill Partridge by sight can therefore be challenging in the field, but it has a distinctive song and calls (Grimmett *et al.* 1998). The species feeds on weed seeds, fallen berries, shoots, insects and grubs, and small molluscs. It is resident subject to altitudinal movements depending on the season (Grimmett *et al.* 1998). Chicks were seen in May 1954 at Godavari, Kathmandu Valley (Rand and Fleming 1957), and at Hetauda, Makwanpur District in 1947 (Biswas 1960). Has also bred in Siraichuli, Chitwan District in April 2009 (Hem Subedi).

## **Threats**

Hunting, trapping and disturbance are serious threats to the species. The significance of hunting is illustrated on Phulchoki where the security problems (from around 1996 to 2006) led to a cessation of hunting on Phulchoki. As a result, there was a significant increase in Phulchoki's resident Galliformes, including Rufousthroated Partridge (Baral and Inskipp 2005). The species is also seriously threatened by loss and deterioration of its forest habitat, especially in the subtropical zone, where this forest type now covers very limited and highly fragmented areas in Nepal (Inskipp 1989). Effects of fire may be quite significant to the breeding of this species, as with all other Galliformes, but this has not yet been assessed.

#### **Conservation Measures**

No specific conservation measures have been carried out for Rufous-throated Partridge. The species has been recorded in the Annapurna Conservation Area, Khaptad National Park, Makalu Barun National Park buffer zone and marginally in Shivapuri Nagarjun National Park, where it is considered relatively safe. As the species is a midhill dweller and most of Nepal's protected areas are either in the high mountains or in lowland areas, the current network of protected area alone may not be sufficient to safeguard the future of this species.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Rufous-threatened Partridge has been assessed as Near-threatened. The species is rare and local. It has disappeared from several localities, for example its range has reduced on hills surrounding the Kathmandu Valley where it was common in the 1950s. It has been recently recorded from a few protected areas. Improved recording has resulted in records from a few new areas, but overall the species has declined. It is seriously threatened by hunting, trapping, and disturbance; also by loss and deterioration of its forest habitat which now covers limited and fragmented areas in Nepal.

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## Lophophorus impejanus (Linnaeus, 1766) NT

## Common Name

Himalayan Monal, Impeyan Pheasant (English), Danphe (Nepali)

Order: Galliformes Family: Phasianidae

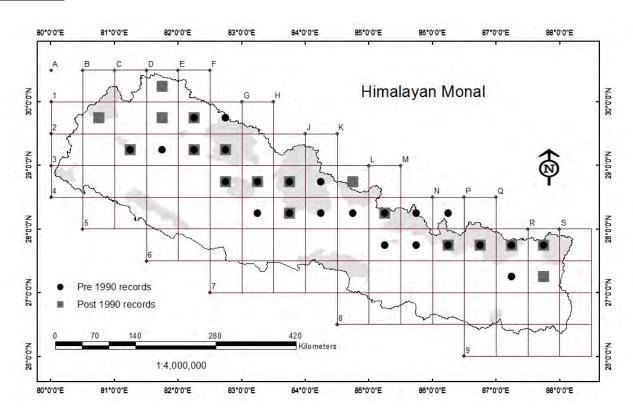
The English name given to this species, Himalayan Monal, is quite confusing. Monal or Munal is the widely used Nepali name for Satyr Tragopan *Tragopan satyra*. Danphe is the name widely used for Himalayan Monal in the Nepali speaking part of the Himalayas.



## **General information**

Danphe or Himalayan Monal is the national bird of Nepal.

## **Distribution**



Himalayan Monal is a locally common resident, mainly occurring in protected areas. The species was first recorded for Nepal in 1793 (locality unknown) (Kirkpatrick 1811). Fleming *et al.* (1976) and Inskipp and Inskipp (1991) described the species as common.

Since 1990 the species has been recorded in all mountain protected areas: Api Nampa Conservation Area (Thakuri and Prajapati 2012), resident in Khaptad National Park (Khadka 1996), common in Rara National Park (Giri 2005), locally common in Shey Phoksundo National Park (Priemé and Øksnebjerg, 1992, 1995), recorded in Dhorpatan Hunting Reserve (Panthi 2013), uncommon in Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (KMTNC 1998), fairly common in Langtang National Park (Karki and Thapa 2001), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), common in Sagarmatha

National Park (Basnet 2004), locally common in Makalu Barun National Park (Cox 1999a), and rare in Kanchenjungha Conservation Area (Inskipp *et al.* 2008).

The species previously occurred outside protected areas more or less continuously throughout the Himalayas from west to east Nepal (Inskipp and Inskipp 1991). Since 1990 outside the protected areas' system the species has been much less recorded. Records include three north of Jumla, Jumla District in April 2009 (O'Connell-Davidson and Karki 2009), also in Salli Khola, Humla District April 2008 (Yadav Ghimirey), upper Humla District (Kusi *et al.* 2015), four in the upper Myagdi Khola valley, Myagdi District in June 1999 (Cox 1999b), one below Gupha Pokhari, Taplejung District in April 2008 (Inskipp *et al.* 2008).

Globally the species has also been recorded in Afghanistan, Bhutan, China (mainland), India, Myanmar, Pakistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 4570 m; lower limit: 3300 m (- 2500 m)

#### **Population**

There is no population estimate for this species. The population found in some protected areas may be relatively stable because hunting pressure is low, notably in Sagarmatha National Park where the local Sherpa culture is against hunting, and Makalu Barun National Park where, although pheasants are regularly trapped (Inskipp *et al.* 2005), few people live within the national park. However, in Kanchenjunga Conservation Area only two males were recorded in 12 days bird survey despite widespread good habitat for the species, indicating that hunting and snaring are probably prevalent (Inskipp *et al.* 2008). Similarly, in the Annapurna Conservation Area (ACA) (with the exception of the Pipar and Santel areas), numbers of species are surprisingly low when considering the extensive high quality habitat available. For example, a Cheer Pheasant *Catreus wallichii* survey in the Kali Gandaki valley also recorded Himalayan Monals in June 2009; only six calling males were heard from seven listening stations (Subedi 2010). A bird survey in May 2012 counted 19 birds between Isharu and Bayeli, in the upper reaches of Ghandruk and Sikha VDCs (Paras B Singh and Rishi Subedi). A total of 24 birds was recorded above Ghasa in December 2015 (Manshanta Ghimire and Abinash Nepali).

A total of 51 Himalayan Monals were seen at Khumai, Pipar, Nhirgu, and Namsung areas, upper Seti Khola, ACA in April/May 2008 (Laxman Poudyal *in litt* to Carol Inskipp). Nine individuals were seen at Pipar and 10 individuals at Santel forests in May 2005 (Poudyal *et al.* 2009). Maximum numbers recorded in recent years from Langtang National Park were 27 at ten sites in May 1997 (Robson 1997), 22 on four dates in May 2006 (Chaudhary 2006) and 23 on eight dates in April/May 2007 (Chaudhary 2007), 11 birds between Ghoda Tabela and Langtang Village in April 2008 (Hem Subedi), seven in September 2011 in Langtang National Park (Gokarna Khatiwada), seven in Langtang National Park in April 2012 (Ram Shahi), and 16 birds above Thangsyap and below Langtang Village in May 2012 (Hathan Chaudhary). Maximum numbers recorded from Sagarmatha National Park were 58 in nine areas in May 1981 (Mills and Preston 1981) and 56 in 12 areas in May 1994 (Inskipp and Inskipp 1994). Up to 10 birds were recorded feeding regularly in Laduk Danda, Hatiya Makalu Barun National Park in December 2009 (Yadav Ghimirey).

## **Total Population Size**

Minimum population: 3500; maximum population: 5000

## **Habitat and Ecology**

Himalayan Monal is found on steep grassy slopes and open rocky slopes above the treeline in summer, descending to lower altitudes in rhododendron forest during the winter (Inskipp and Inskipp 1991, Lelliott and Yonzon 1980). In Khaptad National Park the species was observed at the edges of forest and pasture land (Bhattarai 2011), and also on steep rocky slopes and forest clearings (Inskipp and Inskipp 1988). It digs for tubers with its powerful bill, often remaining in one spot for half an hour or more. When alarmed it leaps

screaming into the air and careers downwards on set wings (Fleming *et al.* 1976). The species mainly feeds on grass and flower seeds, roots, tubers, shoots, berries, insects and their larvae (Ali and Ripley 1987).

Breeding has been proved at: Thare Pati, Ghopte and upper Langtang in Langtang National Park, and Khumbu in Sagarmatha National Park (Inskipp and Inskipp 1991). An incubating female was flushed in April 1993 from a cliff above Langtang Village (Hem Sagar Baral).

The species is a resident subject to altitudinal movements. In Khaptad National Park it was found at an unusually low altitude in the breeding season: 2500 m in April and at 3050 m on several dates in May (Inskipp and Inskipp 1988).

## **Threats**

Outside protected areas, Himalayan Monal is highly hunted for meat and crest feathers, especially in winter when the birds move closer to human habitations. Live trapping of this species, to keep the birds in aviaries, is also widespread. On the way to Rara National Park in November 1991, several people were observed trying to sell crest feathers of male Himalayan Monals, indicating widespread hunting in the area (Tika Giri pers. comm. to H. S. Baral December 1991). One of the uses of the feathers is to make crowns for conjurors. The traditional use of tails of Himalayan Monal is the making of arrows by Thakali, Chantal and Magar castes (Subedi 2010). Anecdotally, it is said that a pair of live trapped Himalayan Monal is worth about NRs 20,000 (Poudyal *et al.* 2011). The species is found in much reduced numbers outside protected areas.

However, hunting pressure also impacts on pheasant populations, including Himalayan Monal, in some protected areas, especially in Kanchenjunga Conservation Area and to a lesser degree in parts of the Annapurna Conservation Area (ACA) (see Population section).

Interviews with local people in the Santel area, ACA revealed an increase in reports of pheasant hunting, including of Himalayan Monal. One villager admitted he had set 130 traps in summer 2008. It is important to know whether the increase in hunting reports is due to an improvement in knowledge because of a closer relationship between villagers and researchers or if it is a sign of a recent increase in hunting and trapping (Tamrakar and Waylen 2010).

In the Pipar area, ACA poaching by hunting and trapping were found to be increasing. These activities were carried out by outsiders notably collectors of yarsagumba (a highly valuable medicinal herb which has only started to be collected in the Pipar area in the last few years) (Subedi 2010). Trapping was considered the greatest threat to the survival of Galliformes in Pipar and its adjoining areas; a total of 27 traps was found in the Pipar bowl in 2009 (Subedi 2010). In 2008, 33 traps and five poacher camping sites were located in the same area (Poudyal 2008).

In Rara National Park a 2006 Cheer Pheasant survey concluded that Cheer (and presumably other pheasant species) were seriously threatened by hunting and snaring, forest fire and destruction of nests and eggs (Budhathapa 2007). A 2008 Cheer Pheasant survey of the park buffer zone found that snaring, collection of eggs and overgrazing were found to be impacting upon pheasant populations (Singh and KC 2008).

Disturbance is another likely factor contributing to possible population decline of the species and may be increasing as a result of yarsagumba collection.

## **Conservation Measures**

The species is given the highest profile in Nepal because it is the national bird of the country. It is also protected by National Parks and Wildlife Conservation Act 2029 (1973) and is one of the nine protected bird species in Nepal. The Nepal Postal Service has brought out Danphe stamps on at least three different occasions over intervals of several years. There is a high level of awareness about this species throughout the country and is it is perhaps the best known of Nepali birds to the general public.

Danphe occurs in Khaptad, Rara, Langtang, Makalu Barun, Sagarmatha and Shey-Phoksundo National Parks; Api Nampa, Annapurna, Gaurishankar, Kanchenjunga and Manaslu Conservation Areas, and Dhorpatan Hunting Reserve.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Himalayan Monal has been assessed as Near-threatened. The species is a locally common resident, mainly occurring in protected areas. It occurs in all mountain protected areas, but has been found much less widely outside the protected areas' system, partly because of lack of coverage. The species is seriously threatened by hunting and trapping and also threatened by widespread live trapping for the cage bird trade, mainly outside of protected areas, but also sometimes seriously, inside a few protected areas. As a result, the species is probably declining.

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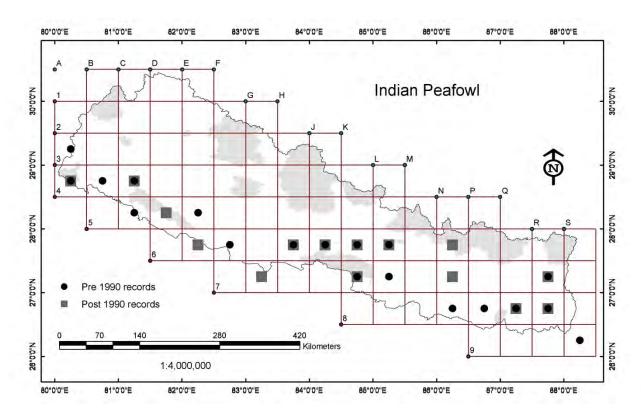
## Pavo cristatus Linnaeus, 1758 NT

<u>Common Name</u> Indian Peafowl (English), Mujur (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Indian Peafowl is locally common resident in lowland forests, now mainly confined to protected areas.

The first Nepal record was in the central bhabar (locality unknown) in 1877 (Scully 1879).

Fleming *et al.* (1976) described it as a fairly common resident, while Inskipp and Inskipp (1991) considered it a locally common resident.

In the past Indian Peafowl occurred quite widely outside of protected areas. For example, it was common in the central dun in June and July 1947 when five specimens were collected at Hetauda, Makwanpur District, including two fledglings and a juvenile (Biswas 1960). Rand and Fleming (1957) reported the species was found in flocks of seven to 20 birds from the lowlands up to 300 m in the foothills. A specimen was collected at Bilauri, Kanchanpur District in 1953 and the peafowl was seen at Raghunathpur, Dhanusa District in January 1954 (Rand and Fleming 1957). It was recorded in Kapilvastu District in 1978 (Cox 1982), and at Tamaspur, Nawalparasi District in 1979 (Lambert 1979) and 1981 (Mills and Preston 1981). Gregory-Smith and Batson (1976) reported it was occasionally seen in the south-eastern terai and foothills in 1975. There are several records from Sukhani, Jhapa District: one heard in February 1974 (Madge *et al.* 1974), two seen in March 1981

(Inskipp and Inskipp 1981), recorded in April 1986 (Heath 1986), and two seen in March 1989 (McKnight et al. 1989).

The species' post-1990 status in protected areas is: a common breeding resident in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), common resident in Bardia National Park (Inskipp 2001), recorded in Banke (Baral *et al.* 2012), common breeding resident in Chitwan (Gurung 1983, Baral and Upadhyay 2006), resident in Parsa Wildlife Reserve (Todd 2001), and a rare breeding resident in Koshi Tappu Wildlife Reserve (Baral 2005).

Since 1990 the number of records outside the protected areas' system is very low compared to pre-1990. These include up to eight birds in Nawalparasi District in 2005 (Poorneshwor Subedi/ Kapil Pokharel); one at Naya Pul, Dolakha District in 1999 (Yadav Ghimirey) and one heard in March 2008 along Sunkoshi river system in the border between Okhaldunga, Udayapur and Sindhuli Districts (N7) (Haris Chandra Rai).

Previously there was a small introduced population in Gokarna Forest, Kathmandu Valley (Inskipp and Inskipp 1991), but there were no records between 2004 and 2006 (Mallalieu 2008).

Globally the species has also been recorded from Australia, Bahamas, Bangladesh, Bhutan, India, New Zealand, Pakistan, Singapore, Sri Lanka, St Helena (to UK), USA (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 300 m; lower limit: unknown

## **Population**

No population surveys have been carried out for Indian Peafowl. There are no indications of any population declines within protected areas; however, the population has declined outside parks and reserves and is now mainly confined to them.

## **Total Population Size**

Minimum population: 3,000; maximum population: 5,000

## Habitat and Ecology

Indian Peafowl inhabits dense riverine vegetation, tall grassland and open sal forest (Fleming *et al.* 1976, Inskipp and Inskipp 1991), and undergrowth in deciduous forest near streams (Grimmett *et al.* 1998). It feeds on seeds, grain, lentils, groundnuts, tender shoots of crops, flower-buds, berries, drupes, wild figs, centipedes, scorpions, lizards, small snakes, insects, worms and grubs (Ali and Ripley 1987).

#### **Threats**

Hunting, trapping and disturbance are major threats to this species, especially outside protected areas. It also suffers from habitat losses and deterioration, collection of eggs, and possibly pesticides. Effects of fire may be quite significant to the breeding of this species, as with all other Galliformes, but this has not yet been assessed.

#### **Conservation Measures**

No specific conservation measures have been carried out for this species. It occurs in several lowland protected areas (see map).

## **Regional IUCN Status**

81

## Rationale for the Red List Assessment

Indian Peafowl has been assessed as Near-threatened. The species is a locally common resident, now mainly occurring in protected areas. In recent years it has significantly declined outside protected areas. Previously Indian Peafowl was quite widespread outside parks and reserves. Although there is widespread hunting outside protected areas there is no indication of any population declines within them. In new protected areas, like Banke National Park, its population may increase because of better protection. Hunting, trapping and disturbance are major threats outside protected areas. It also suffers from habitat losses and deterioration, collection of eggs, and possibly pesticides.

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# **Tetraogallus himalayensis** G. R. Gray, 1843 **NT** Subspecies: *Tetraogallus himalayensis himalayensis*

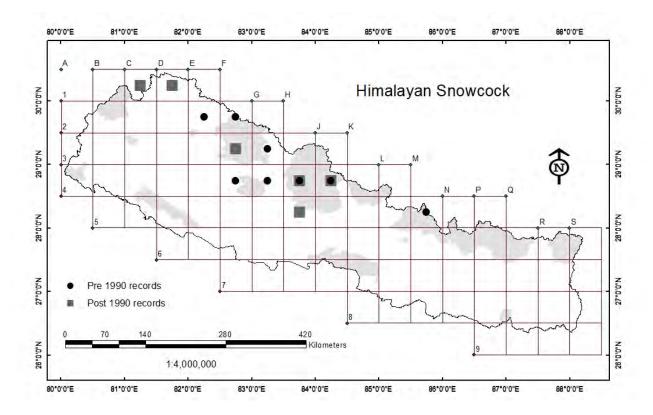
#### Common Name

Himalayan Snowcock (English), Himali Hiunkukhura (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Himalayan Snowcock is a high altitude resident of uncertain status. It is mainly distributed in the west from Rara National Park (Giri 2005) east to Manang in the Annapurna Conservation Area (ACA) (Hines 1987), and was formerly also recorded further east in Langtang National Park, the eastern limit of the species' range.

The first definite Nepal record for this species was from above Tukche (ACA) in December 1949 (Rand and Fleming 1957).

The species was described as occasionally recorded by Fleming *et al.* (1976) and a resident of uncertain status by Inskipp and Inskipp (1991). It has mainly been recorded in protected areas but other very high altitude areas are poorly known ornithologically.

In 1977 and in the early 1980s Himalayan Snowcock was found to be common in the Langu (Namlang) valley in Shey-Phoksundo National Park (Hillard and Jackson 1989, Jackson 1978). During a May 1992 survey of Shey Phoksundo National Park, the species was common around Shey, where at least five pairs were seen; also, four to eight birds were noted by the Pani Palta Khola, one on the Kagmara La and two near Ringmo (Priemé and Øksnebjerg, 1992, 1995). The species' current status in Shey-Phoksundo National Park is unknown.

The species was listed as an uncommon resident in the Annapurna Conservation Area (Inskipp and Inskipp 2003). It has mainly been recorded above Muktinath, e.g. Calladine (1985), Brickle (2003) and on the Thorang La, e.g. Fairbank (1980), Simpson (1985), Naylor and Metcalf (2007) and Naylor and Turner (2008) (see Population section). One was also seen at Gunsang above Manang in March 1985 (Hines 1987). The species was found in the Pipar area in April/May 1987 (Picozzi 1987), April/May 1997 (Emmanuel *et al.* 1997) and in May 2011 (Poudyal *et al.* 2011). One was seen in Kang-La pass in Nar VDC and two in Khansar VDC close to Gunsang, Manang District in May 2011 (Paras Bikram Singh 2012).

In Langtang National Park it was recorded in 1977 (number of birds and locality unknown) (Durham University Himalayan Expedition 1977) and two birds were found above Kyanjin in April 1984 (Powell and Pierce 1984). The species has been recorded in Rara National Park in the 1970s (Bolton 1976). There are no known later records from Langtang or Rara National Parks.

There are few known records outside the protected areas' system, pre- and post-1990. One was heard and seen in Nara-La on the way to Hilsa, Humla District in May 2011 (Yadav Ghimirey 2012) and it was recorded in upper Humla, Humla District in 2014 and 2015 (Kusi *et al.* 2015). It was also recorded in Dolpa District in 1952 (Polunin 1952) and in 1971 (Fleming 1982).

Globally, the species has also been recorded in Afghanistan, China (mainland), India, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan, Uzbekistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013). An introduced population exists in NE Nevada, USA (del Hoyo *et al.* 1994).

### <u>Elevation</u>

Upper limit: 5900 m; lower limit: 4250 m

## **Population**

No population surveys have been carried out for Himalayan Snowcock. Most population figures are from Annapurna Conservation Area. Between 70 and 80 birds were recorded above Tukche in December 1949 (Rand and Fleming 1957). There are no later records from this area but it is likely that it has not been searched again. On the Thorang La nine were seen in November 1979 (Fairbank 1980), two in March 1985 (Simpson 1985) and five in January 2008 (Cockram 2008). On the Annapurna circuit trek over the Thorang La ten birds were seen in November and seven in December 2007 (Naylor and Metcalf 2007), and one bird in November 2008 (Naylor and Turner 2008). Four were recorded above Muktinath in December 1984 (Calladine 1985), five in March 1996 (Daulne and Goblet 1996) and one in December 2002 (Brickle 2003).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Himalayan Snowcock inhabits high altitude rocky slopes and alpine meadows (Grimmett *et al.* 2000) and on open mountains among dwarf junipers (Fleming *et al.* 1976). In Dolpo and Thakhola (ACA) its range overlaps with Tibetan Snowcock, but usually at slightly higher elevation (Fleming *et al.* 1976). It is shy and usually escapes in typical snowcock manner by running uphill (Fleming *et al.* 1976). The species feeds chiefly on bulbous roots with tubers, and green vegetable matter, including grass shoots (Ali and Ripley 1987). It is said to be monogamous and territorial (del Hoyo *et al.* 1994). Breeding has been proved in Langu valley, Shey Phoksundo National Park (Hillard and Jackson 1989) and in June in Dolpo (Polunin 1952).

## **Threats**

Himalayan Snowcock may be threatened by disturbance along trekking trails over the Thorang La, ACA when the trekking season coincides with its breeding season. However, there are few tourists elsewhere in its range.

Disturbance during the breeding season may also be caused by domestic animals, yak herders and yarsagumba collectors. Hunting is another possible threat. There may be effects on Himalayan Snowcock due to climate change, which are not fully understood.

## **Conservation Measures**

No conservation measures have been carried out specifically for Himalayan Snowcock. Since 1990 the species been recorded in Shey Phoksundo National Park and Annapurna Conservation Area. In Rara and Langtang National Parks it may have marginal occurrence.

## **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Himalayan Snowcock has been assessed as Near-threatened based on its apparent disappearance from Rara and Langtang National Parks. Hunting and disturbance are possible threats to this species and there may be effects on this species due to climate change, which are not fully understood. It has been mainly recorded in protected areas, but other very high altitude areas are poorly known ornithologically. Post-1990 it has been recorded in Shey-Phoksundo National Park and Annapurna Conservation Area and was previously also recorded in Rara and Langtang National Parks.

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## **Arborophila torqueola** (Valenciennes, 1825) **LC** Subspecies: *Arborophila torqueola torqueola*

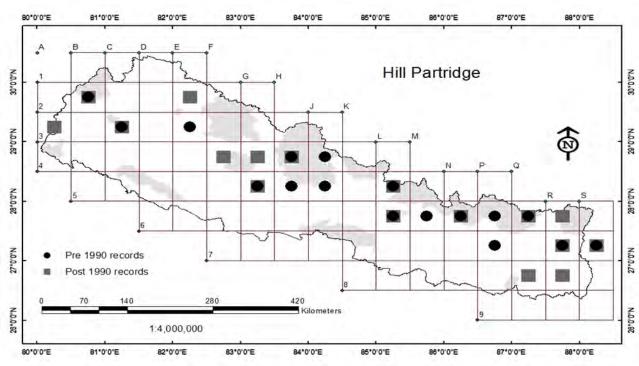
## Common Name

Hill Partridge (English), Pyura (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Hill Partridge is a locally fairly common breeding resident found throughout the Nepal Himalayas; from Dadeldhura District in the far west (Baral *et al.* 2010) east to Taplejung District (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson, 1837I).

Fleming et al. (1976) and Inskipp and Inskipp (1991) reported it was a fairly common resident.

The species' post-1990 status in protected areas is: recorded in Api-Nampa Conservation Area (Thakuri and Prajapati 2012), a common breeding resident in Khaptad National Park (Khadka 1996), rare resident in Rara National Park (Giri 2005), recorded in Dhorpatan Hunting Reserve (BirdLife International 2013, Panthi 2013), fairly common resident in Annapurna Conservation Area (Inskipp and Inskipp 2003), fairly common resident in Langtang National Park (Karki and Thapa 2001), common resident in Shivapuri Nagarjun National Park (SNP and BCN 2007), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), fairly common resident in Makalu Barun National Park (Cox 1999), and an uncommon resident in Kanchenjunga Conservation Area (Inskipp et al. 2008).

Since 1990 the species has been recorded from a number of localities outside the protected areas' system

including from: Dadeldhura District in May 2010 (Baral *et al.* 2010), resident in Balewa, Baglung District (Basnet 2009), recorded at Kutumsang, Nuwakot District in January 2012 (Dymond 2012), regularly recorded on Phulchoki Mountain Important Bird Area (RDB Workshop October 2012), five birds in Rajarani VDC, Dhankuta District in July 2010 (Bharat Subba), and about ten birds in Kalikhola VDC (R7), Taplejung District in February 2011 (Tulsi Subedi).

Globally the species has also been recorded in Bhutan, China (mainland), India, Laos, Myanmar, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 3500 m; lower limit: 1850 m

## **Population**

There is no population estimate for Hill Partridge. The population is considered to have declined, especially outside protected areas because of hunting, trapping, disturbance and habitat loss and degradation.

Hill Partridge has been included in regular spring galliforms surveys at Pipar, upper Seti Khola valley, Annapurna Conservation Area since 2005. An analysis of the results in years 2008-2011 showed a significantly lower call count in 2011 compared to the previous three years (Poudyal *et al.* 2009). The species density was found to be 17 birds/km² in 2005 (Poudyal *et al.* 2009) and 10.82 birds/km² in 2009 (Subedi 2010).

At nearby Santel, upper Seti Khola valley, ACA, the species density was 17.0 birds/km<sup>2</sup> in 2005 (Poudyal *et al.* 2009). A total of 29 calling birds was heard in 2001 (Baral *et al.* 2001) and 35 in 2005 (Poudyal *et al.* 2009).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Hill Partridge inhabits ravines and slopes in damp, dense forests of oak and other broadleaved, evergreen trees. It feeds amongst humus on the forest floor (Inskipp and Inskipp 1991) where it takes seeds, shoots, berries, insects, grubs and tiny molluscs (Ali and Ripley 1987).

#### **Threats**

Hunting, trapping and disturbance are major threats to this species. The negative impacts of hunting on the species in the Phulchoki Mountain Important Bird Area became evident during the years 1996 to 2006 when security problems led to a cessation in hunting on Phulchoki (and some other areas). As a result, there was a significant increase in Phulchoki's resident galliforms, including Hill Partridge (Baral and Inskipp 2005).

During a spring 2008 Kanchenjunga Conservation Area (KCA) bird survey, galliform populations, including those of Hill Partridge, were unusually low when considering the large extent of good quality habitat, indicating that hunting and/or trapping must have been to blame for the species' low numbers in KCA (Inskipp *et al.* 2008).

In the Pipar area, ACA, poaching of galliforms by hunting and trapping was found to be increasing. These activities were carried out by outsiders, notably collectors of yarsagumba (a highly valuable medicinal herb, which has only been collected in the last few years in the Pipar area) (Subedi 2010). Trapping was considered the greatest threat to the survival of galliforms in Pipar and its adjoining areas; a total of 27 traps was found in the Pipar bowl in 2009 (Subedi 2010).

Hill Partridge probably suffers from disturbance along trekking trails in protected areas that are popular with tourist trekkers: Langtang and the Annapurna Conservation Area and may be disturbed by yarsagumba collectors in the breeding season.

Hill Partridge is also at risk from loss and degradation of temperate broadleaved forests.

## **Conservation Measures**

No specific conservation measures have been done for this species; however, it occurs in several protected areas. The species occurs in Api-Nampa Conservation Area, Khaptad National Park, Rara National Park, Annapurna Conservation Area, Langtang National Park, Shivapuri Nagarjun National Park, Gaurishankar Conservation Area, Makalu Barun National Park, Kanchenjunga Conservation Area.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Hill Partridge has been assessed as Least Concern. The species is a locally fairly common resident. It has been recorded in most protected areas with suitable habitat and within its altitudinal range and also outside the protected areas' system. It is threatened by widespread hunting and trapping, and loss and degradation of its forest habitat. It is probably also impacted by disturbance along popular tourist trekking trails and by yarsagumba collectors in the breeding season. As a result, Hill Partridge has declined but this is not considered to be large enough to warrant any threat category for the species.

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## Coturnix coturnix (Linnaeus, 1758) LC

Subspecies: Coturnix coturnix coturnix

Common Name

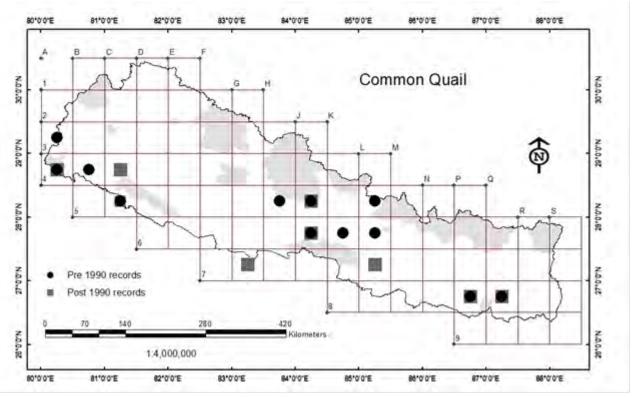
Common Quail (English),

Battai (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Common Quail has been a rare winter visitor and passage migrant, mainly to the lowlands, since at least the 1930s.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1837). It was then abundant in Kathmandu Valley in winter and on passage (Scully 1879), but there are only two later reports from the Valley: single specimens collected in April 1935 and April 1938 (Bailey 1938).

Three specimens were collected from Sundar Gundar, Morang District and one from San Pakwa, Morang District in February 1938 (Bailey 1938). Single specimens were also collected from Dhangadhi, Kailali District in November 1952 and Barmdeo Mandi, Dadeldhura District in January 1953 (Rand and Fleming 1957). One was collected at Pokhara, Kaski District in December 1966 (Nepali 1986). Two were seen at Begnas Tal, Kaski District in December 1970 (Inskipp *et al.* 1971). In May and June, two birds were heard at Syabru, Langtang National Park at 2100 m (Eames 1982, Grimmett 1982, Robson 1982). There are no later records from any of the above-mentioned localities.

The species was considered to be resident and fairly common in Chitwan (Gurung 1983); however, there are only a few dated records from the park. Pre-1990 one was seen in April 1982 (Inskipp and Inskipp 1982) and

one heard at Sauraha in the park buffer zone in January 1987 (Scharringa 1987). Since 1990 records from the park include in April 2001 (Baral 2007) and from the park buffer zone in Chitwan District in November 2011 (Tika Giri) and in Rapti River grasslands close to Sauraha in January 2012 (Bishnu Mahato) and April 2012 (Hem Subedi). The species was sighted in Sukhibar grasslands (undated) in Chitwan National Park and in cultivated fields, Madi in the park buffer zone (undated) (Kalu Ram Tamang).

Several were recorded at Koshi in March 1986 (Dymond 1986) and one there in March 1998 (Kall and Walinder 1988), and two in March 2002 (Baral 2002). One was found between Koshi Tappu Wildlife Reserve and Koshi Barrage in February 2003 (Baral 2003, Chaudhary 2003), and two in Koshi Tappu in December 2007 (Chaudhary 2007).

Common Quail was recorded from the Blackbuck Conservation Area (Kunwar 2015); also in Bardia National Park in February 1990 (Egger *et al.* 1990) and up to two birds in April 2007 (Baral 2007). One was recorded from Sukla Phanta Wildlife Reserve in April 2009 (Baral 2009), and in March 2011 (Chaudhary 2011) and two birds in November 2011 (Tika Giri).

Known recent records outside protected areas are: one near Kat Mandir, Bara District, north of East West Highway in April 2003 (Cox 2003), and two at Lumbini, Rupandehi District in January 2011 (Acharya 2011).

Globally it has also been recorded in Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Chad, China (mainland), Comoros, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Mali, Malta, Mauritania, Mauritius, Mayotte (to France), Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Réunion (to France), Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## <u>Elevation</u>

Upper limit: 915 m (-2900 m); lower limit: 75 m

## **Population**

There is no population estimate available for this species in Nepal.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Common Quail inhabits standing crops and grasslands (Inskipp and Inskipp 1991); also at field edges (Fleming *et al.* (1976). Usually found in pairs (Kalu Ram Tamang 2012). It feeds on paddy, millets and other grain, seeds of grass and weeds; also insects such as ants, caterpillars, beetles (Ali and Ripley 1987).

#### **Threats**

Hunting, poaching and disturbance are threats to the species, as well as habitat alteration (burning, grazing, invasive plant species e.g. *Mikania*), and possibly pesticides.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Common Quail. Since 1990 it has been recorded in Chitwan and Bardia National Parks, the Blackbuck Conservation Area and Koshi and Sukla Phanta Wildlife Reserves.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Common Quail has been assessed as Least Concern. It is a rare winter visitor and passage migrant. Most recent records have been from protected areas. Hunting, poaching, disturbance and habitat changes (caused by burning, grazing, invasive plant species), and also possibly pesticides threaten the species. The species may be declining but not to an extent that warrants a threat category.

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## Francolinus francolinus (Linnaeus, 1766) LC

Subspecies: Francolinus francolinus asiae, melanonotus

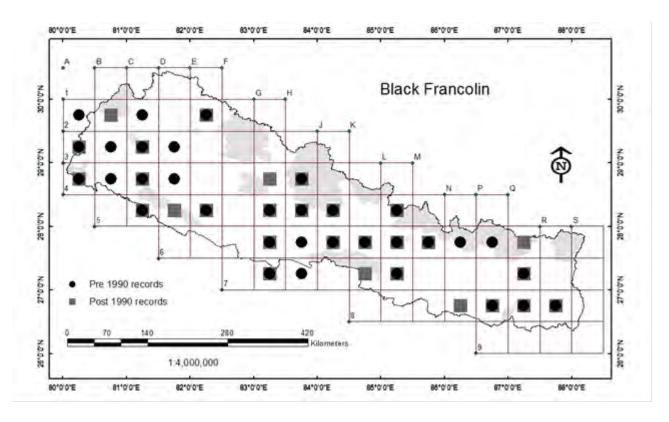
Common Name

Black Francolin (English), Kalo Titra (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Black Francolin is a locally fairly common resident in the lowlands, doon valleys and along the rivers in foothill valleys from east to west Nepal.

It was first recorded in Nepal in the 19th century (Hodgson 1844). This is the only francolin reported in the higher river valleys (Baral *et al.* 2012).

Fleming *et al.* (1976) described the species as a fairly common resident; Inskipp and Inskipp (1991) considered it a common resident in the lowlands and central doon.

The species' post-1990 status in protected areas is: recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012), a common breeding resident in Khaptad National Park (Khadka 1996) and Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), recorded in the Blackbuck Conservation Area (Ram Bahadur Shahi 2011, Kunwar 2015), a common resident in Bardia National Park (Inskipp 2001), Banke National Park (Baral *et al.* 2012), a common summer visitor in Annapurna Conservation Area (Inskipp and Inskipp 2003), a fairly common resident in Chitwan National Park (Baral and Upadhyay 2006), a frequent resident in Langtang National Park (Karki and Thapa 2001), an uncommon resident in Shivapuri-Nagarjun National Park (SNP and BCN 2007), a fairly common resident in Parsa Wildlife Reserve (Todd 2001), recorded in Gaurishankar (Baral

and Shah 2009), a common resident in Makalu Barun National Park (Cox 1999), and a frequent breeding resident in Koshi area (Baral 2005).

Since 1990 the species has been widely recorded outside the protected areas' system.

In the west records include: from Dadeldhura District in May (Baral *et al.* 2010), Kotuwa to Gai Banne, Rawkot, Daurogaon to Beuli (Mugu District) in March 1997 (Giri 1997), resident in Dang Deukhuri District (Thakuri 2009), a breeding resident in Lumbini Farmlands IBA (Baral *et al.* 2012), between Pasgam, Libiyani and Rupatal, Lamjung and Kaski Districts (Byrne 2000), Pokhara Airport, Kapilvastu District; Institute of Forestry Campus, Pokhara, Kaski District, and Tilahar VDC and Thule Pokhari, Parbat District (Jyotendra Thakuri and Hem Subedi 2012).

In central Nepal records include from: along the Kathmandu-Chitwan highway; Kurintar, Chitwan District; Malekhu, Dhading District, and Godavari, Lalitpur District in May and June 1996 (Baral 1996); between Gaur, Rautahat District and Sedhawa, Siraha District, also between Kat Mandir, Bara District, and north of the East West Highway in April 2003 (Cox 2003); east of Archale Gaon, Tumlingtar in June 2009 (Cox 2009); Dharan Forest, Sunsari District (Basnet and Sapkota 2008), and the Mai valley (Bhesh Raj Ghimire, 2012).

Globally Black Francolin has also been recorded from Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Cyprus, Georgia, Guam (to USA), India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Lebanon, Pakistan, Palestinian Authority Territories, Portugal, Saudi Arabia, Spain, Syria, Turkey, Turkmenistan, USA (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 2050 m; lower limit: 63 m

#### **Population**

No population survey has been carried out for Black Francolin. It is considered likely that the population has declined, especially outside protected areas.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Black Francolin inhabits cultivation and grass scrub jungles (Fleming *et al.* 1976), also areas of tall grass and scrub, especially near rivers (Inskipp and Inskipp 1991). Among the three Nepal francolin species, this species is the most widely distributed (Inskipp and Inskipp 1991). It also undertakes some vertical movements, unlike the other species (Fleming *et al.* 1976). In summer some birds move into the hills and are quite common up to about 2000 m (Inskipp and Inskipp 1991). The species feeds on grass and weed seeds, cereal grains, shoots, leaves, tubers, fallen berries and wild figs, larvae and insects of all kinds, particularly termites and their eggs (Ali and Ripley 1987). It has been found breeding widely: at Fircape (L6) (Inskipp and Inskipp 1991); Koshi Tappu, Sukla Phanta and Parsa Wildlife Reserves, Chitwan, Langtang, and Bardia National Parks, and Lumbini, Rupandehi District (Baral *et al.* 2012).

## **Threats**

Illegal hunting, trapping, egg collection and disturbance are the major threats to this species. Habitat loss and changes (including burning both inside and outside protected areas, uncontrolled grazing and invasive plants – (*Mikania micrantha*, etc.), and possibly pesticides are other threats.

## **Conservation Measures**

No specific conservation measures have been taken place for this species. It is in all eight protected areas of the terai and has also been recorded from five protected areas of the mid-hill region and northern Nepal (see Distribution).

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List assessment: Least Concern (LC).

#### Rationale for the Red List Assessment

Black Francolin has been assessed as Least Concern. It is a locally fairly common breeding resident, occurring from the far west to the far east. It occurs in all protected areas with suitable habitat and within its altitudinal range, and widely outside the protected areas' system. Illegal hunting, trapping, egg collection, disturbance and habitat loss and degradation (including burning both inside and outside protected areas, uncontrolled grazing, invasive plants) are the major threats to this species. It is considered likely that the population has declined, especially outside protected areas. However, the population decline is not considered large enough to warrant the designation of any threat category.

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## Gallus gallus (Linnaeus, 1758) LC

Subspecies: Gallus gallus murghi

Common Name

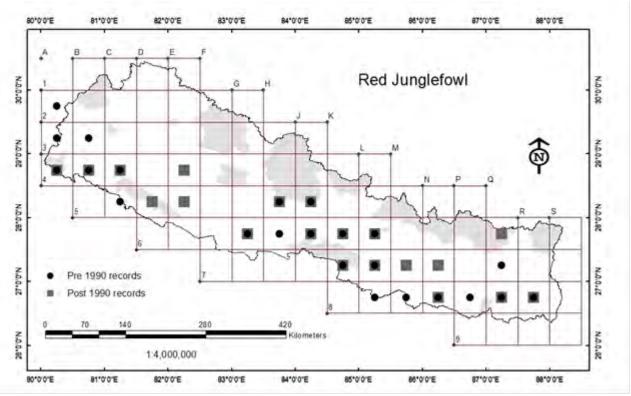
Red Junglefowl (English),

Luinche (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Red Junglefowl is a locally common or fairly common and widespread resident.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) described it as abundant in forests and edges of fields around villages, while Inskipp and Inskipp (1991) considered it a locally common resident, which seemed to have declined in the previous few years.

The species' post-1990 status in protected areas is: common in Sukla Phanta Wildlife Reserve (Inskipp and Inskipp 1982, Baral and Inskipp 2009) and in Bardia National Park (Inskipp and Inskipp 2001). One was recorded in Banke National Park in April 2011 (Acharya 2011) and the species was also recorded there in February 2012 (Baral *et al.* 2012). The species was reported as common in Chitwan National Park by Gurung (1983) and also as common over 20 years later by Baral and Upadhyay (2006), and in the park buffer zone (Choudhary 2010. It is common in Parsa Wildlife Reserve (Todd 2001) and also common in the reserve's buffer zone (Kapil Pokhrel and Poorneshwor Subedi). Only five were seen in Koshi Tappu Wildlife Reserve in May 1982 (Inskipp and Inskipp 1982). It was listed as uncommon in the reserve by Baral (2005).

Red Junglefowl was widely recorded outside protected areas pre-1990. Records include: from Belbahadi, Kailali

District in December 1952 (Rand and Fleming 1957), Kapivastu District in February 1983 (van Riessen 2010), Butwal, Rupandehi District in January 1950 (Rand and Fleming 1957), and Tamaspur, Nawalparasi District, e.g. Fairbank (1980), Mills and Preston (1981). In the central terai, bhabar and doon, Biswas (1960) found it common and Inskipp *et al.* (1971) recorded up to ten in December 1970. In the east records include from the lower Arun valley in 1959 (Krabbe 1983) and Raghunathpur, Dhanusa District in January 1954 (Rand and Fleming 1957), Gregory-Smith and Batson (1976) described the species as a common resident in south-eastern terai forests in parties of up to ten birds in 1975. It has been recorded north of Sunischare, Jhapa District where there were several reports of small numbers in the 1980s, e.g. four in February 1974 (Madge *et al.* 1974), two in March 1981 (Inskipp and Inskipp 1981), and one in December 1989 (Halliday and McKnight 1990).

Post-1990 the species has also been widely recorded outside protected areas. Records include: fairly common in Dang Deukhuri Important Bird Area (Cox 2008) and four there in June 2009 (Thakhuri 2009a,b; 2010); this area was very poorly recorded previously. The species was recorded from Kailali District in April 2007; Dahareko Lek, Parbat District (Poorneshwor Subedi); Jajarkot District in August 2013 and Gausahar Lamjung District in 1997 (Karan Shah); Satrasaye, Tanahu District in winter 2014; two from Kaski Majthan in winter 2014, and one from Jugedi, Chitwan District in winter 2014 (SMCRF); Bidune, Makwanpur District and Nijgadh, Bara District (Basnet and Thakuri 2008); Sindhuli District in March 2009 (van Riessen 2010); Dharan forests Important Bird Area, Sunsari District, where calls were frequent on a few visits between October 2007 and March 2008 (Basnet 2009a,b; Basnet and Sapkota 2008); the Morang Siwalik hills in 1998/99 (Basnet 2003); Dharmadwar, Sankhuwasabha District in December 2011 (Ghimirey and Pokharel 2011); lower Mai valley, Ilam District ,where the species was heard frequently in January and May 2006 (Basnet and Sapkota 2007); Charali and Jalthal forest of Jhapa District (Bhesh Raj Ghimire and Hem Sagar Baral), and north of Sunischare, Jhapa District in March 2008 (Robson *et al.* 2008).

Red Junglefowl was introduced to Begnas Tal, Kaski District (Roberts 1980) and the species was still present in March 2009 (Rose and Baral 2009). 'Good numbers' were reported by Tiger Mountain Lodge Pokhara, Kaski District in 2012 (Marcus Cotton *in litt*. to H. S. Baral, 2012). It was also introduced to Gokarna, Kathmandu Valley (Inskipp and Inskipp 1991), but the Kathmandu Bird Report 2004-2006 (Mallalieu 2008) does not list it. It is still seen in most forested areas along the roadside east from Narayani Zone, west to Kanchanpur District (Suchit Basnet).

Globally the species has also been recorded from Australia, Bangladesh, Bhutan, Cambodia, China (mainland), Dominican Republic, Fiji, India, Indonesia, Jamaica, Laos, Malaysia, Marshall Islands, Micronesia, Federated States of, Myanmar, Nauru, Northern Mariana Islands (to USA), Pakistan, Palau, Philippines, Puerto Rico (to USA), Singapore, Thailand, Timor-Leste, USA, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 1270 m (-1850 m); lower limit: 75 m

# **Population**

No surveys have been carried out for Red Junglefowl. However, observations and a consideration of the threats it faces indicate that the population must be fairly small.

In Sukla Phanta Wildlife Reserve, 24 were seen in one day in January 2009 (Baral 2009b).

In Bardia National Park, records include ten in May 1982 (Inskipp and Inskipp 1982), 11 in January 2001 (Chaudhary 2001) and eight in January 2003 (Giri 2003).

In Chitwan National Park, some day counts are: 25 in March 2005 (van der Dol 2005), 20 in April 2008 (Chaudhary 2008) and 20 around Tiger Tops Jungle Lodge in December 2010 (Inskipp and Inskipp 2010). A total of 12 was recorded in Gundrahi Dhakaha Community Forest and Nawalparasi District in the park buffer zone in February 2010 (Chaudhary 2010).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Red Junglefowl inhabits undergrowth in forest and forest edges and is a sedentary resident (Madge and McGowan 2002). It feeds on grain, grass shoots, tubers, fruits and berries, insects (especially grasshoppers and termites), grubs, and bamboo seeds (Ali and Ripley 1987).

## **Threats**

Red Junglefowl is seriously threatened by hunting and snaring. As long ago as 1978, local farmers reported that many had been shot (Cox 1978). In 1998/99 hunting was found to be widely practised in the Morang Siwalik Hills (Basnet 2003). Loss and also degradation of forest, which depletes the understorey, are also serious threats. Basnet (2003) reported the threat caused by accidental burning of the forest understorey in the Morang Siwaliks.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Red Junglefowl. Since 1990 it has been recorded in Bardia, Banke, Chitwan, and Makalu Barun National Parks, and Sukla Phanta and Koshi Tappu Wildlife Reserves

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Red Junglefowl has been assessed as Least Concern. The species is a locally common or fairly common widespread resident. It has been recorded in a number of protected areas and widely outside the protected areas' system. It is seriously threatened by hunting and snaring, especially outside of protected areas. Loss and degradation of forest which depletes the forest understorey are also serious threats. Observations indicate that the species is probably declining outside protected areas, but not to a degree that warrants a threatened category.

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## Ithaginis cruentus (Hardwicke, 1821) LC

Subspecies: Ithaginis cruentus cruentus

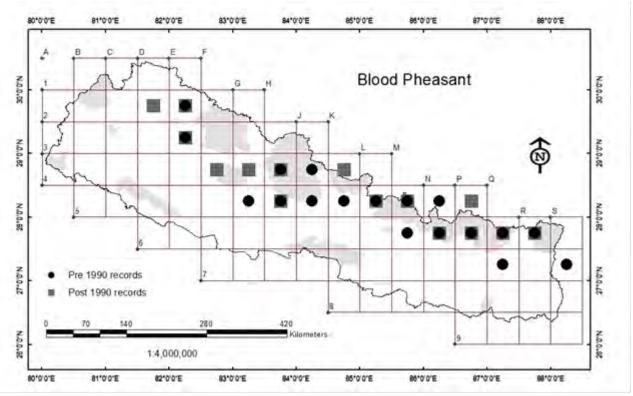
<u>Common Name</u> Blood Pheasant (English),

Chilime (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Blood Pheasant is a locally fairly common high altitude resident, mainly occurring in protected areas. It has been recorded west from Jumla and Mugu Districts (Rara National Park) east to Kanchenjunga Conservation Area (Inskipp and Inskipp 1991, Giri 2005, Inskipp *et al.* 2008).

The species was described from a specimen collected in Nepal in the 19th century (locality and date unknown) (Hardwicke 1821, Warren 1966).

Fleming *et al.* (1976) described it as a fairly common resident, while Inskipp and Inskipp (1991) considered it to be a locally fairly common resident.

The species' post-1990 status in protected areas is: a frequent resident in Rara National Park (Giri 2005); an uncommon resident in Annapurna Conservation Area (Inskipp and Inskipp (2003), although in June 2009 no calls were heard in the Kali Gandaki valley (Subedi 2009), but subsequently several were recorded west of Ghasa in November 2015 (Manshanta Ghimire and Abinash Nepali); uncommon in Pipar, upper Seti Khola valley, ACA (see Population section); recorded in Dhorpatan Hunting Reserve (Panthi 2013) and Manaslu Conservation Area (KMTNC 1998); a fairly common resident in Langtang National Park (Karki and Thapa 2001); recorded in Gaurishankar Conservation Area (Baral and Shah 2009); a fairly common resident in Sagarmatha National Park (Basnet 2004) and in Makalu Barun National Park (Cox 1999a), and an uncommon resident in

Kanchenjunga Conservation Area (Inskipp et al. 2008)).

There are few records outside protected areas, both pre-1990 (Inskipp and Inskipp 1991) and more recently. Post-1990 records include three seen in the upper Myagdi Khola valley, Myagdi District in June 1999 (Cox 1999b) and a small covey seen in the Ganesh Himal area (Ram Rai verbally, HMGN guides)

Globally the species has also been recorded in Bhutan, China (mainland), India, Myanmar (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

#### Elevation

Upper limit: 4400 m; lower limit: 3200 m

## **Population**

There is no population estimate for the species. The overall population is presumed to have declined because of widespread hunting and habitat loss, especially outside protected areas.

Numbers of birds recorded are available for Pipar, ACA, and Sagarmatha and Langtang National Parks over a period of years.

In Langtang National Park, 15+ were seen in May 1982 (Robson 1982), 16 at five sites in May 1993 (Redman 1993), ten at five sites in May 1997 (Cooper and Cooper 1997), nine at Ghopte in May 1999 (Choudhary 1999), two between Thare and Mangangoth in May 1996 (Cocker 1996), 14 between Thare and Helambu in June 2002 (Halberg 2002), two between Melamchi and Ghopte in May 2004 (Chaudhary 2004), one near Thare Pati in March 2010 (Wheatley 2010). The numbers of birds recorded in Langtang National Park between 1982 and 2010 show an overall declining trend.

In Sagamartha National Park, 26 were seen at four sites in May 1981 (Mills and Preston 1981), 32 between Tyangboche and Dole in April 1982 (Fairbank 1982), 50 beyond Tyangboche and six above Syangboche in November 1994 (Mackenzie 1994b), four here in May 2002 but 20 in Deboche and one between Gokyo and Dole (Halberg 2002), 22 seen between Khumjung and Machhermo in November 2004 (Chaudhary 2004), 15 at Khumjung in November and nine at Khunde in December 2009 (Thewlis *et al.* 2009) and 35 between Namche and Dole (Wheatley 2010). The figures do not apparently show any significant change between sightings in 1981 and 2010 in Sagarmatha National Park. A total of 20 was seen between Chetrabu and Lukla in the park buffer zone in November 1996 (Cox 1996).

In Kanchenjunga Conservation Area, three were seen between Rampuk Kharka and Ghunsa in April 1994 (Halberg 1994), ten in October-November 1994 (Carpenter *et al.* 1994), up to nine above Ghunsa, one in Tseram and another between Torangden and Amji Khola Valley in April 2008 (Inskipp *et al.* 2008), and one at Gyabla in April 2011 (Baral 2011). The numbers of birds recorded indicate that Blood Pheasant seems to be uncommon in Kanchenjunga Conservation Area.

During spring pheasant surveys of Pipar, upper Seti Khola valley, Annapurna Conservation Area the species was not recorded in 1997 (Emmanuel *et al.* 1997) or in 1998 (Kaul and Shakya 1998), but two pairs were seen in 2005 (Mahato *et al.* 2006), 21 birds in 2008 (Poudyal 2008, Poudyal *et al.* 2013), four in 2009 (Subedi 2010) and 20 in 2011 (Poudyal *et al.* 2011). Two were seen in May 2012 in Isharu, Ghandruk VDC ACAP (Paras Bikram Singh and Rishi Ram Subedi 2012). A pheasant survey team saw a few individuals and heard several calls west of Ghasa in November 2015 (Manshanta Ghimire and Abinash Nepali).

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Blood Pheasant Inhabits dense bamboo clumps, open forests or scrub of rhododendron and birch or juniper, often near water (Inskipp and Inskipp 1991). It undertakes vertical movements depending on climatic

conditions, e.g. snow fall in higher elevations may force the species to descend (Inskipp and Inskipp 1991, Madge and McGowan 2002). The species almost exclusively feeds on moss, fern, and pine shoots, and lichens (Ali and Ripley 1987). It is usually tame and is the most gregarious of Nepal pheasants (Inskipp and Inskipp 1991).

Breeding has been proved at Pipar, ACA where chicks were found in June 1981 (Lelliott and Yonzon 1980). A pair with four chicks was seen near Ghopte, Langtang National Park in June 1995 (Toohig 1995) and a pair with one chick at Thare Pati, Langtang National Park in May 1999 (Wheeldon 1999). Chicks were seen below Kongma La in May 1995 (Hathan Chaudhary 2012).

## **Threats**

Blood Pheasant is threatened by hunting and trapping, especially outside protected areas, but also within some protected areas, although as it is a bird of high altitudes, it may be under less pressure than pheasants at lower elevations.

Pheasants were found to be regularly trapped for food by Nepalis living nearby and outside Makalu Barun National Park (Inskipp *et al.* 2005).

During a spring 2008 Kanchenjunga Conservation Area (KCA) bird survey, pheasant populations including those of Blood Pheasant, were found to be unusually low considering the large extent of good quality habitat. Most sightings have been near Ghunsa, a village of Tibetan people whose culture forbids killing wildlife. These factors indicate that hunting and/or trapping must be to blame for the species' low numbers in KCA (Inskipp *et al.* 2008).

In the Pipar area, ACA pheasant poaching by hunting and trapping was found to be increasing. These activities were carried out by outsiders, notably collectors of yarsagumba (a highly valuable medicinal herb which has only started to be collected in the Pipar area in the last few years) (Subedi 2010). Trapping was considered the greatest threat to the survival of Galliformes in Pipar and its adjoining areas; a total of 27 traps was found in the Pipar bowl in 2009 (Subedi 2010).

Blood Pheasant probably suffers from disturbance along trekking trails in protected areas that are popular with tourist trekkers: Langtang and Sagarmatha National Parks and the Annapurna Conservation Area and may be disturbed by yarsagumba and Non-Timber forest products (NTFP) collectors in the breeding season.

The species is also threatened by habitat loss and degradation, especially of bamboo stands which it favours. Bamboo is in high demand for a very wide range of uses, including weaving mats and baskets and for construction work (BCN and DNPWC 2011); large quantities are removed each year, even from protected areas. Habitat loss is likely to be significantly greater outside protected areas. Overgrazing is another likely threat to this species in Langtang National Pak (Hem Subedi 2012).

# **Conservation Measures**

No specific conservation measures have been taken place for this species. However, the species is present in Rara National Park, Annapurna Conservation Area, Manaslu Conservation Area, Langtang National Park, Guarishankar Conservation Area, Sagarmatha National Park, Makalu Barun National Park and Kanchenjunga Conservation Area.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Blood Pheasant has been assessed as Least Concern. The species is a locally fairly common high altitude resident. It has mainly been recorded in protected areas, but other high altitude areas are poorly known ornithologically. Blood Pheasant is threatened by widespread hunting and trapping, although perhaps less than pheasants occurring at lower altitudes. The species is at risk from disturbance along trekking trails in popular

tourist trekking areas and maybe also by yarsagumba and NTFP collectors. It is also threatened by loss and deterioration of its habitat, particularly bamboo stands which it favours. Blood Pheasant has declined especially outside protected areas, but also within at least some protected areas. However, the decline is not considered to have occurred to a degree that warrants any threat category for the species.

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# Lerwa lerwa (Hodgson, 1833) LC

Subspecies: Lerwa lerwa lerwa

Common Name

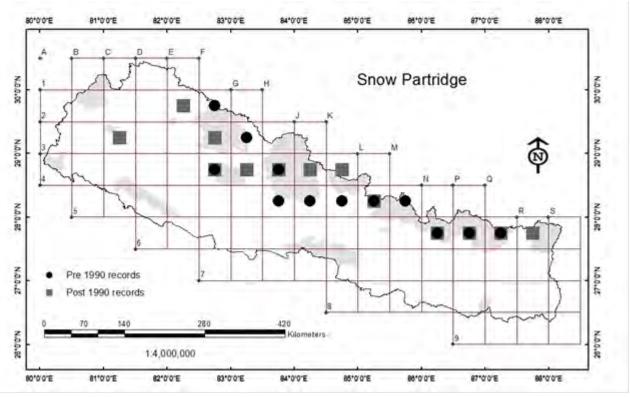
Snow Partridge (English),

Larwan (Nepali)

Order: Galliformes Family: Phasianidae



# **Distribution**



Snow Partridge is a high altitude locally fairly common resident recorded from Mugu District in the far west (Inskipp and Inskipp 1991) to Kanchenjungha Conservation Area in the far east (Inskipp *et al.* 2008). There is one record of a single bird further west, from Khaptad National Park in March 1993 (Halliday 1993).

The species was described from Nepal in the 19<sup>th</sup> century (Hodgson 1833, Warren 1966).

Fleming et al. (1976) and Inskipp and Inskipp (1991) reported it was a fairly common high altitude resident.

The species' post-1990 status is an uncommon resident in Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995) and in Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Dhorpatan Hunting Reserve (Panthi 2013) and in Manaslu Conservation Area (KMTNC 1998), a fairly common resident in Langtang (Karki and Thapa 2001) and in Sagarmatha National Park (Basnet 2004), recorded in Gaurishankar Conservation Area, fairly common resident in Makalu Barun (Cox 1999b), and resident in Kanchenjunga (Inskipp et al. 2008).

The species has been recorded much less widely outside protected areas (see map), but these high altitude regions are poorly known ornithologically.

Globally the species has been recorded from Afghanistan, Bhutan, China (mainland), India, Pakistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 4880 m (winter) 5000 m (summer); lower limit: 3050 m (in winter) 4000 m (summer)

#### **Population**

There is no information available on the population figure for this species.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

The species is known to inhabit alpine meadows, rocky hillsides, and area with dwarf shrubs (Inskipp and Inskipp 1991). Snow Partridge feeds on lichen, moss, seeds and vegetable shoots; presumably insects are also taken (Ali and Ripley 1987). In severe winters it may descend to lower elevations (Ali and Ripley 1987). It is a resident subject to altitudinal movements (Inskipp and Inskipp 1991).

## **Threats**

The main threats to this species are hunting and disturbance by locals and shepherds. However, as the species occurs in a relatively low human density area, it is likely that it is at low risk. There may be effects to this species due to climate change which are not fully understood, for instance it may be threatened in the breeding season by bad weather.

#### **Conservation Measures**

No specific conservation measures have been done on the species. Since 1990 the species has been recorded in Shey Phoksundo, Langtang, Sagarmatha and Makalu Barun National Parks; Annapurna, Manaslu, Gaurishankar and Kanchenjunga Conservation Areas, and in Dhorpatan Hunting Reserve.

## **Regional IUCN Status**

Least Concern (LC)

# Rationale for the Red List Assessment

Snow Partridge has been assessed as Least Concern. It is a widespread high altitude resident and is locally fairly common. It has been recorded within all high altitude protected areas and poorly recorded outside protected areas, but these high altitude regions are poorly known ornithologically. As the species occurs in a relatively low human density area, it is likely that the species is at low risk from hunting and trapping. However, there may be effects on this species due to climate change which are not fully understood.

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# Lophura leucomelanos (Latham, 1790) LC

Subspecies: Lophura leucomelanos leucomelanos,

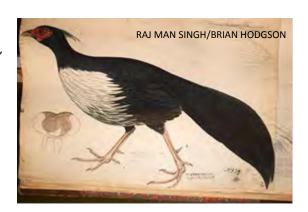
hamiltonii, melanota

Common Name

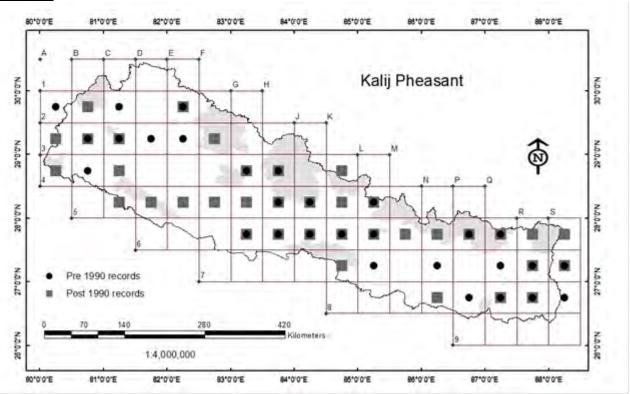
Kalij Pheasant (English),

Kalij (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Kalij Pheasant is a locally fairly common resident. It is the most widely distributed member of the pheasant family in Nepal. The first Nepal record of the species was in 1793 (Kirkpatrick 1811).

Fleming *et al.* (1976) described the species as an occasional resident and Inskipp and Inskipp (1991) described it as a fairly common resident.

The species' post-1990 status in protected areas is: a frequent resident in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012), recorded in Bardia National Park (Ram Shahi), a common breeding resident in Khaptad National Park (Khadka 1996), common resident in Rara (Giri 2005), rare resident in Bardia National Park (Inskipp 2001), a frequent resident in Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (Shah 1998), a frequent resident in Chitwan National Park (Baral and Upadhyay 2006), resident in Parsa Wildlife Reserve (Todd 2001), a fairly common resident in Langtang National Park (Karki and Thapa 2001), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), rare resident and summer visitor to Sagarmatha National Park (Basnet 2004), fairly common resident in Makalu Barun National Park (Cox 1999), and recorded in Kanchenjunga Conservation Area (Inskipp et al. 2008).

It is also found in most districts of Nepal which have some hilly areas (see map). The RDB workshop, October

2012 identified the following localities outside the protected areas' system where Kalij is present post-1990: Pumdi Bhumdi, Phewa Tal (Sankar Tiwari), Kathmandu Valley, Bhaktapur (Yadav Ghimirey and Hathan Chaudhary), Sindhupalchowk District (Yubraj Basnet), Ujaipur in June 2005 (Yubraj Basnet), Ilam District in 2011 (Bharat Subba), Kabhrepalanchok District in 2011 (Karan Shah), Katunje VDC, Dhading (Kalu Ram Tamang), Siraichuli, Chitwan District (Hem Subedi), Kanchanpur District, Churia Hills—Sukla Phanta (Hem Subedi), Pokhara, Kaski District, (Bhagawati Subedi, Ramji Gautam, Nabin Baral), Hattiban Resort, Dakshinkali (Jyotendra Thakuri), Surya Binayak and Sipadol Community Forest, Syangja District (Hem Subedi), Kabhre District (Hathan Chaudhary), Gulmi District (Jyotendra Thakuri), Pyuthan District in 2010 (Paras B Singh), and Balewa, Baglung District (Basnet 2009).

Globally it has also been recorded in Bangladesh, Bhutan, China (mainland), India, Myanmar, Pakistan, Thailand, USA (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 3700 m; lower limit: 245 m

## **Population**

No population surveys have been carried out for Kalij Pheasant. There is no estimate available for its population in Nepal. The population is considered likely to have decreased significantly in areas that suffer from high hunting pressure. During the Maoist's insurgency, the population of this species as well as several other galliform species increased as local people were deterred from visiting forests to hunt (Baral 2009). This was most noticeable in Phulchoki Mountain Forests where large numbers of Kalij were seen frequently during the insurgency period (Baral and Inskipp 2005).

During the Pipar and Santel Pheasant Survey 2005, four birds were seen in the Thulokhobang area (2200 – 2500m). In Santel only one was sighted at Khuine (3100 m) (Poudyal *et al.* 2009). Eleven individuals were seen during the Pipar Pheasant Survey 2008. A pair was seen at Sanokhobang in February and a pair at Dhije area in March (Poudyal *et al.* 2013).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Kalij Pheasant frequents all types of forest with dense undergrowth (Inskipp and Inskipp 1991) and thickly overgrown steep gullies, usually not far from water (Grimmett *et al.* 1998). The species feeds on grain, seeds, shoots, insects and their larvae, and small reptiles (Ali and Ripley 1987). It withdraws from higher altitudes in cold weather (Inskipp and Inskipp 1991).

## **Threats**

Hunting, trapping and disturbance are the major threats to this species. Kalij meat is considered a delicacy by many Nepalis. Kalij meat curry is sold along the East West highway (e.g. Daunne, Nawalparasi District, and Dhan Khola, Dang District) and several roadside areas elsewhere. The significance of hunting is illustrated on Phulchoki where the security problems (from around 1996 to 2006) led to a cessation of hunting because local people were deterred from entering forests to hunt. As a result, there was a significant increase in Phulchoki's resident Galliformes, including Kalij (Baral and Inskipp 2005). However, hunting using guns, which had temporarily stopped in many other areas as well as Phulchoki during the insurgency period, is taking place again. The species has also suffered from loss of habitat through forest losses and deterioration, notably the removal of dense undergrowth. Effects of fire may be quite significant to the breeding of this species, as with all other galliforms, but this has not yet been assessed.

## **Conservation Measures**

No specific conservation measures for this species are taken in the country. It however occurs in most protected areas (see map).

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Kalij Pheasant has been assessed as Least Concern. The species is a locally fairly common resident, occurring widely from the far west to the far east, mainly in hilly areas. The species occurs wherever there is suitable habitat in most protected areas and widely outside the protected areas' system. It is mainly threatened by high hunting pressure and partly also because of habitat loss and degradation. Although the population is thought to be declining, especially outside of protected areas, this is not considered large enough to warrant a threatened category for the species.

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# Perdix hodgsoniae (Hodgson, 1857) LC

Subspecies: Perdix hodgsoniae hodgsoniae

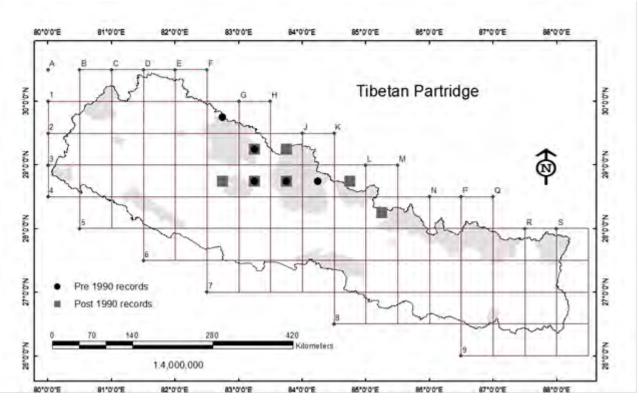
## Common Name

Tibetan Partridge (English), Himali Piura (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Tibetan Partridge is an uncommon high altitude resident in the northern Himalayas of central and mid-western Nepal.

The first Nepal record of the species was in June 1952 at Simengaon, Dolpa District (Polunin 1952).

Fleming *et al.* (1976) described it as an occasional resident while Inskipp and Inskipp (1991) considered it was a resident of uncertain status.

This species has been recorded in Dhorpatan Hunting Reserve (BirdLife International 2013). There is no additional information about the species in this reserve.

There are several records from the Annapurna Conservation Area (ACA), e.g. two specimens collected north of Jomosom in December 1949 (Rand and Fleming 1957) and singles by the Jargeng Khola and at Khangsar in July 1950 (Lowndes 1955); two were seen above Muktinath in March 1983 (Alström and Olsson 1983) and eight there in December 1984 (Calladine 1985). It has been listed as an uncommon resident in ACA (Inskipp and Inskipp 2003). Recent records include from upper Mustang (H3): two seen in December 2005 (Naylor and GC 2005) and one in 2006 (Naylor *et al.* 2006) over the Thorang La.

The species has been recorded in Dolpa District (F3), e.g. in June 1952 (Polunin 1952), June 1971 (Fleming 1982), and Sangda in May 1978 (Hall 1978). It was also found in the Namlang valley in 1978 in what is now Shey-Phoksundo National Park (Jackson 1978); listed for the park by Priemé and Øksnebjerg, (1995) and a flock of 15 was photographed between Chagaon and Changla (G3) in the park in September 2015 (Naresh Kusi and Geraldine Werhahn).

It is listed as a very rare winter visitor to Langtang National Park by Karki and Thapa (2001).

Globally it has also been recorded in Bhutan, China (mainland), India (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 4100 m (winter) 5000 m (summer); lower limit: 3700 m (winter)

## **Population**

No population estimates of the species have been made in Nepal.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Tibetan Partridge inhabits rocky slopes with scattered bushes in Tibetan plateau country (Inskipp and Inskipp 1991). It occurs on dry hillsides and is associated with *Caragana* bushes and at times among dwarf juniper (Fleming *et al.* 1976). The species is a resident subject to seasonal altitudinal movements (Inskipp and Inskipp 1991). It is normally seen in pairs in summer and occurs in large coveys outside the breeding season (Fleming *et al.* 1976, Grimmett *et al.* 1998). It feeds on seeds, shoots, roots and presumably insects (Ali and Ripley 1987); it picks over yak dung near sheds and eats green shoots (Fleming *et al.* 1976).

# **Threats**

Hunting and disturbance are threats to Tibetan Partridge. However, as the species occurs in a relatively low human density area, it is likely that the species is at low risk. There may be effects to this species due to climate change which are not fully understood. Possibly, like the Snow Partridge it may suffer from bad weather in the breeding season (S. Basnet)

## **Conservation Measures**

There are no specific conservation measures for this species other than that the species is mainly known from two protected areas (Annapurna Conservation Area and Shey-Phoksundo National Parks) and marginally in Langtang National Park.

#### Regional IUCN Status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Tibetan Partridge has been assessed as Least Concern. It is an uncommon high altitude resident in the

northern Himalayas of central and mid-western Nepal. Hunting and disturbance threaten this species, but as it occurs in relatively low human density areas, it is likely that the species is at low risk. However, there may be effects on this species due to climate change which are not fully understood. It has been mainly recorded from Annapurna Conservation Area and Shey-Phoksundo National Park. There are very few records outside protected areas, but this is probably because of poor coverage. Its population may be stable.

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# Tetraogallus tibetanus Gould, 1854 LC

Subspecies: Tetrogallus tibetanus aquilonifer

## Common Name

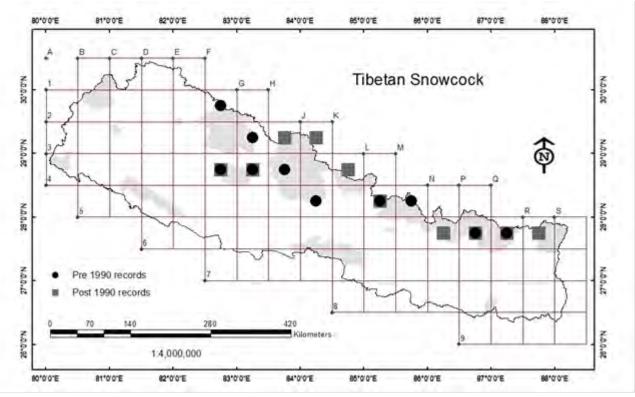
Tibetan Snowcock (English),

Kongma (Nepali)

Order: Galliformes Family: Phasianidae



## **Distribution**



Tibetan Snowcock is a locally fairly common high altitude resident distributed in northern Nepal from the Namlang valley in Shey Phoksundo National Park (Jackson 1978) east to Kanchenjunga Conservation Area (Inskipp *et al.* 2008).

The first Nepal record of the species was above Tukche in what is now the Annapurna Conservation Area in December 1949 (Rand and Fleming 1957).

The species was considered to be a frequent resident by Fleming *et al.* (1976) and a fairly common resident by Inskipp and Inskipp (1991).

It has mainly been recorded in high altitude protected areas, but other very high altitude areas are poorly known ornithologically.

The species' post-1990 status is: recorded in Shey Phoksundo National Park (Priemé and Øksnebjerg (1992, 1995); recorded in Dhorpatan Hunting Reserve (G4) in February 2009 (Tulsi Subedi); a fairly common resident in Annapurna Conservation Area (Inskipp and Inskipp 2003) and recorded in upper Mustang (H3, J3) in June and July 2000 and 2011 (Raju Acharya); recorded in Manaslu Conservation Area (Shah 1998) and in May 2012 (Som GC); a fairly common resident in Langtang National Park (Karki and Thapa (2001); recorded in

Gaurishankar Conservation Area (Baral and Shah 2009); a common resident in Sagarmatha National Park (Basnet 2004); a fairly common resident in Makalu Barun National Park (Cox 1999), and recorded in Kanchenjunga Conservation Area (Inskipp *et al.* 2008), where its current status is uncertain (see Population section).

Globally Tibetan Snowcock has also been recorded from Bhutan, China (mainland), India, Tajikistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 5550 m (summer); lower limit: 4500 m (summer), down to 3650 m (winter)

## Population

No population surveys have been carried out for Tibetan Snowcock. There are no indications of a population decline from direct observations to warrant any threat category. For example, in Langtang National Park: three were seen in Gosainkunda in May 1992 (Baral 1992), two near Kyanjin in May 1995 (Toohig 1995), three in April 2001 (O'Connell-Davidson *et al.* 2001), eight between Kyanjin and Yala Kharka in May 2002 (Wallace and Wallace 2002), three between Yala Kharka and Chhunama in May 2003 (Chaudhary 2003), and six noted above Kyanjin on Tseriko-Ri mountain in April 2007 (Chaudhary 2007).

However, the bird is seen less often than previously in Upper Mustang (Raju Acharya) and there may have been a local population decline in Kanchenjunga Conservation Area. Up to 20 birds were seen at Lhonak in Kanchenjunga Conservation Area in May 1994 (Halberg 1994), six were recorded between Lhonak and Kambachen in November 2000 (Goble 2000), but none was located in a April 2008 bird survey of the Conservation Area (Inskipp *et al.* 2008).

## **Total Population Size**

Minimum population: 300; maximum population: 500

#### **Habitat and Ecology**

It frequents rocky alpine pastures, stony ridges, grassy slopes and steep hillsides amongst tumbled boulders (Fleming *et al.* 1976, Inskipp and Inskipp 1991). It feeds chiefly on bulbous roots and tubers, and green vegetable matter including grass shoots, leaves and berries (Ali and Ripley 1987). The species performs altitudinal movements according to the season and weather conditions (Inskipp and Inskipp 1991).

It is found in small parties of four to 15 birds, feeding on grassy slopes and near sheltering rocks (Fleming *et al.* 1976). Although said to be quite shy (Fleming *et al.* 1984), birds seen in Sagarmatha National Park are bold and very approachable (H. S. Baral, C. and T. Inskipp pers. obs.).

Its breeding is known at Gokyo in August, from where fledglings have been collected (Diesselhorst 1968); at Nam La in June (Nepali 1986), and also proved in the Langu valley (Hillard and Jackson 1989)

## **Threats**

Tibetan Snowcock is threatened by disturbance along trekking trails when the tourist season, e.g. Sagarmatha NP (Haris Chandra Rai) coincides with its breeding season. Disturbance during the breeding season may also be caused by livestock, yak herders and by yarsagumba collectors and other NTFP collectors. Illegal hunting and trapping are other threats, for example the species is hunted in Upper Mustang by Chinese people coming over the border (Raju Acharya). There may be effects on this species due to climate change which are not fully understood.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Tibetan Snowcock. Since 1990 it has been recorded in Shey Phoksundo, Langtang, Sagarmatha and Makalu Barun National Parks, and Annapurna, Gaurishankar Conservation and Kanchenjunga Conservation Areas.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Tibetan Snowcock has been assessed as Least Concern. The species is a locally fairly common high altitude resident distributed in northern Nepal. It has been recorded in all high altitude protected areas, but rarely outside protected areas, probably because of poor coverage. Illegal hunting, trapping and disturbance are threats to this species, but as it occurs in relatively low human density areas, it is likely that the species is at low risk. However, there may be effects on this species due to climate change which are not fully understood. There are no indications of a population decline from direct observations to warrant any threat category

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# **Anseriformes**



Northern Shoveler *Anas clypeata*Raj Man Singh / Brian Hodgson

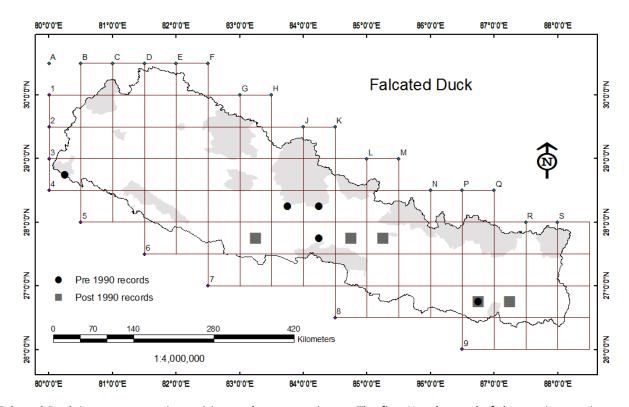
# Anas falcata Georgi, 1775 CR

<u>Common Name</u> Falcated Duck (English), Phurke Haans (Nepali)

Order: Anseriformes Family: Anatidae



# **Distribution**



Falcated Duck is a very rare winter visitor and passage migrant. The first Nepal record of the species was in 1870 from an unknown locality (Anon. 1981).

The species was formerly an uncommon, but regular winter visitor and passage migrant between November and April to Koshi Barrage (Inskipp and Inskipp 1991). The maximum of 80 was recorded there in February 1974 (Madge *et al.* 1974). Numbers recorded at Koshi Barrage/Koshi Tappu Wildlife Reserve sharply dropped in the 1990s and subsequently. Only one or two birds are now seen irregularly at Koshi, e.g. two in February 1998 (Prince 1998) and in March 2004 (Kennerley and Karki 2004), and singles in February 2003 (Chaudhary 2003), February 2005 (GC 2010), February 2006 (Mallalieu 2006), March 2007 (GC 2010), December 2008 (GC 2010), January/February 2010 (Ashok Ram) and December 2011 (Som GC).

There are some winter records from several other localities: Sukla Phanta Wildlife Reserve (Schaaf *et al.* 1980); a few records from Phewa Tal, Kaski District in the 1970s and 1980s (e.g. Inskipp *et al.* 1971, Hornskov 1984, Harrap 1985, Roberts 1987), including a flock of 16 in February 1985 (Andrews 1986), and Begnas Tal, Kaski District in the 1980s (e.g. Numme 1985, Calladine 1985), but there are no later records from these sites. Gurung (1983) reports only a few sight records in Chitwan National Park, but the only subsequent record from Chitwan is of one seen on the Rapti River, Sauraha, Chitwan District, in the park buffer zone in 1995 (Lama

1995).

The other localities where Falcated Duck has been recorded recently are: Taudaha Lake, Kathmandu Valley where two were seen in February 1999 (Giri and Choudhary 1999) and one from January to March 2004 (Mallalieu 2008), Jagdishpur Reservoir (Baral 2008), Kapilvastu District where one was seen in November 2006 (Giri and Chaudhary 2006) and one at Gaidahawa, Kapilvastu District in January 2012 (Dinesh Giri pers. comm. to H. S. Baral, August 2012).

Globally the species has also been recorded from Afghanistan, Austria, Bangladesh, Bulgaria, Canada, China (mainland), Hong Kong (China), India, Iran, Islamic Republic of, Iraq, Japan, Jordan, Kazakhstan, Laos, Malta, Mongolia, Myanmar, Netherlands, North Korea, Northern Mariana Islands (to USA), Pakistan, Poland, Portugal, Russia (Asian), Russia (Central Asian), South Korea, Taiwan (China), Thailand, Turkey, Turkmenistan, USA, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 915 m; lower limit: 75 m

## **Population**

No population survey has been carried out for Falcated Duck. However, observations indicate that the population has fallen sharply since the 1980s and that numbers are now very small.

## **Total Population Size**

Minimum population: 5; maximum population: 20

#### **Habitat and Ecology**

Falcated Duck inhabits lakes, reservoirs and large rivers and is a winter visitor in the subcontinent, mainly to Nepal, northern India and Bangladesh (Grimmett *et al.* 1998). It is mainly vegetarian (Ali and Ripley1987).

## **Threats**

Falcated Duck is seriously threatened by habitat loss and deterioration, hunting and trapping (which are illegal in protected areas), and disturbance.

# **Conservation Measures**

No conservation measures have been carried out specifically for Falcated Duck. The species is now chiefly recorded from Koshi including Koshi Tappu Wildlife Reserve. The other sites where it has been seen in the last ten years lie outside the protected areas' system.

# **Regional IUCN Status**

Critically Endangered (CR C2a(i), D1) upgraded from Global Red List status: Near-threatened (NT)

## Rationale for the Red List Assessment

Falcated Duck has been assessed as Critically Endangered based on the criteria C2a(i) and D1. It is a very rare winter visitor and passage migrant. Numbers of the species have dropped sharply in the 1990s, and subsequently, so now the population must be very small. The species is seriously threatened by habitat loss and deterioration, hunting, trapping and disturbance. It is now chiefly recorded from Koshi including Koshi

Tappu Wildlife Reserve; there are no known post-1990 records from other protected areas.

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# Aythya baeri (Güldenstädt, 1770) CR

# <u>Common Name</u> Baer's Pochard (English),

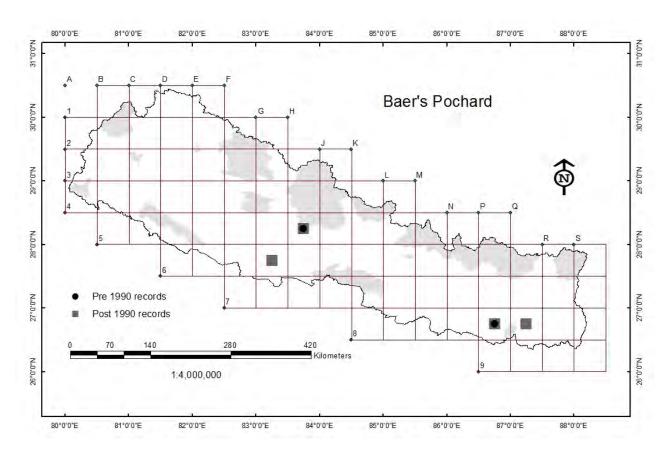
Dev Haans (Nepali)

Order: Anseriformes Family: Anatidae



YANN MUZIKA

# **Distribution**



Baer's Pochard is a rare and local passage migrant, most often seen in the Koshi area and very recently at Chimdi Lake, Sunsari District.

The species was first recorded at Koshi Barrage, Sunsari District where three birds were recorded in February 1979 (Grimmett 1979, Redman *et al.* 1984).

Inskipp and Inskipp (1991) described it as a scarce passage migrant, regularly reported from Koshi Barrage in small numbers in February and March and one record from Phewa Tal (H5), Kaski District in October 1984 (Christensen *et al.* 1984).

Since 1990 it has been most often recorded in the Koshi area where it is now a rare passage migrant and seen less frequently and less regularly than previously. Kosi Tappu Wildlife Reserve is the only protected area where it has been recorded, pre- and post-1990. Baral (2005) described it as an uncommon winter visitor to Koshi.

There are several post-1990 records outside the protected areas' system. Recent records follow.

In the west it was recorded at Jagdishpur Reservoir, Kapilvastu District in January 2015 (Tika Giri, BES). There are two records of single birds from Phewa Tal (H5), Kaski District: in November 2009 (Hari KC) and in December 2015 (Hathan Chaudhary and Manshanta Ghimire).

In the east records include: from the Koshi River, Sunsari District in February 2014 and near Kosi Bird Observatory, Jabdi, Sunsari District in March 2014 (Badri Chaudhary, KBS); Chimdi Lake, Sunsari District in January 2014 (Sanjib Acharya) and in March 2015 (Chaudhary 2015).

Globally the species has also been recorded from Bangladesh, Bhutan, China (mainland), Hong Kong (China), India, Japan, Laos, Mongolia, Myanmar, North Korea, Pakistan, Philippines, Russia (Asian), South Korea, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 915 m; lower limit: 75 m

#### **Population**

The maximum of 20 birds was recorded at Koshi Barrage in February 1979 (Grimmett 1979, Redman *et al.* 1984).

Post 1990 records from the Koshi area include: 12 in February 1994 (Cottridge *et al.* 1994); four on Koshi River in February 1997 (Chaudhary 1997) and mainly one or two birds on passage in later years e.g. one in February 1998 (Prince 1998) two on the Koshi River, Sunsari District in February 2014 and two near Kosi Bird Observatory, Jabdi, Sunsari District in March 2014 (Badri Chaudhary, KBS).

Six were seen on Chimdi Lake, Sunsari District in January 2014 (Sanjeev Acharya) and one in March 2015 (Hathan Chaudhary).

One was seen at Jagdishpur Reservoir, Kapilvastu District in January 2015 (Tika Giri, BES). Three at Phewa Tal (H5), Kaski District in November 2009 (Hari KC) and one in December 2015 (Hathan Chaudhary and Manshanta Ghimire).

# **Total Population Size**

Minimum population: 5; maximum population: <50

# **Habitat and Ecology**

Habits of Baer's Pochard are little known in the wild. It is a shy duck, usually found in pairs or small parties. It feeds mainly by diving. It takes to the air more readily than other ducks in the genus and is swift in flight (Grimmett *et al.* 1998).

## **Threats**

Baer's Pochard may be threatened by habitat degradation leading to food shortage, hunting and disturbance.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Baer's Pochard.

## Regional IUCN Status

Critically Endangered (CR A2adc, D1) no change from the Global Red List status: Critically Endangered (CR)

## Rationale for the Red List Assessment

Baer's Pochard has been assessed as Critically Endangered based on the criteria A2acd, D1. It is a rare passage migrant most often recorded in the Koshi area and very recently from Chimdi Lake, Sunsari District. The only protected area where it has been recorded is Koshi Tappu Wildlife Reserve, and it has been recorded rarely at a few other localities since 1990. Numbers and frequency of occurrence have declined since the late 1990s. It is threatened by habitat degradation which may result in food shortage, and also hunting, and disturbance.

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## Anas acuta Linnaeus, 1758 EN

Subspecies: Anas acuta acuta

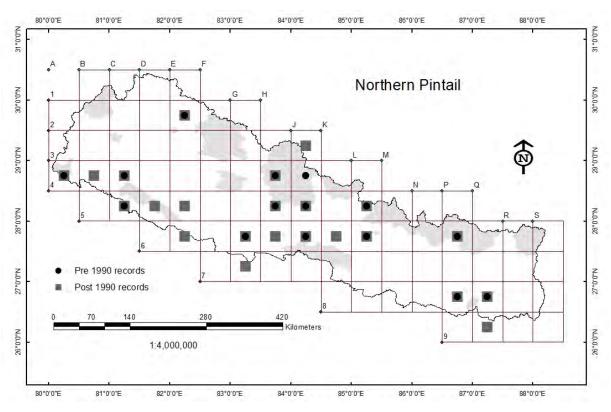
Common Name

Northern Pintail (English), Suiropuchhre (Nepali)

Order: Anseriformes Family: Anatidae



# **Distribution**



Northern Pintail is mainly an uncommon passage migrant and winter visitor. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Koshi Tappu Wildlife Reserve (Baral 2005) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

According to Inskipp and Inskipp (1991), the species occurred in very large numbers, more than any duck species at Koshi. The exceptionally high number of at least 50,000 individuals was estimated in February 1981 (Mills and Preston 1981). Fleming *et al.* (1976) considered the species a common migrant in spring. Inskipp and Inskipp (1991) reported the species as a passage migrant and winter visitor, very common at Koshi, fairly common winter visitor at Phewa Lake and occasionally seen elsewhere and mapped its distribution from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a fairly common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009), but its numbers have reduced (see Population section); a frequent winter visitor and passage migrant to Bardia National Park (C4, C5) (Inskipp 2001); a common passage migrant to Rara National Park (E2) (Giri 2005); an uncommon passage migrant to Annapurna Conservation

Area (H4, H5, J5) (Inskipp and Inskipp 2003) and a passage migrant in Upper Mustang (J3) of Annapurna Conservation Area (Acharya 2002, Suwal 2003). Baral and Upadhyay (2006) listed it as a frequent winter visitor to Chitwan National Park (J6, K6), but it is now a regular winter visitor and in smaller numbers (BES). It is a rare passage migrant to Langtang National Park (L5) (Karki and Thapa, 2001) and Sagarmatha National Park (P6) (Basnet 2004). Baral (2005) listed it as a common winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8), but numbers are now much reduced (Badri Choudhary). The species has been recorded at Bees Hazari Lake, buffer zone of Chitwan National Park (Baral 1996).

Northern Pintail has been recorded from a number of localities outside the protected areas' system since 1990 (see map and text). Post-1990 records outside the protected areas' system follow: regular winter visitor at Badaiya lake, Bardia District (Ram Bahadur Shahi), a frequent winter visitor in Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012); recorded at Chisapani gorge (C4) in March 1997 (Giri 1997); Nepalgunj (D5), Banke District in March 1992 (Baral 1992); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); Tulsipur marsh areas (G6) and Bajuwa Taal (G6), in April 2007 (Cox 2008) and a winter visitor to Jagadishpur Reservoir (G6) (Baral 2008a, Dinesh Giri), Kapilvastu District; Lumbini Farmlands IBA (G7), Rupandehi District (Dinesh Giri, Suwal *et al.* 2002); regular visitor to all Pokhara valley lakes (TMPL), including Phewa Lake (H5) (Hari KC, Dymond 2012), Khaste Lake (Manshanta Ghimire, Hari KC), Deepang Lake (H5) (Karki *et al.* 1997), and Rupa Lake (J5) (Kafle *et al.* 2008), Kaski District. It is a regular visitor to Taudaha Lake, Kathmandu Valley (Friends of Bird, BCN) and uncommon and local mainly in winter on the Bagmati River, Kathmandu Valley (L6) (Mallalieu 2008); a common winter visitor to Chimdi Lake (Q8), Sunsari District (e.g. Suchit Basnet), and recorded at Biratnagar (Q9), Morang District in March 1994 (Baral 1994).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Anguilla (to UK), Antigua and Barbuda, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Bermuda (to UK), Bhutan, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, China (mainland), Colombia, Congo, The Democratic Republic of the, Cook Islands, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, French Polynesia, Gabon, Gambia, Germany, Ghana, Greece, Greenland (to Denmark), Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Martinique (to France), Mauritania, Mexico, Micronesia, Federated States of Mongolia, Montenegro, Montserrat (to UK), Morocco, Myanmar, Netherlands, Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Panama, Papua New Guinea, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, Ukraine, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

# Elevation

Upper limit: 915 m; lower limit: 75 m

## **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Northern Pintail population counts were 467, 717, 347, 115, 173, 256 from 2008 to 2013 respectively (Baral 2013).

In Koshi Tappu Wildlife Reserve, 20,000 birds were recorded in February 1990 (Buckton and Morris 1990), 1050 in December 1992 (Baral 1993), more than 12000 in February 1993 (Fourage 1993), 10,000 in February 1994 (Cottridge *et al.* 1994), 20,000 in February 1995 (Baral 1995), 20,000 in February 1996 (Harrap 1996), 1000 in January 1997 (Chaudhary 1997), 7000 in February 1998 (Prince 1998), 1000 in March 2001 (Baral 2001), 3000 in February 2002 (Chaudhary 2002), 1500 in February 2003 (Baral 2003), 500 in February 2004 (Malling Olsen 2004), 860 in March 2005 (Dol 2005), 600 in February 2007 (Choudhary 2007), 80 in April 2008 (Chaudhary 2008), 26 in February 2009 (Baral 2009), 175 in March 2010 (Baral 2010), 26 in February 2011 (Baral 2011) and 20 in April 2012 (Baral *et al.* 2013). Jabdi Sunsari KBO: more than 30 in every winter 2008-2014 (Anish Timsina); 60 birds there in March 2015 (Suchit Basnet). The Koshi River near Haripur: 15 in winter 2013 (Chandra Shekhar Chaudhary). There has been more than 50% decline in the populations of Northern Pintail at Koshi compared to pre-1990 figures.

In Chitwan National Park, a waterbird survey counted 142 birds along the Narayani River in December 1982 (Halliday 1982) and a repeat survey recorded 138 in December 1995 (Dhakal 1996). The midwinter waterbird count post 1995 recorded 17 in January 2005 (Khadka 2005), 5 in January 2010 (Khadka 2010), 35 in February 2011 (Khadka 2012) and 20 in February 2012 (Khadka 2013). Other counts in the park include: 60 in March 1992 (Baral 1992), 62 in January 1996 (Dhakal 1996), three in January 1997 (Baral 1997), 20 in February 1998 (Chaudhary 1998a), one in December 2000 and three in January 2001 (Chaudhary 2001), 40 in February 2003 (Baral 2003), three in December 2009 (Giri 2009), four in March 2010 (Giri 2010), two in November 2011 (Baral 2011). During the mid-winter waterbird count between Sunaschuri to Tribeni, 21 birds in February 2013, 21 birds in February 2014 and four birds in February 2015 (Bed Bahadur Khadka).

In Chitwan National Park buffer zone: 2-5 at Beeshazari Tal in winter 2005 (Bishnu Mahato) and 4-6 birds from Rapti River, Sauraha in mid-winter 2014 (Bishnu Mahato)

In Sukla Phanta Wildlife Reserve, 20 birds in January 1992 (Baral 1992), 10 in December 1997 (Chaudhary 1998b), 12 in February 2008 (Baral 2008b), and regular sightings in small numbers in 2013-15 (Tika Ram Giri and Dheeraj Chaudhary). In Bardia National Park, 200 birds in March 1992 (Baral 1992), 30 in February 2005 (van der Dol 2005) and 150 in 2014 (Ashik Gurung).

Badhaiya Lake, Bardia District 60 birds in winter 2013 and 100+ in winter 2014. (Ashik Gurung).

Dang Rapti River five birds in winter 2010 (Dinesh Giri).

Jagadishpur Kapilvastu District 10-15 birds every year 2006-2013. (Dinesh), seven in January 2015 (DB Chaudhary and Tiger Tops team) and two in May 2015 (Raju Tamang).

Gaidahawa lake Rupendehi District two birds every year in 2006-2013 (Dinesh Giri).

Birth place of Buddha within circular pool, Lumbini, Rupandehi District four birds in winter 2011 (Dinesh Giri).

Phewa Lake, Pokhara Kaski District 53 birds in November 2008, 65 in January 2011, 34 in February 2012, 42 in February 2013, 11 in February 2014 and four in February 2015. (Hari KC)

Khaste Lake, Kaski District 44 birds in 2010. (Hari KC).

Chimdi lake Sunsari District: 500 in March 2015 (Suchit Basnet).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Northern Pintail winters in open water with aquatic vegetation, freshwater marshes and wet paddy fields (Grimmett et al. 1998). It is highly gregarious, wild and wary, crepuscular and nocturnal feeder, flights at sundown to forage in favourite marshes or squelchy paddyfields; forages at night and in the early morning and evening (Ali and Ripley 1987, Grimmett et al. 1998). In shallow water, it feeds by characteristic up-ending or surface feeding, and also grazes on land (Ali and Ripley 1987, Grimmett et al. 1998). It is omnivorous, feeding on grains, seeds, tender shoots and tubers and, to a lesser extent, crustaceans, molluscs, aquatic insects,

reptiles, etc. (Ali and Ripley 1987).

## **Threats**

Northern Pintail is seriously threatened by both hunting and disturbance, and the loss and degradation of wetlands. It has been widely hunted in Nepal using guns, different types of traps including mist-nets, and other trapping methods, for meat. Farmers in the lowlands have used poison to kill the birds and every year during winter many birds are killed. Invasive aquatic species such as Water Hyacinth have reduced its feeding area and so contributed to the sharp decline in the population of the species, especially in Koshi Tappu Wildlife Reserve (Dahal 2007).

#### **Conservation Measures**

No specific conservation measures have been carried out for Northern Pintail. Post-1990 the species has been recorded from Bardia, Rara, Chitwan, Langtang and Sagarmatha National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves and Annapurna Conservation Area.

#### **Regional IUCN Status**

Endangered (EN A2acd) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Northern Pintail has been assessed as Endangered based on the criteria A2acd. It is mainly an uncommon passage migrant and winter visitor. Since 1990 it has been recorded in several protected areas and less widely outside the protected areas' system. At three localities, including its two main sites, its population has declined sharply by more than 50%. Illegal hunting and trapping and loss and degradation of suitable habitat are major threats to the species. Study on factors affecting the species' migration is recommended.

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## Sarkidiornis melanotos (Pennant, 1769) EN

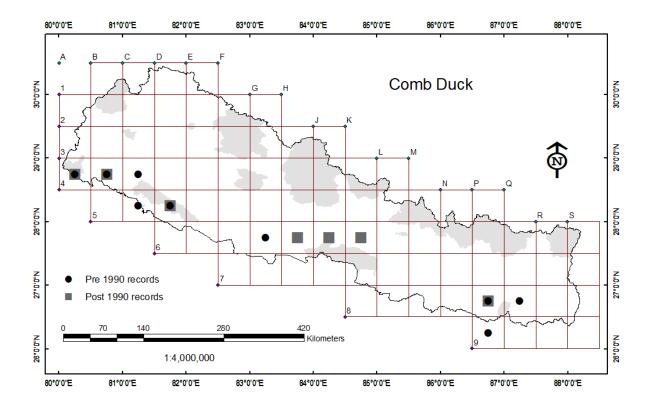
Subspecies: Sarkidiornis melanotos melanotos

<u>Common Name</u> Comb Duck (English); Nakata (Nepali)

Order: Anseriformes Family: Anatidae



## **Distribution**



Comb Duck is very rare and probably resident. The first Nepal record was from near Dhanghadi, Kailali District where one was seen in December1952 (Rand and Fleming 1957); a flock of 25 was seen and one collected in the same area in March 1965 (Fleming and Traylor 1968).

It was previously a local and uncommon resident, mainly recorded in the western terai (Inskipp and Inskipp 1991). Comb Duck was resident at Sukla Phanta Wildlife Reserve in 1979 (Schaaf *et al.* 1980) and a flock of 30 was seen there in 1982 (Inskipp and Inskipp 1982). There are a few recent reports from the reserve including a flock of 37 in February 2005 (Subedi 2010), 31 in January 2009, and an unusually high number of 193 from Tara Tal and Kalikitch Tal in January 2010 (Chaudhary 2010).

Comb Duck was previously recorded from Bardia National Park (Hurrell 1988; Suwal and Shrestha 1988), but there are no later records. Other records from the western terai are: a flock of 22 near Nepalgunj, Banke District in May 1982 (Inskipp and Inskipp 1982); 16+ at the Babai River crossing of the East West Highway, Banke District in May 1992 (Irvin 1994); the Ghodaghodi Lake system, Kailali District, where it used to breed (Baral 1992a,b) - a flock of 19 was seen there in February 2007 (Subedi 2010) and seven in January 2009 (GC 2010), and Gaidahawa Tal, Rupandehi District in February 1980 (Underwood 1980).

Comb Duck was formerly seen more frequently at Koshi; it occurred there in some winters in small flocks (Inskipp and Inskipp 1991). However, there are few recent Koshi records: in March 1991 (number of birds unknown) (van Riessen 2010), two in February 1994 (Lama 1994), two in January 1995 (Choudhary 1995), 20 in February 1997 (Shakya 1997), one in March 2004 (Som GC *in litt*. April 2004) and two in February 2006 (Suchit Basnet and Badri Chaudhary verbally 2010). It was also noted west of the Koshi River nearby (Hall 1978), but there are no later records from the area.

The species is rare in Chitwan National Park: one was seen on the Narayani River in February 1998 (Chaudhary 2004), one in the park in December 2010 (Chaudhary 2010) and two at the Rapti/Narayani confluence at Dobhan in March 2006 (Kalu Ram Tamang). It has also been recorded at Bees Hazari Tal in the park buffer zone (Baral 1996). In the Chitwan valley, Nawalparasi District singles were seen in ricefields in Pithauli VDC in June 2001 and in marshes of Namuna Community Forest in October 2003 (Chaudhary 2004). No records from the park or in the Chitwan valley are known before 1998.

Globally the species has also been recorded from Angola, Argentina, Aruba (to Netherlands), Bangladesh, Benin, Bolivia, Bonaire, Sint Eustatius and Saba (to Netherlands), Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Colombia, Congo, Congo, The Democratic Republic of the, Curaçao (to Netherlands), Ecuador, Eritrea, Ethiopia, French Guiana, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Guyana, India, Japan, Kenya, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Namibia, Niger, Nigeria, Oman, Pakistan, Panama, Paraguay, Peru, Rwanda, São Tomé e Príncipe, Senegal, Sierra Leone, Sint Maarten (to Netherlands), Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Swaziland, Tanzania, Thailand, Togo, Trinidad and Tobago, Uganda, Uruguay, Venezuela, Vietnam, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 250 m; lower limit: 75 m

#### **Population**

No surveys have been carried out for Comb Duck, but observations indicate that the population is small and declining. Numbers at Kalikitch Tal declined after 193 were recorded in January 2010 (Chaudhary 2010); none was seen in the 2012 Midwinter Waterbird count (Hem Sagar Baral).

#### **Total Population Size**

Minimum population: 100; maximum population: 300

#### Habitat and Ecology

Comb Duck Inhabits pools with plentiful aquatic vegetation in well-wooded areas (Grimmett *et al.* 1998). The species is largely vegetarian. It is a resident, shifting locally with water conditions (Ali and Ripley 1987).

#### **Threats**

Comb Duck is seriously threatened by wetland loss and deterioration, hunting and trapping (which are illegal within the protected areas' system) and disturbance.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Comb Duck. The species has recently been recorded in Sukla Phanta Wildlife where it is possibly resident and there are a very few recent records from Chitwan National Park and buffer zone and Koshi Tappu Wildlife Reserve.

#### **Regional IUCN Status**

Endangered (EN C2a(i)b, D1) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Comb Duck has been assessed as Endangered based on the criteria C2a(i)b and D1. Most of the population is in the far western lowlands where there is no evidence of a decline, but this may be because of better recording; however, numbers and regularity of occurrence have both significantly decreased at Koshi and the national population is now small and considered to be declining. The species is seriously threatened by habitat loss and deterioration, hunting and trapping (which are illegal within the protected areas' system and human disturbance. Comb Duck has been recorded in a few protected areas since 1990.

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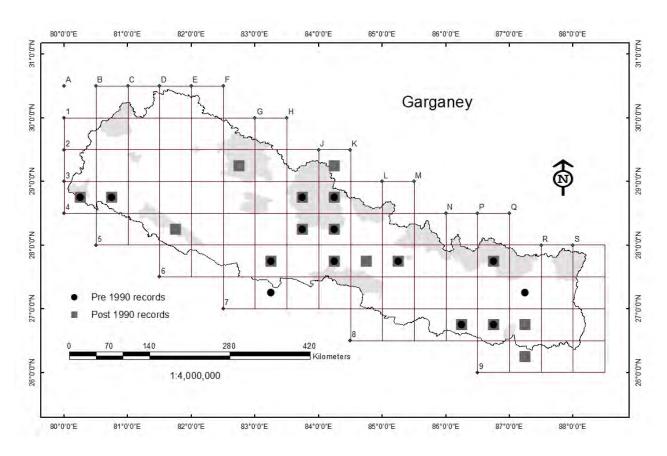
## Anas querquedula Linnaeus, 1758 VU

Common Name
Garganey (English),
Shwetaankhibhau (Nepali)

Order: Anseriformes Family: Anatidae



## **Distribution**



Garganey is mainly a passage migrant and also a rare winter visitor. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Koshi Tappu Wildlife Reserve (Baral 2005) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming et al. (1976) considered the species a common migrant in rice fields and cultivations along streams. Inskipp and Inskipp (1991) reported the species as common at Koshi Barrage, where the species also wintered, and the largest number of the species occurred in mid- February, and mapped its distribution from the far west to the far east. According to Proud (1955), the species was formerly a common passage migrant to Kathmandu Valley. However, the species has decreased and only few later occurrences of the species were reported from the Valley up to 1990 (Nepali 1986, Hurrell 1988, Gardiner 1990). The species was occasionally reported elsewhere between March and May (Inskipp and Inskipp 1991). Three birds were recorded in the Gokyo Lakes at 4570m on May 1984 (Tolk 1988). Beaman (1973) reported a small flock flying south down the

upper Kali Gandaki Valley between late September and mid-October 1973 and van Riessen (1989) recorded the species at Manang in October. There were a few autumn pre-1990 records from other parts of Nepal (Inskipp and Inskipp 1991). Rossetti (1978) reported a pair of the species at Begnas Lake in July 1978.

The species' status in the protected areas' system post-1990 is: a frequent winter visitor and passage migrant to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); recorded from Shey Phoksundo National Park (F3) in September/October 1999 (Sparks 1999); an uncommon winter visitor and passage migrant to Annapurna Conservation Area (H4, H5, J4, J5) (Inskipp and Inskipp 2003) and a passage migrant in Upper Mustang (J3) (Acharya 2002, Suwal 2003), Annapurna Conservation Area. It was listed as a frequent winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006), but is now a rare spring passage migrant (RDB Workshop, October 2012). It is a rare passage migrant to Sagarmatha National Park (P6) (Basnet 2004). Baral (2005 described it as a frequent winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8), but it has subsequently declined (see population section below). In Chitwan National Park buffer zone the species has been recorded in Barandabhar Forest and wetlands (Adhikari *et al.* 2000), at Sauraha in April 2003 (O'Connell-Davidson *et al.* 2003), and on Bees Hazari Lake (Baral 1996).

Since 1990 Garganey has been recorded from a number of additional localities outside the protected areas' system. Records include: a fairly common winter visitor to Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012); recorded at Badhaiya lake, Bardia District (Ram Bahadur Shahi); Nepalgunj (D5), Banke District in March 1992 (Baral 1992); a winter visitor to Jagadishpur Reservoir (G6) (Baral 2008) and Bajuwa Lake (G6), Kapilvastu District in November 2006 (Cox 2008); recorded from Gaidahawa Lake, Rupandehi District in December 2007 (Hem Subedi); Phewa Tal (H5), Kaski District (Tiger Mountain Pokhara Lodge), e.g. in January 2012 (Dymond 2012); an uncommon and local passage migrant at Taudaha in Kathmandu Valley (L6) (Mallalieu 2008); recorded on the Bagmati River (Basnet and Thakuri 2008, 2013); ponds near Kamala River, Dhanusa District in April 2013 (Hem Bahadur Katuwal and Kanchan Parajuli Saroj); a regular winter visitor to Chimdi Lake (Q8), Sunsari District (Hathan Chaudhary, KBS. Surana *et al.* 2007), and recorded at Biratnagar (Q9), Morang District in March 1994 (Baral 1994).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Christmas Island (to Australia), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guam (to USA), Guinea, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Papua New Guinea, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Réunion (to France), Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), USA, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

#### **Elevation**

Upper limit: 250 m (- 3840 m on passage); lower limit: 75 m

## **Population**

During the midwinter waterbird count, globally coordinated by Wetlands International, the Nepal Garganey population counts were 16, 8, 22, 43, 36, 6 from 2008 to 2013 respectively (Baral 2013).

Population data from Koshi suggest that this species is declining. Mills and Preston (1981) noted a peak of 800

individuals at Koshi Barrage in mid- February 1981. Post 1990 records of Koshi Tappu Wildlife Reserve are 70 in March 1993 (Danielsen and Falk 1993), 50 in February 1994 (Cottridge *et al.* 1994), 850 in March 1995 (Choudhary 1995), 22 in December 1996 (Chaudhary 1997), 65 in January 1997 (Chaudhary 1997), 111 in February 1998 (Chaudhary 1998), 12 in October 2000 (GC 2000), 20 in March 2001 (Baral 2001), 28 in February 2003 (Chaudhary 2003), 38 in March 2005 (Dol van der 2005), 50 in February 2007 (Choudhary 2007), 35 in April 2008 (Chaudhary 2008), and 20 from the Koshi River in winter 2013 (Chandra Shekhar Chaudhary)

One pair from Bardia National Park in winter 2014 (Ashik Gurung)

Four from Rapti River, Dang District in winter 2012 (Dinesh Giri)

In Jagadishpur Reservoir, 19 were recorded in March 2006 (Baral 2008); 10-20 in winter 2006-2010 and 50-70 in 2011-2013 (Dinesh Giri)

In 2006-2013, 5-10 in Gaidahawa Rupendehi District (Dinesh Giri)

At birth place of Buddha, Lumbini G7), Rupandehi District 3-4 in winter 2010-2013 (Dinesh Giri)

In Pokhara, 60 in January 2012 (Dymond 2012). On Phewa Lake, Kaski District, 20-22 in winter 2008 and three in winter 2009-13 (Hari K.C).

In Chitwan National Park, six were recorded in November 1998 (Choudhary 1998), two in April 1999 (Choudhary 1999); two from the Rapti river every winter 1995-2014 (Surendra Mahato), and five from Temple Tiger Tal (DB Chaudhary and Shambhu Mahato). 207 birds from Sikhrauli-Tribeni In January 2014 and only 4 birds in 2015 (DB Chaudhary and Tigertops team). One at Beeshazari Tal in April 2014 (TB Gurung)

Two at Khageri-Rapti confluence in April 2015 (TB Gurung, Bishnu Rimal)

About 700 birds on Chimdi Lake, Sunsari District in March 2015, (Suchit Basnet).

#### **Total Population Size**

Minimum population unknown; maximum population: unknown

## **Habitat and Ecology**

Garganey winters on all types of wetlands: marshes, lakes, village tanks, and shallow lakes with plenty of vegetation (Grimmett *et al.* 1998) and forages in paddyfields during the night (Ali and Ripley 1987). The species is gregarious (Ali and Ripley 1987, Grimmett *et al.* 1998). It is a non-diving bird, however, it can dive very effectively to evade capture when wounded. It is largely a nocturnal feeder, feeds by dabbling, head-dipping in shallow water and picking from the surface and sometimes upending (Ali and Ripley 1987, Grimmett *et al.* 1998). The species is usually shy and wary, preferring to keep among emergent vegetation (Grimmett *et al.* 1998). It is omnivorous, feeding on grains, seeds, tender shoots and tubers, crustaceans, molluscs, aquatic insects, reptiles, etc. (Ali and Ripley 1987).

#### **Threats**

Garganey is seriously threatened by both hunting and disturbance, and the loss and degradation of wetlands including the spread of invasive species, poisoning, hunting and trapping and possibly agrochemicals use. Loss of feeding habitat and hunting could be primary reasons for the decline.

#### **Conservation Measures**

There are no conservation measures specifically carried out for this species. Since 1990 it has been recorded in: Bardia, Shey- Phoksundo, Chitwan, and Sagarmatha National Parks; Annapurna Conservation Area, and Sukla Phanta and Koshi Tappu Wildlife Reserves. The very large majority of the population occurs inside protected areas.

#### **Regional IUCN Status**

Vulnerable (VU 2ac) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

The species is assessed as Vulnerable based on the criteria A2ac. It is mainly a passage migrant and also a rare winter visitor. Compared to some pre 1990 populations, the species has declined at its two main sites – the Koshi area and Chitwan National Park and buffer zone since 1990. It is seriously threatened by hunting and disturbance, and the loss and degradation of wetlands, including the spread of invasive species, poisoning, hunting and trapping and possibly the use of agrochemicals.

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## Aythya nyroca (Güldenstädt, 1770) VU

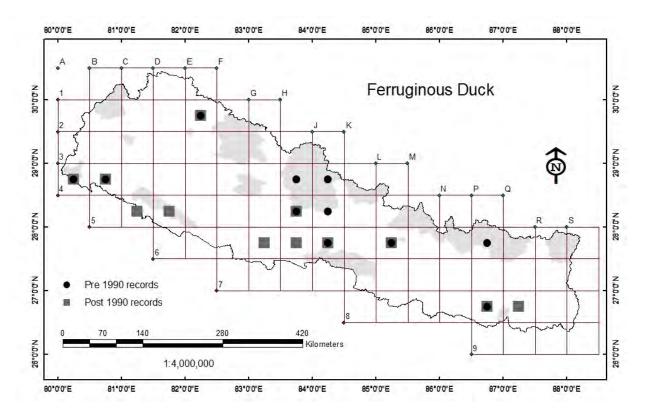
<u>Common Name</u> Ferruginous Duck (English),

Malak Haans (Nepali)

Order: Anseriformes Family: Anatidae



## **Distribution**



Ferruginous Duck is locally distributed; mainly a passage migrant, and also a winter visitor. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844). Scully (1879) reported it passed over the Kathmandu Valley on migration, but it did not appear to make any lengthy stay there. He found it very common on a lake near Bichiakoh, Makwanpur District, 64 km north of Segouli in December 1877. There are several other pre-1990 records from the Valley including Nepali (1982) and Hurrell (1988). Mallalieu (2008) mainly found small numbers overwintering in the Valley between 2004 and 2006 (see Population section).

Fleming *et al.* (1976) reported the species as 'occasional' as did Inskipp and Inskipp (1991) who added it was mainly a passage migrant, also a winter visitor.

It was described as a frequent winter visitor in Sukla Phanta Wildlife Reserve in 1979 (Schaaf *et al.* 1980) and also by Baral and Inskipp (2009). The species was also recorded there in January 2009 (Baral 2009) and February 2011 (Chaudhary 2011) (see Population section).

Better coverage post-1990 has led to records from several new sites in the west: These include Bardia National Park, where it is listed as a rare winter visitor (Kaluram Tamang, undated in Inskipp 2001); Badhaiya Tal, Bardia

District; Jagdishpur Reservoir, Kapilvastu District which is an important site for the species; and Gaidahawa Tal, Rupandehi District (see Population section). Other sites that were not covered pre-1990 include Ghodaghodi Tal, Kailali District where one bird was seen in January 2010 (Baral *et al.* 2010) and three in January 2011 (Baral 2011), and near Nepalgunj, Banke District where three were seen in March 1992 (Baral 1992).

There are a number of records from Phewa Tal, Kaski District between December and March from 1977 to 2010 (see Population section), and from other lakes in the Pokhara valley. In a survey of waterbirds in the Pokhara valley in January 2002 and January 2003, Ferruginous Duck was found to be an uncommon passage migrant (Subedi 2003). Just a few records are known from Begnas Tal, Kaski District including eight in December 1977 (Inskipp and Inskipp 1977), but no recent records.

The species is very rare in Chitwan National Park and the park's buffer zone: Gurung (1983) lists one record from the park, there are four other known records in 2004 and 2006 (Chaudhary 2010), and two in 2010 (Hem Subedi and Bird Education Society), and two known records from the Bees Hazari Tal, Barandabhar Important Bird Area in the park buffer zone (Anon. 1989, 1995) (see Population section).

The species has been most regularly recorded at Koshi Barrage and in Koshi Tappu Wildlife Reserve where greatest numbers occur in February and March, of passage birds. Baral (2005) reported it was a common winter visitor but since the 2008 monsoon flooding at Koshi only small numbers have been recorded there (see Population section).

There are several reports of migrants from high altitudes in the Himalayas: three at 4575 m on lower Gokyo lake, Sagarmatha National Park in May (year unknown Fleming *et al.* 1979); singles on two dates at 2560 m in the upper Kali Gandaki valley, Annapurna Conservation Area (ACA) in October 1973 (Beaman 1973); four at 2160 m flying up the Marsyangdi valley in November 1981 at Bagerchap, ACA; one at 3800 m flying north at Muktinath in November 1981(Melville and Hamilton 1981) and recorded at 3500 m in Manang, ACA in October 1983 (van Riessen 2010), one seen on Rara Lake, Rara National Park at 3000 m in February 1983 (Brearey and Pritchard 1985), six there in March 2000 (Anyon-Smith *et al.* 2000) and two in April 2012 (Jyotendra Thakuri) — the last is the only known recent high altitude record in Nepal.

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Eritrea, Ethiopia, Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Hong Kong (China), Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Maldives, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Slovakia, Slovenia, South Sudan, Spain, Sudan, Sweden, Switzerland, Syria, Tajikistan, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Western Sahara, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 915 m (- 4575 m); lower limit: 75 m

#### **Population**

The maximum of 170 birds recorded at Koshi and in Nepal was in February 2005 (Baral and Birch 2005). Known maximum numbers recorded in February or March in other years are: 23 in February 1974 (Madge *et al.* 1974), 150 in February 1981 (Joliffe *et al.* 1981), 60 in February 1984 (Redman 1984), 40 in February 1990 (Buckton and Morris 1990), 30+ in February 1994 (Cottridge *et al.* 1994), 52 in February 1995 (Baral 1995), 100+ in March 1997 (Harrap and Basnet 1997), 60 in February 1998 (Prince 1998), 80 in March 1999 (Ghimire 1999), 114 in March 2001 (Baral 2001), 53 in February 2002 (Chaudhary 2002), 83 in February 2003 (Chaudhary 2003), 20+ in March 2004 (Kennerley and Karki 2004), 40 in February 2007 (Baral 2007), nine in February 2010 (Baral 2010) and three in May 2011 (Baral 2011). There seems to have been no significant overall change in

populations at Koshi from when the species was first recorded there in 1974 up to 2007; however, only small numbers have been reported there subsequently.

On Jagdishpur Reservoir, Kapilvastu District 62 birds were recorded in January 2006 (Mallalieu 2006), ten in December 2006 (Giri 2010), 22 in December 2007 (Shahi 2010), nine in January 2009 (Giri 2010), and 120 in December 2010 (Baral 2011).

On Phewa Tal, Kaski District six birds were recorded in December 1970 (Inskipp *et al.* 1971), one in January 1981 (del-Nevo and Ewins 1981), 20 in March 1985 (Harrap 1985), 50 in March 1986 (Alind 1986), 10 in December 2001 (Naylor *et al.* 2002), 25 in December 2004 (Naylor and Giri 2004), ten in December 2006 (Naylor *et al.* 2006), ten in December 2007 (Naylor and Metcalf 2007), 50+ in December 2008 (Naylor and Turner 2008), 30 in February 2009 (Harrap and Karki 2009), and 15 in January 2010 (Wheatley 2010). There appears to be no significant overall population change during the period from 1970 to January 2010.

At Sukla Phanta Wildlife Reserve ten were recorded in January 2009 (Baral 2009) and 40 in February 2011 (Chaudhary 2011).

In the Kathmandu Valley it was recorded at Taudaha lake and the adjacent Bagmati River during October to February in the years 2004-06, with an exceptional number of 41 in October 2005 (Mallalieu 2008). There were three on Rani Pokhari in the centre of Kathmandu in December 2004 (Mallalieu 2008). van Riessen (2010) reported the species annually between 2004 and 2010 at Taudaha in the Valley, usually one to six birds between November and January to March. The earliest was 20 October in 2005 and the latest was 6 May in 2007; 19 birds were present from 20 October to at least 1 November 2005 (van Riessen 2010).

On Badhaiya Tal, Bardia District 11 birds were recorded in January 2010 (Shahi 2010)

On Gaidahawa Tal, Rupandehi District eight birds were recorded in December 2007 (Shahi 2010)

In Chitwan National Park 40 birds were recorded in November 2004 (Baral and Chaudhary 2004), two in December 2006 (Chaudhary 2010), up to 11 reported from Patna Tal in March 2010 (Hem Subedi), and one at Lami Tal January 2010 (Bird Education Society waterbird count).

On Bees Hazari Tal, Barandbhar Important Bird Area, Chitwan National Park buffer zone two birds were recorded in November 1989 (Anon. 1989) and four in January 1995 (Anon. 1995).

#### **Total Population Size**

Minimum population: unknown; maximum population: <1,000

## **Habitat and Ecology**

Ferruginous Duck feeds in freshwater pools with extensive marginal and submerged vegetation and uses more open water areas as daytime refuges (Ali and Ripley 1987; Grimmett *et al.* 1998). It feeds on corms, shoots, leaves and seeds of aquatic plants, crustaceans, molluscs, aquatic insects and larvae, worms, frogs and small fish (Ali and Ripley 1987).

#### <u>Threats</u>

Ferruginous Duck is seriously threatened by hunting (illegal in protected areas), disturbance, and the loss and degradation of wetlands.

#### **Conservation Measures**

No conservation measures have been taken specifically for this species. Recently it has been recorded in Sukla Phanta and Koshi Tappu Wildlife Reserves, and Chitwan and Bardia National Parks.

## **Regional IUCN Status**

Vulnerable (VU A2acd, D1) upgraded from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Ferruginous Duck has been assessed as Vulnerable based on the criteria A2acd, D1. The species is locally distributed; mainly a passage migrant, and also a winter visitor. Since the monsoon flooding of 2008 it has sharply declined at Koshi Barrage/Koshi Tappu Wildlife Reserve, where it was formerly seen most regularly and in greatest numbers; since 2008 only small numbers have been recorded there. Numbers at other known sites have not changed significantly during the period recorded. The species is seriously threatened by both hunting (illegal in protected areas) and disturbance, and the loss and degradation of wetlands. Recently it has been recorded in a few protected areas.

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## Nettapus coromandelianus (J. F. Gmelin, 1789) VU

Subspecies: Nettapus coromandelianus coromandelianus

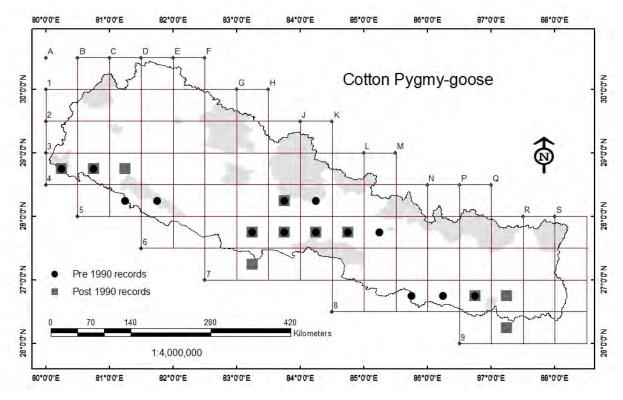
#### Common Name

Cotton Pygmy-goose (English), Hari Hans (Nepali)

Order: Anseriformes Family: Anatidae



## **Distribution**



Cotton Pygmy-goose is a local resident and summer visitor in the lowlands.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844). Rand and Fleming (1957) described it as fairly common in the terai and collected specimens from Dhanghadi, Kailali District in January 1953 and Raghunathpur, Dhanusa District in January 1954. Fleming *et al.* (1976) and Inskipp and Inskipp (1991) reported it was seen occasionally in the lowlands. Flocks of up to 35 were occasionally seen in the south-eastern terai and sometimes in forest pools between April and August (Gregory-Smith and Batson 1976). The species was formerly a fairly common resident and summer visitor regularly recorded at Koshi Barrage and in Koshi Tappu Wildlife Reserve and possibly bred there (Dahmer 1976). However, in the last ten years it has only been reported at Koshi in small numbers (Baral 2005) (see Population section).

Schaaf *et al.* (1980) found it a fairly common resident at Sukla Phanta Wildlife Reserve and it was still fairly common there in 1992 (Baral and Mills 1992) and 1998 (Chaudhary 1998), but only small numbers were present in 2009 (Anon. 2009) and 2011 (Som G.C. and Michael Dooher) (see Population section).

Gurung (1983) records it was an uncommon winter visitor to Chitwan National Park, and there are few post-1990 records e.g. in September 1992 (Baral 1993), January 1997 (Chaudhary 1997a), August 2007 (Chaudhary

1998), and in January 2010 (Chaudhary 2010). It has also been recorded at Bees Hazari Tal, Barandabhar Important Bird Area in Chitwan National Park's buffer zone e.g. Anon. 1995, Anon. 1998, Baral 1992a, 1993, but is now extremely scarce there (see Population section).

There were a few pre-1990 records from Begnas Tal, Kaski District, e.g. two pairs in May 1985 Warwick (1986) and it was proved breeding there (date unknown) (Roberts 1990). One was recorded on Rupa Tal, Kaski District in March 1986 (Heath 1986) and one on Phewa Tal, Kaski District in October and November 1986 (Inskipp and Inskipp 1986). The only known recent record from the area is four birds seen at Maida Tal, Pokhara in January 2009 (Anon. 2009). Other pre-1990 records include a few from the Kathmandu Valley, e.g. five on Taudha Lake in August 1976 (R. C. Gregory-Smith in Fleming *et al.* 1984), 16 at Pharinda Ghat, Banke District in June 1988 (Suwal and Shrestha 1988), three at Belatari, Nawalparasi District in June 1988 (Suwal and Shrestha 1988), and Jhapa District in June 1989 and July 1990 (van Riessen 2010), but no recent records are known from either locality.

Recently the species has been recorded at several sites that were largely not covered pre-1990 (see Population section for more details). These include Ghodaghodi Tal, Kailali District which is now the most important site for the species in Nepal – this lies outside the protected areas' system.; some of the ducks breed here. The species is listed as a rare resident in Bardia National Park in an overview of species in the park (Inskipp 2001).

Other sites that were not covered pre-1990 include Chimdi Lake, Sunsari District (Surana *et al.* 2007); Maidi Tal, Pokhara, Kaski District (Anon. 2009), Gaidahawa Tal, Rupandehi District (Shahi 2010); Badhaiya Tal, Bardia District (Shahi 2010), Puraina Lake, Kailali District (Shrestha 2010) and Namuna Community Forest, Nawalparasi District (DB Chaudhary and Yubraj Mahato).

Globally the species has also been recorded from Afghanistan, Australia, Bahrain, Bangladesh, Cambodia, China (mainland), Hong Kong (China), India, Indonesia, Iran, Islamic Republic of, Iraq, Japan, Jordan, Laos, Malaysia, Maldives, Myanmar, Oman, Pakistan, Papua New Guinea, Philippines, Qatar, Saudi Arabia, Singapore, Sri Lanka, Taiwan (China), Thailand, United Arab Emirates, Vietnam, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### **Elevation**

Upper limit: 915 m; lower limit: 75 m

#### **Population**

The total Nepal population recorded for the Cotton Pygmy Goose from 2008 to 2012 is, 56, 96, 214, 253, 290 (Anon. 2008-2012).

Koshi Barrage is the most regularly recorded site for the species, although numbers have been small in the last ten years. The maximum of 100+ was seen there in January 1989 (Halliday 1989). Counts decreased in subsequent years with the exception of February 2003 when 90 were recorded (Chaudhary 2003). Maximum known numbers per year are: 80 in April 1981 (Mills and Preston 1981), 40 in November 1992 (Murphy and Waller 1992), 34 in December 1993 (Chaudhary 1994), 24 in January 1994 (Chaudhary 1994), 20 in January 1995 (Chaudhary 1995), 23 in November 1996 (Chaudhary 1997b), 29 in February 1997 (Chaudhary 1997b), 22 in February 1998 (Chaudhary 1998), 32 in March 1999 (Choudhary 1999), seven in May 2000 (Giri 2000), 18 in February 2002 (Chaudhary 2002), ten in December 2004 (Baral and Chaudhary 2004), nine in March 2005 (van der Dol 2005), six in January 2006 (Mallalieu 2006), eight in April 2008 (Chaudhary 2008), two in December 2009 (Giri 2009), three in May 2011 (Baral 2011).

Nearly 90% of Nepal's Cotton Pygmy-goose population is now in the area of Ghodaghodi Tal, Kailali District. All of the birds in the 2012 midwinter count were from this site. A total of 40 was seen there in June 1988 (Suwal and Shrestha 1988). The maximum of 666 birds was recorded in March 1992 (Baral 1992b). Smaller numbers have been recorded subsequently: 312 in March 2006 (Shahi 2010), 44 in January 2008, 72 in January 2009, 139 in June 2009, 188 in January 2010, 180 in July 2010, 243 in January 2011, 175 in June 2011 and 290 in January 2012 (Anon. 2008-2012). Their numbers had declined in the lake due to lack of management and also increased poaching and hunting. Following management for the species (see Conservation section) the population has increased and reached 290 birds in January 2012. Twice a year, midwinter and midsummer participatory bird counts of this species are conducted as part of the species' monitoring programme (see

Conservation section). Counts have been carried out since 2008 (CSUWN 2011).

In Sukla Phanta Wildlife Reserve 67 birds were recorded in March 1991 (Baral 1991), 200 in January 1992 (Baral 1992b), 200 in March 1998 (Chaudhary 1998), 20 in January 2009 (Anon. 2009), and seven at Kalikich Tal in February 2011 (Som GC and Michael Dooher).

On Jagdishpur Reservoir, Kapilvastu District a survey from May 2005 to March 2006 recorded the maximum of 31 birds in October 2005 (Baral 2008); 12 were recorded in April 2007 (Baral 2007).

At Chimdi Lake, Sunsari District 50 birds were recorded in December 2003 and October 2004 (Surana *et al.* 2007).

Near Gaida Camp, Chitwan National Park 32 birds were recorded in September 1992 (Baral 1993), ten in January 1997 (Chaudhary 1997a), and 12 in August 2007 (Chaudhary 1998). At Patna Tal, at the former Padampur village in the park 12 were counted in February 2011 (Hem Subedi and Bishnu Mahato).

On Bees Hazari Tal, Barandabhar Important Bird Area, Chitwan National Park buffer zone 31 birds were recorded in November 1989 (Anon. 1989), 13 in September 1992 and May 1993 (Baral 1992a, 1993), four in January 1995 (Anon. 1995), eight in December 1998 (Anon. 1998), in recent years it has been extremely scarce, e.g. 2011 up to two birds have been noted in the area (Basu Bidari *verbally* January 2012) and five in May 2012 (Anil Gurung). In small ponds at Ujiwal Nagar in the buffer zone up to ten birds were counted in March 2012 (Hem Subedi and Bishnu Mahato). Two were seen at Bob Tal in the buffer zone in June 2012 (Bird Education Society).

In Narayani River, Chitwan six birds were recorded in January 2011 (Anon. 2011).

Near Nepalgunj, Banke District 22 birds were recorded in March 1992 (Baral 1992b).

In Lumbini, Rupandehi District 12 birds were recorded August 2007 (Baral and Shah 2007).

On Gaidahawa Tal, Rupandehi District 11 birds were recorded in December 2007 (Shahi 2010).

On Badhaiya Tal, Bardia District three birds were recorded in January 2008 (Shahi 2010).

Near Biratnagar, Morang District 18 were recorded in June 1993 (Baral 1994).

In Puraina Lake, Kailali District 26 were recorded in January 2010 (Shrestha 2010).

On Phewa Tal, Kaski District five were seen in July 2011 (Hari KC).

In Maidi Tal, Pokhara, Kaski District four birds were recorded in January 2009 (Anon. 2009).

In Namuna Community Forest, Nawalparasi District, three birds were seen in August 2012 (DB Chaudhary and Yubraj Mahato).

#### **Total Population Size**

Minimum population: unknown; maximum population: <1000

## **Habitat and Ecology**

Cotton Pygmy-goose inhabits reed edged pools partly covered with vegetation. It is a resident subject to local movements and numbers in Nepal are augmented by summer visitors (Grimmett *et al.* 1998, Inskipp and Inskipp 1991). It is mainly vegetarian, feeding on shoots, corms, seeds of aquatic plants, also crustacean, worms and insects (Ali and Ripley1987).

## **Threats**

Cotton Pygmy-goose is seriously threatened by both hunting and disturbance, and the loss and degradation of wetlands.

#### **Conservation Measures**

Cotton Pygmy-goose has been chosen as one of the five indicator species of good health of a wetland ecosystem by the Nepal Government (CSUWN 2009, 2011). As part of the project, activities in Ghodaghodi lake area are being targeted to increase the population of Cotton Pygmy-goose and especially to encourage breeding by restoring wetland habitat and providing nest- boxes which the birds are using (CSUWN 2009). Cotton Pygmy-goose has been recorded recently in Chitwan and Bardia National Parks, and Sukla Phanta and Koshi Tappu Wildlife Reserves, but only in very small numbers. The very large majority of the population occurs at Ghodaghodi Tal, which lies outside the protected areas' system.

#### **Regional IUCN Status**

Vulnerable (VU A2acd, D1) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Cotton Pygmy-goose has been assessed as Vulnerable based on the criteria A2acd, D1. The species is a local resident and summer visitor in the lowlands. It has declined at a few sites including the three most important known localities for the species: Koshi Barrage/Koshi Tappu Wildlife Reserve, Ghodaghodi Tal and Sukla Phanta Wildlife Reserve. The large majority of the population now occurs at Ghodaghodi Tal, which lies outside the protected area system; some of the ducks breed here. The species is seriously threatened by both hunting and disturbance, and the loss and degradation of wetlands. However, management specifically for the species at Ghodaghodi Tal, and especially to encourage breeding has resulted in annual increases in the population although up to 2012, this was much below its 1992 figure. It has been recorded recently in a few protected areas, but only in small numbers.

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## Anas poecilorhyncha Forster, 1781 NT

Subspecies Anas poecilorhyncha poecilorhyncha,. zonorhyncha

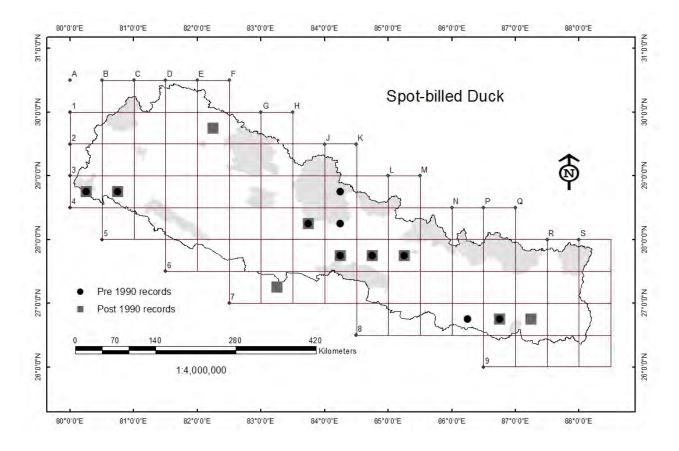
## Common Name

Spot-billed Duck (English), Nadun Haans (Nepali)

Order: Anseriformes Family: Anatidae



# $\underline{\text{Distribution}}$



Spot-billed Duck is an uncommon resident and winter visitor to lowland Nepal.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844). The subspecies *poecilorhyncha* was collected from Kathmandu valley (Fleming and Traylor 1961) and *zonorhyncha* at Koshi Barrage (Roberts 1987).

Fleming *et al.* (1976) described the species as an occasionally seen resident in marshy areas and lakes with reeds. Inskipp and Inskipp (1991) described the species to be an occasional resident and winter visitor, mainly from the lowlands, and also with records from mid-hills including Kathmandu and Pokhara Valleys.

Calladine (1985) saw one bird at Pisang at 3290 m in November 1984 and assumed to be a migrant.

Post-1990 the species' status in protected areas is: uncommon winter migrant to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), recorded at Rara Lake National Park in October 2015 (Chaudhary *et al.* 2015). Baral and Upadhyay (2006) listed it as a frequent winter visitor to Chitwan National Park [J6, K6], but the

species has not been recorded there for some years (Tek Bahadur Gurung, 2015). Basnet (2005) listed it as a fairly common resident and winter visitor to the Koshi area [P8, Q8], but now it appears to be uncommon there.

Since 1990 outside the protected areas' system, Spot-billed Duck has been recorded from several localities: frequent winter visitor to Ghodaghodi Lake area, Kailali District [B4] (CSUWN and BCN 2012) and has bred there recently (D. R. Chaudhary 2012), recorded at Badhaiya Lake, Bardia District (Ram Shahi), Jagdishpur, Kapilvastu District (Tek Bahadur Gurung), Lumbini, Rupandehi District [G7] (Suwal *et al.* 2002), in Pokhara Valley, Kaski District [H5] (Baral 2010a), uncommon and local in winter at Taudaha in Kathmandu Valley [L6] (Mallalieu 2008), and a scarce winter visitor to Chimdi Lake, Surana District [Q8] (Surana *et al.* 2007).

Globally the species has also been recorded from Bangladesh, Cambodia, China (mainland), Hong Kong (China), India, Laos, Myanmar, Pakistan, Sri Lanka, Thailand, Vietnam (BirdLife International 2013).

#### Elevation

Upper limit: 915 m (- 3290); lower limit: 75 m

#### **Population**

During the Midwinter waterbird count globally coordinated by Wetlands International, the Nepal Spot-billed Duck population counts were 41, 43, 3, 10, 18, 72 from 2008 to 2013 respectively (Baral 2013).

Pre-1990 records from Koshi Tappu Wildlife Reserve and Koshi Barrage area include: 10 birds in February 1981 (Baker 1981), five in March 1989 (Bose *et al.* 1989), and a maximum of about 200 in March 1986 (Dymond 1986). Gurung (1983) described the bird as an irregular winter visitor to Chitwan.

Post 1990 records from the Koshi area include 97 in December 1992 (Baral 1993), 60 in February 1993 (Fourage 1993), 40 in February 1994 (Cottridge et al. 1994), 236 in January 1995 (Choudhary 1995), 31 in November 1996 (Giri 1996), 40 in March 1997 (Harrap and Basnet 1997), 10 in December 1998 (Chaudhary 1998), three in February 1999 (Choudhary 1999), 14 in December 2000 (Chaudhary 2001), 20 in December 2001 (Baral and Parr 2001), 160 in February 2002 (Maling Olsen 2004), 12 in February 2003 (Chaudhary 2003), 32 in November 2004 (Baral and Chaudhary 2004), 25 in February 2005 (Baral and Birch 2005), 60 in December 2007 (Giri 2007), 40 in February 2009 (Baral 2009) and 40 in February 2011 (Baral 2011). Eight to nine birds are regularly seen in the Kosi Bird Observatory area (Badri Chaudhary, 2015).

In Chitwan National Park 47 birds were recorded along the Rapti River in November 1982 (Halliday 1982). Along the Narayani River in the park 211 were counted in December 1982 (Halliday 1982) and 550 in November 1995 (Dhakal 1996). However, the species has not been recorded in the park or buffer zone for some years (Tek Bahadur Gurung, 2015).

In Pokhara, three birds were recorded in December 2007 (Naylor and Metcalf 2007) and 10 in February 2008 from Pokhara to Chitwan National Park (Giri 2008), six in February 2010 (Baral 2010a).

In Kathmandu, four birds were recorded in November 1997 (Baral 1997) and three in December 2004 (Mallalieu 2005).

In Ghodaghodi Lake, two birds were noted in January 2010 (Baral 2010b).

On Rara Lake one was recorded in October 2015 (Chaudhary et al. 2015).

At the October 2015 RDB Workshop the species was reported to be declining at Badhaiya Lake, Bardia District.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Spot-billed Duck breeds in lakes and swamps, winters by large open lakes and rivers, especially with sandbanks

and sandy islets (Grimmett *et al.* 1998). It is omnivorous, feeding on grains, tender shoots and tubers, crustaceans, molluscs, aquatic insects, reptiles, etc. (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting and disturbance and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Spot-billed Duck. Post-1990 the species has been recorded from Chitwan and Rara National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Spot-billed Duck has been assessed as Near-threatened. It is a quite widespread resident and winter visitor. Since 1990 it has been recorded from a few protected areas and some localities outside the protected areas' system. It has declined in Chitwan National Park and buffer zone; previously it was a frequent winter visitor and passage migrant, but it has not been seen there for some years. Its population is also declining at Badhaiya Lake, Bardia District and may be declining at other localities, e.g. in Koshi area. Habitat loss and degradation, illegal hunting and disturbance and possibly the use of agro-chemicals are threats to this species. Overall its population is considered to be declining.

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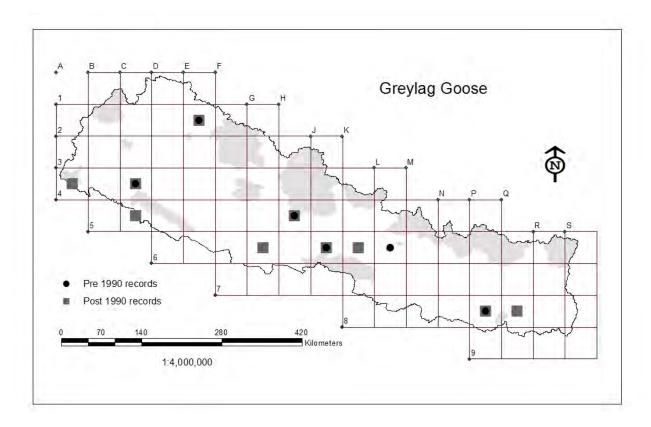
# **Anser anser** Linnaeus, 1758 **NT** Subspecies: *Anser anser rubrirostris*

<u>Common Name</u> Greylag Goose (English), Kal Haans (Nepali)

Order: Anseriformes Family: Anatidae



## **Distribution**



Greylag Goose is a very uncommon passage migrant and a rare winter visitor in the lowlands.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered the species was an occasional migrant. Inskipp and Inskipp (1991) reported the species was an uncommon passage migrant and winter visitor. Inskipp and Inskipp (1991) found it was an uncommon passage migrant and winter visitor, mainly in February and March to Kosi Barrage, though it was also recorded quite widely from other localities from west to east (see map).

The species' status in the protected areas' system post-1990 is: recorded in Sukla Phanta Wildlife Reserve (A4) (Dhiraj Chaudhary); a rare winter migrant to Bardia National Park (C4, C5) (Inskipp 2001); a frequent passage migrant to Rara National Park (E2) (Giri 2005). It is described as an uncommon winter visitor to Chitwan National Park (J6, K6) by Baral and Upadhyay (2006), but few later records are known: singles in Khoria moohan, Narayani River in winter in 2012 (Ashik Gurung) and at Gindaganighat, Rapti River in February 2012 (Basu Bidari) and two at Budi Rapti in January 2013 (BES). It is a rare passage migrant to Koshi Tappu wildlife

Reserve (Q8) (Baral 2005), e.g. two in January 2012 (Chandra S. Chaudhary). In Bardia National Park buffer zone it was recorded from Chisapani (C4), Bardia District (Giri 1997). In Chitwan National Park buffer zone recorded at Khorsor (Manoj Ghimire); one at Laukhani (H6) in January and February 2012 (DB Chaudhary, Bed Bahadur Khadka, Shambhu Mahato, Jeevan Gurau, Kewal Chaudhary), one injured in Budirapti River, Chitwan National Park buffer zone in winter 2014 (Bishnu Mahato), and one near Debauli, Kumaltar Chitwan in November 2015 (Dinesh Giri).

Since 1990 outside the protected areas' system, known records include: singles in Jagdishpur reservoir, Kapilvastu District August 2007 (Dinesh Giri); Phewa lake, Pokhara, Kaski District in February 2014 (Hari KC, Manshanta Ghimire, Ganga Bahadur Ghale), and at Gude Taal, Pokhara in February 2012 (TMPL group); recorded at Koshi Barrage (P8) (Baral 2005, Chhetry 2006); near Kosi Bird Observatory, Jabdi, Sunsari District in January 2012 (KBS) and March 2015 (Badri Chaudhary), and two at Chimdi Lake, Sunsari District in January 2012 (KBS) and three there in February 2015 (Suchit Basnet).

Globally the species has been recorded from Afghanistan, Albania, Algeria, Argentina, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Falkland Islands (Malvinas), Faroe Islands (to Denmark), Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, South Korea, Spain, Sri Lanka, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Yemen (BirdLife International 2013).

#### **Elevation**

Upper limit: 275 m (- 2990 m); lower limit: 75 m

#### **Population**

Nine individuals were observed in February 1981 at Koshi Tappu Wildlife Reserve (Baker 1981), four in February 1993 (Giri 1993), one in March 1996 (Daulne and Goblet 1996), seven in March 2001 (Baral 2001) and 27 in February 2008 at Koshi Barrage (Tribe 2008). At Koshi Barrage the unusually high number of about 125 was recorded in February 1974 (Madge *et al.* 1974) and 45 there in February 1989 (Linderstrom 1989).

In Bardia National Park, one bird was recorded in March 1997 (Roberts 1997), two in January 2001 (Chaudhary 2001), and one was seen at Chisapani, Bardia District in March 1997 (Giri 1997).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Greylag Goose inhabits wet grasslands and crops, lakes, large rivers and spits. It is very shy and wary: a bird of open country (Grimmett *et al.* 1998). Typically it flies out to its accustomed feeding grounds in evenings and is active throughout the night - sometimes well after sunrise (Ali and Ripley 1987). It feeds by grazing, also by upending in shallow water (Grimmett *et al.* 1998). It is almost entirely vegetarian; forages mainly at night on crops and wet grassland (Grimmett *et al.* 1998). The species spends daytime swimming on large lakes or rivers or loafing or spits or in open fields. Its flight is swift and strong, often in V-formation (Grimmett *et al.* 1998).

## **Threats**

Habitat loss and degradation, hunting, disturbance and collisions with power lines are threats to the species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Greylag Goose. Since 1990 it has been recorded from Bardia, Rara and Chitwan National Parks, and Koshi Tappu Wildlife Reserve.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Greylag Goose has been assessed as Near-threatened. It is a very uncommon passage migrant bird and rare winter visitor to the lowlands. Since 1990 the numbers of individuals and frequency of occurrence have declined at its two main sites: Koshi area and Chitwan National Park and buffer zone. although there is no indication of a contraction of range. Habitat loss, degradation, and human persecution and disturbance during migration are threats to the species.

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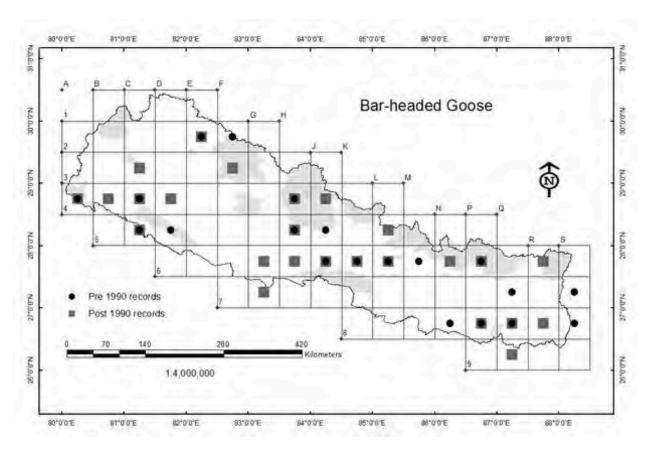
## Anser indicus Latham, 1790 NT

<u>Common Name</u>
Bar-headed Goose (English),
Khoya Haans (Nepali)

Order: Anseriformes Family: Anatidae



# $\underline{\text{Distribution}}$



Bar-headed Goose is a local winter visitor in small numbers, and also a common passage migrant. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve in the far west (Baral and Inskipp 2009) to Kanchenjunga Conservation Area in the far east (Inskipp *et al.* 2008).

The first Nepal record of the bird was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered the species was a common passage migrant on broad rivers of terai in spring and a regular visitor to Koshi area in small numbers between October and November. Inskipp and Inskipp (1991) reported the species was a fairly common passage migrant and mapped its distribution from the far west to the far east. It was found to winter regularly at Chitwan, and occasionally at Bardia and Koshi.

Roberts (1987) recorded about 1500 birds flying north over Karnali at Bardia (C5) between March and April and 963 during 1988 (Roberts 1988).

The species' status in the protected areas' system post-1990 is: a frequent in Sukla Phanta Wildlife Reserve

(A4) (Baral and Inskipp 2009); winter visitor to Khaptad National Park (C3) (Chaudhary, 2006); a common migrant to Bardia National Park (C4, C5) (Inskipp 2001); a frequent passage migrant to Rara National Park (E2) (Giri 2005); recorded in Shey-Phoksundo National Park (F3) (Priemé and Øksnebjerg 1994); an uncommon migrant to Annapurna Conservation Area (H3, H4, H5) (Inskipp and Inskipp 2003). The species was listed as a frequent winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006), but noted as a locally fairly common winter visitor to the Narayani River (RDB Workshop, October 2015). It is a passage migrant to Langtang National Park (L5, M5) with less than five records (Karki and Thapa 2001); recorded in Gaurishankar Conservation Area (N6) (Baral and Shah 2009); a passage migrant to Sagarmatha National Park (P6) with less than five records (Basnet 2004); an occasionally recorded migrant to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005), and recorded from Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). The species has been recorded in Chitwan National Park buffer zone: on the Rapti River, Sauraha area, Chitwan District (Tika Giri, Raju Tamang, Fuleshwor Chaudhary); at Tharu Cultural Village Resort, Nawalparasi District (H6) in December 2011 (Baral 2011), and in the Khageri/Budhi Rapti river (RDB Workshop, October 2015). It has also been recorded in Bardia National Park buffer zone in the Khata Corridor (C5), Bardia District (Chaudhari 2007).

Bar-headed Goose has been recorded fairly widely outside the protected areas' system post-1990, see text below and map.

Records include: from Geta (B4), Kailali District in March 1992 (Baral 1992), Tikapur (C5), Kailali District in July 2013 (Baral *et al.* 2013); between Simikot and Chyakpalung (D2), Humla District between May and June 2013 (Ghimirey and Acharya 2013); between Kotuwa and Gai banne (D4), Dailekh District in March 1997 (Giri 1997); Dang District (E5) (Dinesh Giri); Jagadishpur (G6), Kapilvastu District in March 2007 and 2012 (5 and 2); Danu river (G7), Rupandehi District in March 2009 (Dinesh Giri), Phewa Lake (H5), Kaski District between August 2003 and July 2004 (Gautam and Kafle 2007), rare passage migrant and winter visitor to Taudaha Lake, Kathmandu Valley in small numbers ( (Rishi Baral, BCN, Mallalieu 2008); Biratnagar (Q9), Morang District in March 1994 (Baral 1994); Sunischare (R8), Morang District (Buckton and Morris 1990), Mabu (R7), Mai Majuwa (S7) and Hange Tham (S7), upper Mai valley (Robson *et al.* 2008).

Globally the species has also been recorded from Afghanistan, Bangladesh, Bhutan, Canada, China (mainland), Guam (to USA), India, Japan, Kazakhstan, Kyrgyzstan, Laos, Micronesia, Federated States of, Mongolia, Myanmar, Pakistan, Palau, Russia (Asian), Russia (Central Asian), Spain, Tajikistan, Thailand, Uzbekistan, Vietnam (BirdLife International 2013).

#### **Elevation**

Upper limit: 9375 m; lower limit: 75 m

#### **Population**

299, 175, 204, 207, 266, 345 from 2008 to 2013 respectively (Baral 2013).

Six were seen at Sukla Phanta Wildlife Reserve in March 2013 and four in 2014 (Dhiraj Chaudhary).

One at Badhaiya lake in January 2014 (BNCC) and three in Lal mati area, Bardia National Park in February 2014 (Ram Bahadur Shahi).

23 on Phewa lake, Kaski District in winter 2011 winter and two there in March 2014 (Hari KC).

In Chitwan National Park, 180 were observed between 6 and 12 January 1996 (Dhakal 1996). The midwinter waterbird count recorded 106 between 13 and 18 July 2005 (Khadka 2005), 181 between 18 and 23 January 2010 (Khadka 2010), 193 between 4 and 9 February 2011 (Khadka 2012) and 258 between 4 and 9 February 2012 (Khadka 2013). A total of 247 birds was was recorded on the Narayani and Rapti Rivers in February 2013 (Bed Bahadur Khadka), 323 on the Narayani River in January 2014 (BES), and 367 from Kujaili to Amaltari (c. 12 km) in January 2015 (DB Chaudhary). A total of 20 was seen in flooded fields with rice stubble feeding with Common Cranes *Grus grus* north of Megauli, Chitwan National Park buffer zone in 2014 (Tek Bahadur Gurung)

In Koshi Tappu Wildlife Reserve 119 were recorded on 16 March 1995 (Lama 1995). Recent reports indicate that the species is still seen in the area mainly on passage, usually less than 50 birds in total (Badri Chaudhary 2014). Four to five groups. each comprising 100-150 birds were seen at Koshi in April 2015 (Suchit Basnet). Nine birds were recorded at Chimdi lake, Sunsari District in February 2015 (Hathan Chaudhary) and 12 at Koshi

Bird Observatory in March 2015 (Sanjib Acharaya).

The species is considered to be declining in Koshi Tappu (Anish Timsina and Suchit Basnet. October 2015) and Chitwan (Bishnu Mahato October 2015) and Phewa Lake (Hari KC, October 2015).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Bar-headed Goose usually breeds in lakes and swamps on high mountain plateaus and winters near large open lakes and rivers, especially with sandbanks and sandy islets (Grimmett *et al.* 1998). One flock of the birds was seen flying as high as 9375m (Schaller 1980) an unusually high altitude record for any bird species on a global scale. This species has been frequently quoted in the literature to demonstrate the high flying capacity of birds, e.g. Hawkes *et al.* (2011). It is gregarious throughout the year (Grimmett *et al.* 1998) and a crepuscular and nocturnal feeder, feeding in cultivation or grassland on river banks resulting in considerable local damage to winter crops (Ali and Ripley 1987, Grimmett *et al.* 1998). It is tame and confiding on its breeding grounds; however, becomes extremely wary and difficult to approach in its winter quarters (Ali and Ripley 1987, Grimmett *et al.* 1998). The species is almost exclusively vegetarian feeding on grass, tubers, tender shoots of wheat, gram and other winter crops and also paddy in stubbles (Ali and Ripley 1987).

#### **Threats**

Bar-headed Goose is threatened by habitat loss and degradation; water pollution and poisoning, and hunting during migration.

### **Conservation Measures**

There are no conservation measures specifically carried out for this species. Post-1990 it has been recorded from Khaptad, Bardia, Rara, Shey-Phoksundo, Chitwan, Langtang, and Sagarmatha National Parks; Annapurna, Gaurishankar and Kanchenjunga Conservation Areas, and Sukla Phanta and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Bar-headed Goose has been assessed as Near-threatened. The species is a local winter visitor in small numbers and also a passage migrant recorded from the far west to the far east. Since 1990 it has been recorded from a number of protected areas and quite widely outside the protected areas' system. There has been a significant increase in recording of its distribution post-1990 compared to pre-1990, due to better coverage. Bar-headed Goose is threatened by habitat loss and degradation and human persecution during migration. The species' wintering population is declining in at least three sites and its passage migrant population is probably also declining. Regular and consistent monitoring of passage migrant birds is recommended including on the Karnali River, Bardia District where systematic counts were made in 1988.

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# Aythya ferina Linnaeus, 1758 NT

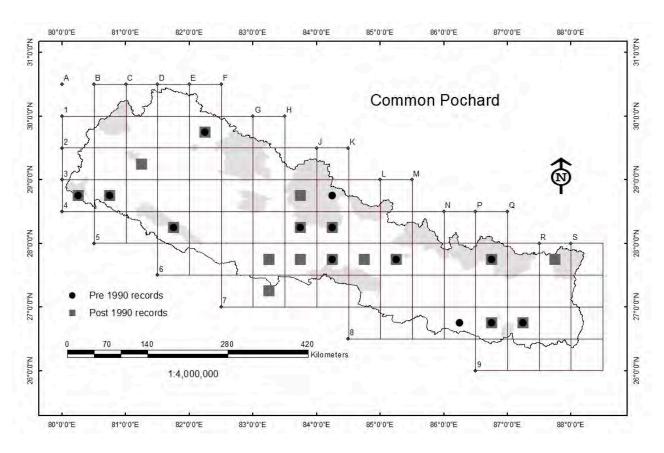
## Common Name

Common Pochard (English), Kailotauke Haans (Nepali)

Order: Anseriformes Family: Anatidae



# Distribution



Common Pochard is a locally frequent winter visitor and passage migrant to Nepal. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first definite Nepal record of the species was in 19<sup>th</sup> century (Proud 1949).

Fleming *et al.* (1976) considered the species an occasional winter visitor and passage migrant on large lakes and many on large terai rivers in spring. Inskipp and Inskipp (1991) reported the species as mainly a winter visitor and passage migrant and mapped its distribution from the far west to the east.

The species' status in the protected areas' system post-1990 is: a fairly common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a winter visitor to Khaptad National Park (C3) (Chaudhary 2006). Barber (1990) considered the species was a frequent passage migrant and possibly a resident in Rara National Park (E2); however, Giri (2005) reported the species was a passage migrant to the area. It is an uncommon passage migrant to Annapurna Conservation Area (H5, J5) (Inskipp and Inskipp 2003). Baral and

Upadhyay (2006) listed it as a frequent winter visitor to Chitwan National Park (J6, K6), but later records indicate it is uncommon. It is a rare passage migrant to Sagarmatha National Park (P6) (Basnet 2004). Baral (2005) listed the species as a common winter visitor to Koshi Tappu Wildlife Reserve (P8,Q8) (Baral 2005), but it has declined (Badri Chaudhary, October 2015), see Population section. It has been recorded from Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). In Chitwan National Park buffer zone it has been recorded at Sauraha in March 1994 (Zerning and Braasch 1994) and Bees Hazari Lake in December 1998 (Smith 1999).

Since 1990 Common Pochard has been recorded from several localities outside the protected areas' system. Records include: a fairly common winter visitor to Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012); recorded at Nepalgunj (D5), Banke District in March 1992 (Baral 1992); a winter visitor to Jagadishpur Reservoir (G6), Kapilvastu District (Baral 2008); Lumbini (G7), Rupandehi District (Suwal *et al.* 2002); Phewa Lake (H5) in January 2012 (Dymond 2012), where numbers have declined (see Population section) and Rupa Lake (J5) (Kafle *et al.* 2008), Kaski District; an uncommon and local visitor to the Kathmandu Valley (L6) (Mallalieu 2008), and a scarce winter visitor to Chimdi Lake (Q8), Sunsari District (Surana *et al.* 2007).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Lebanon, Libya, Macedonia, the former Yugoslav Republic of, Malta, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, Spain, Sri Lanka, Sweden, Switzerland, Syria, Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan (BirdLife International 2013).

## **Elevation**

Upper limit: 3450 m; lower limit: 1500 m

## **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Common Pochard population counts were 132, 188, 140, 84, 120, 101 from 2008 to 2013 respectively (Baral 2013).

The maximum number of birds recorded was 500 on Phewa Tal, Pokhara valley in March 1986 (Alind 1986). Smaller numbers have been recorded in later years: 50 birds in November 1993 (Eadson 1993), 30 in December 2006 (Naylor *et al.* 2006), 50 in February 2008 (Giri 2008), 50 in March 2009 (Harrap and Karki 2009), and 70 in February 2010 (Baral 2010b).

In Koshi Area, 60 birds were recorded in Jaunuary 1994 (Choudhary 1994), 82 in March 1995 (Choudhary 1995), 40 in November 1996 (Giri 1996), more than 50 in February 1997 (Betton 1997), 70 in February 1998 (Chaudhary 1998), 40 in February 2002 (Malling Olsen 2004), 38 in February 2003 (Baral 2003), 25 in February 2004 (Malling Olsen 2004), 22 in February 2007 (Choudhary 2007), eight in March 2010 (Baral 2010a).

In Kathmandu, one bird was recorded in September 1992 at Taudaha (Baral 1993), two in November 1994 (Baral 1994), three in December 1996 (Baral 1997) and nine in February 2001 (Baral and GC 2001).

In Chitwan National Park, 10 birds were observed in January 1996 (Dhakal 1996), nine in January 1997 (Chaudhary 1997), two in April 1999 (Choudhary 1999) and one in January 2003 (Giri 2003) and 27 birds were recorded during the Midwinter waterbirds count between 18-23 January 2010 (Khadka 2010).

A flock of 30 birds was recorded in March 2000 at Rara National Park (Regmi 2000).

In Jagadishpur reservoir, 200 birds were observed in December 2010 (Baral 2011a) and 200 in December 2011 (Baral 2011b).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Common Pochard frequents lakes, jheels and reservoirs with large areas of open water deep enough to allow diving; occasionally on rivers (Grimmett *et al.* 1998). The species is highly gregarious and nocturnal feeder where subjected to disturbance, flighting to its feeding ground at dusk and returning at dawn, often gathering in flocks of several hundreds (Ali and Ripley 1987). The species feeds chiefly under water by diving, sometimes also by upending or dabbling (Grimmett *et al.* 1998). It is omnivorous, feeding on rhizomes, buds, shoots, seeds of aquatic plants and animal matter includes crustacean, molluscs, water insects and larvae, worms and occasionally tadpoles and small fish (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to this species.

## **Conservation Measures**

No specific conservation measures have been carried out for Cattle Egret. Post-1990 the species has been recorded from Khaptad, Rara, Chitwan and Sagarmatha National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserve, Annapurna and Kanchenjunga Conservation Areas.

#### **Regional IUCN Status**

Near-threatened (NT) down-graded from Global Red List status: Vulnerable (VU)

# Rationale for the Red List Assessment

Common Pochard has been assessed as Near-threatened. It is a locally frequent winter visitor and passage migrant recorded from the far west to the far east. Since 1990 it has been recorded from several protected areas and several localities outside the protected areas' system. There has been no significant change in distribution post-1990 compared to pre-1990. However, numbers have declined in recent years at Koshi and in the Pokhara valley. Habitat loss and degradation, hunting and disturbance are threats to this species. The population is probably declining.

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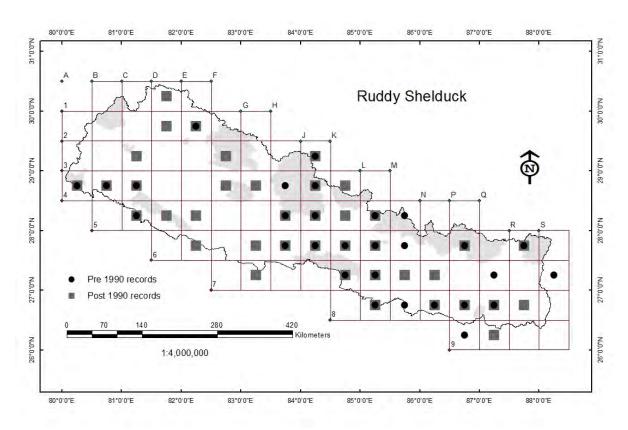
# Tadorna ferruginea Pallas, 1764 NT

<u>Common Name</u> Ruddy Shelduck (English), Chakhewaa-Chakhewi (Nepali)

Order: Anseriformes Family: Anatidae



# **Distribution**



Ruddy Shelduck is mainly a fairly common winter visitor to the lowland and a rare breeding bird in the high mountains. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the Mai Khola, Jhapa District (Dheeraj Chaudhary, KBS in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a common winter visitor and a resident in Nepal. Inskipp and Inskipp (1991) reported the species as a common winter throughout the lowlands; also breeding in Himalayan lakes and a passage migrant, and mapped its distribution from the far west to the far east.

The species is by far the most well-known duck for many Nepalis. Post 1990, the species was recorded as high as 5250-5387 m at Ghemi Lekh of Upper Mustang (Chetri 2007).

The species' status in the protected areas' system post-1990 is: a fairly common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a winter visitor to Khaptad National Park (C3) (Khadka 1996); a

common winter visitor to Bardia National Park (C4, C5) (Inskipp 2001); recorded in Banke National Park (D5) (Baral et al. 2012); a fairly common migratory bird to Rara National Park (E2) (Giri 2005); recorded in Shey-Phoksundo National Park (F3) (Priemé and Øksnebjerg 1995); recorded in Dhorpatan Hunting Reserve (F4, G4) (Panthi and Thagunna 2013); a frequent migrant to Annapurna Conservation Area (ACA) (H3, H4, J4, J5) (Inskipp and Inskipp 2003). It is also a breeding summer visitor to Upper Mustang (J3), ACA (Acharya 2002), e.g. Chhojung, upper Mustang in June 2000 (Karan Shah), Damodar Kunda, Titi Lake, Sekong Lake and Bhutur-Tso (Karan Shah, Tashe R Gale cited by Rajendra Gurung); also recorded in Upper Mustang in March 2014 (Tek Bahadur Gharti Magar, Tashi R Ghale, Naresh Kusi, Manshanta Ghimire, Rajendra Gurung) and in Manang: on Ice Lake, Dhikur Pokhari below Pisang, and Gangapurna Lake, where seen nearly all year (Tashi R Ghale cited by Rajendra Gurung); recorded in Manaslu Conservation Area (K4) (Thakuri 2013); a common winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a winter visitor to Parsa Wildlife Reserve (K7) (Todd 2001); a rare breeding summer visitor to Langtang National Park (L5) (Karki and Thapa 2001); in Shivapuri Nagarjun National Park, recorded on Shivapuri Dhaap Reservoir in 2013 (Gopal Prakash Bhattarai); a locally distributed summer migrant to Sagarmatha National Park (P6) (Basnet 2004); a common winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005a), and recorded in Kanchenjungha Conservation Area (R6) (Inskipp et al. 2008). The species has been recorded in Chitwan National Park buffer zone including from Barandabhar forest and wetlands (Adhikari et al. 2000), Sauraha e.g. in October 2000 (Stair and Stair 2000), Bees Hazari Lake and Janakauli Community Forest, Chitwan District, e.g. in February 2008 (Giri 2008), Gundre Khola in November 2007 (Baral 2007) and Tharu Cultural Village Resort in December 2011 (Baral 2011a), Nawalparasi District.

Ruddy Shelduck has been recorded widely outside the protected areas' system since 1990, in suitable habitat and within its altitudinal range (see map and text). Post-1990 records outside the protected areas' system follow.

In the west records include: Mahakali River (A4), Kanchanpur District in February 2008 (Baral 2008a); a common winter visitor to Ghodaghodi Lake Area (B4), (CSUWN and BCN 2012); Tikapur (C5) in July 2013 (Baral et al. 2013), Kailali District; a winter visitor and passage migrant to Badhaiya Lake (C5), Bardia District (Bhuju et al. 2007); recorded between Simikot and Chyakpalung (D2), Humla District in May- June 2013 (Ghimirey and Acharya 2013), also recorded there in 2014 and 2015, see Population section (Naresh Kusi and Geraldine Werhahn); Nepalganj (D5), Banke District in December 1998 (Chouhdary 1999); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009 a,b); Jakhera Tal, Dang District (Chiranjeevi Kanal); Gaidahawa Lake, Rupandehi District (G6) in February 2011 (Baral 2011b) and Lumbini (G7), Rupandehi District in February 2011 (Acharya 2011); regularly seen on Phewa Lake (H5) and Khaste Lake, Kaski District (TMPL) e.g. November 2010 (Adcock and Naylor 2011); Budigandaki River (K5), Gorkha District in February 2008 (Giri 2008), and Madi valley in Tanahu District 2014 (SMCRF, Suraj Baral).

In the central area records include: from Bharatpur (J6), Chitwan District in February 2005 (Baral 2005b); Trisuli River, Nuwakot District in February 2015 (Sunaina Raut); and Jugedi, Trisuli River in February 2014 (Tika Giri); Malekhu, Dhading District in February 2015 (Tika Giri); an uncommon and local visitor, mainly in winter in Kathmandu Valley (L6) (Mallalieu 2008); regularly seen at Taudha and on Bagmati River (Friends of Bird/BCN); regularly seen at Hetauda (L7), Makwanpur District, e.g. in December 1995 (Rasmussen and Strange 1995) and 2013-15 (Tika Giri); Raigaun, along Bagmati River, Makwanpur District in April 2015 (Hari Basnet, Sabita Gurung) between Sedhawa (L8), Siraha District and Lal Bakaiya River (L8), Rautahat District in April 2003 (Cox 2003).

In the east records include: from Tamakoshi River (N7), Ramechhap District in April 2012 (Phuyal 2012); near Nepalthok (M7/N7), Sindhuli District (Bimal Kumar Sharma verbally 2013); Trijuga River (P8), Udaypur District and Bhagalpur (P8), Saptari District in January 1994 (Choudhary 1994); a scarce winter visitor to Chimdi Lake (Q8), Sunsari District (Surana *et al.* 2007); recorded from Biratnagar (Q9), Morang District in March 1994 (Baral 1994); Bakra Khola, Morang District in February 2014 and at Chimdi lake, Sunsari District (KBS), and by Mai Khola, Jhapa District in March 2015 (Dheeraj Chaudhary, KBS).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, France, Germany, Ghana, Gibraltar (to UK), Greece, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Mauritania, Moldova, Mongolia,

Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, South Korea, Spain, Sudan, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Yemen (BirdLife International 2013).

## **Elevation**

Upper limit: 915 m (- 2750 m) m winter; 5387 m (breeding); lower limit: 75 m; 4600 m (summer)

#### **Population**

About 100 pairs of the bird were estimated to be present and breeding in high altitude lakes of Nepal (Baral 2009a). Chitwan National Park, Koshi Tappu Wildlife Reserve, Karnali River and Bardia National Park meet 1% population criteria of the bird in Southeast Asia (Li *et al.* 2009)

During the Midwinter waterbird count globally coordinated by Wetlands International, the Nepal Ruddy Shelduck population counts were 5,863, 4,525, 6,968, 5,753, 7,552, 8,693 from 2008 to 2013 respectively (Baral 2013). This national total is quite low compared to nearly 9,000 birds recorded in 1982 only in Rapti and Narayani rivers (Halliday 1982). These figures indicate a national level population decline in spite of the much improved counting and additional site coverage in recent years.

In Koshi Area, 250 birds were recorded in December 1991 (Baral 1992), 302 in December 1992 (Baral 1993), 300 in December 1993 (Choudhary 1994), 700 in January 1994 (Chaudhary 1994), 471 birds were recorded in March 1995 (Choudhary 1995), 202 in January 1996 (Baral 1995/1996), 150 in November 1997 (Chaudhary 1997), 263 in February 1998 (Chaudhary 1998), 160 in January 1999 (Ghimire and Karki 1999), 150 in December 2000 (Chaudhary 2001), 300 in December 2001 (Baral 2001), 175 in January 2002 (Giri and GC 2002), 441 in February 2003 (Chaudhary 2003), 600 in November 2004 (Baral and Chaudhary 2004), 250 in February 2005 (Baral and Birch 2005), 1000 in December 2007 (Chaudhary 2007), 264 in January 2009 (Baral 2009b), 250 in February 2010 (Baral 2010), 150 in February 2011 (Baral 2011b), 90 in February 2012 (Naylor and Metcalf 2012) and 400-500, 2013-15 (Suchit Basnet and Anish Timsina).

On the Narayani River, Chitwan National Park Halliday (1982) recorded 8,895 birds in December 1982 while Dhakal (1996) recorded the much smaller number of 1,055 birds in January 1996. In a review of ten years of wetland count data between 1989 and 1999 in three Chitwan wetlands in the national park and buffer zone, a decline of Ruddy Shelduck was also recorded (Baral 1999). Later figures from the whole of Chitwan National Park confirm the decline compared to 1982 figure for only the Narayani River, see below. The Midwinter Waterbird count recorded 2,917 in January 2005 (Khadka 2005), 4,952 in January 2010 (Khadka 2010), 5,879 in February 2011 (Khadka 2012), 5,549 in February 2012 (Khadka 2013), 6,111 in February 2013, 7,499 in January 2014, and 5,051 in 2015 (Bed Bahadur Khadka).

Other records from the park include: 60 in February 1991 (Baral 1993), 195 in January 1993 at Rapti River (Giri 1993), 484 in January 1996 (Dhakal 1996), 250 in November 1997 (Baral 1997), more than 130 in February 1999 (Sterling 1999), 125 in November 2000 (Basnet 2000), 873 in January 2005 (Khadka 2005), 103 in December 2007 (Chaudhary 2007), 350 in December 2008 (Baral 2009c), 1253 in January 2010 (Khadka 2010), 1677 in February 2011 (Khadka 2012) and 1603 in February 2012 (Khadka 2013).

In Bardia National Park, 200 in January 1992 (Baral 1992), 200 in November 1997 (Chaudhary 1998), 200 in December 2007 (Baral 2008a).

Sukla Phanta Wildlife Reserve: 200 regularly recorded in winter 2013-2015 (Dheeraj Chaudhary)

Sakya Khola, Humla District, 16 chicks counted in June 2014 and eight in August 2015; also two breeding pairs in Ngin Khola, two breeding pairs on Talung Lake and three pairs on the Gyau Khola (Naresh Kusi and Geraldine Werhahn).

Rara Lake, 30 in 2010-11 (Chandra S. Chaudhary verbally 2015).

Nepalguni, 300 in December 1998 (Choudhary 1999).

Babai River, Bardia National Park, 25 in 2009 (Chandra S Chaudhary).

Badhaiya Lake and Orai River, Bardia District, regularly seen, 166 in 2013-2015 (BNCC).

Rapti River, Dang district usually 30-40 birds, maximum 100, 2010-13 (Dinesh Giri).

Gaidahawa Lake, 60 in February 2013 (Dinesh Giri).

Jagdishpur Reservoir, Kapilvastu District, 150-200, 2006-14 (Dinesh Giri). In Pokhara, 50 in December 2004 (Naylor and Giri 2004), 30 in December 2009 (Thewlis *et al.* 2009), 25 in November 2010 (Adcock and Naylor 2011), and 42 in November 2014 (Hari KC verbally 2015). 2

Along Narayani River, Nawalparasi District, 300 in December 2011 (Baral 2011a).

Tribeni, Nawalparasi District, 50 in January 2013 (Dinesh Giri)

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Ruddy Shelduck breeds around high-altitude lakes and swamps, winters by large open lakes and rivers, especially with sandbanks and sandy islets (Grimmett *et al.* 2008). The species is less gregarious than other ducks; usually seen in pairs and small parties (Ali and Ripley 1987, Grimmett *et al.* 2008). The species is less aggressive in disposition and intolerant of feeding competitors of its own and other species (Ali and Ripley 1987). The species usually feeds by grazing on banks of rivers; also by wading in shallows, dabbling and upending; extremely wary on its wintering grounds, but can be tame and confiding in its breeding areas (Grimmett *et al.* 2008). Post 1990, the breeding of the species has been confirmed in Annapurna Conservation Area: Upper Mustang (Acharya 2002), also one adult and one fledgling in 2000 in Chhojung, Upper Mustang (Karan Shah 2015), also on Dhikur Pokhari, Manang (Tashi R Ghale cited by Rajendra Gurung). It has bred on Gokyo Lakes, Sagarmatha National Park and upper Humla in 2014 (Naresh Kusi) (see Population section). It is omnivorous, feeding on grains, tender shoots and tubers, crustaceans, molluscs, aquatic insects, reptiles, etc. (Ali and Ripley 1987).

#### **Threats**

Ruddy Shelduck is threatened by both hunting and disturbance (mainly by fishermen and boating), and the loss and degradation of wetlands. It has been widely hunted using guns, different types of traps including mistnets, and other trapping methods for meat. Farmers in the lowlands have used poison to kill the birds and every year during winter many birds are killed throughout its winter habitat. Loss and degradation of habitat including loss of feeding areas due to invasive species, water extraction, and possibly agrochemicals are other threats to the species.

### **Conservation Measures**

No specific conservation measures have been carried out for Ruddy Shelduck. Post-1990 the species has been recorded from Khaptad, Bardia, Banke, Rara, Shey-Phoksundo, Chitwan, Langtang and Sagarmatha National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, Annapurna, Manaslu and Kanchenjunga Conservation Areas and Dhorpatan Hunting Reserve.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Ruddy Shelduck is assessed as Near-threatened. The species is mainly a fairly common winter visitor to the

lowland and a rare breeding bird of the high mountains. The majority of the Nepal population lies mainly inside protected areas. Recent annual Midwinter Waterbird counts indicate a decline in spite of much improved coverage and better counting methods in recent years. Ruddy Shelduck is widely hunted and trapped and is also threatened by the loss and degradation of wetlands, including loss of feeding areas due to invasive species, use of agrochemicals and water extraction. Currently there is no indication of a contraction of its distribution pre 1990 and post 1990.

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# Anas clypeata Linnaeus, 1758 LC

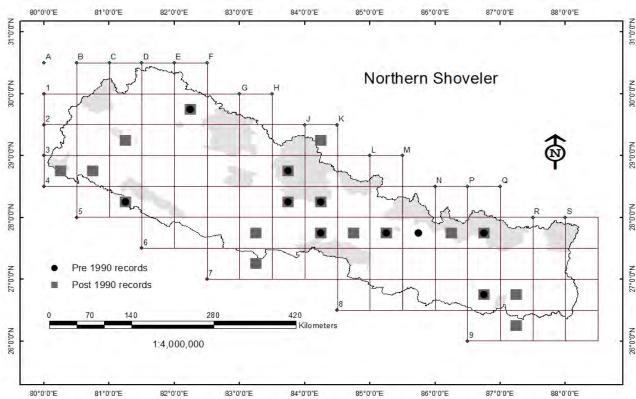
# Common Name

Northern Shoveler (English), Belchathunde Haans (Nepali)

Order: Anseriformes Family: Anatidae







Northern Shoveler is mainly a passage migrant and rare winter visitor.

The species was first recorded in Nepal in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species fairly common passage migrant on large rivers of the Terai in spring; Inskipp and Inskipp (1991) described the species as mainly a passage migrant between March and May. The species was common at Koshi Barrage and occasionally seen elsewhere (Inskipp and Inskipp 1991). Mills and Preston (1981) recorded the species at an elevation of 4570 m at Gokyo Lake in May 1981. However, the species was also reported in autumn from Jomosom in October (Beaman 1973) and at Chitwan and in the Kathmandu Valley in November (Inskipp and Inskipp 1991). Winter records of the species were obtained from Koshi Barrage, Phewa Lake, Begnas Lake and Kathmandu Valley (Inskipp and Inskipp 1991). Rossetti (1978) recorded a pair on July 1978 at Begnas Lake.

Post-1990 the species' status in protected areas is: a frequent winter visitor to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), frequent winter visitor to Rara National Park [E2] (Giri 2005), uncommon passage migrant in the Annapurna Conservation Area [H4, H5, J5] (Inskipp and Inskipp 2003), uncommon winter visitor to Chitwan National Park [J6, K6] (Baral and Upadhyay 2006), recorded from Gaurishankar

Conservation Area [N6] (Baral and Shah 2009), a rare passage migrant to Sagarmatha National Park [P6] (Basnet 2004), and a common winter visitor to Koshi Area [P8, Q8] (Baral 2005a).

Since 1990 the species has been recorded less widely outside the protected areas' system compared to within protected areas. Records include: a frequent winter visitor to Ghodaghodi Lake area, Kailali District [B4] (CSUWN and BCN 2012), recorded from Badhaiya Lake, Bardia District [C5] (Bhuju *et al.* 2007), winter visitor to Jagadishpur reservoir, Kapilvastu District [G6] (Baral 2008), recorded from Lumbini, Rupandehi District [G7] (Suwal *et al.* 2002), Pokhara Valley, Kaski District [H5] (Naylor and Metcalf 2007; Dymond 2012), Bees Hazari Lake, Chitwan District [J6] (Baral 1996), uncommon and local mainly in winter at Taudaha and adjacent Bagmati River in Kathmandu Valley [L6] (Mallalieu 2008) and Malpokhari, Kirtipur [L6] (Baral 1993a), a scarce migrant to Chimdi Lake, Sunsari District [Q8] (Surana *et al.* 2007), and recorded from Biratnagar, Morang District [Q9] (Baral 1994a).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Anguilla (to UK), Antigua and Barbuda, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Bermuda (to UK), Bhutan, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, China (mainland), Colombia, Congo, The Democratic Republic of the, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, French Polynesia, Gambia, Georgia, Germany, Ghana, Greece, Greenland (to Denmark), Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Martinique (to France), Mauritania, Mexico, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Panama, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, Ukraine, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013).

## **Elevation**

Upper limit: 4570m; lower limit: 75 m

# **Population**

During the Midwinter waterbird count globally coordinated by Wetlands International, the Nepal Northern Shoveler population counts were 118, 126, 179, 52, 17, 51 from 2008 to 2013 respectively (Baral 2013).

In Koshi Area, 1500 birds were recorded in March 1986 (Dymond 1986) – the maximum number recorded in Nepal from one locality; 150 birds were recorded in March 1989 (Bose *et al.* 1989), 41 in March 1992 (Baral 1992), 32 in March 1993 (Danielsen and Falk 1993), 63 in January 1994 (Chaudhary 1994), 280 in March 1995 (Choudhary 1995), 62 in December 1996 and 202 in January 1997 (Chaudhary 1997), 81 in February 1998 (Chaudhary 1998), 73 in February 1999 (Choudhary 1999), 20 in November 2000 (Basnet 2000), 20 in March 2001 (Baral 2001), 212 in February 2002 (Chaudhary 2002), 28 in February 2003 (Chaudhary 2003), 10 in February 2004 (Malling Olsen 2004), 62 in February 2005 (Baral 2005b), 56 in February 2007 (Choudhary 2007), and 10 in April 2008 (Chaudhary 2008).

In Chitwan National Park, six birds were recorded in January 1996 (Dhakal 1996) and two in January 2003 (Giri 2003).

In Sukla Phanta Wildlife Reserve, three birds were recorded in January 2011 (Baral 2011).

In Ghodaghodi Lake, three birds were recorded in January 1992 (Baral 1992).

In Jagadishpur reservoir, Kapilvastu, 10 birds were recorded in December 2010 (Baral 2011).

In Kali Gandaki valley, four birds were recorded March 1999 (Basnet 1999).

In Pokhara, 14 birds were recorded in January 2005 at Phewa Tal (Mallalieu 2005), 15 in December 2007 (Naylor and Metcalf 2007), 15 in February 2008 (Giri 2008), eight in February 2009 (Harrap and Karki 2009) and 28 in December 2009 (Naylor *et al.* 2009), and 20 in January 2012 (Dymond 2012).

In Taudaha, Kathmandu, three birds were noted in November 1992 (Baral 1993b), four in November 1994 (Baral 1994b) and two in December 2004 (Mallalieu 2005). In Kathmandu, 35 birds were recorded in February 2001 (Baral and GC 2001).

In Biratnagar, five birds were recorded in March 1994 (Baral 1994a).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Northern Shoveler frequents all types of shallow fresh waters: lakes, reservoirs, small pools, ditches and rivers (Grimmett *et al.* 1998). It is omnivorous, feeding on crustaceans, molluscs, aquatic insects and their larvae, fish spawn, worms and sometimes on grains, seeds, tender shoots and tubers etc. (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting and disturbance and possibly agro-chemicals are threats to the species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Northern Shoveler. Post-1990 the species has been recorded from Rara National Park, Chitwan National Park, Sagarmatha National Park, Makalu-Barun National Park, Sukla Phanta Wildlife Reserve, Koshi Tappu Wildlife Reserve, Annapurna Conservation Area and Gaurishankar Conservation Area.

# Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Northern Shoveler has been assessed as Least Concern. The species is mainly a passage migrant and rare winter visitor. Since 1990 it has been recorded from a number of protected areas, but less widely outside the protected areas' system. Habitat loss and degradation, illegal hunting and disturbance and possibly agrochemicals are threats to the species. There is indication of a small population decline in its population, but not large enough to warrant a threatened category for the species.

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## Anas crecca Linnaeus, 1758 LC

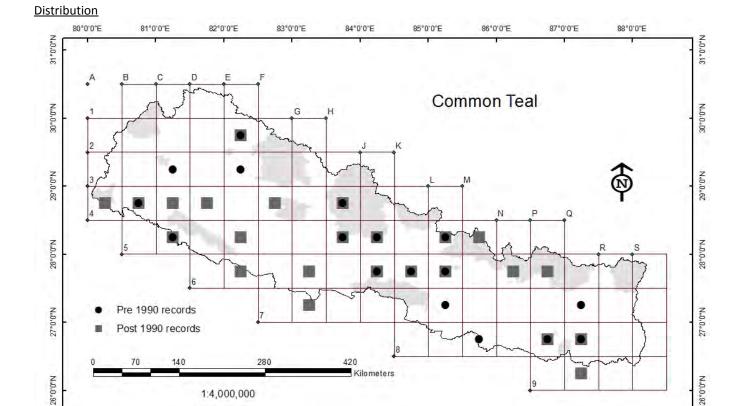
Subspecies Anas crecca crecca

# Common Name

Common Teal (English), Bijulagairi (Nepali)

Order: Anseriformes Family: Anatidae





Common Teal is a common winter visitor and passage migrant to Nepal. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Biratnagar, Morang District (Baral 1994a) in the far east.

84°0'0"E

85°0'0"E

86°0'0"E

The first Nepal record of the species was in the 19th century (Hodgson 1844).

82°0'0"E

81°0'0"E

80°0'0"E

Fleming *et al.* (1976) considered the species a common passage migrant. Inskipp and Inskipp (1991) reported the species as a common winter visitor and passage migrant and mapped its distribution from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); an uncommon passage migrant to Bardia National Park (C4, C5) (Inskipp 2001); an uncommon winter visitor and passage migrant to Rara National Park (E2) (Giri 2005) and Annapurna Conservation Area (H4, H5) (Inskipp and Inskipp 2003); a common winter visitor to Chitwan

88°0'0"E

87°0'0"E

National Park (J6, K6) (Baral and Upadhyay 2006); a rare passage migrant to Langtang National Park (L5, M5) (Karki and Thapa 2001); recorded from Gaurishankar Conservation Area (N6) (Baral and Shah 2009); a rare passage migrant to Sagarmatha National Park (P6) (Basnet 2004) and a common winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005). The species has been recorded at Bees Hazari Lake in February 2012 (Naylor and Metcalf 2012), buffer zone of Chitwan National Park and in Bardia National Park buffer zone in Chisapani (C4), Bardia District in March 1997 (Giri 1997).

Common Teal has been recorded from a few additional localities outside the protected areas' system since 1990, in suitable habitat and within its altitudinal range.

Post-1990 records outside the protected areas' system follow: a fairly common winter visitor to Ghodaghodi Lake Area (B4) (CSUWN and BCN 2012), Kailali District; recorded in Dang-Deukhuri foothill forest and west Rapti Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); Dunai (F4), Dolpa District between September- October 1999 (Sparks 1999); a winter visitor to Jagadishpur Reservoir (G6), Kapilvastu District (Baral 2008a); Gaidahawa Lake (G6) in December 2006 (Hanlon and Giri 2007), and Lumbini (G7) in January 2003 (Giri 2003), Rupandehi District; Phewa Lake (H5) in January 2012 (Dymond 2012), Rupa Lake (J5) (Kafle *et al.* 2008), Kaski District; a common but local mainly in winter at Taudaha and adjacent Bagmati River in Kathmandu Valley (L6) (Mallalieu 2008); a fairly common passage migrant in Chimdi Lake (Q8), Sunsari District (Surana *et al.* 2005); a common resident in Betana Pond (Q8) (Niroula *et al.* 2011), and recorded from Biratnagar (Q9), in March 1994 (Baral 1994a) Morang District.

Globally the species has also been recorded from

Afghanistan, Albania, Algeria, Anguilla (to UK), Antigua and Barbuda, Armenia, Aruba (to Netherlands), Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Bulgaria, Cambodia, Cameroon, Canada, Cayman Islands (to UK), Central African Republic, Chad, China (mainland), Colombia, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Greenland (to Denmark), Guadeloupe (to France), Guatemala, Guinea, Guinea-Bissau, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Mexico, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Myanmar, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Panama, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Singapore, Slovakia, Slovenia, Somalia, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen (BirdLife International 2013).

## Elevation

Upper limit 1300 m (-4300 m); lower limit: 75 m

#### **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Common Teal Nepal population counts were 2227, 2383, 1556, 1359, 2354, 3345 from 2008 to 2013 respectively (Baral 2013).

In the Koshi area: 380 birds were recorded in March 1992 (Baral 1992), 1500 in December 1993 (Choudhary 1994), 3800 in January 1994 (Choudhary 1994), 3000 in Koshi Barrage during January-February 1995 (Wheeldon 1995), 400 in November 1996 (Chaudhary 1997), 602 in January 1997 (Chaudhary 1997), 700 in February 1998 (Prince 1998), 300 in February 1999 (Ghimire 1999), 201 in December 2000 (Chaudhary 2001), 500 in March 2001 (Baral 2001), 1530 in February 2002 (Chaudhary 2002), 900 in February 2003 (Chaudhary

2003), 250 in November 2004 (Baral and Chaudhary 2004), 300 in March 2005 (van der Dol 2005), 1200 in February 2007 (Baral 2007a), 406 in January 2009 (Baral 2009a), 180 in February 2010 (Baral 2010a), and 100 in February 2011 (Baral 2011).

In Chitwan National Park, 60 (30 on Lami Tal and 30 on Tamar Tal) were counted in November 1982 during a waterbird survey (Halliday 1982), three in February 1993 (Cottridge *et al.* 1994), 17 in January 1996 (Dhakal 1996), 10 in January 1997 (Chaudhary 1997), 25 in December 1998 (Choudhary 1999), 10 in February 1999 (Choudhary 1999), more than 20 in February 2002 (Arlow 2002), 10 in January 2003 (Giri 2003), four in November 2004 (Baral and Chaudhary 2004), two in November 2007 (Baral 2007b), 22 in January 2009 (Baral 2009b), eight in October 2010 (Baral 2010b). The midwinter waterbird count reported 1081 in January 2005 (Khadka 2005), 71 in January 2010 (Khadka 2010), 524 in February 2011 (Khadka 2012), and 173 in February 2012 (Khadka 2013).

In Kathmandu, two birds were recorded in 200 at Phulchoki in January 1992 (Baral 1

992), 199 in January 1993 at Taudaha (Baral 1993), 114 in November 1994 at Taudaha (Baral 1994b), 178 in January 1995 at Lainchaur (Baral 1995), 122 in December 1996 at Taudaha (Baral 1997a), 252 in November 1997 at Taudaha (Baral 1997b), 3000 in February 2001 (Baral and GC 2001), 150 in January 2005 at Taudaha (Mallalieu 2005), 150 in February 2005 at Bagmati and Taudaha (Mallalieu 2005), 75 in February 2009 (Harrap and Karki 2009), and 40 in December 2011 (Vicente 2012).

In Sukla Phanta Wildlife Reserve, five birds were recorded in November 1997 (Baral 1997b), 12 in March 1998 (Chaudhary 1998), eight in February 2008 (Baral 2008b), 30 in February 2009 (Giri 2009), and 120 in February 2011 (Chaudhary 2011).

In Jagadishpur Reservoir, 610 birds were recorded in January 2006 (Baral 2008a), 220 in December 2010 (Baral 2011).

In Rupandehi, 40 birds were recorded in January 2003 at Lumbini (Giri 2003), 110 in December 2006 (Hanlon and Giri 2007) and 96 in February 2011 (Baral 2011) at Gaidahawa.

In Pokhara, 16 birds were recorded in February 1997 (Baral 1997a), 35 birds were recorded at Dipan Lake and 21 at Phewa Lake in January 2005 (Mallalieu 2005), 125 in December 2007 (Naylor and Metcalf 2007), 78 in December 2008 (Naylor and Turner 2008), four in February 2009 (Naylor *et al.* 2009), approximately 400 in December 2011 (Read and Brennan 2012) and 50 in January 2012 (Dymond 2012).

Though the midwinter waterbird count shows increase in the species population, this may be due to better coverage, however, the individual area shows decrease in its population.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Common Teal inhabits all kinds of shallow inland wetlands, including marshes, pools, lakes, and rivers (Grimmett *et al.* 1998). It is one of the most common ducks of Nepal. It keeps in small parties or large flocks, up to 200 or more congregating at times in swarms (Ali and Ripley 1987). The species feeds by dabbling, head-dipping, upending and also by grazing on marshes and by night foraging in fields with other dabbling ducks (Grimmett *et al.* 1998). Almost entirely a vegetarian; feeding on shots, tubers, seeds of aquatic plants and grains of wild and cultivated rice (Ali and Ripley 1987).

### **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to the species.

# **Conservation Measures**

There are no conservation measures specifically carried out for this species. The species occurs in many

protected areas. Post-1990 the species has been recorded from Bardia, Rara, Chitwan, Langtang and Sagarmatha National Parks; Sukla Phanta and Koshi Tappu Wildlife Reserves, Annapurna and Gaurishankar Conservation Areas.

## Regional IUCN status

Least Concern (LC) unchanged from Global Red list status: Least Concern (LC)

#### Rationale for the Red List Assessment

Common Teal has been assessed as Least Concern. It is a common winter visitor and passage migrant and has been recorded in many protected areas and widely outside the protected areas' system. Although the midwinter waterbird count shows an increase in population, this may be due to better coverage. The population has declined in Chitwan National Park. Habitat loss and degradation, illegal hunting and disturbance are threats to the species. The overall population in Nepal is possibly decreasing, but this is not considered large enough to warrant a threatened category for the species.

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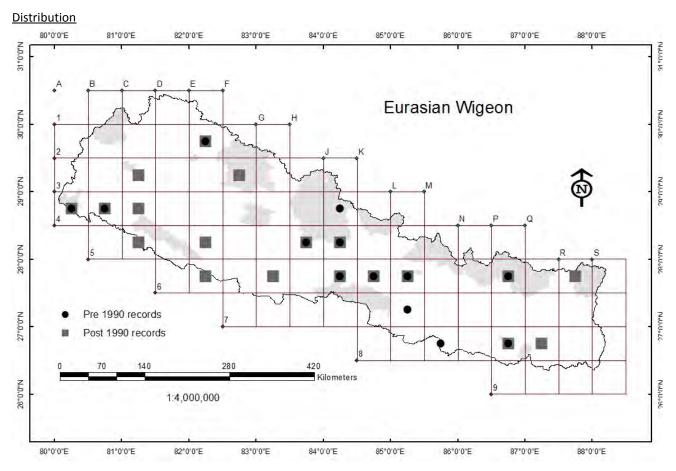
# Anas penelope Linnaeus, 1758 LC

# Common Name

Eurasian Wigeon (English), Sindure Haans (Nepali)

Order: Anseriformes Family: Anatidae





Eurasian Wigeon is a winter visitor and passage migrant. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve in the far west (Baral and Inskipp 2009) to Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species was a fairly common migrant among lowland spring migrant. Inskipp and Inskipp (1991) reported the species was a winter visitor and passage migrant and mapped its distribution from the far west to the east.

The species' status in the protected areas' system post-1990 is: fairly common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); recorded in Khaptad National Park (C3) (Khadka 1996); a rare winter visitor to Bardia National Park (C4, C5) (Inskipp 2001); a common passage migrant to Rara National Park (E2) (Giri 2005); recorded in Shey Phoksundo National Park (F3) (Bhuju *et al.* 2007); a rare passage migrant in

Annapurna Conservation Area (H5, J5) (Inskipp and Inskipp 2003); an uncommon winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006), and an uncommon migrant to Sagarmatha National Park (P6) (Basnet 2004), and recorded in Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). The species is described as a fairly common winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) by Baral (2005) but more recent records indicate that it is uncommon (see Population section). It has been The species has been recorded at Bees Hazari Lake in March 2002 (Malling Olsen 2004), buffer zone of Chitwan National Park.

Since 1990 Eurasian Wigeon has been recorded less widely outside the protected areas' system compared to within protected areas.

Post-1990 records outside the protected areas' system follow: a frequent winter visitor to Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012); a winter visitor to Badhaiya Lake (C5), Bardia District (Bhuju et al. 2007); Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009 a,b); a winter visitor to Jagadishpur reservoir (G6), Kapilvastu District (Baral 2008); Phewa Lake (H5) in December 2011 (Read and Brennan 2012) and Rupa Lake (J5) (Kafle et al. 2008), Kaski District; an uncommon and local visitor, mainly in winter in Kathmandu Valley (L6) (Mallalieu 2008), and a scarce winter visitor to Chimdi Lake (Q8), Sunsari District (Surana et al. 2007).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Antigua and Barbuda, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Brunei, Bulgaria, Burundi, Cambodia, Cameroon, Canada, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Georgia, Germany, Ghana, Greece, Greenland (to Denmark), Guadeloupe (to France), Guam (to USA), Haiti, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malaysia, Mali, Malta, Marshall Islands, Martinique (to France), Mauritania, Mexico, Micronesia, Federated States of, Mongolia, Montenegro, Montserrat (to UK), Morocco, Myanmar, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Papua New Guinea, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Singapore, Slovakia, Slovenia, Somalia, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Venezuela, Vietnam, Western Sahara, Yemen (BirdLife International 2013).

### **Elevation**

Upper limit 5330 m; lower limit: 75 m

# **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, Eurasian Wigeon Nepal population counts were 117, 397, 551, 161, 138, 186 from 2008 to 2013 respectively (Baral 2013).

The species has been common at Koshi Area (P8, Q8) in February and March (Inskipp and Inskipp 1991). The maximum of about 2000 was seen in mid-March 1982 (Turton and Speight 1982). Numbers decreased sharply in later years in the Koshi Area: 150 in December 1991 and 301 in March 1992 (Baral 1992), 50 in March 1993 (Danielsen and Falk 1993), 125 birds were recorded in February 1994 (Cottridge *et al.* 1994), 124 in January 1995 (Choudhary 1995), 53 in December 1996 (Chaudhary 1997), 202 in January 1997 (Chaudhary 1997), 500 in February 1998 (Prince 1998), 60 in January 1999 (Choudhary 1999), 16 in December 2000 (Chaudhary 2001), 40 in March 2001 (Baral 2001), 38 in March 2002 (Baral 2002), 85 in February 2003 (Chaudhary 2003), 250 in February 2004 (Malling Olsen 2004), 110 in March 2005 (van der Dol 2005), 200 in February 2007 (Baral 2007), 80 in April 2008 (Inskipp and Inskipp 2008), 40 in March 2010 (Baral 2010a), and six in April 2012 (Baral *et al.* 2013).

In Chitwan National Park, a waterbird survey in November and December 1982 counted 42 birds along the

Rapti and 84 along the Narayani Rivers (Halliday 1982). During a December 1995 Narayani River survey 33 birds were counted (Dhakal 1996). Other counts in the park include: three birds were recorded in March 1992 (Baral 1992), one in May 1993 (Baral 1994a), 33 in January 1996 (Dhakal 1996), 15 in January 2003 (Giri 2003), four in March 2009 (Giri 2009), and 10 in February 2010 (Baral 2010b).

In Ghodaghodi, six birds were recorded in January 1992 (Baral 1992), three in January 2010 (Baral 2010c), 33 in January 2011 (Baral 2011).

In Jagadishpur reservoir, 150 birds were recorded in January 2006 (Baral 2008), 30 in December 2010 (Baral 2011).

In Pokhara, 20 birds were recorded in December 2004 (Naylor and Giri 2004), 90 in January 2005 at Phewa Tal (Mallalieu 2005), 125 in December 2007 (Naylor and Metcalf 2007), 78 in December 2008 (Naylor and Turner 2008), 25 in February- March 2009 (Harrap and Karki 2009), 130 in February 2010 (Baral 2010b) and an estimated 250-300 in December 2011 (Read and Brennan 2012).

In Kathmandu, 13 birds were recorded in September 1990 at Manora river (Baral 1993), one in January 1992 at Gokarna (Baral 1992), four in November 1994 (Baral 1994b), one in March 1995 at Taudaha (Baral 1995), 25 in February 2001 (Baral and GC 2001), and two in February 2009 (Harrap and Karki 2009).

In Rara National Park, 100 birds were recorded in March 2000 (Regmi 2000).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Eurasian Wigeon frequents shallow reedy jheels and marshes. The species has been observed on high altitude lakes (c. 5030 m to 5330 m) in eastern Nepal (Ali and Ripley 1987). It is highly gregarious and non-diving; though efficient on diving when wounded or during escape (Ali and Ripley 1987). Feeds chiefly by grazing, usually in compact parties on watersides, grasslands and wet paddy fields; grazes more than other ducks (Grimmett *et al.* 1998). Mainly a vegetarian, it feeds on seeds, tender shoots of marsh plants, grasses and sedges, and grains of wild and cultivated rice; also some animal matter: water insects, worms, larvae, molluscs etc. (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, disturbance, illegal hunting and possibly the use of agro-chemicals are threats to this species.

# **Conservation Measures**

There are no conservation measures specifically carried out for this species. Post 1990 the species has been recorded from Bardia, Khaptad, Rara, Shey Phoksundo National Park, Chitwan, and Sagarmatha National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves, and Annapurna and Kanchenjunga Conservation Areas.

# Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Eurasian Wigeon has been assessed as Least Concern. The species is a widespread winter visitor and passage migrant. It has been recorded in many protected areas and less widely outside the protected areas system, compared to within protected areas. There has been a sharp decline in its population in Chitwan National Park

and in the Koshi area (the latter formerly held the largest population in Nepal). However, the decline is not considered great enough to warrant a threatened category for the species.

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# Anas platyrhynchos Linnaeus, 1758 LC

Subspecies: Anas platyrhynchos platyrhynchos

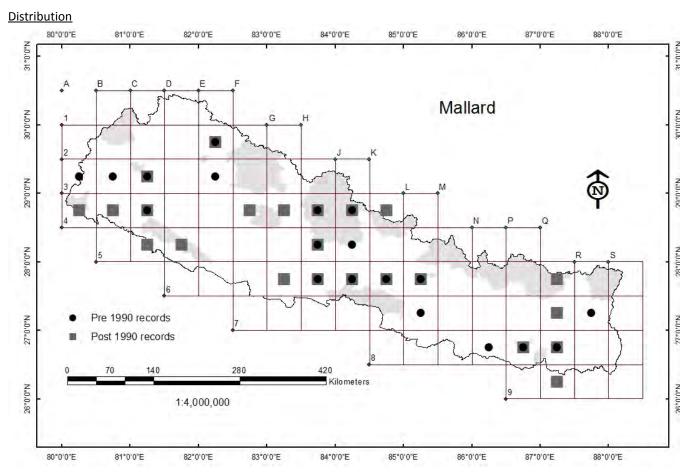
Common Name

Mallard (English),

Hariyo Tauke (Nepali)

Order: Anseriformes Family: Anatidae





Mallard is mainly a winter visitor and passage migrant in the lowlands, and is also a rare breeding species in the highlands.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species as an occasionally seen migrant and resident waterbird on large rivers of the Terai in winter. Inskipp and Inskipp (1991) described the species as mainly a winter visitor and passage migrant with some breeding records.

Rand and Fleming (1957) found the species fairly common at Rara Lake, Phewa Lake, Begnas Lake and Koshi Barrage where a maximum of 450 was reported in February 1987. Inskipp and Inskipp (1991) regarded the species uncommon at Chitwan and rare in the Kathmandu valley. The species was proved to breeding on Titi Lake of upper Kali Gandaki valley at 2620m in 1970 (Martens 1972) and 1977 (Roberts 1978). Few birds were seen on the passage flying north up the Kali Gandaki valley in October 1973 (Beaman 1973) and seen in

Manang in November 1984 (Calladine 1985). Rossetti (1978) had recorded 11 birds in monsoon at Begnas Lake. There were single records from other localities (Inskipp and Inskipp 1991).

Post-1990 the species' status in protected areas has been fairly common winter visitor to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), winter visitor to Khaptad National Park [C3] (Chaudhary 2006), frequent winter visitor and passage migrant to Bardia National Park [C4, C5] (Inskipp 2001), common winter visitor and passage migrant to Rara National Park [E2] (Giri 2005), recorded from Dhorpatan Hunting Reserve [F4, G4] (Panthi 2013), resident and frequent passage migrant to Annapurna Conservation Area [H4, J4] (Inskipp and Inskipp 2003), fairly common winter visitor to Chitwan National Park [J6, K6] (Baral and Upadhyay 2006), recorded from Makalu Barun National Park [Q6] (Baral and Buckton 1994) and common winter visitor to Koshi Area [P8, Q8] (Baral 2005a). In Chitwan National Park buffer zone it was recorded in Bees Hazari Lake (Baral 1996) and Barandabhar Chitwan District [J6] (Adhikari et al. 2000).

Since 1990 outside the protected areas' system, Mallard has been recorded less widely than from within protected areas. Records include: a fairly common winter visitor in Ghodaghodi Lake area, Kailali District [B4] (CSUWN and BCN 2012), recorded in Nepalgunj, Banke District [D5] (Baral 1992), winter visitor to Jagadishpur reservoir, Kapilvastu District [G6] (Baral 2008), recorded from Pokhara Valley, Kaski District [H5] (Dymond 2012), recorded from localities of Nawalparasi District [H6] (Baral 2011a), fairly common mainly in winter at Taudaha in Kathmandu Valley [L6] (Mallalieu 2008), Sankhuwa Khola, Bhojpur District [Q7] (Baral 1995), Chewabensi, Tumlingtar, Sankhuwasabha District [Q7] (Baral 1995), scarce winter visitor to Chimdi Lake, Sunsari District [Q8] (Surana *et al.* 2007), and recorded from Biratnagar, Morang District [Q9] (Baral 1994a).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Antigua and Barbuda, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Belarus, Belgium, Belize, Bermuda (to UK), Bhutan, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Brunei, Bulgaria, Canada, Cayman Islands (to UK), China (mainland), Cook Islands, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominican Republic, Egypt, Eritrea, Estonia, Ethiopia, Falkland Islands (Malvinas), Faroe Islands (to Denmark), Fiji, Finland, France, Gambia, Georgia, Germany, Gibraltar (to UK), Greece, Greenland (to Denmark), Guadeloupe (to France), Guam (to USA), Guatemala, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malaysia, Mali, Malta, Marshall Islands, Martinique (to France), Mauritania, Mexico, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, New Caledonia (to France), New Zealand, Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Panama, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Seychelles, Sint Maarten (to Netherlands), Slovakia, Slovenia, Somalia, South Georgia & the South Sandwich Islands, South Korea, South Sudan, Spain, Sri Lanka, St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vanuatu, Vietnam, Virgin Islands (to USA), Yemen, Zambia (BirdLife International (2013).

# **Elevation**

Upper limit 3050 m; lower limit: 75 m

# **Population**

During the Midwinter waterbird count globally coordinated by Wetlands International, Nepal Mallard population counts were 927, 948, 867, 806, 553, 1275 from 2008 to 2013 respectively (Baral 2013).

Less than five pairs of the bird were estimated to be present as breeding birds in high altitude lakes of Nepal (Baral 2009a).

In Koshi Area, 10 birds were recorded in March 1989 (Bose *et al.* 1989), 402 in January 1992 (Baral 1993), 226 in February 1993 (Giri 1993), 364 in March 1994 (Baral 1994a), 700 in November 1996 (Chaudhary 1997), 702

in January 1997 (Chaudhary 1997), 400 in February 1998 (Chaudhary 1998a), 122 in February 1999 (Choudhary 1999), 130 in December 2000 (Chaudhary 2001), 200 in December 2001 (Baral 2001b), 364 in January 2002 (Giri and GC 2002), 500 in February 2003 (Chaudhary 2003), 150 in November 2004 (Baral and Chaudhary 2004), 280 in February 2005 (Baral 2005), 400 in December 2007 (Giri 2007), 250 in February 2009 (Baral 2009b), 40 in March 2010 (Baral 2010a), and 250 in February 2011 (Baral 2011b).

In Chitwan National Park, a waterbird survey counted 26 birds on the Rapti River and 108 on the Narayani River in December 1982 (Halliday 1982). A later survey on the Narayani River counted 201 birds in November 1995 (Dhakal 1996). Other counts in the park include two birds were recorded in November 1992 (Baral 1992), 15 in January 1993 (Giri 1993), 12 in February 1994 (Cottridge *et al.* 1994), 19 in February 1995 (Baral 1995), 76 in February 1996 (Dhakal 1996), six in December 1997 (Chaudhary 1998b), 20 in February 1999 (Choudhary 1999), two in January 2001 (Chaudhary 2001), 20 in January 2003 (Giri 2003), one in November 2004 (Baral and Chaudhary 2004), two in December 2007 (Chaudhary 2007), and six in February 2010 (Baral 2010b).

In Bardia National Park, six birds were recorded in January 1992 (Baral 1992), two in November 1997 (Chaudhary 1998b).

In Rara National Park, 75 birds were recorded in October 1989 (Barber 1990), one in March 1997 (Giri 1997).

In Sukla Phanta Wildlife Reserve, 30 birds were recorded in January 1992 (Baral 1992), 50 in December 1997 (Chaudhary 1998b), five in February 2009 (Giri 2009), 20 in January 2011 (Baral 2011b).

In Ghodaghodi, two birds were recorded in March 1992 (Baral 1992), four in January 2010 (Baral 2010a), 25 in January 2011 (Baral 2011b).

In Nepalguni, 26 birds were noted in March 1992 (Baral 1992).

In Jagadishpur reservoir, four birds were noted in December 2010 (Baral 2011b).

In Thorung La, two birds were noted in November 2007 (Naylor and Metcalf 2007).

In Kaski, 350 birds were recorded in February 1993 (Fouarge 1993), 100 in November 2004 (Naylor and Giri 2004), four in January 2005 (Mallalieu 2005), 55 in December 2007 (Naylor and Metcalf 2007), 12 in December 2008 (Naylor and Turner 2008), 35 in February 2009 (Naylor *et al.* 2009), 90 in February 2010 (Baral 2010b).

In Nawalparasi, 14 birds were recorded in December 2011 (Baral 2011a).

In Kathmandu, one bird was noted in November 1992 (Baral 1992), six in November 1994 (Baral 1994b), two in December 1996 and eight in February 1997 (Baral 1997), 50 in January 2005 (Mallalieu 2005) and 70 at Taudaha in February 2009 (Harrap and Karki 2009).

In Sankhuwasabha, six birds were noted in November 1994 (Baral 1995).

In Bhojpur, two birds were noted in November 1992 (Baral 1995).

In Patnali, Dharan, five birds were noted in March 2001 (Baral 2001b).

In Biratnagar, 12 birds were noted in March 1994 (Baral 1994a).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Mallard inhabits freshwater marshes, reed-edged jheels and lakes (Grimmett *et al.* 1998). A typical gregarious, surface feeding or dabbling duck. Where persecuted, feeds at night; flighting at dusk to outlying inundated paddy fields and marshes, returning to the daytime refuge at dawn (Ali and Ripley 1987). Breeds from mid-April to July. It is omnivorous, but mainly vegetarian, feeding on corms, seeds and shoots of grasses and other aquatic plants; sometime molluscs, tadpoles, fish spawn, worms etc. to a lesser extent (Ali and Ripley 1987).

## **Threats**

Mallard is seriously threatened by both illegal hunting and disturbance, and the loss and degradation of wetlands. It has been widely hunted using guns, different types of traps including mist-nets, and other trapping methods for meat. Farmers in the lowlands have used poison to kill the birds and every year during winter many birds are killed.

#### **Conservation Measures**

No conservation measures have been specifically carried out for this species. The very large majority of the population occurs inside protected areas. Post-1990 the species has been recorded from Khaptad, Bardia, Rara, Chitwan and Makalu-Barun National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves, Annapurna Conservation Area and Dhorpatan Hunting Reserve.

### Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Mallard has been assessed as Least Concern. It is mainly a winter visitor and passage migrant to the lowlands and also a rare breeding species in the highlands. It has been recorded from many protected areas where almost all birds occur. Mallard is seriously threatened by both illegal hunting and disturbance, and the loss and degradation of wetlands. The population has declined in Chitwan National Park. The national population has possibly declined, but not to an extent that warrants a threatened category for the species.

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# Anas strepera Linnaeus, 1758 LC

# Common Name

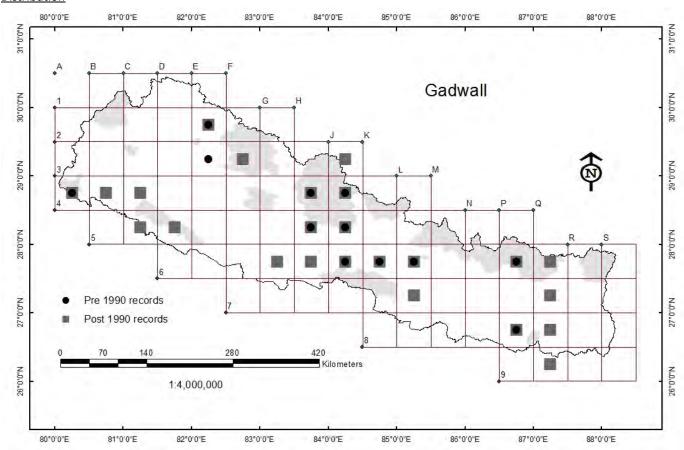
Gadwall (English),

Kadkhade Haans (Nepali)

Order: Anseriformes Family: Anatidae



### **Distribution**



Gadwall is a locally fairly common winter visitor and passage migrant mainly below 1300 m. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Biratnagar, Morang District (Baral 1994) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species was a fairly common passage migrant. Inskipp and Inskipp (1991) reported the species was a common winter visitor and passage migrant to Koshi Barrage and mapped its distribution from the far west to the east.

The species' status in the protected areas' system post-1990 is: a common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); an uncommon winter visitor to Bardia National Park (C4, C5) (Inskipp 2001); a common winter visitor and passage migrant to Rara National Park (E2) (Giri 2005); recorded

from Shey Phoksundo National Park (F3) (Bhuju *et al.* 2007); an uncommon passage migrant to Annapurna Conservation Area [ H4, H5, J4, J5) (Inskipp and Inskipp 2003) and a passage visitor in Upper Mustang (J3) (Acharya 2002, Suwal 2003) of Annapurna Conservation Area; a fairly common winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a rare passage migrant to Sagarmatha National Park (P6) (Basnet 2004) and a common winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005). The species has been recorded at Barandabhar Forest and wetlands (Adhikari *et al.* 2000) and Bees Hazari Lake (Baral 1996), Chitwan District and Tharu Cultural Village Resort, Nawalparasi District in December 2011 (Baral 2011), in the buffer zone of Chitwan National Park.

Since 1990 Gadwall has been recorded less widely outside the protected areas' system, compared to within protected areas.

Post-1990 records outside the protected areas' system follow: a fairly common winter visitor to Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012); Badhaiya Lake (C5), Bardia District (Bhuju *et al.* 2007); Nepalgunj (D5), Banke District in December 1998 (Choudhary 1999); a winter visitor to Jagadishpur Reservoir (G6), Kapilvastu District (Baral 2008); Gaidahawa Lale (G6), Rupandehi District in December 2006 (Hanlon and Giri 2007); lakes of Pokhara Valley (H5, J5), Kaski District (Kafle 2005); fairly common in Taudaha, Gokarna during winter in Kathmandu Valley (L6) (Mallalieu 2008); Hetauda (L7), Makwanpur District in December 2003-January 2004 (Stratford 2004); between Tumlingtar and Chewabesi (Q7), Sankhuwasabha District in November 1994 (Buckton and Baral 1995), and Biratnagar (Q9), Morang District in March 1994 (Baral 1994).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Antigua and Barbuda, Armenia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Belarus, Belgium, Bermuda (to UK), Bhutan, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Bulgaria, Cameroon, Canada, Cayman Islands (to UK), China (mainland), Congo, The Democratic Republic of the, Croatia, Cuba, Curaçao (to Netherlands), Cyprus, Czech Republic, Denmark, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, Germany, Gibraltar (to UK), Greece, Greenland (to Denmark), Guadeloupe (to France), Guam (to USA), Haiti, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malaysia, Mali, Malta, Marshall Islands, Martinique (to France), Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Somalia, South Korea, Spain, Sri Lanka, St Pierre and Miquelon (to France), Sudan, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Yemen (BirdLife International 2013).

# **Elevation**

Upper limit 915 m (-4750 m); lower limit: 75 m

#### **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, Nepal's Gadwall population counts were 1729, 1771, 1423, 1796, 1167, 1508 from 2008 to 2013 respectively (Baral 2013).

At Koshi Barrage, the maximum number recorded pre-1990 was 2000 birds in mid-February 1981 (Mills and Preston 1981) and March 1989 (Curson and Bose 1989).

In Koshi Tappu Wildlife Reserve, 6000 birds were observed in January 1994 (Chaudhary 1994) (the maximum number recorded in Nepal), 546 in January 1995 (Choudhary 1995), 525 in November 1996 (Giri 1996), 502 in January 1997 (Chaudhary 1997), 1500 in February 1998 (Prince 1998), 190 in February 1999 (Choudhary 1999), 321 in February 2002 (Chaudhary 2002), 508 in February 2003 (Chaudhary 2003), about 1000 in March 2005 (van der Dol 2005), 300 in February 2007 (Baral 2007), 110 in April 2008 (Inskipp and Inskipp 2008), 77 in January 2009 (Baral 2009), 300 in March 2010 (Baral 2010), 60 in February 2011 (Baral 2011).

In Chitwan National Park, a waterbird survey in November and December 1982 counted 47 birds on the Rapti River and 211 on the Narayani River (Halliday 1982). A November 1995 survey counted 551 birds on the Narayani River (Dhakal 1996), 14 in November 1992 (Baral 1993), 253 birds were observed in February 1996

(Dhakal 1996), 40 in January 1997 (Baral 1997a), 30 in January 2001 (Chaudhary 2001), 48 in February 2003 (Baral 2003), 200 in November 2004 (Baral and Chaudhary 2004), 12 in December 2007 (Chaudhary 2007), 30 in December 2009 (Giri 2009), 33 in January 2010 (Giri 2010), two in January 2011 (Baral 2011). The midwinter waterbird count recorded 573 in January 2005 (Khadka 2005), 373 in January 2010 (Khadka 2010), 291 in February 2011 (Khadka 2012) and 263 in February 2012 (Khadka 2013). This midwinter waterbird count shows distinct decline in the population in the area.

In Jagadishpur Reservoir, Kapilvastu District, 327 birds were recorded in January 2006 (Baral 2008), 360 in December 2010 and 70 in December 2011 (Baral 2011a).

In Gaidahawa Lake, Rupandehi District 200 birds were located in December 2006 (Hanlon and Giri 2007).

In Pokhara, 80 in November 2004 (Naylor and Giri 2004), 105 in January 2005 at Phewa Tal (Mallalieu 2005), 55 in December 2007 (Naylor and Metcalf 2007), 55 in December 2008 (Naylor and Turner 2008), more than 50 in November 2010 (Adcock and Naylor 2011), 70 in December 2011 (Read and Brennan 2011).

In Kathmandu, 62 in November 1992 (Baral 1994), 42 in February 1993 (Baral 1993), 50 in December 2006 (Baral 1997a), 70 in November 1997 at Taudaha (Baral 1997b), 100 birds were recorded in February 2001 (Baral and GC 2001), 100 in January 2005 at Taudaha (Mallalieu 2005), 20 in February 2009 (Harrap and Karki 2009) and 25 in December 2011 (Vicente 2011).

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Gadwall winters by large open lakes and rivers, especially with sandbanks and sandy islets (Grimmett *et al.* 1998). The species is gregarious and often occurs in small flocks of 10 to 30 birds; feeds by walking about and dabbling on marshland or in squelchy paddyfields and sometimes diving (Ali and Ripley 1987). The species is usually shy and wary, and keeps close to emergent vegetation (Grimmett *et al.* 1998). It is predominantly vegetarian, chiefly feeding on grains, seeds, tender shoots and tubers of marsh plants and aquatic weeds, and occasionally crustaceans, molluscs, aquatic insects, worms (Ali and Ripley 1987).

# **Threats**

Habitat loss and degradation, illegal hunting and disturbances are threats to the species.

### **Conservation Measures**

No specific conservation measures have been carried out for Gadwall. Post 1990 the species has been recorded from Bardia, Rara and Shey Phoksundo, Chitwan, Sagarmatha and Makalu Barun National Parks; Annapurna Conservation Area; Sukla Phanta and Koshi Tappu Wildlife Reserves.

### Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Gadwall has been assessed as Least Concern. The species is a locally fairly common winter visitor and passage migrant mainly below 1300 m. Since 1990 it has been recorded in many protected areas and less widely outside the protected areas' system, compared to within protected areas. Its population has decreased in Chitwan National Park and at Koshi since 1990 and is possibly declining countrywide. Habitat loss and degradation, illegal hunting and disturbance are threats to the species. However, its decline is not considered great enough to warrant a threatened category for the species.

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# Aythya fuligula (Linnaeus, 1758) LC

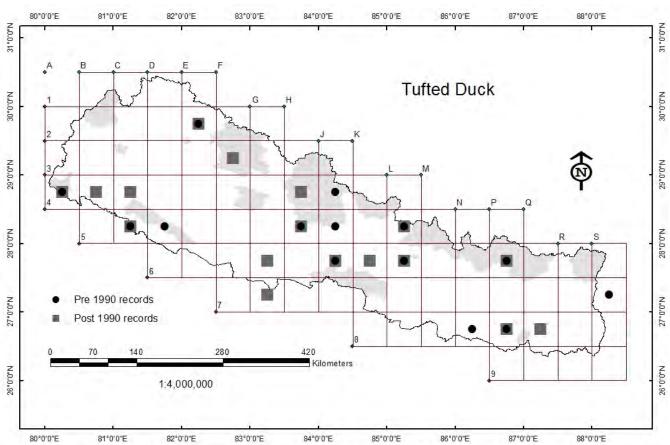
# Common Name

Tufted Duck (English), Kalijure Haans (Nepali)

Order: Anseriformes Family: Anatidae



# **Distribution**



Tufted Duck is a frequent winter visitor and passage migrant up to 915 m and generally uncommon at higher altitudes.

The first Nepal record of the bird was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species as a fairly common passage migrant to Nepal. Inskipp and Inskipp (1991) reported the species as mainly a winter visitor and passage migrant although some birds occurred throughout the year.

The bird was recorded more frequently than other ducks on high altitude lakes (Inskipp and Inskipp 1991). Joliffe *et al.* (1981) and Redman and Murphy (1979) found small numbers resident at Koshi Barrage where a maximum of 100 was estimated in mid-February 1979 and 1981. The bird was occasionally found elsewhere in winter and spring, especially on Phewa Tal and Begnas Tal (Inskipp and Inskipp 1991). Several May records were obtained from lakes in Khumbu between 4650 m and 4900 m (Inskipp and Inskipp 1991) and fewer

records of the bird in autumn, including four birds on a small lake on Ama Dablam at 4115 m in November (Harris 1978). Summer reports were obtained from lakes at 4300 m in June (Masatomi 1975) and Rani Pokhari in July (Proud 1961).

Post-1990 the species' status in protected areas is: a frequent winter visitor to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), a rare winter visitor to Bardia National Park [C4] (Inskipp 2001), winter visitor and passage migrant to Rara National Park [E2] (Giri 2005), uncommon in winter in Shey- Phoksundo National Park [F3] (Priemé and Øksnebjerg 1994), rare passage migrant to Annapurna Conservation Area [H4] (Inskipp and Inskipp 2003), a frequent winter visitor to Chitwan National Park [J6, K6] (Baral and Upadhyay 2006), few records as a passage migrant to Langtang National Park [L5] (Karki and Thapa 2001), less than five records as passage migrant to Sagarmatha National Park [P6] (Basnet 2004) and a frequent winter visitor to Koshi Area [P8, Q8](Baral 2005). In Chitwan National Park buffer zone it has been recorded at Bees Hazari Lake, Chitwan District [J6] (Naylor *et al.* 2002).

Records since 1990 outside the protected areas' system include: a frequent winter visitor to Ghodaghodi Lake area, Kailali District [B4] (CSUWN and BCN 2012), winter visitor to Jagdishpur Reservoir, Kapilvastu District [G6] (Baral 2008), Lumbini, Rupandehi District [G7] (Suwal *et al.* 2002), recorded from Pokhara Valley, Kaski District [H5] (Giri 2008; Dymond 2012), and uncommon and local mainly in winter to Kathmandu Valley [L6] (Mallalieu 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Brunei, Bulgaria, Cameroon, Canada, Cape Verde, Côte d'Ivoire, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gambia, Germany, Gibraltar (to UK), Greece, Greenland (to Denmark), Guam (to USA), Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritania, Micronesia, Federated States of, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Western Sahara, Yemen (BirdLife International 2013).

### **Elevation**

Upper limit: 3050 m (-4900 m); lower limit: 75 m

# **Population**

During the Midwinter waterbird count globally coordinated by Wetlands International, the Nepal Tufted Duck population counts were 90, 254, 152, 218, 292, 143 from 2008 to 2013 respectively (Baral 2013).

In Koshi Area, 35 birds were recorded in February 1981 (Baker 1981), 25 in March 1989 (Babbington 1989), 22 in October 1993 and 77 in January 1994 (Choudhary 1994), 63 in November 1996 (Giri 1996), 115 in February 1997 (Chaudhary 1997), six in February 1999 (Choudhary 1999), 16 in February 2002 (Chaudhary 2002), 18 in February 2003 (Chaudhary 2003).

In Rara National Park, five birds were recorded in October 1989 (Barber 1990) and nine in March 1997 (Giri 1997), more than 20 birds in April 2009 (O'Connell-Davidson 2009).

In Chitwan National Park, six birds were recorded in January 1996 (Dhakal 1996) and four in November 2004 (Baral and Chaudhary 2004).

In Jagadishpur reservoir, 65 birds were recorded in January 2006 (Baral 2008), 100 in December 2010 (Baral 2011a) and 12 in December 2011 (Baral 2011b).

In Pokhara, three birds were recorded in March 1989 at Phewa Tal (Cox et al. 1989), five in February 1993 (Fourage 1993), 100 in November 2004 (Naylor and Giri 2004), 135 in January 2005 at Phewa Tal (Mallalieu 2005), 10 in December 2007 (Naylor and Metcalf 2007), 200 in February 2008 (Giri 2008), 125 in February 2009 (Naylor, Metcalf and Allen 2009) and 150 in February 2010 (Baral 2010).

In Kathmandu, five birds were recorded in November 1997 at Taudaha (Baral 1997) and six in February 2001 (Baral and GC 2001).

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### Habitat and Ecology

Tufted Duck inhabits lakes and reservoirs with large open areas and deep enough to allow diving (Grimmett *et al.* 1998). A winter visitor, arriving about mid-October and mostly gone by end March (Ali and Ripley 1987). Gregarious in nature, can be seen in flock of several hundreds. It is omnivorous, feeding on grains, tender shoots and tubers, crustaceans, molluscs, aquatic insects, reptiles, etc.

#### **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to the species.

### **Conservation Measures**

No specific conservation measures have been carried out for Tufted Duck. Post-1990 the species has been recorded from Bardia, Rara, Shey- Phoksundo, Chitwan, Langtang and Sagarmatha National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves and Annapurna Conservation Area.

# Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Tufted Duck has been assessed as Least Concern. The species is a frequent winter visitor and passage migrant. Since 1990 it has been recorded from a number of protected areas though has been less widely recorded outside the protected areas system. There is no evidence of a population decline. However, it is threatened by habitat loss and degradation, illegal hunting and disturbance. As a result, its population may be declining but not to an extent that warrants a threat category for the species.

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# Bucephala clangula (Linnaeus, 1758)

Subspecies: Bucephala clangula clangula

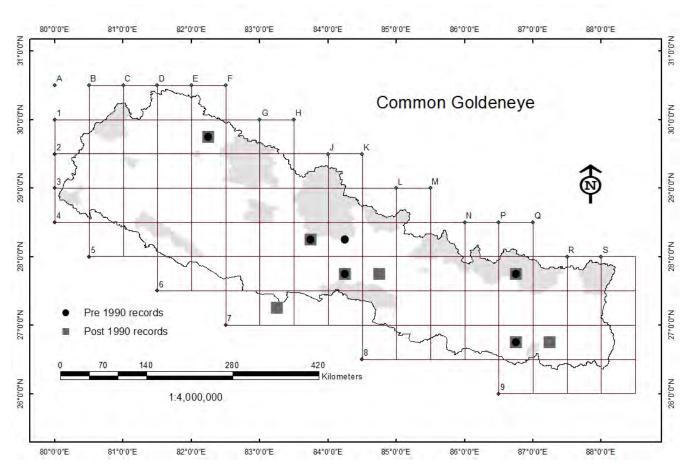
# Common Name

Common Goldeneye (English), Swarnanayan Haans (Nepali)

Order: Anseriformes Family: Anatidae



### **Distribution**



Common Goldeneye is mainly a passage migrant and a very rare winter visitor. Post 1990, it has been recorded from Rara National Park (Giri 2005) in the mid-west to the Koshi Tappu Wildlife Reserve (Baral 2005) in the far east.

The first Nepal record of the species was in January 1971 at Phewa Lake (H5) (Inskipp et al. 1971).

Fleming *et al.* (1976) considered the species a scarce winter visitor. Inskipp and Inskipp (1991) reported the species as an uncommon winter visitor and passage migrant and mapped its distribution from seven localities from the mid-west to the east.

The species' status in the protected areas' system post-1990 is: a winter visitor and passage migrant to Rara National Park (E2) (Giri 2005); a vagrant to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a rare passage migrant to Sagarmatha National Park (P6) (Basnet 2004); however, no records there since 1982. It is listed as a vagrant to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005), but other records indicate it is a rare

passage migrant or possibly winter visitor.

Common Goldeneye has been recorded from a few additional localities outside the protected areas' system since 1990. Records include: from Golaha-Marthi River (G7), Kapilvastu District in November 2006 (Cox 2008) and Pokhara Valley (H5), Kaski District (Naylor and Turner 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Austria, Azerbaijan, Bahamas, Bangladesh, Belarus, Belgium, Bermuda (to UK), Bosnia and Herzegovina, Bulgaria, Canada, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands (to Denmark), Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Greenland (to Denmark), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Pakistan, Palestinian Authority Territories, Poland, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Serbia, Slovakia, Slovenia, South Korea, Spain, St Pierre and Miquelon (to France), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, USA, Uzbekistan (BirdLife International 2013).

#### **Elevation**

Upper limit: 3050 m (-4900 m); lower limit: 75 m

#### **Population**

No population surveys have been carried out for Common Goldeneye.

In Koshi Area, post-1990 singles were recorded in November and December 1994 (Lama 1995), January 1995 (Choudhary 1995), February 1996 (Harrap 1996) and in February 1997 (Betton 1997), six in February 2002 (Arlow 2002), four in February 2003 (Baral 2003), two in December 2007 (Chaudhary 2007) and two in February 2008 (Tribe 2008).

Records from elsewhere in Nepal include from Phewa Tal, Kaski District: one in February 2001 (Giri and Choudhary 2001), also recorded there in 2004 (Gautam and Kafle 2007), and one in December 2008 (Naylor and Turner 2008), and recorded in the Golaha-Marthi Khola wetlands, Kapilvastu District (G7)in 2006 or 2007 (Cox 2008).

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### Habitat and Ecology

Common Goldeneye inhabits open water areas in freshwater lakes and large rivers; prefers fairly deep clear open water and avoids shallow water with extensive aquatic vegetation (Ali and Ripley 1987, Grimmett et al. 1998). The species is a good swimmer and diver (Ali and Ripley 1987), feeds mainly during the daytime by diving, often submerging simultaneously in small parties of up to seven birds, and occasionally dabbling and upending (Grimmett et al. 1998). It is omnivorous, feeding mainly on animal matter- molluscs, crustacean, aquatic insects etc. (Ali and Ripley 1987).

# **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to the species.

### **Conservation Measures**

No specific conservation measures have been carried out for Common Goldeneye. It has been recorded in Rara, Chitwan and Sagarmatha National Parks and Koshi Tappu Wildlife Reserve.

### Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Common Goldeneye has been assessed as Least Concern. It is mainly a passage migrant and a very rare winter visitor recorded from the mid-west to the far east. It has been recorded from four protected areas and few localities outside the protected areas' system in suitable habitat. Habitat loss and degradation, illegal hunting and disturbance are threats to this species. However, there has been no contraction of range post-1990 compared to pre 1990 and no evidence of a population decline.

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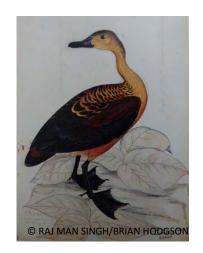
Tribe, M. (2008) Nepal 28 January – 12 February 2008. http://www.birdfinders.co.uk/pdf/nepal2008.pdf

# Dendrocygna javanica (Horsfield, 1821) LC

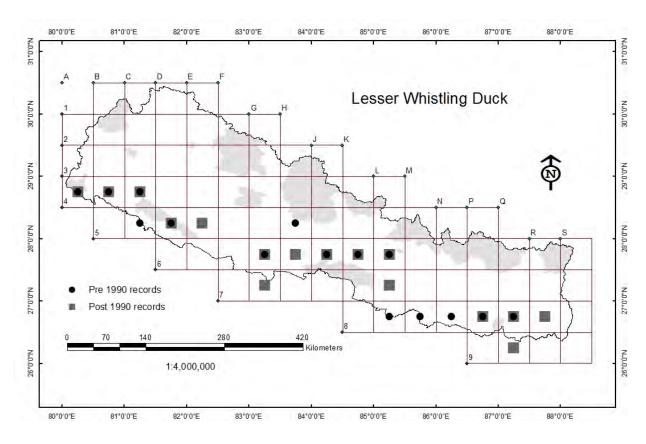
# Common Name

Lesser Whistling Duck (English), Silsile (Nepali)

Order: Anseriformes Family: Anatidae



# **Distribution**



Lesser Whistling Duck is a widespread resident in the lowlands. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Birtamod, Jhapa District (Halberg 1994) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Rand and Fleming (1957) described it as not common in Raghunathpur, Dhanusa District (N8) in December 1953. Fleming *et al.* (1976) considered it an occasional resident. Inskipp and Inskipp (1991) reported it as a common winter visitor and passage migrant to Koshi Barrage (P8) and mapped its distribution in the lowlands from the far west to the far east.

Comparing the distribution records of pre-1990 and post-1990, there is no indication of decline. Post 1990, it has been recorded from all the five development regions of Nepal (Baral 1996).

The species' status in the protected areas' system post-1990 is: a fairly common breeding resident in Sukla

Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a winter visitor and a migrant to Bardia National Park (C4, C5) (Inskipp 2001); a fairly common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); and a common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005). The species has been recorded at Barandabhar Forest and wetlands (Adhikari *et al.* 2000, Ghimire 2009), Bees Hazari Lake in March 2002 (Malling Olsen 2004), buffer zone of Chitwan National Park. In Bardia National Park buffer zone it has been recorded in the Khata Corridor (C5), Bardia District (Chaudhari 2007).

Lesser Whistling Duck has been recorded quite widely outside the protected areas' system since 1990 and more widely than pre-1990, probably due to better coverage. Post-1990 records outside the protected areas' system follow.

In the west records include: from Jhakhaur Lake (B4) (Baral *et al.* 2010) and fairly common resident in Ghodaghodi Lake (B4) (CSUWN and BCN 2012), Tikapur Park (C5) in July 2013 (Baral *et al.* 2013), Bardia District; regularly recorded from Badhaiya Lake (C5) (Ram Bahadur Shahi 2013), Bardia District; the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); a resident in Jagadishpur Reservoir (G6), Kapilvastu District (Baral 2008); Gaidahawa Lake (G6) in December 2006 (Hanlon and Giri 2007) and wetlands within Lumbini (G7) in December 2011 (Baral 2011), Rupandehi District; Phewa Lake (H5) (Gautam and Kafle 2007), Dipang Tal (H5) (Mallalieu 2005), and Rupa Lake (J5) (Kafle *et al.* 2008), Kaski District.

In central Nepal records include: rare and local in summer in Kathmandu Valley (L6) (Mallalieu 2008) and from Hetauda (L7), Makwanpur District in May 2000 (Giri 2000).

In the east records include: a frequent winter visitor to Chimdi Lake (Q8) (Surana *et al.* 2007), Dharan Forest (Q8) (Basnet and Sapkota 2008), Sunsari District; a common resident at Betana Pond (Q8) (Niroula *et al.* 2010), and a fairly common resident in Biratnagar (Q9) (Jha and Subba 2012), Morang District, and recorded from Birtamod (R8), Jhapa District in May 1994 (Halberg 1994).

Globally the species has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Israel, Japan, Laos, Malaysia, Maldives, Myanmar, Oman, Pakistan, Singapore, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International 2013).

### **Elevation**

Upper limit: 305 m (-1350 m); lower limit: 75 m

# **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, Nepal Lesser Whistling Duck population counts were 10163, 5192, 2745, 4649, 5274, 7893 from 2008 to 2013 respectively (Baral 2013).

More than 70% of the population of this species is found outside the boundaries of protected areas. Gaidahawa Lake in Rupandehi District and Jagadishpur Reservoir in Kapilvastu District hold more than 50% of Nepal's population. Compared to 2009 count data, in subsequent years all wetlands have shown less birds. Less than 10000 birds were estimated to be present in Terai wetlands (Baral 2009).

A maximum of 7000 birds was estimated at Koshi Barrage in February 1981 (del-Nevo and Ewins 1981). Post 1990, about 7500 birds were estimated at the same area in February 1996 (Harrap 1996), the largest count in Koshi area (including Koshi Tappu and smaller wetlands within including Koshi Barrage) is 3000 in February 1990 (Buckton and Morris 1990), between 2000 and 3000 in March 1996 (Daulne and Goblet 1996), 3000 in February 1999 (Sterling 1999), 3000 in March 2005 (van der Dol 2005). Similarly, in Jagdishpur Reservoir 2000 birds were recorded in March 2006 (Baral 2008). The largest population count, however in recent years, is from the wetlands of Lumbini, primarily Gaidahawa Tal, where up to 5000 have been recorded. In December 2006, 1500 birds were recorded at Gaidahawa Lake (Hanlon and Giri 2007). Due to the unplanned and haphazard use of wetlands, populations in Gaidahawa have declined significantly in the last 3 or four years (Hem Sagar Baral).

In a review of ten years of wetland count data between 1989 and 1999 in three Chitwan wetlands in the national park and buffer zone, a significant decline in Lesser Whistling Duck was recorded (Baral 1999). Post

1999, the midwinter waterbird count recorded 109 birds in January 2005 (Khadka 2005), 229 in January 2010 (Khadka 2010), 171 in February 2011 (Khadka 2012) and 196 in February 2012 (Khadka 2013).

The population may have declined over the years because of loss and degradation of wetland habitat and hunting.

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Lesser Whistling Duck inhabits flooded grasslands and paddy-fields, freshwater marshes, shallow pools and lakes, favoring those with plentiful fringe cover, emergent vegetation and partially submerged trees (Grimmett *et al.* 1998). Keeps in small parties of 10-15, occasionally in fairly large flocks, on and around weedy pools and inundated paddy fields (Ali and Ripley 1987). Mainly a nocturnal feeder (Ali and Ripley 1987) and roosts in the daytime in trees or partially submerged branches or undisturbed waters. Generally, avoids open areas of water (Grimmett *et al.* 1998) and large rivers (Ali and Ripley 1987). It is largely a vegetarian, feeding on aquatic weeds, and tender shoots and grains of wild and cultivated rice etc. Also small fish, frogs, snails, worms (Ali and Ripley 1987).

#### **Threats**

Lesser Whistling Duck is threatened by both illegal hunting and disturbance, and the loss and degradation of wetlands, and possibly also be pesticides.

### **Conservation Measures**

Lesser Whistling Duck is threatened by both illegal hunting and disturbance, and the loss and degradation of wetlands, and possibly also be pesticides.

# Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Lesser Whistling Duck has been assessed as Least Concern. The species is a widespread resident in the lowlands and in the Pokhara valley. Since 1990 it has been recorded in a number of protected areas in the lowlands and widely outside the protected areas' system. Lesser Whistling Duck is threatened by both illegal hunting and disturbance, and the loss and degradation of wetlands, and possibly also be pesticides. Populations have declined at Koshi, Chitwan and Gaidahawa. However, the decline is not considered sufficient to warrant a threat category.

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# Mergus merganser Linnaeus, 1758 LC

Subspecies: Mergus merganser comatus

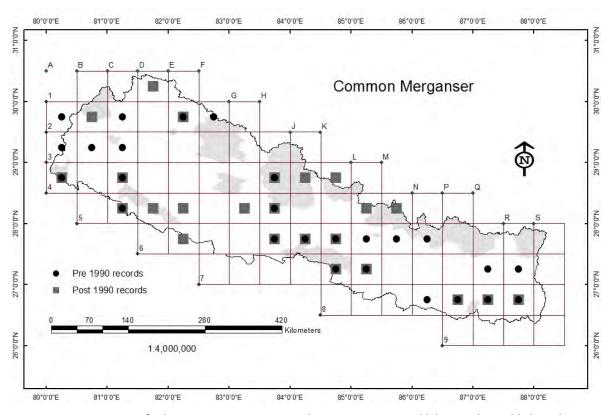
### Common Name

Common Merganser, Goosander (English), Manitundak (Nepali)

Order: Anseriformes Family: Anatidae



# **Distribution**



Common Merganser is a fairly common winter visitor along major rivers and lakes; and possibly breeds in upper Humla in the far north-west. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the Mai valley (Basnet and Sapkota 2006, 2007, Robson *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a fairly common winter visitor and passage migrant along the large river courses. Inskipp and Inskipp (1991) reported the species as a fairly common winter visitor and mapped its distribution widely from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a frequent winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); recorded from Chameliya River Valley (B2) in Api Nampa Conservation Area (Thakuri and Prajapati 2012); a common winter visitor to Bardia National Park (C4, C5) (Inskipp 2001); recorded in Banke National Park (D5) (Baral *et al.* 2012); a winter visitor to Rara National Park (E2) (Giri 2005); a rare winter visitor to Annapurna Conservation Area (H4, H5, H6) (Inskipp and Inskipp 2003); a fairly common winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); recorded in

Manaslu Conservation Area (K4) (Thakuri 2013); a winter visitor in Parsa Wildlife Reserve (K7) (Todd 2001); a passage migrant to Langtang National Park (L5, M5) (Karki and Thapa 2001) and a rare winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005). The species has been recorded from Sauraha in March 1994 (Zerning and Braasch 1995), Chitwan District and Tharu Cultural Jungle Resort, Nawalparasi District in December 2011 (Baral 2011a), buffer zone of Chitwan National Park.

Since 1990 Common Merganser has been recorded quite widely outside the protected areas' system compared to within protected areas.

Post-1990 records outside the protected areas' system follow: from Tikapur Park, Karnali River (C5), Kailali District in July 2013 (Baral *et al.* 2013); Chisapani (C4), Bardia District in March 1997 (Giri 1997); between Simikot and Chyakpalung (D1), Humla District between May-June 2013 (Ghimirey and Acharya 2013); April-August 2014 and July-August 2015 (Kusi *et al.* 2015), Nepalgunj (D5), Banke District in December 1998 (Choudhary 1999); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); a winter visitor in Balewa (H5), Baglung District (Basnet 2009); Phewa Lake (H5), Kaski District in January 2012 (Dymond 2012); Hetauda (L7), Makawanpur District in February 2004 (Malling Olsen 2004); Trijuga River (P8), Udaypur District in January 1994 (Choudhary 1994), and in the lower Mai Valley (R8) (Basnet and Sapkota 2006, 2007, Robson *et al.* 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Austria, Azerbaijan, Bangladesh, Belarus, Belgium, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Bulgaria, Canada, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Greenland (to Denmark), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Pakistan, Poland, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Serbia, Slovakia, Slovenia, South Korea, Spain, St Pierre and Miquelon (to France), Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Taiwan (China), Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, United Kingdom, USA, Uzbekistan (BirdLife International 2013).

### **Elevation**

Upper limit: 4240 m; lower limit: 75 m

# **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Common Merganser population counts were 602, 723, 582, 616, 699, 1020 from 2008 to 2013 respectively (Baral 2013).

In Koshi Area, 35 in February 1993 (Giri 1993), 25 in January 1994 (Choudhary 1994), 28 in January 1995 (Choudhary 1995), 40 in February 1997 (Chaudhary 1997), 40 in January 1998 (Chaudhary 1998), 25 in December 2001 (Baral 2001), 35 in February 2003 (Chaudhary 2003), 100 in December 2007 (Giri 2007), 73 in January 2009 (Baral 2009), 30 in March 2010 (Baral 2010), 28 in January 2011 (Baral 2011b).

In Chitwan National Park, a waterbird survey in November and December counted 84 birds on the Rapti and 233 on the Narayani Rivers (Halliday 1982). A total of 170 birds was counted on the Narayani in November 1995 during a waterbird survey of the river (Dhakal 1996), 355 in January 2005 (Khadka 2005), 212 in January 2010 (Khadka 2010) and 302 in February 2011 (Khadka 2012). Other numbers from the park are: 60 in January 1993 (Giri 1993), 62 in February 1996 (Dhakal 1996), 58 in January 1997 (Chaudhary 1997), 13 in November 1998 (Choudhary 1998), 22 recorded daily between December 2003-January 2004 (Stratford 2004), 10 in December 2007 (Chaudhary 2007), 20 in February 2008 (Giri 2008), 12 in December 2009 (Giri 2009), 40 in February 2010 (Baral 2010) and six in February 2012 (Naylor and Metcalf 2012).

In Bardia National Park, 30 in January 1992 (Halliday 1992), 60 in February 1995 (Wheeldon 1995), 30 in December 1996 and 29 in January 1997 (Chaudhary 1997), 20 in December 1998 (Choudhary 1999), 30 in January 2003 (Giri 2003), 20 in December 2007 and 50 birds were seen in December 2007 from Bardia to Lumbini (Baral 2008), two in November 2011 (Baral 2011c).

In Pokhara, 18 in January 2005 from Phewa Tal (Mallalieu 2005), eight in December 2010 (Adcock and Naylor

2011), 10 in January 2012 (Dymond 2012).

15 birds at Rara Lake, Rara National Park in March 2000 (Regmi 2000).

15 birds in Mai Khola, Ilam District in March 2008 (Robson et al. 2008).

Three pairs in upper Humla District in the species' breeding season in May-June 2013 (Ghimirey and Acharya 2013)

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Common Merganser occurs on lakes and both fast- flowing and slow-moving rivers (Inskipp and Inskipp 1991). The species is an expert swimmer and diver and apparently uncomfortable on land (Ali and Ripley 1987). It feeds mainly by diving, usually after scanning with head submerged (Grimmett *et al.* 1998). The species is sociable bird and often found in small parties; it is a diurnal species, often fishing cooperatively and flight usually follows the river course (Grimmett *et al.* 1998). It feeds exclusively on fish (Ali and Ripley 1987).

### **Threats**

Increased water turbidity caused by soil erosion resulting from overgrazing, ploughing and work on irrigation channels by farmers may be making it difficult for Common Merganser to locate their prey (Inskipp and Baral 2011). The species is also threatened by illegal hunting, disturbance and poisoning.

### **Conservation Measures**

There are no conservation measures specifically carried out for Common Merganser. Post-1990 the species has been recorded from Bardia, Banke, Rara, Chitwan and Langtang National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, Api-Nampa, Manaslu and Annapurna Conservation Areas.

### Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Common Merganser has been assessed as Least Concern. The species is a fairly common winter visitor along major rivers and lakes and recorded from the far west to the far east. It possibly breeds in upper Humla in the far north-west. The species has been recorded from many protected areas and quite widely outside the protected areas' system. Its population has declined in Chitwan National Park, although there is no evidence of a decline elsewhere. Increased water turbidity caused by soil erosion resulting from overgrazing, ploughing and work on irrigation channels by farmers may be making it difficult for Common Merganser to locate their prey and Illegal hunting, disturbance and poisoning threaten the species. Its population may be declining, but not to a degree that warrants a threat category for the species.

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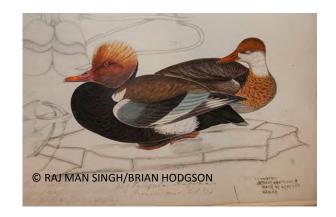
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# Netta rufina (Pallas, 1773) LC

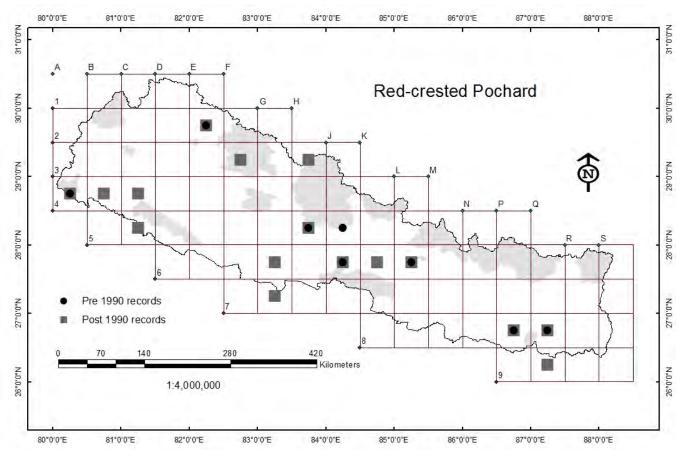
# Common Name

Red-crested Pochard (English), Sunjure Haans (Nepali)

Order: Anseriformes Family: Anatidae



### **Distribution**



Red-crested Pochard is a frequent winter visitor and passage migrant.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species as a fairly common winter visitor and passage migrant, usually seen in small flocks and recorded as high as Rara Lake at 3050 m. Inskipp and Inskipp (1991) described the species as an occasional winter visitor and passage migrant. Most individuals had been seen in March and April at Koshi Barrage (Inskipp and Inskipp 1991). Inskipp and Inskipp (1991) reported the species throughout the winter at Rara Lake and mainly in spring at Phewa Lake. The species was uncommon in Chitwan and found there between November and April, and only a few records of the birds elsewhere (Inskipp and Inskipp 1991).

Post-1990 the species' status in protected areas is: a frequent winter visitor to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), rare winter visitor to Bardia National Park [C4] (Inskipp 2001), winter visitor and passage migrant to Rara National Park [E2] (Giri 2005), recorded from wetlands of Shey Phoksundo National Park [F3] (Bhuju *et al.* 2007), a pair seen in Dhumba lake, Mustang District, Annapurna Conservation Area in Dec 2013 (Naresh Kusi and Nitesh Singh), an uncommon winter visitor to Chitwan National Park [J6,K6] (Baral

and Upadhyay 2006), and fairly common winter visitor to Koshi Area [P8,Q8] (Baral 2005a). In Chitwan National Park buffer zone it was recorded in Bees Hazari Lake, Chitwan District [J6] (Baral 1996).

Since 1990 the species has been recorded less widely outside the protected areas' system than within protected areas. Records include: a fairly common winter visitor to Ghodaghodi Lake area, Kailali District [B4] (CSUWN and BCN 2012), winter visitor to Jagadishpur reservoir, Kapilvastu District [G6] (Baral 2008) and several localities of Kapilvastu [G6] and Rupandehi [G6] Districts (Cox 2002), Lumbini, Rupandehi District [G7] (Mallalieu 2007), recorded from lakes of Pokhara Valley, Kaski District [H5] (Mallalieu 2005; Kafle *et al.* 2008), rare in winter at Taudaha and adjacent Bagmati River in Kathmandu Valley [L6] (Mallalieu 2008), scarce migrant to Chimdi Lake, Sunsari District [Q8] (Surana *et al.* 2007), and recorded in Biratnagar, Morang District [Q9] (Baral 1994).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Lebanon, Libya, Macedonia, the former Yugoslav Republic of, Malta, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, Spain, Sri Lanka, Sweden, Switzerland, Syria, Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan (BirdLife International (2013).

### **Elevation**

Upper limit: 3050 m; lower limit: 75 m

#### **Population**

During the Midwinter waterbird count globally coordinated by Wetlands International, Nepal Red-crested Pochard population counts were 144, 84, 51, 139, 262, 250 from 2008 to 2013 respectively (Baral 2013).

In Koshi Area, 16 birds were recorded in April 1983 (Alström and Olsson 1983), 80 in March 1986 (Dymond 1986) (the maximum number recorded pre-1990), 25 in February 1989 (Cox et al. 1989), 50 in March 1993 (Danielsen and Falk 1993), eight in February 1994 (Cottridge et al. 1994), 10 in January 1995 (Choudhary 1995), 72 in December 1996 and 28 in January 1997 (Baral 1997), eight in December 1998 (Chaudhary 1998a), 50 in March 1999 (Choudhary 1999), six in November 2000 (Basnet 2000), 163 in February 2002 (Chaudhary 2002), 55 in February 2003 (Chaudhary 2003), 48 in February 2005 (Baral 2005b), 120 in February 2007 (Baral 2007), 11 in January 2009 (Baral 2009) and 103 in March 2010 (Baral 2010).

In Chitwan National Park, 20 birds were recorded in February 1996 (Dhakal 1996), eight in January 1997 (Chaudhary 1997), three in February 1998 (Chaudhary 1998b), 10 in December 2007 (Chaudhary 2007) and four in January 2010 (Giri 2010). From Chitwan National Park to Koshi Tappu Wildlife Reserve, six birds were recorded in February 1998 (Chaudhary 1998b).

In Bardia National Park, 29 birds were recorded in March 1992 (Baral 1992), 27 in February 1995 (Wheeldon 1995), five in November 1997 (Chaudhary 1998a), six in January 2001 (Chaudhary 2001) and 80 in February 2003 (Baral 2003), 55 in February 2005 (Dol 2005).

In Jagadishpur reservoir, Kapilvastu, 90 birds were recorded in December 2010 (Baral 2011a) and three in December 2011 (Baral 2011b).

In Lumbini, 112 birds were recorded in January 2006 (Mallalieu 2007).

In Pokhara, eight birds were recorded in January 2005 at Phewa Tal (Mallalieu 2005) and 10 in February 2010 (Baral 2010).

In Kathmandu, four were recorded in January 1994 at Bagmati River (Baral 2003) and 14 birds in February 2001 (Baral and GC 2001).

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Red-crested Pochard frequents lakes, jheels and reservoirs with large areas of open water and plentiful submerged and fringing vegetation; occasionally on rivers (Grimmett *et al.* 1998). Winter visitor arriving in October and almost all are gone by mid-March (Grimmett *et al.* 1998). Gregarious by nature; usually feeds in small flocks, but also forms large flocks (Grimmett *et al.* 1998). The bird is shy and wary (Ali and Ripley 1987). Feeds underwater by diving. It is an omnivorous feeding on rhizomes, buds, shoots, seeds of aquatic plants. Animal matter includes crustacean, molluscs, water insects and larvae, worms and occasionally tadpoles and small fish (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Red-crested Pochard. Post-1990 the species has been recorded from Bardia, Rara, Shey Phoksundo and Chitwan National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves.

#### Regional IUCN status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Red-crested Pochard has been assessed as Least Concern. The species is a frequent passage migrant and rare winter visitor to Nepal. Since 1990 it has been recorded in several protected areas and a number of localities outside the protected areas' system. Habitat loss and degradation, illegal hunting and disturbance are threats to this species. However, the population seems to be increasing in the lowlands.

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# Tadorna tadorna (Linnaeus, 1758) LC

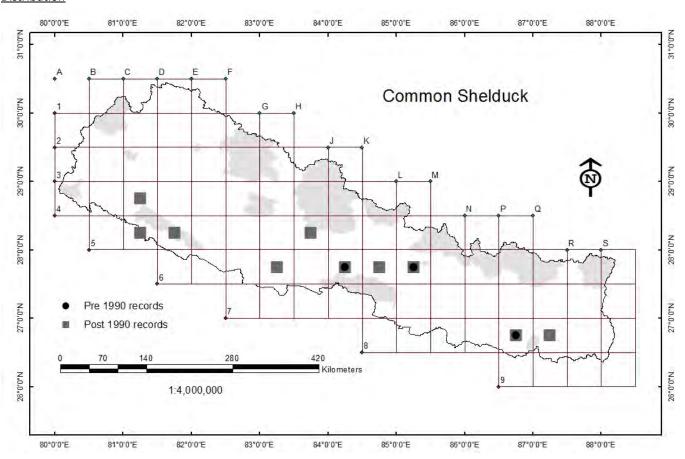
# Common Name

Common Shelduck (English), Lalthude Chakhewa (Nepali)

Order: Anseriformes Family: Anatidae



### **Distribution**



Common Shelduck is an irregular and rare winter visitor and passage migrant. Post 1990, it has been recorded from Bardia National Park (Inskipp 2001) in the mid-west to Koshi Tappu Wildlife Reserve (Baral 2005) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a scarce passage migrant. Inskipp and Inskipp (1991) reported the species as a rare winter visitor and spring passage migrant. Pre-1990 there had been a few reports from Koshi Barrage and also from Chitwan National Park (Inskipp and Inskipp 1991).

The species' status in the protected areas' system post-1990 is: a rare migrant to Bardia National Park (C4, C5) (Inskipp 2001), and an uncommon winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay, 2006) and in Koshi Tappu Wildlife Reserve with less than five records (P8, Q8) (Baral 2005).

Common Shelduck has been recorded from few localities outside the protected areas' system since 1990. Post-1990 records follow: between Butwal (G6), Rupandehi District and Nepalgunj (D5), Banke District in November 1992 (Mackenzie 1994); Pokhara Valley (H5), Kaski District (Gautam and Kafle 2007) and a vagrant to Kathmandu valley (L6) (Mallalieu 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, France, Germany, Ghana, Gibraltar (to UK), Greece, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, South Korea, Spain, Sudan, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Yemen (BirdLife International 2013).

### **Elevation**

Upper limit: 915 m (1300 m); lower limit: 75 m

### **Population**

No population surveys have been carried out for Common Shelduck.

In Koshi Area, six were recorded in January 1995 (Choudhary 1995), one in November 1996 (Chaudhary 1997), three in March 1997 (Harrap and Basnet 1997), four in February 1998 (Chaudhary 1998), two in February 2003 (Chaudhary 2003), one in February 2009 (Baral 2009), one in March 2010 (Baral 2010), two in March 2011 (Birdfinders 2011).

In Chitwan National Park, single birds were recorded in November 1996 (Giri 1996) and in March 1999 (Heilbrower 2000).

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Common Shelduck inhabits open lakes and large rivers (Grimmett *et al.* 1998). The species occurs sporadically and irregularly mainly singly or in small parties in Nepal, often feeds by walking on mud and dabbling at the surface also by wading in the shallows and upending (Ali and Ripley 1987, Grimmett *et al.* 1998). It feeds on molluscs, crustaceans, insects and worms, also algae, seeds, leaves and tubers of aquatic plants etc. (Ali and Ripley 1987).

### **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to this species.

# **Conservation Measures**

No specific conservation measures have been carried out for Common Shelduck. It has been recorded from Bardia and Chitwan National Parks and Koshi Tappu Wildlife Reserve.

### **Regional IUCN status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Common Shelduck has been assessed as Least Concern. It is an irregular and rare winter visitor and passage migrant to Nepal. Since 1990 it has been recorded from a few protected areas and a few additional localities. The range of the species has increased, especially in the west, probably because of better coverage. There is no indication of decline in population since 1990. Habitat loss and degradation, illegal hunting and disturbance are threats to this species.

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# **Podicipediformes**



Black-necked Grebe *Podiceps nigricollis*Photo by Hathan Chaudhary

# Podiceps cristatus (Linnaeus), 1758 LC

Subspecies: Podiceps cristatus cristatus

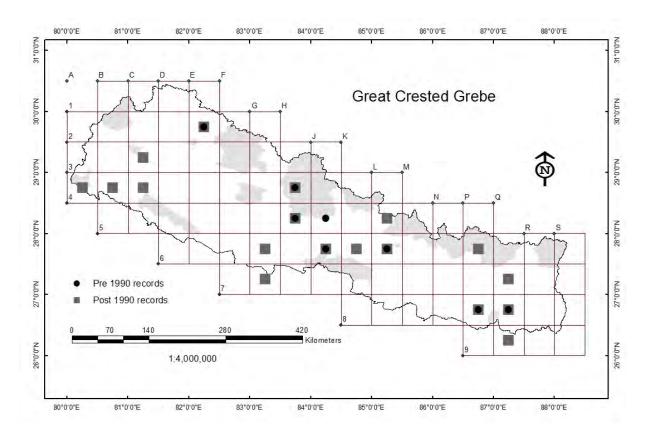
### Common Name

Great Crested Grebe (English), Siure Dubulkicharaa (Nepali)

Order: Podicipediformes Family: Podicipedidae



# **Distribution**



Great Crested Grebe is a locally frequent winter visitor to Nepal.

The first record of the species in Nepal was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) described the species as an occasional winter visitor. Inskipp and Inskipp (1991) described the species as a locally frequent winter visitor and possibly breeding. The bird was often seen at Koshi Barrage, Phewa Lake, Begnas Lake and Rara Lake (Inskipp and Inskipp 1991).

Post-1990 the species' status in protected areas is: rare winter visitor to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), frequent passage migrant in Khaptad National Park [C3] (Chaudhary 2006), has less than 5 records in winter in Bardia National Park [C4] (Inskipp 2001), common winter visitor, but possibly resident in Rara National Park [E2] (Giri 2005), vagrant to Annapurna Conservation Area [H4] (Inskipp and Inskipp 2003), has less than 5 records in winter in Chitwan National Park [J6, K6] (Baral and Upadhyay 2006), recorded from Syabrubensi, Langtang National Park [L5] (Baral 1996), a rare passage migrant to Sagarmatha

National Park [P6] (Basnet 2004), and a common winter visitor to the Koshi area [P8, Q8] (Baral 2005). In Chitwan National Park buffer zone it has been recorded in Bees Hazari Lake, Chitwan District [J6] (Giri 2008).

Outside the protected areas' system, the bird has been recorded from the Mahakali River, Kanchanpur District [A4] (Baral 2008a), Dhangadi, Kailali District [B4] (Chaudhary 1997), winter visitor to Jagadishpur reservoir, Kapilvastu District [G6] (Baral 2008b), Lumbini, Rupandehi District [G7] (Suwal *et al.* 2002), Pokhara valley lakes, Kaski District [H5] (Baral 2010), vagrant to Kathmandu valley [L6] (Mallalieu 2008), recorded from Tumlingtar, Sankhuwasabha District [Q7] (Carter and James 2011), Dharan forest, Sunsari District [Q8] (Chaudhary 1997) and Biratnagar, Morang District [Q9] (Chaudhary 1997).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Botswana, Bulgaria, Burundi, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Gibraltar (to UK), Greece, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Mali, Malta, Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Zealand, Nigeria, North Korea, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, San Marino, Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, South Africa, South Korea, Spain, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Zambia, Zimbabwe (BirdLife International (2013).

# **Elevation**

Upper limit: 4800 m; lower limit: 75 m

## Population

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Great Crested Grebe population counts were 49, 54, 72, 76, 154, 97 from 2008 to 2013, respectively (Baral 2013).

In the Koshi area, 18 birds were recorded in March 1989 (Babbington 1989), 50 in March 1993 (Danielsen and Falk 1993), 15 in January 1994 (Choudhary 1994), 21 in January 1995 (Choudhary 1995), 10 in December 1996 and 10 in January 1997 (Chaudhary 1997), 22 in March 2002 (Baral 2002), 27 in February 2003 (Chaudhary 2003), 30 in December 2007 (Giri 2007), 26 in January 2009 (Baral 2009), 376 in March 2010 (Baral 2010) and 20 in February 2011 (Baral 2011).

In Rara National Park, 30 birds were recorded in March 1997 (Giri 1997).

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

## Habitat and Ecology

Great Crested Grebe favours large areas of deep open water (Inskipp and Inskipp 1991). It swims with body low in the water and head held erect. It feeds on fish, tadpoles, frogs, water insects, etc., with some vegetable matter (Ali and Ripley 1987).

# **Threats**

Habitat loss and degradation, illegal hunting and disturbance and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Great Crested Grebe. Post-1990 the species has been recorded from Khaptad, Bardia, Rara, Chitwan, Langtang and Sagarmatha National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves and Annapurna Conservation Area.

## **Regional IUCN Status**

Least Concern (LC), unchanged from the Global Red List assessment: Least Concern

#### Rationale for the Red List Assessment

Great Crested Grebe has been assessed as Least Concern. It is a locally frequent winter visitor to Nepal. Since 1990 it has been recorded from a number of protected areas and less widely outside the protected areas' system. It has been recorded from several new localities since 1990, probably because of better coverage. Habitat loss and degradation, illegal hunting and disturbance and possibly the use of agro-chemicals are threats to this species. As a result, it is possibly declining.

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# Podiceps nigricollis (Brehm, 1831) LC

Subspecies: Podiceps nigricollis nigricollis

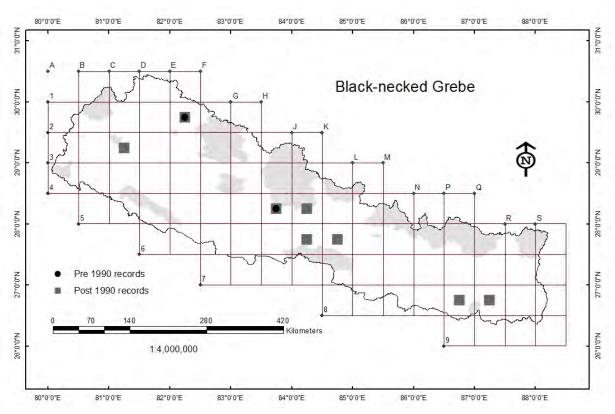
## Common Name

Black-necked Grebe (English), Kaalikantha Dubulkicharaa (Nepali)

Order: Podicipediformes Family: Podicipedidae



# **Distribution**



Black-necked Grebe is a local and very uncommon winter visitor. Post-1990, it has been recorded from Khaptad National Park (Chaudhary 2006) in the far west to the Koshi Tappu Wildlife Reserve (Baral 2005) in the far east.

The first Nepal record of the bird was from Phewa Tal, Pokhara valley, Kaski District in December 1949 (Rand and Fleming 1957).

Fleming *et al.* (1976) and Inskipp and Inskipp (1991) considered the species a scarce winter visitor. The maximum number of about 40 birds was seen at Begnas Lake in January 1982 (Housden 1982).

The species' status in the protected areas' system post-1990 is: a passage migrant to Khaptad National Park (C3) with less than five records (Chaudhary 2006); a common winter visitor in Rara National Park (E2) (Giri 2005); a frequent winter visitor to Annapurna Conservation Area (H5, J5) (Biodiversity Conservation Data Project Team 1994); recorded from Chitwan National Park (J6, K6) in November 1995 (Dhakal 1996); a rare passage migrant to Koshi Tappu Wildlife Reserve (P8,Q8) (Baral 2005), and a winter visitor to Koshi Barrage (P8) (Chhetry, 2006).

Black-necked Grebe has been recorded from a few localities outside the protected areas' system since 1990: from Pokhara Valley (H5) in January 1998 (Giri *et al.* 1999), February-March 2009 (Harrap and Karki 2009), Begnas Lake (J5) in January 1990 (Honkala 1990) and March 2002 (Malling Olsen 2002), Kaski District.

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Belarus, Belgium, Bermuda (to UK), Bosnia and Herzegovina, Botswana, Bulgaria, Cameroon, Canada, China (mainland), Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Egypt, El Salvador, Estonia, Ethiopia, Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Guatemala, Hong Kong (China), Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Namibia, Netherlands, Nigeria, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Seychelles, Slovakia, Slovenia, South Africa, South Korea, Spain, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Yemen, Zimbabwe (BirdLife International 2013).

# **Elevation**

Upper limit: 3050 m; lower limit: 75 m

# **Population**

No population survey has been carried out for Black-necked Grebe.

In Rara National Park, 20 in March 1997 (Giri 1997) and 30 birds were seen in March 2000 (Anyon-Smith 2000). The species was observed every day at Rara Lake from 15 to 19 March 2009 with more than 20 birds in 16 March 2009 (O'Connell-Davidson 2009).

In the Koshi area, five birds were recorded in February 1994 (Thompson 1994), two in Koshi Barrage in March by Mackenzie (1994) and three by Weiss and Wettstein (1994), three in January 1995 (Choudhary 1995), two in February 1995 (Wheeldon 1995), one in February 1997 (Betton 1997) and one in March 2002 (Baral 2002).

In Chitwan National Park, one bird was recorded in January 1996 (Dhakal 1996).

Outside protected areas, all known records are from Pokhara Valley, where one was recorded in March 2002 (Malling Olsen 2004), four in December 2002 (Naylor *et al.* 2002), one in March 2003 (Naylor *et al.* 2003), two in November 2004 (Naylor and Giri 2004), one in November 2005 (Naylor and GC 2005), four in December 2007 (Naylor and Metcalf 2007), six in February 2009 (Harrap and Karki 2009) and 25 in December 2011 (Read and Brennan 2012).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

# Habitat and Ecology

Black-necked Grebe is found in shallow, reed-edged lakes with emergent vegetation (Grimmett *et al.* 1998). The species is the most social of the small grebes, with pairs nesting in colonies and small flocks forming outside the breeding season (Holden and Cleeves 2014). The species dives for food and sometimes when disturbed. The species is reluctant to fly and it takes flight by running over the surface of the water flapping wings (Kennedy *et al.* 2000, Holden and Cleeves 2014). It feeds on fish, tadpoles, shrimps, aquatic insects etc. (Ali and Ripley 1987).

# **Threats**

Habitat loss, degradation, human persecution and disturbance are threats to the species.

## **Conservation Measures**

No conservation measures have been carried out specifically for the species. Post-1990, the species has been reported from Khaptad, Rara and Chitwan National Parks, Annapurna Conservation Area and Koshi Tappu Wildlife Reserve.

#### **IUCN Red Listing**

Least Concern (LC), unchanged from the Global Red List assessment: Least Concern

#### Rationale for the Red List Assessment

Black-necked Grebe has been assessed as Least Concern. It is a local and very uncommon winter visitor. There has been a small increase in distribution, which is probably due to better coverage. It has been recorded from five protected areas and a few localities outside the protected areas' system. Habitat loss, degradation, human persecution and disturbances are threats to the species. Its population is probably stable.

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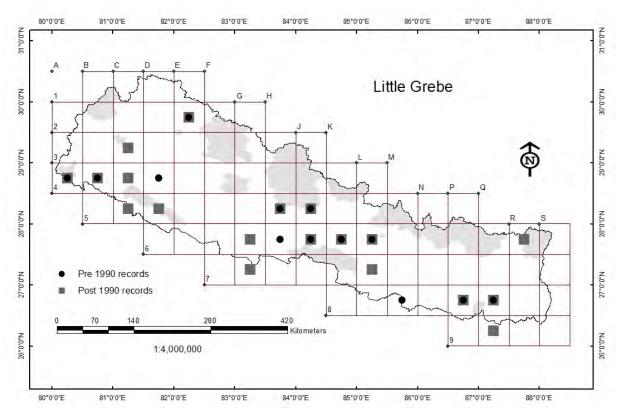
# **Tachybaptus ruficollis** (Pallas, 1764) **LC** Subspecies: *Tachybaptus ruficollis capensis*

<u>Common Name</u> Little Grebe (English), Dubulki Charaa (Nepali)

Order: Podicipediformes Family: Podicipedidae



# **Distribution**



Little Grebe is a fairly common resident. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Kanchenjunga Conservation Area (Cox 1992) in the far east.

The first record of the bird was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered it a fairly common resident. Inskipp and Inskipp (1991) reported the species as a fairly common resident, winter visitor and passage migrant and mapped its distribution from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a frequent resident, but probably also a winter visitor, to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); less than 5 records in winter to Bardia National Park (C4, C5) (Inskipp 2001); a fairly common resident in Rara National Park (E2) (Giri 2005); a frequent resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005), and recorded at Topke Gola (R6) of Kanchenjunga Conservation Area in December 1992 (Cox 1992). The species has been recorded at Bees Hazari Lake in March 2002 (Malling Olsen 2004), buffer zone of Chitwan National Park.

Little Grebe has been recorded quite widely outside the protected areas' system since 1990 (see text and

#### map).

In the west records include: from Bedkot Tal (A4), Kanchanpur District (Bhuju *et al.* 2007); a fairly common resident in Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012); common at Ramaroshan Lake (C3), Achham District (Baral *et al.* 2014), recorded from Nepalgunj (D5), Banke District in March 1992 (Baral 1992); a resident in Jagadishpur Reservoir (Q6), Kapilvastu District (Baral 2008); recorded in Gaidahawa Lake (G6) in February 2011 (Baral 2011) and Lumbini (G7) in February 2011 (Acharya 2011), Rupandehi District; Rupa Lake (J5) (Kafle *et al.* 2008) and Phewa Lake (H5) in January 2012 (Dymond 2012), Kaski District; Damauli (J5), Tanahun District in November 2010 (Baral 2011).

In central Nepal records include: uncommon and local in winter and summer in Kathmandu Valley (L6) (Mallalieu 2008); Hetauda (L7) in May 2000 (Giri 2000), Makwanpur District.

In the east records include: from Dharan Forest (Q8) (Basnet and Sapkota 2008), a scarce winter visitor to Chimdi Lake (Q8) (Surana *et al.* 2007), Itahari (Q8) (Pandey 2003), Sunsari District; Biratnagar (Q9) in June 1993 (Baral 1994) and a common resident in Betana Pond (Q8) (Niroula *et al.* 2011), Morang District.

Globally it has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Comoros, Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Hong Kong (China), Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mayotte (to France), Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Papua New Guinea, Philippines, Poland, Portugal, Qatar, Romania, Russia (European), Rwanda, San Marino, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

## **Elevation**

Upper limit: 1370 m (-3050 m); lower limit: 75m

# **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, Nepal Little Grebe population counts were 204, 311, 160, 123, 119, 211 from 2008 to 2013, respectively (Baral 2013). This shows no indication of population decline.

Post-1990, the maxima of 130 birds were recorded in February 2010 (Baral 2010), 125 in December 2008 (Naylor and Turner 2008), more than 100 in March 2009 (Harrap and Karki 2009), 100 in March 1999 (Chartier and Chartier 1999), and 100 in November 2009 (Thewlis *et al.* 2009) at Pokhara. Similarly, 118 birds were recorded in January 1994 (Chaudhary 1994) at Koshi Tappu Wildlife Reserve.

Post-1990, the population status of the species is possibly stable compared to its pre-1990 status.

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Little Grebe frequents lakes and ponds (Inskipp and Inskipp 1991), reservoirs and slow moving rivers (Grimmett *et al.* 1998). Often keeps singly or in pairs among aquatic vegetation when breeding; in the non-breeding season easily seen on open lakes, ponds, jheels, reservoirs, ditches and slow moving rivers (Grimmett *et al.* 1998). The species is an excellent diver and underwater swimmer; disappears smoothly below the surface without leaving a ripple (Ali and Ripley 1987). It feeds on fish, frogs, tadpoles, Crustacea, molluscs, aquatic insects etc. (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting and disturbance are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Little Grebe. Post-1990 the species has been recorded from Bardia, Rara and Chitwan National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves and Kanchenjunga Conservation Area.

#### **IUCN Red Listing**

Least Concern (LC), unchanged from the Global Red List assessment: Least Concern

## Rationale for the Red List Assessment

Little Grebe has been assessed as Least Concern. It is a fairly common and widespread resident recorded from the far west to the far east. Since 1990 it has been recorded in a number of protected areas and quite widely outside the protected areas' system. It has been recorded from several new localities post-1990 compared to pre-1990, perhaps due to better coverage. Habitat loss and degradation, illegal hunting and disturbance are threats to this species. Its population is possibly stable.

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# **Ciconiiformes**



Little Heron *Butorides striatus*Raj Man Singh / Brian Hodgson

# Ephippiorhynchus asiaticus (Horsfield, 1821) CR

Subspecies: Ephippiorhynchus asiaticus asiaticus

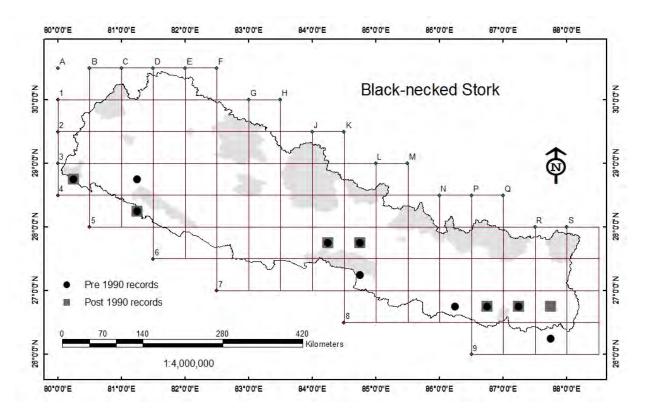
## Common Name

Black-necked Stork (English), Krishnakantha Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



Black-necked Stork is a very rare and very local resident in the lowlands. The population may be augmented by winter visitors.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) described its occurrence in Nepal as occasional. Inskipp and Inskipp (1991) considered it to be a scarce resident and passage migrant, and regularly recorded from Chitwan National Park and the Koshi marshes.

It was seen near Birganj, Parsa District in 1948 (Ripley 1953) and one was collected 32 km east of Biratnagar, Morang District in February 1961 (Fleming and Traylor 1964). No later records from either locality are known.

In Sukla Phanta Wildlife Reserve, it was considered an occasionally occurring resident (Schaaf *et al.* 1980). There are a few post-1990 records from the reserve (see Population section).

Black-necked Stork was first recorded in Bardia National Park by Dinerstein (1979) (no further details available); up to five were seen there in February 1988 (Smith 1988), and two were photographed in

December 2010 (Ram Bahadur Shahi).

In Chitwan National Park Black-necked Stork was described as an uncommon winter visitor in the early 1980s (Gurung 1983). However, observations in May or June (Hoare 1977; Halberg 1987) and August (Underwood 1978) suggest it may have been resident there. One or two birds were regularly recorded from the park between 1974 and 1988 including: in February 1974 (Madge *et al.* 1974), November 1978 (Halberg and Petersen 1984), February 1982 (Andell *et al.* 1982; Halberg and Petersen 1984), April 1983 (Alström and Olsson 1983), December 1984 (Anderson *et al.* 1985), February and March 1987 (Meilstrup and Olsen 1987; Nicolle 1987). In the park buffer zone at Sauraha, Chitwan District one or two were seen in November 1978 (Bowden 1979), late January and early February 1981 (del-Nevo and Ewins 1981), November 1983 (van Riessen 2010), March 1987 (Stones 1987), April 1988 (Slack *et al.* 1988) and November 1988 (van Riessen 2010). Also in the park buffer zone near Chitwan Jungle Lodge, Chitwan District one was seen in February 1987 (Kovacs 1987) and four in February 1988 (Kovacs 1988). However, there are very few known records from Chitwan National Park or the buffer zone or elsewhere outside the park after 1988. These records include two seen in the park in February 2001 (Giri and Choudhary 2001), the first there for several years and one in April 2003 (O'Connell Davidson *et al.* 2003); also one flying over Sauraha in the buffer zone in December 2011 (Krishna Pariyar and Bird Education Society).

Black-necked Stork was considered a resident seen occasionally in the south-east lowlands during a two-year stay in the area 1975-1976 (Gregory-Smith and Batson 1976). Small numbers were seen in the Koshi Barrage area/Koshi Tappu Wildlife Reserve up to 2007 and at least one pair bred between 1982 and 2007, but the species is now a rare visitor to the area, see Population section.

A pair was seen in Gajurmukhi VDC, Ilam District in February 2010 (Bharat Subba).

Globally the species has also been recorded from Australia, Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Myanmar, Pakistan, Papua New Guinea, Sri Lanka, Thailand (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 300 m; lower limit: 75 m

# **Population**

In 1995 a total of 16 was counted in protected areas and a resident national population of 20 was estimated (Baral 1996). Numbers have decreased in recent years and a maximum national population of 15 is estimated at the present time.

Numbers have been regularly counted at Koshi, where they have decreased in the last few years, possibly as a result of changes to the Koshi River habitats following the extensive 2009 monsoon flooding. Records include: one in February 1974 (Madge *et al.* 1974), three in November 1975 (Byrne and Harris 1975), three in December 1979 (Fairbank 1980), six in April 1981 (Krabbe 1981), five in May 1982 (Inskipp and Inskipp 1982), seven in February 1984 (Hornskov 1984), two in April 1985 (Harrap 1985), 16+ on 3 April, but only three on 4 and 5 April 1986 (Heath 1986), five in March 1987 (Turin *et al.* 1987), two pairs in February 1989 (Cox 1989), ten in December 1998 (Choudhary 1998), six in February 2000 (Choudhary 2000), seven in February 2001 (Baral and GC 2001), four in February 2003 (Chaudhary 2003), three adults in February 2002 (Malling Olsen 2004), a pair in February 2006 (Mallalieu 2006), two in April 2008 (Chaudhary 2008), one in October 2009 (Baral 2009) and singles in November 2010 (Suchit Basnet *in litt.* to H. S. Baral 2010), 2011 (Ashok Ram, Fuleshwor Chaudhary and Ramgir Chaudhary), and 2012 (Ashok Ram).

Known post-1990 records from Sukla Phanta Wildlife Reserve are: one in March 1991 (Baral 1991); two at Beldandi in April and May 2003 (Hem Subedi), three photographed in December 2010 (Uba Raj Regmi verbally to Hem Sagar Baral December 2010), and three at Kalikich Tal in February 2011 (Som GC and Michael Dooher).

#### **Total Population Size**

Minimum population: 2; maximum population: 15

## **Habitat and Ecology**

Black-necked Stork frequents marshes and large rivers in the lowlands (Inskipp and Inskipp 1991). It chiefly feeds on fish, but also frogs, reptiles, crabs, and other small animals (Ali and Ripley 1987). The species is a resident subject to some movements (Ali and Ripley 1987).

A pair has been recorded breeding in the Koshi Tappu Wildlife Reserve between 1982 and 2007, but not since. Records include an adult feeding two immatures in April 1982 (Grimmett 1982), two adults and two recently fledged immatures in February 1988 (Kovacs 1988), also recorded breeding by Lama (1994a), Choudhary (1995/1996), Baral (2007); two adults and four immatures in April 2001 (Inskipp and Inskipp 2001), two adults and an immature in February 2004 (Malling Olsen 2004), two adults and four immatures in March 2005 (van der Dol 2005) and two at a nest in November 2007 (Baral 2007).

# **Threats**

Black-necked Stork is seriously threatened by habitat loss and deterioration, hunting and trapping (illegal in protected areas), disturbance and possibly also pesticides. Lack of large trees, which are suitable for nesting, in recent years (following monsoon flooding) may have prevented breeding in Koshi Tappu Wildlife Reserve.

## **Conservation Measures**

No conservation measures have been carried out specifically for Black-necked Stork. In recent years the species has mainly been recorded in Koshi Tappu Wildlife Reserve (almost all of the rest of the population are near Koshi Barrage).

#### **Regional IUCN Status**

Critically Endangered (CR Acde?, C2a(i), D1) upgraded from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Black-necked Stork has been assessed as Critically Endangered based on the criteria A2cde?, C2a(i) and D1. The species is seriously threatened by habitat loss, deterioration in habitat quality, hunting, trapping, disturbance and possibly also pesticides. There are post-1990 records from several localities, mainly protected areas. The species' population has been declining in recent years and is now extremely small, perhaps less than 15 birds. One pair bred almost annually in Koshi Tappu Wildlife Reserve between 1982 and 2007, but not since.

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# Gorsachius melanolophus Raffles, 1822 CR

Subspecies: Gorsachius melanolophus melanolophus

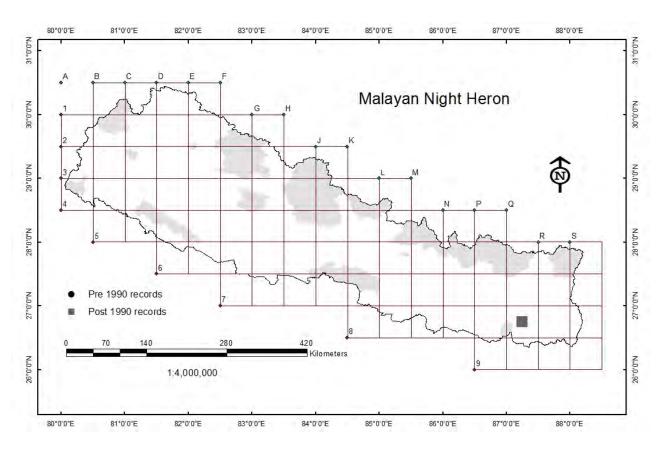
## Common Name

Malayan Night Heron (English), Malaya Bankebakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



# **Distribution**



Malayan Night Heron is a rare and very local summer visitor to east Nepal. The first record of the bird was in May 1976 when one bird was flushed near Dharan, Sunsari District [Q8] (Gregory-Smith and Batson 1976).

Fleming *et al.* (1976) described the species as a scarce summer visitor to Nepal. Inskipp and Inskipp (1991) described the species as a vagrant.

Since 1990 the species has been recorded in Patnali-Dharan forests, Dharan Forests Important Bird Area, Sunsari District, the first being on 24 April 2011 (Yeray Seminario and Sanjib Acharya 2011, Sanjib Acharya pers comm. 2013) and two adults on 25 August 2012 (Sanjib Acharya, Anish Timsina, Yatra Thulung and Kul Limbu).

Globally it has also been recorded from Bangladesh, Brunei, Cambodia, China (mainland), Christmas Island (to Australia), India, Indonesia, Japan, Laos, Malaysia, Myanmar, Palau, Philippines, Singapore, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013).

# **Elevation**

Upper limit: 100 m; lower limit: ? m

## **Population**

No population survey has been carried out for Malayan Night Heron; however, numbers must be very small.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Malayan Night Heron frequents wet areas in dense broadleaved forest (Grimmett *et al.* 1998). Mainly nocturnal and very secretive (Inskipp and Inskipp 1991). Skulks in damp places in forest undergrowth during the day (Grimmett *et al.* 1998). Breeds in early part of the monsoon. Feeds on fish, frogs, lizards, molluscs, insects, etc. (Ali and Ripley 1987).

# **Threats**

Malayan Night Heron is seriously threatened by habitat loss and degradation, illegal hunting and disturbance are possible threats to this species, especially as it has only been recorded outside the protected areas' system, and the numbers recorded are very small (although it could be overlooked as it is a skulking species).

## **Conservation Measures**

There are no conservation measures specifically carried out for Malayan Night Heron. It has never been recorded in any of Nepal's protected area.

# **Regional IUCN Status**

Critically Endangered (CR A2cd, B2a, D1) upgraded from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Malayan Night Heron has been assessed as Critically Endangered based on the criteria A2cd, B2a and D1. The species is a rare and very local summer visitor. It has been recorded from only one locality which lies outside the protected areas' system. The numbers recorded so far are very small, although it could be overlooked as it is a skulking species. However, it is seriously threatened by habitat loss and degradation, illegal hunting and disturbance.

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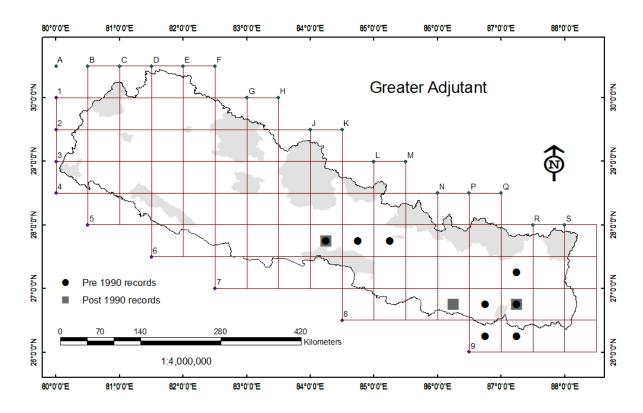
# Leptoptilos dubius (J. F. Gmelin, 1789) CR

<u>Common Name</u> Greater Adjutant (English), Raj Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



The current status of Greater Adjutant is uncertain; there are no known records of the species since 1995. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1838) when it was reported from the Kathmandu Valley in July (year unknown) (Hodgson 1829).

Local people in the east found the species a regular visitor about 40 years ago (H. S. Baral pers. comm. with villager of Udayapur District). A pair was seen circling near Chainpur in June 1954 at 1500 m (Biswas 1974). It was described as an uncommon resident in Koshi Tappu Wildlife Reserve in 1976 (Dahmer 1976), but the only later records from there are singles in September and November 1986 (Heinen 1990). In summer 1976 the species was recorded along the Biratnagar-Dharan road (Gregory-Smith and Batson 1976). Fleming *et al.* (1976) described it as scarce and reported several sight records in open fields of the terai in the late monsoon period.

Inskipp and Inskipp (1991) found Greater Adjutant a rare and erratic non-breeding visitor: one to three birds were seen from February to May, September and November in the 1980s, chiefly from Koshi Barrage with a few records from Chitwan. Singles were seen at Koshi Barrage in February 1979 (Redman and Murphy 1979), February 1981 (Joliffe *et al.* 1981) and March 1981 (Inskipp and Inskipp 1981), two to three there in March

1982 (Robson, 1982; Turton and Speight 1982; Walinder and Sandgren 1983), one in May 1982 (Grimmett 1982), one to two in March and April 1986 (Heath 1986; Mayer 1986), two in February 1987 (Stones 1987), two in March 1987 (Turin *et al.* 1987), and one in March 1989 (McKnight *et al.* 1989). Only one record is known of the species from Koshi post-1990: two in January 1995 (Choudhary 1995).

In Chitwan District singles were seen at Sauraha in December1983 (Wotham and Bond 1984), between Somnath and Narayangadh (north of Chitwan National Park) in January 1988 (Ellen 1988), at Machan Lodge in Chitwan National Park in April 1988 (Heathcote and Heathcote 1988) and two in Chitwan National Park in December 1995 (Rasmussen and Strange 1995). The only other site for the species is Siraha District in February 1992 (Lama 1994).

Globally Greater Adjutant has also been recorded from Bangladesh, Cambodia, India, Laos, Myanmar, Pakistan, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 245 m (- 1500 m); lower limit: 75 m

#### **Population**

No species' surveys have been carried out for Greater Adjutant in Nepal. However, the total absence of records since 1995 indicates that, if it still occurs, it must be extremely rare, especially as it is a large and conspicuous stork that frequents open habitats.

#### **Total Population Size**

Minimum population: unknown; maximum population: 10

# **Habitat and Ecology**

Greater Adjutant frequents marshes and open fields (Fleming *et al.* 1976; Inskipp and Inskipp 1991). It partly feeds on carrion, also fish, frogs, reptiles, and crustaceans (Ali and Ripley 1987). Although partly resident, the species can be nomadic and locally migratory (Grimmett *et al.* 1998).

# **Threats**

The species is threatened by loss and declining quality of marsh habitat, hunting, disturbance and possibly also by pesticides.

## **Conservation Measures**

No conservation measures have been carried out specifically for Greater Adjutant. It was recorded in two protected areas in the past: Koshi Tappu Wildlife Reserve and Chitwan National Park.

# **Regional IUCN Status**

Critically Endangered (CR A2acde? D1) upgraded from the Global Red List status: Endangered (EN)

# Rationale for the Red List Assessment

Greater Adjutant has been assessed as Critically Endangered based on the criteria A2acde? and D1, partly because of the species' rate of decline and also because of its extremely small population in Nepal, if it still occurs. Observations of this large and conspicuous stork indicate that it sharply declined from being a regular

visitor to the east 40 years ago, to a rare and erratic non-breeding visitor chiefly to the east in the 1980s, and a very rare visitor by the early 1990s, with no records after December 1995. The species is seriously threatened by a combination of loss and declining quality of marsh habitat, hunting (illegal in protected areas), disturbance, and possibly also by pesticides. In the past it was recorded from two protected areas.

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# Platelea leucorodia Linnaeus, 1758 CR

Subspecies: Platelea leucorodia leucorodia

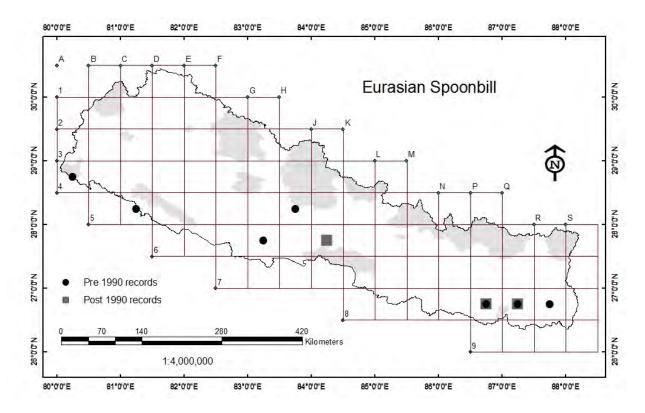
## Common Name

Eurasian Spoonbill (English) Chamchathunde Sanwari (Nepali)

Order: Ciconiiformes Family: Threskiornithidae



# **Distribution**



Eurasian Spoonbill is a very rare and very local winter visitor and passage migrant with almost all recent records from Koshi Barrage and Koshi Tappu Wildlife Reserve in the lowlands.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844) when it was only found in the terai (dates and further details of localities are unknown) (1829).

The species was a regular visitor to Koshi Barrage in the 1970s and 1980s, e.g. Madge *et al.* (1974), Inskipp and Inskipp (1981), Lambert (1979), Turton and Speight (1982), Guinan and Dodman (1989); flocks of up to 70 were regularly recorded (Inskipp and Inskipp 1991). The exceptionally high number of 288 was found there in December 1979 (Fairbank 1980). It is now very rare at Koshi, see Population section.

One was seen at Bankatta, Rapti River, Chitwan April 2004 (Hem Subedi).

There are several single records from other localities in the 1980s: 20+ at Gaidahawa Tal, Kapilvastu District in January 1980 (Underwood 1980); one at Sunischare, Jhapa District in January 1985 (Calladine 1985), one at Phewa Tal, Kaski District in March 1986 (Holt *et al.* 1986), one at Rani Tal, Sukla Phanta Wildlife Reserve and two at Badhaiya Tal, Bardia District in June 1988 (Suwal and Shreshta 1988).

Globally Eurasian Spoonbill has also been recorded from Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gambia, Germany, Greece, Greenland (to Denmark), Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Luxembourg, Macedonia, the former Yugoslav Republic of, Maldives, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, Nigeria, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, Somalia, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Western Sahara, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 250 m; lower limit: 75 m

## **Population**

No population survey has been carried out for the species. However, observations indicate that the population must now be extremely small.

The species has sharply declined at Koshi, the locality where it has been seen most regularly. Maximum numbers counted each year were: 50-60 in March 1991 (van Riessen 2010), 65 in March 1993 (Danielsen and Falk 1993), 30 in February 1998 (Prince 1998), eight in April 2001 (Inskipp and Inskipp 2001), four in February 2002 (Ofner and Basnet 2002), four in February 2004 (Bray and Basnet 2004), two in March 2005 (van der Dol 2005), five in February 2007 (O'Connell Davidson and Karki 2007), and singles in March 2010 (Baral 2010), in 2011 (Suchit Basnet) and in February 2012 (Badri Chaudhary).

#### **Total Population Size**

Minimum population: 5; maximum population: 20

# **Habitat and Ecology**

Eurasian Spoonbill inhabits marshes, lakes and large rivers. It feeds on small fish, tadpoles, frogs, molluscs, crustaceans, aquatic insects and also some vegetable matter (Ali and Ripley 1987). The species is now chiefly a winter visitor. It is also partly nomadic, depending on water conditions (Grimmett *et al.* 1998).

#### **Threats**

Eurasian Spoonbill is seriously threatened by habitat loss and deterioration, hunting, trapping and disturbance.

# **Conservation Measures**

No conservation measures have been carried out specifically for Eurasian Spoonbill. Almost all recent records have been from the Koshi area which includes Koshi Tappu Wildlife Reserve.

# **Regional IUCN Status**

Critically Endangered (CR A2cd, C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Eurasian Spoonbill has been assessed as Critically Endangered based on the criteria A2cd, C2a(i) and D1. The species is a very rare and very local winter visitor and passage migrant in the lowlands. Its sites of occurrence have greatly decreased since the 1980s and since then almost all records have been from the Koshi Tappu Wildlife Reserve and Koshi Barrage close by. There are single records from several other localities in the 1980s and only one since (a single bird in Chitwan). The species' population has sharply declined since the beginning of the1990s and is now very small. The species is seriously threatened by habitat loss, deterioration in habitat quality, hunting, trapping and disturbance.

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# Botaurus stellaris (Linnaeus, 1758) EN

Subspecies: Botaurus stellaris stellaris

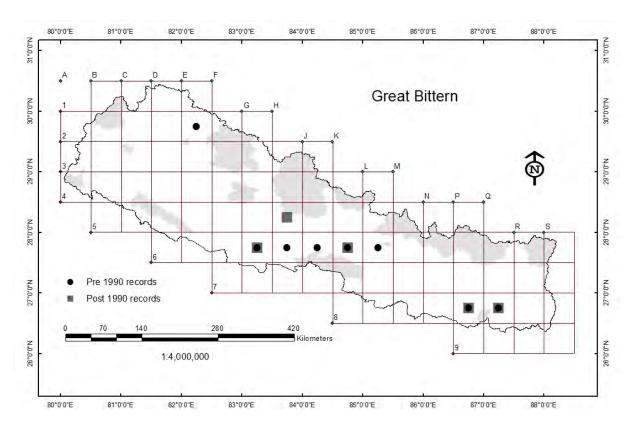
Common Name

Great Bittern (English), Thulo Junbakullaa (Nepali)

Order: Ciconiiformes Family: Ardeidae



# **Distribution**



Great Bittern is a very rare passage migrant, mainly found in the Terai.

The first Nepal record of the species was in the 19th century by Hodgson (Gray and Gray 1846).

Fleming *et al.* (1976) considered the species a scarce passage migrant. Inskipp and Inskipp (1991) reported the species as a scarce winter visitor and passage migrant, mainly found in the Terai and mapped its distribution mainly in the central and eastern lowlands. Single birds were regularly recorded at Koshi (Inskipp and Inskipp 1991) and there were mainly single records from elsewhere. Baral (2009) considered the species was a winter visitor and passage migrant.

The species was also recorded from higher altitudes: in Kathmandu Valley in November 1970 at 1370 m (Nepali and Fleming 1971, Mallalieu 2008) and Rara Lake (3050 m) (Pritchard and Brearey 1983).

The species' status in the protected areas' system post-1990 is: a frequent passage migrant to Rara National Park (E2) (Giri 2005) but no post-1990 records could be located. It is listed as a passage migrant to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) but the only known post-1990 record is from Patna Taal (BES

2013). It is a rare winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005), but no records could be found post-2003. The species has been recorded at Bees Hazari Lake (Baral 1996), in Chitwan National Park buffer zone.

Outside the protected areas' system there are very few post 1990 records: from Jagdishpur (G6), Kapilvastu District in December 2007 (Dinesh Giri), January 2015 (Tika Giri and BES) and in May 2015 (TB Gurung, Raju Tamang and BES); also at Phewa Lake, Kaski District in November 2004 (Hari KC).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Cambodia, Cameroon, Central African Republic, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Malta, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Seychelles, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013).

#### Elevation

Upper limit: 250 m (- 3050 m); lower limit: 75 m

# **Population**

No population survey has been carried out for Great Bittern.

In Koshi Area, one bird was recorded in March 1989 (Bose *et al.* 1989), recorded in December 1991 (White and White 1992) and in March 1994 (Weiss and Wettstein 1994), three in January 1995 (Choudhary 1995), and singles in January 1996 (Baral 1995/1996), February 1996 (Harrap 1996), January 1997 (Chaudhary 1997), February 1998 (Chaudhary 1998), and January 2002 and winter 2003 (Dinesh Giri), but no later records.

Singles from Jagdishpur area, Kapilvastu District in December 2007. (Dinesh Giri), January 2015 (Tika Giri and BES) and May 2015 (TB Gurung, Raju Tamang and BES).

One from Phewa Lake, Kaski District in November 2004 (Hari K.C)

#### **Total Population Size**

Minimum population: 10; maximum population: <50

# **Habitat and Ecology**

Great Bittern inhabits dense reed beds and inland lakes and marshes (Ali and Ripey 1987, Grimmett *et al.* 1998). The species is solitary and skulking, secretive, crepuscular and nocturnal and not often seen in the daytime (Ali and Ripley 1987; Inskipp and Inskipp 1991), and so is likely to be overlooked. The species hunts mainly by walking stealthily through the vegetation, often with intervals of standing motionless (Grimmett *et al.* 1998). It feeds chiefly on fish, frogs, molluscs, rodents etc. (Ali and Ripley 1987).

# **Threats**

Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species.

## **Conservation Measures**

No specific conservation measures have been carried out for Great Bittern. Post-1990 the species has been recorded from Koshi Tappu Wildlife Reserve.

#### **Regional IUCN Status**

Endangered (EN A2acd) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Great Bittern is assessed as Endangered based on the criteria A2acd. The species was a scarce winter visitor and passage migrant in the past. Even though it is skulking and secretive and so likely to be overlooked, its population is thought to have declined in recent years and the species now appears to be only a very rare passage migrant. Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agrochemicals are threats to this species.

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# Dupetor flavicollis (Latham, 1790) EN

Subspecies: Dupetor flavicollis flavicollis

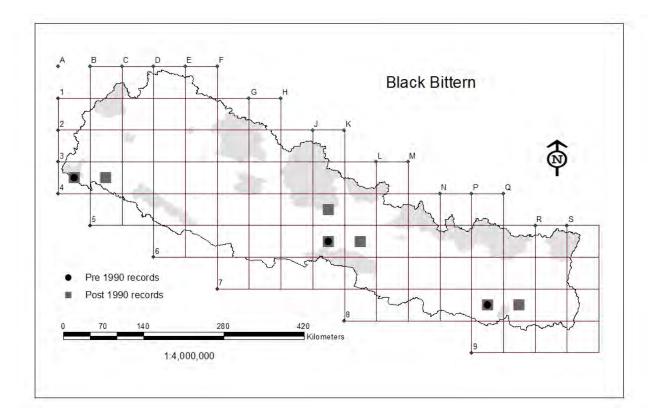
Common Name

Black Bittern (English), Kaalo Junbakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



# **Distribution**



Black Bittern is a local, rare breeding resident recorded throughout the lowlands. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Koshi Tappu Wildlife Reserve (Baral 2005a) in the far east.

The first Nepal record of the species was in the 20th century at Belauri (A4) (Bailey 1938). Fleming *et al.* (1976) considered the species a scarce resident. Inskipp and Inskipp (1991) reported the species as scarce and possibly a resident.

The species' status in the protected areas' system post 1990 is: an uncommon breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a migrant to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and an occasionally recorded breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005a).

Post-1990 the species has been recorded from two localities outside the protected areas' system: from Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012) and between Pasgaon, Libiyani (J5),

Lamjung District and Rupatal (J5), Kaski District in March 2000 (Byrne 2000).

Globally the species has also been recorded from Australia, Bangladesh, Brunei, Cambodia, China (mainland), Christmas Island (to Australia), Guam (to USA), India, Indonesia, Japan, Laos, Malaysia, Maldives, Myanmar, Pakistan, Papua New Guinea, Philippines, Singapore, Solomon Islands, South Korea, Sri Lanka, Taiwan (China), Thailand, Timor-Leste, Vietnam (BirdLife International 2013).

## **Elevation**

Upper limit: 250 m (- 915 m); lower limit: 75 m

# **Population**

No population survey has been carried out specifically for Black Bittern. At Koshi Tappu Wildlife Reserve, one bird was recorded in June 1993 (Lama 1993), two on 17 February 1997 (Chaudhary 1997), 25 May 2000 (Giri 2000), March 2002 (Baral 2002), 23 February 2005 (Baral 2005b), three on 5 and 6 April 2008 (Inskipp and Inskipp 2008), two on 23 September 2010 (Baral 2010), 8 May 2011 (Baral 2011). Up to four birds have been sighted at Koshi Tappu during breeding time (Badri Chaudhary pers. comm. 2012). In Sukla Phanta Wildlife Reserve, two birds were noted on 4 May 1998 (Baral 1998), four on 23 April 2001 at Salghaudi Lake (Inskipp and Inskipp 2001), and three on 19 May 2010 (Baral et al. 2010). In Chitwan National Park, two birds were recorded on 9 April 1999 (Choudhary 1999) and on 29 April 2011 (Baral 2011). At Kathmandu, 2 birds were recorded on 10 February 2001 (Baral and GC 2001).

# **Total Population Size**

Minimum population: unknown; maximum population: 250

# **Habitat and Ecology**

Black Bittern inhabits forest pools, marshes and reed-edged lakes of the terai (Inskipp and Inskipp 1991). The species is non-gregarious. It is largely crepuscular and nocturnal, skulks in dense swamps during day time and more active at dawn and dusk, and in overcast rainy weather (Ali and Ripley 1987). The species has effective camouflage, adopts a guard posture and freezes like the reed stems when surprised (Ali and Ripley 1978). It is likely to breed in all lowland protected areas where it is found. However, in Koshi Tappu, young birds have been seen, indicating breeding (Bardri Chaudahry verbally 2012). The species feeds on fish, frogs, molluscs, insects etc. (Ali and Ripley 1987).

#### **Threats**

The species is threatened by habitat loss and degradation, disturbance and hunting.

# **Conservation Measures**

No specific conservation measures have been carried out for Black Bittern. It has been recorded in Chitwan National Park, Sukla Phanta and Koshi Tappu Wildlife Reserves.

#### Regional IUCN Status

Endangered (EN A2cd, D1) upgraded from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Black Bittern is classified as Endangered based on the criteria A2cd, D1. The species is a rare and local breeding

resident recorded throughout the lowlands of Nepal. Since 1990 it has mainly been recorded from protected areas with only two known localities outside the protected areas; system. Black Bittern is threatened by habitat loss and degradation, disturbance and hunting and as a result its population is probably declining.

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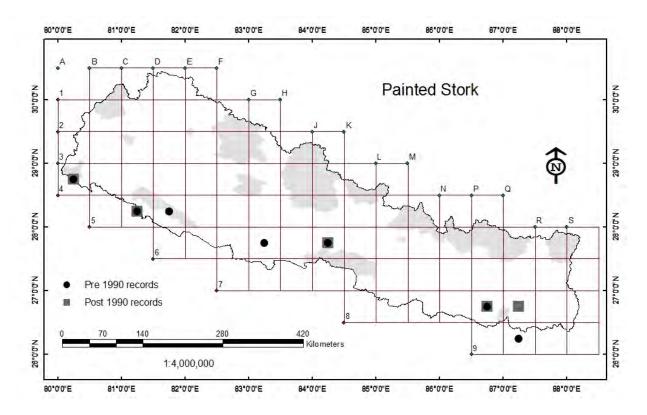
# Mycteria leucocephala (Pennant, 1769) EN

<u>Common Name</u>
Painted Stork (English),
Laltauke Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



Painted Stork is a very rare visitor in the lowlands, with post-1990 records from the far west, central and far eastern Nepal. The first Nepal record was in the 19th century (Hodgson 1844).

It was described as scarce by Fleming *et al.* (1976) and as mainly a scarce summer visitor, with only a few winter reports by Inskipp and Inskipp (1991).

In the south-west: one was collected in Bilauri, Kanchanpur District in March 1965 (Fleming and Traylor 1968) and the species was seen in Kailali District in winter (Fleming *et al.* 1976). Schaaf *et al.* (1980) recorded it in Sukla Phanta Wildlife Reserve and five were seen in Beldandi, in the reserve in April and May 2003 (Hem Subedi and H. K. Shrestha). There have been regular recent sightings on the Mahakali River, Kanchanpur District (Suchit Basnet).

In a June 1988 survey of lowland wetlands one to three birds were found in the western lowlands: by Dunduwa stream and Kamdi Ghat, Banke District; Badhaiya Tal, Bardia District and near Bhairawa, Rupandehi District (Suwal and Shrestha 1988). The maximum recorded in Nepal was 57 found at Gaidahawa Tal, Rupandehi District in December1979 (Underwood 1980). Post-1990 three were sighted from Lalmatia, Karnali

River, Bardia District in 2002 (D. B. Chaudhary and Rajendra Suwal) and three by the river in Bardia District in 2012 (Prakash Basnet and Zhen Li); four at Badhaiya Tal, Bardia District in January 2011 (Ram Shahi), and one by the Babai River, Bardia National Park in May 2012 (Gokarna).

Painted Stork was previously an uncommon visitor to Chitwan National Park, mainly from May to October (Gurung 1983). The only other known records from the park are of singles in Bankatta, Rapti River in April 2008 (Hem Subedi) and at Tamor Lake in May 2012 (Bird Education Society and Nature Guides Association).

The species has been most regularly recorded from Koshi. It was occasionally seen there in the mid1970s (Gregory-Smith and Batson1976) and 1980s (e.g. Robson 1982; Bose *et al.* 1989). Since then mainly single birds have been reported from Koshi between March and September until at least 2010 (Badri Chaudhary verbally 2010). However, numbers have been a little higher in September compared to other months; eight were seen in September 1992 (Lama 1992).

Globally Painted Stork has also been recorded from Bangladesh, Bhutan, Cambodia, China (mainland), India, Laos, Malaysia, Myanmar, Pakistan, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# Elevation

Upper limit: 250 m; lower limit: 75 m

#### **Population**

No population survey has been carried out for the species. However, direct observations indicate that the population must be very small.

#### **Total Population Size**

Minimum population: 5; maximum population: 50

## **Habitat and Ecology**

Painted Stork inhabits large marshes. It feeds mainly on fish, and also on reptiles, frogs, crustaceans and insects (Ali and Ripley 1987). It moves locally according to water conditions (Grimmett *et al.* 1998) and is mainly a visitor to Nepal between March and October.

## **Threats**

Painted Stork is seriously threatened by habitat loss and deterioration, illegal hunting and trapping and disturbance.

# **Conservation Measures**

No conservation measures have been carried out specifically for Painted Stork. It has been recorded in Chitwan and Bardia National Parks, and in Sukla Phanta Wildlife Reserve.

## **Regional IUCN Status**

Endangered (EN A2cd, C2a(i) upgraded from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Painted Stork has been assessed as Endangered based on the criteria A2cd and C2a(i). It is a very rare visitor to

the lowlands, with post-1990 records from the far west, central and far east Nepal. Recently it has been sighted in three protected areas. It has been most regularly recorded from the Koshi area. The species is seriously threatened by habitat loss, deterioration in habitat quality, illegal hunting and trapping (illegal in protected areas) and disturbance. The species' population has declined in recent years and is now very small.

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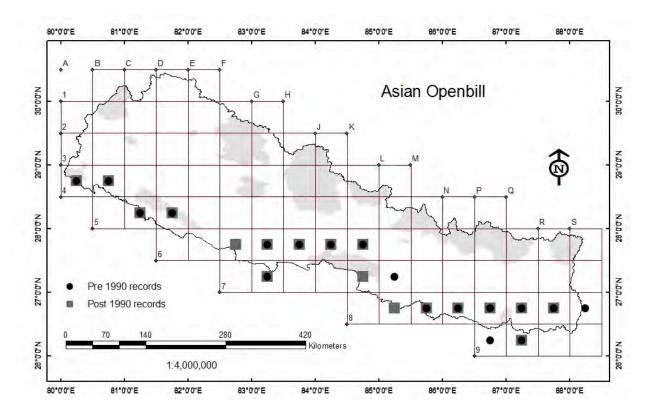
# Anastomus oscitans (Boddaert, 1783) VU

<u>Common Name</u>
Asian Openbill (English),
Ghungiphor Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



Asian Openbill is a widespread resident in the lowlands.

The first definite Nepal record for the species was at Kuriya Mahan, Chitwan National Park in 1964/65 (Fleming and Traylor 1968).

Fleming *et al.* (1976) considered the species to be fairly common. Inskipp and Inskipp (1991) described it as common and proved breeding in Chitwan National Park, e.g. Gurung (1983), common in the eastern terai, e.g. Gregory-Smith and Batson (1976), and occasionally reported from elsewhere. In recent years however, the species has become much better recorded than previously, especially in the west-central and western lowlands.

Schaaf *et al.* (1980) recorded the species as an occasionally recorded resident or winter visitor or migrant to Sukla Phanta Wildlife Reserve in 1979 and Baral and Inskipp (2009) as frequent, but few data are available (see Population section). Only a few records of small numbers are known from Bardia National Park (see Population section).

In an overview of species' status in the park Inskipp (2001) listed it as a rare winter visitor to Bardia National

### Park.

The species was recorded in Banke National Park during a February 2012 survey (Baral et al. 2012).

Baral and Upadhyay (2006) reported the species was fairly common in Chitwan National Park. The Lami Tal nesting colony inside the park was monitored between 2002 and 2005, but since then the number of nests has fallen to a small number and few are known elsewhere in the park (see Population section). Numbers of the stork have also been monitored at Bees Hazari Tal, Barandabhar Important Bird Area, in the park buffer zone, but there is no significant trend (see Population section). It has also been recorded in Parsa Wildlife Reserve (Todd 2001).

It has been most regularly reported from Koshi Barrage and also Koshi Tappu Wildlife Reserve where it breeds, e.g. Choudhary (1996). Baral (2005a) described it as a fairly common breeding resident, but since 2003 numbers have fallen (see Population section).

Known post-1990 localities outside the protected areas system include: Kailali and Banke Districts (Hem Sagar Baral); Jagdishpur Reservoir, Kapilvastu District (Tika Giri); Rupandehi and Kapilvastu Districts (Hem Sagar Baral); Namuna Community Forest, Nawalparasi District (DB Chaudhary); Lahan, Siraha District (Som GC); Sarlahi, Siraha and Saptari Districts (NTNC workshop, October 2012); Sunsari District (Hem Sagar Baral); Morang District (Bharat Subba); Ranabari, Ilam District (Yub Raj Basnet); Jhapa District (Hathan Chaudhary); also an unusual record of one at Bramhakhel, on the way to Sankhu, Kathmandu District in October 2011 (Hathan Chaudhary).

Globally the species has also been recorded from Bangladesh, Bhutan, Cambodia, India, Laos, Myanmar, Pakistan, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 250 m (- 1400 m); lower limit: 75 m

## **Population**

During the annual midwinter water bird counts the total numbers of Asian Openbills counted in Nepal were: 236 in 2008 (Anon. 2008), 123 in 2009 (Anon. 2009), 197 in 2010 (Anon. 2010), and 156 in 2011 (Anon. 2011). These numbers perhaps indicate a declining trend. However, the overall population trend for the species is difficult to assess as, recently, three new breeding sites have been discovered and substantial numbers have been counted in several new areas. In addition the number of birds found nesting recently is significantly greater than the numbers counted in the midwinter water bird counts.

At Koshi Barrage and Koshi Tappu the maximum known number of birds counted each year was: 140 in May 1982 (Inskipp and Inskipp 1982), 172 in March 1991 (Baral 1991), 110 in 1992 (Baral and Mills 1992), 193 in March 1993 (Danielsen and Falk 1993), 70 in March 1994 (Baral 1994), 320 in February 1996 (Baral 1996a), 300 in November 1997, 211 in December 1998 (Chaudhary 1998), 250 in November 2000 (Basnet 2000), 200 in March 2001 (Inskipp and Inskipp 2001), 230 in February 2002 (Malling Olsen 2004), 200 in February 2003 (Chaudhary 2003), 80+ in March 2004 (Kennerley and Karki 2004), 69 in February 2005 (Baral 2005b), 68 February 2007 (Baral 2007a), 50 in April 2008 (Inskipp and Inskipp 2008), 30 in December 2009 (Giri 2009a), and 90 in October 2010 (Baral 2010a). The counts indicate that the Koshi population has fallen since 2003.

A total of 53 nests was found in Koshi Tappu Wildlife Reserve in August 1996 (Choudhary 1996). A partial survey carried out in 2010 counted 28 nests, however more nests may be present as many Asian Openbills were seen flying at Koshi during the 2011 breeding season (Badri Chaudhary verbally 2012). In Chitwan National Park the Lami Tal colony was monitored between 2002 and 2005: the number of nests declined from 504 to 298 (Khadka 2006). However in 2011 only about 20 nests were present (Basu Bidari *in litt*. to C. Inskipp February 2012). In addition four nests were found at Kabhre Tal 3 km west from Tiger Tops; about 15 nests near Temple Tiger in the west of the park in 2011 (D. B. Chaudhary *in litt*. to C. and T. Inskipp February 2012), and 31 nests near the Bagmara guard post in August 2012, (Bird Education Society).

At Bees Hazari Tal, Barandabhar Important Bird Area, Chitwan National Park buffer zone, there was no significant trend in the numbers of birds monitored in the midwinter wetland bird counts: 39 birds were

counted in November 1989 (Anon. 1989), 26 in September 1992 (Baral 1992), 11 in May 1993 (Baral 1993), four in January 1994 (Anon. 1994), five in January 1995 (Anon. 1995), eight in January 1996 (Anon. 1996), 34 in December 2003 (Anon. 2003), six in November 2006 (Anon. 2006), five in 2008 (Anon. 2008), eleven in 2009 (Anon. 2009), three in 2010 (Anon. 2010) and five in 2011 (Anon. 2011). A total of 300 birds was seen here in September 2012 (Tek Bahadur Gurung).

At Jagdishpur Reservoir, Kapilvastu District 180 birds were counted in June 1988 (Suwal and Shreshta 1988)) and 73 in January 2006 (Mallalieu 2006a), 100 in December 2006 (Giri 2010), 60 in August 2007 (Baral and Shah 2007), 17 in March 2008 (Giri 2010) and 91 in January 2009 (Giri 2010).

Up to 48 birds roosted in the Namuna Community Forest, Nawalparasi District in one kapok tree *Bombax ceiba* in 2011 (D. B. Chaudhary *in litt*. to C. and T. Inskipp February 2012).

In Sukla Phanta Wildlife Reserve 20 birds were sighted in May 1982 (Inskipp and Inskipp 1982) and seven in February 2009 (Giri 2009b).

In Bardia National Park seven birds were counted in January 2001 (Chaudhary 2001) and 14 in November 2011 (Baral 2011).

In Rupandehi and Kapilvastu Districts 140 birds were seen in April 2007 (Baral 2007b), and 286 in August 2010 (Hem Sagar Baral) From the road between Bardia National Park and Lumbini 140 birds were counted in April 2007 (Baral 2007b).

From the road between Chitwan National Park and Koshi 90 birds were counted in February 2010 (Baral 2010b).

In Patnali forests, Sunsari District 114 birds were counted in October 2010 (Baral 2010a).

Three new important breeding sites found in recent years included one at Dandachok village, Rupandehi District where 500 birds were recorded in July 2007 in two large kapok trees (Giri 2008); very unfortunately the trees were later cut down. A total of 487 nests was recorded at Chepang Lake, Tikauli Community Forest in the Barandabhar Important Bird Area, Chitwan National Park buffer zone (Basu Bidari *in litt*. January 2012); the storks moved here from Lami Tal, Chitwan National Park (Bird Education Society). In addition, 290 nests were counted near the Biratnagar Dairy Corporation in 2010 (Chaudhary et al. 2010). These records constitute the largest numbers of nests known in Nepal in 2011.

A nesting colony of about 60-70 birds was sighted at Malahniya VDC, Saptari District in 2011 (Ashok Kumar Ram).

#### **Total Population Size**

Minimum population: 1,000; maximum population: <5,000

# **Habitat and Ecology**

Asian Openbill inhabits freshwater marshes, shallow lakes and reservoirs; also flooded paddy-fields. It is a resident moving locally depending on water conditions (Grimmett et al. 1998). It chiefly feeds on snails, but also eats crabs, frogs and other small animals found in freshwater marshes (Ali and Ripley 1987).

Three important breeding sites have been located in recent years: at Dandachok village, Rupandehi District, Chepang Lake near Tikauli, Community Forest, Barandabhar Important Bird Area in Chitwan National Park buffer zone, and near the Dairy Corporation Office in Biratnagar, Morang District (see Population section). All three sites lie outside the protected areas' system. Other known breeding sites are in Chitwan National Park, Koshi Tappu Wildlife Reserve and in Malahniya VDC, Saptari District.

# **Threats**

Asian Openbill faces a wide range of threats. The species is seriously threatened by loss and degradation of wetlands, loss of nesting trees, disturbance, illegal hunting in protected areas and over-hunting outside the protected areas' system, and possibly by pesticide use. It is also seriously threatened by food shortage at some

sites, at least temporarily.

Baral (1996b) observed that after the big 1993 flood in Chitwan National Park there was a decrease in Asian Openbills in the park's wetlands and nearby paddy-fields, which he considered was very likely due to the large scale washout of snails, the stork's main food source, caused by the flood. He noted that the snail population was increasing again and considered the stork's decline may only be temporary.

Reasons for the sharp decline in nests at Lami Tal in Chitwan National Park between 2002 and 2005 included the scarcity of suitable nesting trees - these were damaged by monsoon flooding between 2002 and 2004 and the following year, and remaining trees were observed to be dying. The effects of pesticide and water pollution from industrial effluent may also be affecting the storks directly and/or indirectly by poisoning their prey (Khadka 2006).

#### **Conservation Measures**

No specific conservation measures have been taken for Asian Openbill. It has been recorded in Chitwan National Park, Koshi Tappu Wildlife Reserve and in small numbers in Sukla Phanta Wildlife Reserve, and Bardia and Banke National Parks. Large numbers of the species and probably the majority occur outside the protected areas' system.

#### **Regional IUCN Status**

Vulnerable (VU A2acd) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Asian Openbill has been assessed as Vulnerable based on the criteria A2acd. The species is a widely distributed resident. Numbers have fallen at Koshi Barrage/Koshi Tappu Wildlife Reserve and in Chitwan National Park. Its overall population trend is difficult to assess as in recent years two important new breeding sites have been discovered and substantial numbers have also been recorded in new areas; all these new sites and areas are unprotected. However Asian Openbill is probably declining and faces a wide range of threats. The species is severely threatened by loss and degradation of wetlands, loss of suitable nest sites, illegal hunting in protected areas and over-hunting outside the protected areas' system, and disturbance. The stork is also seriously at risk from food shortage at some sites, at least temporarily after flooding; it chiefly eats snails. It may also be threatened by pesticides and in Chitwan also by water pollution from industrial effluent which may cause harm directly and/or indirectly by poisoning their prey. Asian Openbill also occurs in Sukla Phanta Wildlife Reserve, and Bardia and Banke National Parks. However, large numbers of the species and probably the majority occur outside the protected areas' system.

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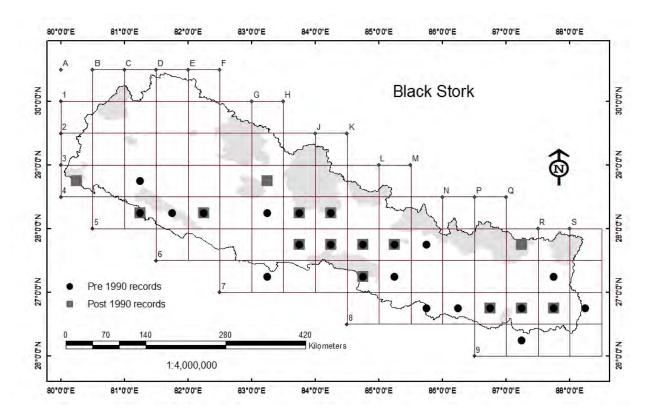
# Ciconia nigra (Linnaeus, 1758) VU

<u>Common Name</u> Black Stork (English), Kalo Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



Black Stork is a widespread winter visitor and passage migrant.

The first Nepal records of the species were in the 19<sup>th</sup> century (Hodgson 1844) from the hills in winter including one in the Kathmandu Valley in March (year unknown) (Hodgson 1829).

Fleming *et al.* (1976) and Inskipp and Inskipp (1991) described the species as occasionally recorded. However, better observer coverage has lead to the species being more frequently recorded in recent years.

Gregory-Smith and Batson (1976) reported Black Stork was an uncommon winter visitor to the south-east lowlands in 1975. It has been recorded most regularly and in greatest numbers at Koshi Barrage and in Koshi Tappu Wildlife Reserve; numbers were generally higher in the 1990s compared to later years. The species has also been regularly reported from Bardia and Chitwan National Parks, but there are no indications of significant changes in numbers (see Population section). It has been occasionally recorded in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) and is a winter visitor to Parsa Wildlife Reserve (Todd 2001). Black Stork has also been recorded in Chitwan National Park buffer zone at Tamaspur, Nawalparasi District in April 1981 (Mills and Preston 1981); Bees Hazari Tal, Barandabhar (Tika Giri), and in Namuna Community Forest,

Nawalparasi District (Anil Gurung).

Scully (1879) reported that it was common in the Kathmandu Valley and the Nawakot district from the end of September to December 1877, and perhaps throughout the cold season. However, there are few later records from the Valley. Inskipp *et al.* (1971) recorded one in October and three in November 1970 on the Godaveri road and two at Gokarna in Nov 1970. Fleming *et al.* (1976) noted that the species flew over the Valley on migration. The only known later record is of two flying over Kathmandu in April 2001 (Inskipp and Inskipp 2001).

There are widely scattered records from outside the protected areas' system elsewhere, mainly from the lowlands. Known records include: from Dang Deukhuri Important Bird Area in 2009 (Thakuri 2009a,b); 12 at Pokhara, Kaski District in December 2007 (Giri et al. 2008); six between Hyenga and Suikhet, Kaski District in December 1970 (Inskipp et al. 1971); 35 at Begnas Tal in February 2012 (Hari KC); 13 at Gaidakot, Nawalparasi District in November 2012 (Som GC and Deborah Sutherland); 20 by the Narayani River in January 2000 (Anon. 2000) and 14 there in January 2002 (Anon. 2002); one bird 5 km south of Chatra, Sunsari District in December 1978 (Bowden 1979); 25 in Dharan forests Important Bird Area, Sunsari District in December 1998 (Choudhary 1999); four by the Kankai River, 4 km north of the E-W Highway, Ilam District in November 1978 (Bowden 1979); one at Damak, Jhapa District in December 1978 (Bowden 1979); nine at Khunjunabari, Jhapa District in January 1974 (Madge et al. 1974).

The species was sighted near Dhorpatan Hunting Reserve at the unusually high altitude of 2925 m in May 1981 (Lelliott 1981) and also in 1998 (Poorneshwor Subedi), presumably on migration (Lelliott 1981) and as a passage migrant in Makalu Barun National Park (Cox 1999).

Globally the species has also been recorded from Bhutan, China, India, Myanmar, Pakistan, Europe, Africa, Central Asia, Middle East, South-East Asia and East Asia (BCN and DNPWC 2011).

## **Elevation**

Upper limit: 1000 m (- 2925 m on passage); lower limit: 75 m

# **Population**

At Koshi Barrage and Koshi Tappu Wildlife Reserve the maximum of 81 birds was counted in December 1993 (Choudhary 1994). Known maximum numbers recorded in other years are: 35 in February 1974 (Madge *et al.* 1974), four in February 1981 (del-Nevo and Ewins 1981), 28 in January 1992 (Baral and Mills 1992), 36 in January 1994 (Choudhary 1994), 13 in February 1996 (Harrap 1996), 26 in November 1997 (Chaudhary 1998), seven in December 1998 (Chaudhary 1999), ten in March 1999 (Chaudhary 1999), 21 in December 2000 (Chaudhary 2001), 16 in November 2001 (Koshi Camp 2001), 16 in November 2002 (Baral 2011), 13 in February 2003 (Baral 2003), 26 in February 2007 (Baral 2007a), three in November 2008 (Chaudhary 2008), 12 in February 2009 (Baral 2009b), 13 in January 2010 (Baral 2010), and 19 in January 2011 (Baral 2011a).

In Bardia National Park, the maximum of 43 was counted in January 2010 (Shahi 2010). Maximum numbers recorded in other years 16 in Jan 1992 (Halliday and Baral 1992), 30 in December 2007 (Giri *et al.* 2008), 28 in January 2008 (Shahi 2010), 26 in January 2009 (Shahi 2010), 43 in January 2010 (Shahi 2010), 19 in November 2011 (Baral 2011b)

In Chitwan National Park, known maximum numbers recorded each year are: 12 were counted in November 1993 (Baral 1996); eight at Lami Tal in January 1995 (Anon. 1995); eight in February 1996 (Baral 1996); 18 in December 1997 (Choudhary 1998); 16 in January 2001 (Chaudhary 2001); 80 in January 2005 (Hem Subedi); 32 in November 2007 (Baral 2007b); 36 in January 2010 (Chaudhary 2010), seven in May 2011 (Baral 2011c) and seven in February 2010 (DB Chaudhary and Shambhu Mahato). Up to 9 were seen in December 2009 in Babai River, Bardia (Paras Bikram Singh).

### **Total Population Size**

Minimum population: unknown; maximum population: <1,000

## **Habitat and Ecology**

Black Stork frequents marshes, rivers and cut-over paddy-fields (Fleming *et al.* 1976). It feeds on frogs, fish, crustacean, insects and occasionally young rodents and birds (Ali and Ripley 1987).

## **Threats**

Black Stork is seriously threatened by the loss and degradation of wetlands, hunting, disturbance, illegal fishing in protected areas and overfishing outside the protected areas system, and possibly by pesticide use.

#### **Conservation Measures**

No specific conservation measures have been carried out for Black Stork. Since 1990 it has been recorded in Chitwan and Bardia National Parks and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

### **Regional IUCN Status**

Vulnerable (VU A2acd) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Black Stork has been assessed as Vulnerable based on the criteria A2acd. The species is a widespread winter visitor and passage migrant, especially in the lowlands. It has been recorded most regularly and in greatest numbers at Koshi Barrage and Koshi Tappu Wildlife Reserve where numbers were generally higher in the 1990s than in later years. There are no indications of significant changes in numbers in Bardia and Chitwan National Parks, the other two localities where the species has been regularly recorded. Outside the protected areas' system there are widely scattered records, mainly from the lowlands. The overall population trend is difficult to assess as observer coverage has improved producing more records at some localities in recent years. However, it is considered to be probably declining. The species is seriously threatened by the loss and degradation of wetlands, illegal fishing in protected areas and overfishing outside the protected areas system hunting and disturbance and possibly by pesticide use.

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# Leptoptilos javanicus (Horsfield, 1821) VU

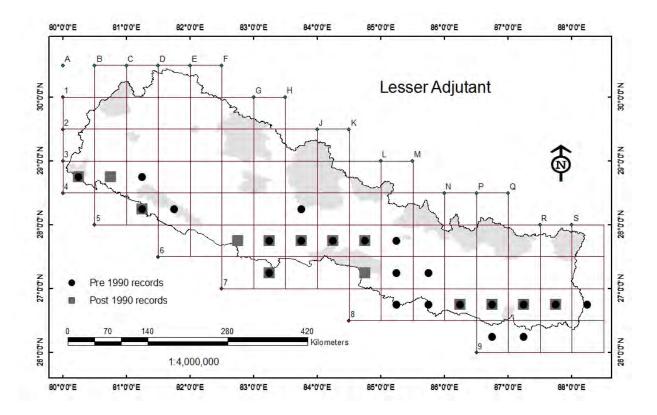
## Common Name

Lesser Adjutant (English), Bhudiphor Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



Lesser Adjutant is a local resident in the terai, mainly occurring in the east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1838) when it was a scarce visitor to the Kathmandu Valley (Hodgson 1829). There are no later records from the Valley.

Inskipp and Inskipp (1991) found it fairly common in Chitwan National Park and the far eastern terai, and recorded it from almost the far west to the far east, with some gaps in the west.

Post-1990 it has been recorded in Sukla Phanta Wildlife, Bardia and Chitwan National Parks, and Parsa and Koshi Tappu Wildlife Reserves. Outside the protected areas' system the species has been found at more localities in the west, probably as a result of better recording, e.g. Lumbini, Rupandehi District (Baral 1993), Khadara Phanta, Kapilvastu District (Giri 2010), and Ghodaghodi Lake, Kailali District (Sharma 2005a,b). In contrast it has been recorded at fewer localities in the east and may have declined here.

Globally the species has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International

(2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 250 m (- 1450 m); lower limit: 75 m

# **Population**

The main population is in east Nepal. A 2003/2004 survey in the east estimated 231 birds and located 61 nests in Morang, Saptari and Siraha Districts; half of the nests were at Urlabari, Morang District (Baral 2004a,b, 2005). A total of 31 nests with 56 young and an estimated population of 62 adults were counted here in the 2003/2004 breeding season (Baral 2004). However, only nine nests and 45 birds were recorded in January 2014 in the Asian Midwinter Waterbird Count (Hem Sagar Baral) and ten nests were located at the site during a visit in October or November 2014 (Ian Barber *in litt*. to C. Inskipp 21 April 2015).

Two colonies of seven and five active nests were found in the Dharan forests Important Bird Area, Sunsari District in October 2007 (Basnet and Sapkota 2008, Basnet 2009). In 2009 five colonies comprising 19 nests and 41 individuals were found in Rani Community Forest, Jhapa District (Khadka 2009). In 2015 Lesser Adjutant bred successfully at two colonies in the Triyuga watershed: 18 nests by the Sai Khola breeding colony and three nests at Chanp. There were 19 juveniles by the Sai Khola, four at Chanp and four by the Saraswati Khola in May 2015 (Sanjan Thapa).

In Chitwan National Park and the park's buffer zone a 2003 survey estimated 50 birds and a total of 35 nests (Gyanwali 2003a,b, 2004). In 2009 a total of 47 nests (with four vacant nests) was found at six colonies in the park and one colony in the park's buffer zone in Nawalparasi District (Poudyal 2009, Poudyal and Nepal 2010). The 2009 population estimate in and around Chitwan National Park was 188-268 birds (comprising birds of all ages) (Poudyal and Nepal 2010).

In a 2004 survey of the far west, 21 individuals were found: 14 in Sukla Phanta Wildlife Reserve, five in Bardia National Park and two at Ghodaghodi Lake, Kailali District (Sharma 2005a,b; 2006). Six immatures on nest trees were recorded south of Sukla Phanta Wildlife Reserve in January 1997 (Chaudhary 1997).

A total of 15+ birds was seen in Parsa Wildlife Reserve (near Bhata) in 1996 (Poorneshwor Subedi).

A comprehensive survey of Koshi Tappu Wildlife Reserve counted 21 birds and estimated a reserve population of 26 birds in April 2012 (Baral *et al.* in 2013).

# **Total Population Size**

Minimum population: 300; maximum population: <1000

# **Habitat and Ecology**

Lesser Adjutant chiefly feeds in flooded fields, mainly paddy fields. It also frequents marshes and pools and nests colonially in trees (Inskipp and Inskipp 1991). It feeds on fish, frogs, reptiles, crustaceans and locusts (Ali and Ripley 1987). The species is resident subject to seasonal movements (Ali and Ripley 1987). The species breeds in Chitwan National Park and was also found nesting in Koshi Tappu Wildlife Reserve in 1994/95 (Pokharel 1998), but no longer does so (H. S. Baral pers. obs). It mainly nests outside of protected areas, especially in the east. At Dhaijan, Jhapa District six nests were seen in 2009 (Bhesh Raj Ghimire). The species also chiefly feeds outside of protected areas.

# **Threats**

Lesser Adjutant faces a wide range of threats, chiefly habitat loss and alteration, disturbance, hunting for food and medicinal purposes and development. It is also threatened by poisoning of wetlands to capture fish, water pollution by factory effluents and the invasive spread of Water Hyacinth (Gyanwali 2003a,b, Tamang 2003, Baral 2004a, Sharma 2006). Other threats are changes in agricultural practices from paddy fields to cash crops

which causes a reduction in feeding areas and pesticide use in agricultural lands (the extent of which is currently unknown) (Inskipp and Baral 2011). The drying out of wetlands are additional threats in Sukla Phanta Wildlife Reserve and Bardia National Park as the species is confined to these protected areas in the dry season when adjacent paddy fields are dry (Sharma 2006).

The species chiefly feeds outside of protected areas in agricultural lands, mainly in flooded paddy fields. In the east it also mainly nests at unprotected sites in the east, e.g. Urlabari Important Bird Area, Morang District and Dharan forests Important Bird Area.

### **Conservation Measures**

No conservation measures have been carried out specifically for Lesser Adjutant. It occurs in Chitwan and Bardia National Parks and in Koshi Tappu Wildlife Reserve.

### **Regional IUCN Status**

Vulnerable (VU A2cde, C2a(i)) no change from the Global Red List status: Vulnerable (VU)

# Rationale for the Red List Assessment

Lesser Adjutant has been assessed as Vulnerable based on the criteria A2cde and C2a(i). The species is a local resident in the terai, mainly occurring in the east. Recently it has been recorded at more localities in the west, probably because of better recording. However, numbers appear to have declined in the east, although the main population is still concentrated there. The species faces a wide range of threats, chiefly habitat loss and alteration, disturbance, hunting for food and medicinal purposes, changes in agricultural practices from paddy fields to cash crops, which causes a reduction in feeding areas, and pesticide use in agricultural lands, and development. It is also threatened by poisoning of wetlands to capture fish, water pollution by factory effluents and the invasive spread of Water Hyacinth *Eichhornia crassipes*. It mainly feeds outside of protected areas in agricultural lands and, in the east it chiefly nests at unprotected sites. It occurs in Chitwan and Bardia National Parks and in Koshi Tappu Wildlife Reserve.

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# Ciconia episcopus (Boddaert, 1783) NT

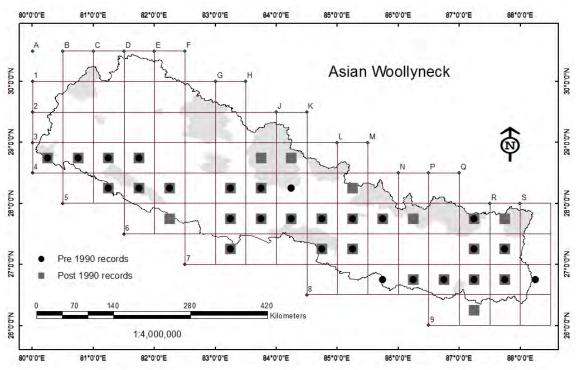
<u>Common Name</u> Asian Woollyneck (English),

Asian Woollyneck (English)
Lovipaapi Garud (Nepali)

Order: Ciconiiformes Family: Ciconiidae



# **Distribution**



Asian Woollyneck is a fairly common resident. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Birtamod, Jhapa District (Halberg 1994) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a fairly common resident. Inskipp and Inskipp (1991) reported the bird was a fairly common resident and summer visitor up to 915m and occasionally observed up to 1800 m, especially in summer, and mapped its distribution from the far west to the far east.

Post 1990 the species has been reported from most of the protected areas of Nepal. The species' status in the protected areas' system post-1990 is: a fairly common resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a frequent resident and summer visitor to Bardia National Park (C4, C5) (Inskipp 2001); recorded in Banke National Park (D5) (Baral *et al.* 2012). It is described as a vagrant to Annapurna Conservation Area (H4, H5, J4, J5) (Inskipp and Inskipp 2003), but recorded between Birethanti and Syauli Bazaar in March 2002 (Naylor *et al.* 2002) and every April in recent years (Rajendra Gurung, Manshanta Ghimire), also in Siklis area in April 2013 (Rajendra Gurung). It is a fairly common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a fairly common resident in Parsa Wildlife Reserve (K7) (Todd 2001); a fairly common resident in Makalu-Barun National Park (Q6) (Cox 1999a); a frequent resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005) and recorded in Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). The species

has been recorded in Chitwan National Park buffer zone: in Barandabhar Forest and wetlands (Adhikari *et al.* 2000, Ghimire 2009); Bees Hazari Lake 10 (Giri 2010), Chitwan District; Tharu Lodge, Nawalparasi (Baral 2011a) and Namuna Community Forest (DB Chaudhary). In Bardia National Park buffer zone it has been recorded in Chisapani gorge (C4) in March 1997 (Giri 1997) and Khata Corridor (C5), Bardia District (Chaudhari 2007).

Asian Woollyneck has been recorded widely outside the protected areas' system since 1990.

In the west records include: a frequent resident in Ghodaghodi Lake Area (B4) (CSUWN and BCN 2012), a fairly common resident in Mohana River corridor (B4), Kailali District (Chaudhary 2012); Koilahi Tal, Kailali District and Chiraiha Tal, Kailali District in December 2014 (Daya Ram Choudhary); Gobrela, Bardia District in September 2015 (Ram Bahadur Shahi); Satkhowala Tal, Bardia District in March 2014 (BNCC); Khotihaghat, Bardia District in March 2014 (Ram Bahadur Shahi); Badhaiya Lake (C5) (Bhuju et al. 2007); Rawtkot (D4), Dailekh District in March 1997 (Giri 1997); Nepalganj (D5), Banke District in December 1998 (Choudhary 1999); Salli Bazaar (E5), Salyan District in October 2013 (Baral et al. 2013); Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009 a,b, Dinesh Giri); Balewa (H5), Baglung District (Basnet 2009); Khadara Phanta (F6) in January 2006 (Mallalieu 2007); near Taulihawa, Kapilvastu District in August 2012 and 2013 (Seraj Baral); Jagadishpur Reservoir (G6), Kapilvastu District in December 2011 (Baral 2011b); Rupakot and Buachidi (G5), Gulmi District in May 1999 (Cox 1999b); Bhagatpur (G6) in April 1993 (Baral 1994); flying over Reshunga Forest, Gulmi District in October or November 2014 (Hari Basnet); Gaidahawa Lake (G6), Rupandehi District in February 2011 (Baral 2011a); regularly seen at Lumbini Farmlands IBA (G7), Rupandehi District, 2006-2014 (Dinesh Giri) (see Population section); near Ghachok, Kaski District in November 2012 (Hari KC); Phewa Lake (H5), Kaski District in December 2010 (Adcock and Naylor 2011) and March 2014 (Hari KC); Pokhara valley, Kaski District in July 2015 (Suraj Baral); Khaste Lake, Kaski District in January 2013 and 2014 (Hari KC, Manshanta Ghimire); Begnas Tal, Kaski District (Tek Bahadur Gharti Magar and Manshanta Ghimire); Rupa Lake (J5), Kaski District (Kafle et al. 2008); Rampur Valley (H6), Palpa District (Gautam 2003); Dimuwa, Parbat district in May 2014 (Rishi Baral); Kushma, Parbat District October 2014 (Hem Subedi); Karaputar, Lamjung District in December 2014 (Manshanta Ghimire), and Budi Gandaki, and near Aru Ghat, Gorkha District on Aug 2015 (Rishi Baral).

In central Nepal records include: from Mugling (J6), Chitwan District in March 1999 (Chartier and Chartier 1999); Baireni (K6) in February 1999 (Dannenberg 1999), Belkhu (K6), Dhading District in December 2011 (Carter and James 2011)t; Chisapani (L6), Nuwakot District in April 2001 (Fischer and Fischer 2001); Tadi Khola, Nuwakot District in 2015 (Hem Sagar Baral, Hathan Chaudhary); Taruka, Trishuli River (Sudeep Bhandari); Kagati Gaon, Nuwakot District in August 2015 (Rajendra Gurung); Ranipokhari (L6), Kathmandu Valley in January 1995 (Lama 1995); between Melamchi Bazaar and Bahunpati (M6), Sindhupalchok District in November 1996 (Miallier and Miallier 1996); Bhotechaur, Sindhupalchok District in April 2015 (Om Yadav); annually at Debauli, Chitwan District, 2011-15 (Dinesh Giri); by Pritivi highway near the Trisuli River, Dhading District in December 2014 (Dinesh Giri); regularly sighted in Nijghad, Bara District, 2013-15 (Hathan Chaudhary). It was seen flying above Kutumsang, Sindhupalchok District at the unusually high altitude of 2470 m in spring 2009 or 2010 (Rajendra Gurung).

In the east records include from: Tamakoshi valley below Bhimsen Temple, Dolakha District in April 2006 and October 2009 (Rajendra Gurung); Lahan (N8), Siraha District in January 2001 (Hofland 2001); Heluwabesi, near Arun River (Q6) in November or December 2011 (Yadav Ghimirey); Tumlingtar (Q7), Arun valley, Sankhuwasabha District in November 2011 (Carter and James 2011); Sankhuwa Khola (Q7), Bhojpur District in November 1994 (Baral 1995); between Dobhan and Mitlung (R7) in October 1996 (Buckton 1996), Tungwa Village (R7) in December 1992 (Cox 1992), Taplejung District; Dharan Forest, Sunsari District (Q8) in November 1996 (Chaudhary 1997), Itahari (Q7) (Pandey 2003) and an occasional winter visitor to Chimdi Lake, Sunsari District (Surana *et al.* 2007, KBS); Tarahara, Sunsari District in March 2014 (Anish Timsina); Dhankuta District in April 2014 (Hem Bahadur Katuwal); Belahara (Q8), Dhankuta District in September 2003 (Baral 2003); an uncommon winter visitor to Raja Rani Community Forest (Q8) (Basnet *et al.* 2005); recorded from Biratnagar (Q9) (Subba 1994), Morang District; Betana Tal, Morang District (KBS); Belbari, Morang District in January 2015 (Anish Timsina); lower Mai Valley (R8) (Basnet and Sapkota 2006, Robson *et al.* 2008); Kankai River, Jhapa District in March 2014; Birtamod (R8), Jhapa District in May 1994 (Halberg 1994).

Globally the species has also been recorded from Bangladesh, India, Indonesia, Laos, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka, and Vietnam (BirdLife International 2013).

#### Elevation

Upper limit: 915 m (- 2740 m); lower limit: 75 m

## **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, Asian Woollyneck population in Nepal was counted as 62, 48, 77, 86, 47, 64 from 2008 to 2013, respectively (Baral 2013).

In Koshi Area, seven birds were recorded in November 1993 (Baral 1993), two birds in February 1994 (Cottridge *et al.* 1994), four in November 1996 (Chaudhary 1997), four in April 1997 (Baral 1997), five in December 2000 (Chaudhary 2001), two in November 2007 (Baral 2007).

In Chitwan National Park, 19 birds were recorded in January 1996 (Dhakal 1996), 11 in January 1997 (Chaudhary 1997), 20 in February 1998 (Prince 1998), six in March 1999 (Heilbrower 2000), 20 in February 2002 (Malling Olsen 2004), three in April 2007 (Byskov 2007), four in December 2007 (Chaudhary 2007), 16 in November 2011 (Baral 2011b) and five in January 2012 (Dymond 2012). The midwinter waterbird count recorded 40 in January 2005 (Khadka 2005), eight in January 2010 (Khadka 2010), 16 in February 2011 (Khadka 2012) and 18 in February 2012 (Khadka 2013); 17 birds along 175 km of Rapti River in February 2013 and 31 birds in January 2014 (Bed Bahadur Khadka). Fairly common in the park, but declining and missing at one former nest at Bees Hazari Tal (BES, RDB Workshop, October 2015).

In Chitwan National Park buffer zone in Bees Hazari Lake, 12 birds in November 1989 and six in January 1995 (Baral 1999), and six by Rapti river, Sauraha, Chitwan District (Tek Bahadur Gurung, BES)

In Bardia National Park, 18 birds were recorded in November 2011 (Baral 2011c) and eight in December 2014 (Dheeeraj Chaudhhary)

In Bardia National Park buffer zone three in Khata corridor at Bardia on Aug 2013 (NTNC- BCP)

15 birds were recorded in between Lumbini and Bardia National Park in November 2011 (Baral 2011b).

In Sukla Phanta National Park, four birds in December 1997 (Chaudhary 1998), four in April 2009 (Hewatt 2009), and six in February 2011 (Chaudhary 2011).

Eight pairs and three pairs nested successfully at Madubani and Dhamauli, Lumbini master plan area, Rupandehi District (Dinesh Giri).

In Gaidahawa Lake, Lumbini District, 17 birds in February 2011 (Baral 2011a).

In Kathmandu valley three birds in 2004 (Chaudhary 2004).

In Salli Bazar, Salyan District 6 birds were recorded in October 2013 (Baral et al. 2013).

In Sankhuwa Khola, Bhojpur, 12 birds in November 1994 (Baral 1995).

In January 1992, 20 birds between from Koshi and Chitwan (Baral 1992).

In Sankhuwasabha District, six birds were recorded between Khandbari and Tumlingtar in December 1992 (Cox 1992), seven between Tumlingtar and Gothebazar in November 2011 (Carter and James 2011).

In Phidim, Mai valley, four in March 2008 (Robson et al. 2008).

1 or 2 at Jagdispur every year (D. Giri)

Heluwabesi, near Arun River, 20 birds November or December 2011 (Yadav Ghimirey).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Asian Woollyneck inhabits flooded fields, marshes and lakes (Inskipp and Inskipp 1991). The species is usually

found singly or in pairs, occasionally in small parties (Grimmett *et al.* 1998). The species hunts on dry or marshy ground and wet grasslands; rarely wades (Grimmett *et al.* 1998). The species roosts at night on tall trees (Ali and Ripley 1987). Breeding has been proved in Rupandehi, Nawalparasi, and Dhading Districts (pers. obs.). It feeds on frogs, reptiles, crabs, molluscs and large insects; fish only when stranded high and dry by receding flood, or from drying up waterholes in forest streams etc. (Ali and Ripley 1987). Breeding has been proved in Sukla Phanta Wildlife Reserve in 2014 (Dheeraj Chaudhary); at Ghodaghodi Tal in September 2015 (Daya Ram Choudhary); Gobrela, Bardia District (Ram Bahadur Shahi); in Rupandehi, Nawalparasi, Dhading Districts (Hem Sagar Baral); Balekhu, Chitwan District in January 2013 and Bees Hazari Tal, Chitwan National Park buffer zone in January 2014 (Tika Giri); Kagati Gaon, Nuwakot District and Bahune pati en route to Melamchi, Sindhupalchok District (Rajendra Gurung), and at Madubani and Dhamauli, Lumbini master plan area, Rupandehi District (Dinesh Giri).

## **Threats**

Habitat loss and degradation, hunting, disturbance, especially close to nesting sites, scarcity of prey and possibly the use of agro-chemicals are threats to this species.

## **Conservation Measures**

No specific conservation measures have been carried out for Asian Woollyneck. Post-1990 the species has been recorded from Bardia, Banke, Chitwan, Langtang and Makalu-Barun National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, and Annapurna and Kanchenjunga Conservation Areas.

# Regional IUCN Status

Near-threatened (NT), downgraded from Global Red List status: Vulnerable (VU)

### Rationale for the Red List Assessment

Asian Woollyneck has been assessed as Near-threatened. It is a fairly common resident recorded from the far west to the far east. The species has been listed as Near-threatened because of its global threatened status. In Nepal it has been recorded from most protected areas and widely outside the protected areas' system since 1990. There is an indication of a small population decline, e.g. in Chitwan National Park and buffer zone; however, there is no indication of contraction of range post-1990 compared to pre-1990. It is threatened by habitat loss and degradation, hunting, disturbance, scarcity of prey and possibly the use of agro-chemicals.

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# Threskiornis melanocephalus Latham, 1790 NT

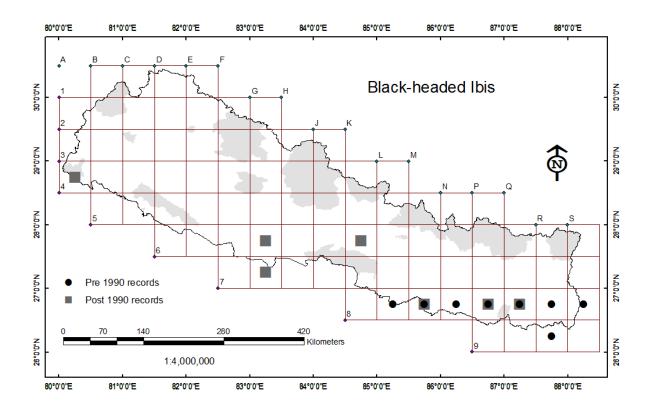
# Common Name

Black-headed Ibis (English), Seto Sanwari (Nepali)

Order: Ciconiiformes Family: Threskiornithidae



# **Distribution**



Black-headed Ibis is a resident, mainly in the south-east terai, but also recorded west to the far west. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844) when it was collected in the terai (Hodgson 1829). One was collected at Raghunathpur, Dhanusa District in January 1954 (Rand and Fleming 1957). Gregory-Smith and Batson (1976) reported it was an occasionally recorded summer migrant to the south-east terai. Inskipp and Inskipp (1991) described it as 'Chiefly a summer visitor occasionally seen in the south-east terai. Some birds may be resident as there are a number of winter reports'.

The species has been most frequently recorded at Koshi Barrage and in Koshi Tappu Wildlife Reserve, pre- and post-1990, see Population section.

Pre-1990 its distribution was restricted to the south-east terai. Other known sites beside Koshi were: Janakpur, Dhanusa District in June 1978 (Hall 1978), 30 km north-west of Koshi Barrage from the East-West highway, Sunsari District in December 1978 (Bowden 1979), one between Charali and Ilam, Ilam District in March 1981 (Inskipp and Inskipp 1981), two between Birtamod and Karkavitta, Jhapa District in March 1981 (Inskipp and Inskipp 1981), and three between Loki and Itahari, Sunsari District in May 1982 (Inskipp and Inskipp 1982).

There are significantly more known localities since around 2003. Even allowing for better recording in recent years, Black-headed Ibis appears to have spread to several localities in central and west Nepal including the far south-west terai in Sukla Phanta Wildlife Reserve. It is uncommon and possibly a winter visitor in the reserve (Baral and Inskipp 2009), e.g. 12 were seen in January 2009 (Anon. 2009). Known records other than those at Koshi post-1990 are: one bird at Lumbini, Rupandehi District in April 1993 (Baral 1993), seven there in November 2006 (Giri 2010) and 15 in April 2009 (Ramond and Giri 2009); 43 between Karkavitta and Koshi Barrage in April 2003 (Baral and Chaudhary 2003); 93 Lauki to Bardibas, Mahotarri District and Janakpur, Dhanusa District in May 2003 (Baral and Chaudhary 2003); eight at Jagdishpur, Kapilvastu District in January 2009 (Giri 2010) and six there in December 2010 (Baral 2011a, Inskipp and Inskipp 2010); one between Biratnagar and Koshi Tappu Wildlife Reserve in March 2010 (Baral 2010a); 18 between Koshi and Chitwan National Park and in February 2003 (Baral 2003) and nine in March 2010 (Baral 2010b), and one in Chitwan National Park in May 2011 (Baral 2011b).

Globally the species has also been recorded in Bangladesh, Cambodia, China (mainland), Hong Kong (China), India, Indonesia, Japan, Laos, Malaysia, Mongolia, Myanmar, Pakistan, Philippines, Russia (Asian), South Korea, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 3200 m; lower limit: 75 m

#### Population

The main population is at Koshi Barrage and in Koshi Tappu Wildlife Reserve. Known maximum numbers recorded are: eight in November 1978 (Bowden 1979), four in January 1980 (Fairbank 1980), 30 in January 1981 (Hall 1981), 14 in May 1982 (Robson 1982), 30 in February 1984 (Hornskov 1984), 65+ in April 1986 (Heath 1986), 150 in February 1989 (Kennerley and Turnbull 1989), 100 in December 1991 (Baral and Mills 1992), 150 in November 1992 (Murphy and Waller 1992), 127 in March 1993 (Danielsen and Falk 1993), 77 in January 1995 (Choudhary 1995), 150 in February 1996 (Baral 1996), 80 in February 1999 (Ghimire 1999), 190 in November 2000 (Basnet and Dowling 2000), 80+ in December 2001 (Naylor *et al.* 2002), 150 in November 2002 (Cottridge and Tiwari 2002), 230 in November 2004 (Baral and Chaudhary 2004), 250 in February 2005 (Baral 2005), 200 in February 2007 (Baral 2007), 141 in January 2008 (Anon. 2008), 75 in January 2009 (Anon. 2019), 59 in January 2010 (Anon. 2010), 89 in January 2011 (Anon. 2011), 159 in January 2012 (Anon. 2012).

The numbers recorded at Koshi indicate there has been a general overall increase since the late 1970s and especially since 1989. The maximum of 250 birds was recorded in February 2005. The very large majority of the population was recorded at Koshi in all years, except for 2003 (when no figures for Koshi are available), when the relatively high numbers of 43 were recorded between Karkavitta and Koshi Barrage in April and 93 Lauki to Bardibas, Mahotarri Distict and Janakpur, Dhanusa District in May.

### **Total Population Size**

Minimum population: unknown; maximum population: <1000

### **Habitat and Ecology**

Black-headed Ibis inhabits flooded fields, marshes, rivers and pools (Inskipp and Inskipp 1991). It is resident and nomadic depending on water and feeding conditions (Grimmett *et al.* 1998). It feeds almost entirely on animal food: fish, frogs, molluscs, insects, worms but some vegetable matter (Ali and Ripley 1987).

#### **Threats**

Black-headed Ibis is threatened by the loss and degradation of wetlands, illegal hunting and disturbance, and possibly also by pesticides.

## **Conservation Measures**

No conservation measures have been carried out specifically for Black-headed Ibis. The main locality for the species is Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Near-threatened (NT) unchanged from Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Black-headed Ibis has been assessed as Near-threatened as it is considered globally Near-threatened by BirdLife International. The very large majority of the population has been recorded at Koshi Barrage/Koshi Tappu Wildlife Reserve in all years except for 2003 (when Koshi figures are not available). The numbers recorded at Koshi indicate there has been a general overall increase since the late 1970s and especially since 1989. The maximum of 250 birds was recorded in February 2005. Pre-1990 the species' distribution was restricted to the south-east terai. There are significantly more known localities since around 2003. Even allowing for better recording in recent years, Black-headed Ibis appears to have spread to several localities in central and west Nepal, including the far south-west terai (in Sukla Phanta Wildlife Reserve). It is threatened by the loss and degradation of wetlands, illegal hunting and disturbance, and possibly also by pesticides.

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# Ardea cinerea Linnaeus, 1758 LC

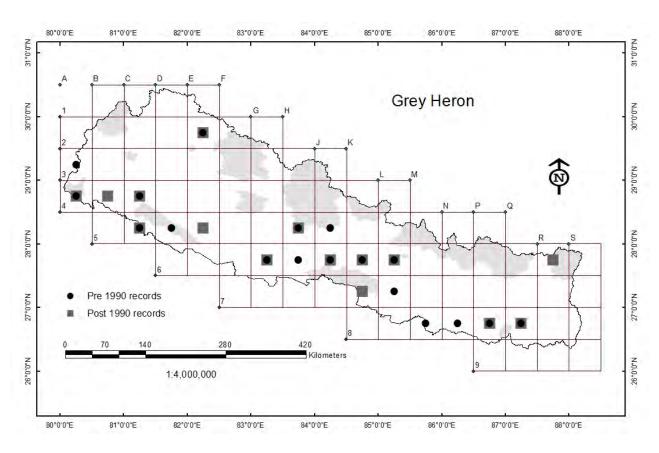
Subspecies: Ardea cinerea cinerea

Common Name
Grey Heron (English)
Phusre Bakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



# **Distribution**



Grey Heron is a fairly common winter visitor and rare resident and is widespread below 915m. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the bird was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species an occasional resident and passage migrant to Nepal and a regular winter visitor to the Koshi area. Inskipp and Inskipp (1991) reported the species as mainly a winter visitor, seen occasionally throughout the Terai and foothills up to 915 m and mapped its distribution mainly in the lowlands from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a frequent winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009) and to Bardia National Park (C4, C5) (Inskipp 2001); an uncommon passage migrant to Rara National Park (E2) (Giri 2005); a frequent winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a winter visitor to Parsa Wildlife Reserve (K7) (Todd 2001); a

fairly common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005) and recorded in Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). In Chitwan National Park buffer zone the species has been recorded from Janakauli Community Forest and Bees Hazari Lake in March 2010 (Giri 2010). In Bardia National Park buffer zone it has been recorded in the Khata Corridor (C5) (Chaudhari 2007), Bardia District.

Since 1990 Grey Heron has been recorded less widely outside the protected areas' system compared to within protected areas.

Records include: a frequent resident in Ghodaghodi Lake area (B4), Kailali District (CSUWN and BCN 2012); recorded from Chisapani gorge (C4) in March 1992 (Baral 1992), Badhaiya Lake (C4) (Bhuju *et al.* 2007); Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); Lumbini (G7), Rupandehi District (Suwal *et al.* 2002); a winter visitor to Jagadishpur Reservoir (G6), Kapilvastu District (Baral 2008); Rupa Lake (J5) (Kafle *et al.* 2008) and Phewa Lake (H5) e.g. in December 2009 (Thewlis *et al.* 2009), Kaski District; a very rare non-breeding visitor in Kathmandu Valley (L6) (Mallalieu 2008), and a fairly common migrant to Chimdi Lake (Q8), Sunsari District (Surana *et al.* 2007).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Comoros, Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Germany, Ghana, Gibraltar (to UK), Greece, Greenland (to Denmark), Guadeloupe (to France), Guam (to USA), Guinea, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Mayotte (to France), Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St Helena (to UK), St Kitts and Nevis, St Lucia, St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Svalbard and Jan Mayen Islands (to Norway), Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

## **Elevation**

Upper limit: 915 m (- 3050 m); lower limit: 75 m

# Population

During the midwinter waterbird count globally coordinated by Wetlands International, Nepal's Grey Heron population counts were 62, 79, 57, 55, 89, 78 from 2008 to 2013 respectively (Baral 2013).

In Koshi Tappu Wildlife Reserve, 21 were counted in December 1992 (Baral 1993), 23 in November 1993 (Choudhary 1994), 27 in January 1994 (Chaudhary 1994), 26 in January 1995 (Choudhary 1995), 28 in December 1996 and 47 in January 1997 (Chaudhary 1997), 30 in December 2007 (Giri 2007), 31 in January 2009 (Baral 2009) and 28 in February 2011 (Baral 2011).

About 55 nests of the species were recorded in Koshi Tappu Wildlife Reserve in August 1996 (Choudhary 1996).

In Chitwan National Park 12 birds were recorded in January 1996 (Dhakal 1996). The midwinter waterbird count recorded 14 birds in January 2005 (Khadka 2005), three in January 2010 (Khadka 2010), eight in February 2011 (Khadka 2012) and three in February 2012 (Khadka 2013).

In Bardia National Park, 20 birds were recorded in January 1992 (Baral 1992).

In Jagdishpur Reservoir, six birds were recorded from in January 2006 (Baral 2008).

The species' population total for Nepal appears to be stable, but this may be due to better coverage.

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## Habitat and Ecology

Grey Heron inhabits large rivers and lakes (Inskipp and Inskipp 1991). The species is a typical diurnal heron. It is largely crepuscular, hunting chiefly in the early morning twilight and at dusk (Ali and Ripley 1987). It usually keeps singly though it occasionally gathers in loose parties at good feeding areas and is gregarious when nesting (Ali and Ripley 1987, Grimmett *et al.* 1998). Grey Heron prefers to hunt in the open and perches freely in trees (Grimmett *et al.* 1998). It feeds on fish, frogs, molluscs, crustaceans, aquatic insects, small rodents and young birds (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

## **Conservation Measures**

No specific conservation measures have been carried out for Grey Heron. Post-1990 the species has been recorded from Bardia, Rara, and Chitwan National Parks, Sukla Phanta, Parsa, and Koshi Tappu Wildlife Reserves and Kanchenjunga Conservation Area.

# **Regional IUCN Status**

Least Concern (LC) unchanged from Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Grey Heron has been assessed as Least Concern. It is a fairly common winter visitor and rare resident to the lowlands recorded from the far west to the far east. Since 1990 the species has been recorded from a number of protected areas and less widely outside the protected areas' system, compared to within protected areas. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. As a result, Grey Heron may be declining.

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Todd, M. (2001) Birds of Parsa Wildlife Reserve. Unpublished report to Department of National Parks and Wildlife Conservation, Kathmandu. 14 pp.

# Ardea purpurea Linnaeus, 1766 LC

Subspecies: Ardea purpurea manilensis

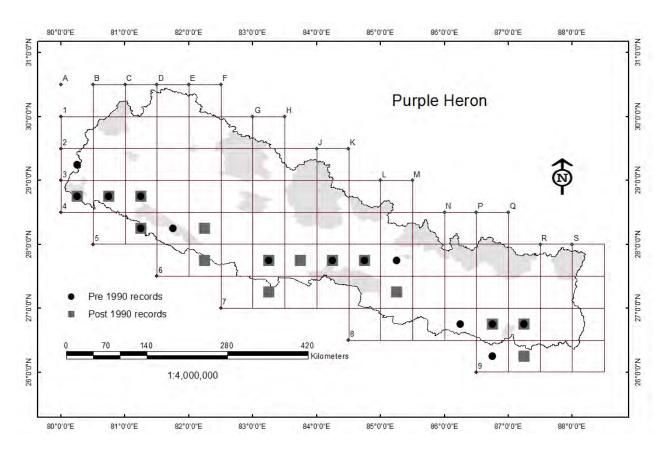
## Common Name

Purple Heron (English), Dhyani Bakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



# **Distribution**



Purple Heron is locally fairly common and widespread, mainly a resident and monsoon visitor below 300m.

The first Nepal record of the species was in the 19th century (Hodgson 1829; 1844).

Fleming et al. (1976) described the species occasional resident in lowland marshes. Inskipp and Inskipp (1991) described the species to be mainly resident and occurring in the lowlands up to 300 m. It was common in Koshi area all year round, with a large influx of the birds at the start of monsoon (Gregory-Smith and Batson 1976). It was fairly common at Chitwan, occasionally seen at Sukla Phanta and Bardia, but scarce elsewhere (Inskipp and Inskipp 1991).

Post-1990 the species' status in protected areas is: a common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009), frequent resident in Bardia National Park (C4) (Inskipp 2001), uncommon resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and a fairly common breeding resident in Koshi area (P8, Q8) (Baral 2005). In Chitwan National Park buffer zone it has been recorded in Bees Hazari Lake, Chitwan District (J6) (Baral 1996).

Since 1990, outside the protected areas' system records include: a fairly common resident in Ghodaghodi Lake area, Kailali District (B4) (CSUWN and BCN 2012); recorded in Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); from Sagarhawa Lake (Baral 1994);resident in Jagadishpur reservoir, Kapilvastu District (G6) (Baral 2008); recorded from Lumbini, Rupandehi District (G7) (Baral 1994); different localities of Nawalparasi District (H6) (Baral 2011a); Hetauda, Makwanpur District (L7) (Giri 2000); a frequent winter visitor to Chimdi Lake, Sunsari District (Q8) (Surana et al. 2007), and recorded from Biratnagar, Morang District (Q9) (Baral 1994).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Moldova, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013).

## **Elevation**

Upper limit: 1370 m; lower limit: 75 m

# **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Purple Heron population counts were 41, 19, 27, 33, 30, 45 from 2008 to 2013, respectively (Baral 2013).

In Koshi Tappu Wildlife Reserve: 40 birds were recorded in March 1989 (Bose et al. 1989), 15 in December 1991 (Baral 1992), 11 in September 1992 (Baral 1993a), 18 in October 1993 (Baral 1993b), 14 in January 1994 (Chaudhary 1994), 13 in March 1995 (Choudhary 1995), 63 in August 1996 (Choudhary 1996), 13 in May 2000 (Giri 2000), 12 in February 2002 (Chaudhary 2002), 30 in September 2010 (Baral 2010), and 18 in May 2011 (Baral 2011b).

In Chitwan National Park two birds were observed in March 1999 (Sterling 1999), two in April 2007 (Byskov 2007) and five during the midwinter waterbird count between 18-23 January 2010 (Khadka 2010).

In April 2007, 13 birds were observed between Bardia and Lumbini (Baral 2007).

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Purple Heron inhabits dense reed beds, lakes and marshes. The bird is shy, crepuscular and easily overlooked (Inskipp and Inskipp 1991), often feeding out of sight in dense vegetation (Grimmett et al. 1998). It is most often seen in flight. Purple Heron hunts alone, usually by standing motionless and waiting; less often by slow

stalking in shallow water (Grimmett et al. 1998). It feeds on fish, frogs, molluscs, crustaceans, aquatic insects, small rodents and young birds (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

### **Conservation Measures**

No specific conservation measures have been carried out for Purple Heron. Post-1990 the species has been recorded from Bardia and Chitwan National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Purple Heron has been assessed as Least Concern. It is a locally fairly common and widespread resident and monsoon visitor to the lowlands. Since 1990 it has been recorded in all lowland protected areas and less widely outside the protected areas' system. There is no indication of decline in population or contraction of range post-1990 compared to pre 1990. However, habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species. As a result, its population may be declining.

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## Ardeola grayii (Sykes, 1832) LC

Subspecies: Ardeola grayii grayii

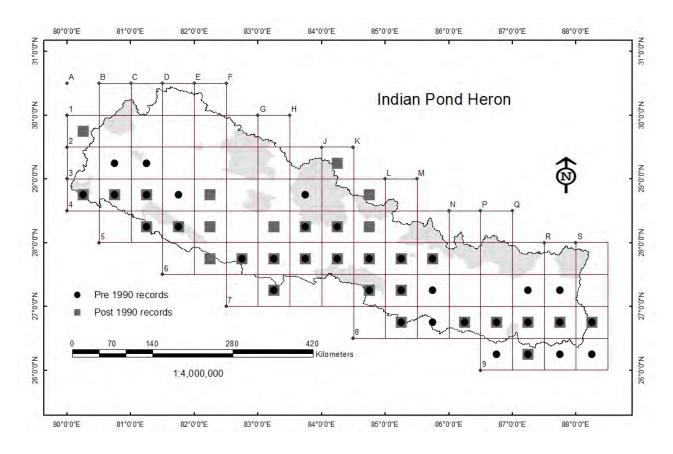
Common Name

Indian Pond Heron (English), Aaskote Bakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Indian Pond Heron is a common breeding resident throughout the terai and up to 1525m in the hills. Post-1990 it has been recorded from Amargadhi, Dadeldhura District (Baral *et al.* 2010) in the far west to between Chandragadhi and Khudunabari, Jhapa District (Robson *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a common resident, with breeding records from Kathmandu Valley. Inskipp and Inskipp (1991) reported the species as mainly a resident that migrated to lower elevations during winter and mapped its distribution widely throughout the lowlands and foothills.

The species' status in the protected areas' system post-1990 is: a common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a common resident in Bardia National Park (C4, C5) (Inskipp 2001); recorded in Banke National Park (D5) (Baral *et al.* 2012); a frequent resident in Annapurna Conservation Area (H4, H5, J5) (Inskipp and Inskipp 2003) and recorded from Upper Mustang (J3) in Annapurna Conservation

Area (Acharya 2002, Suwal 2003); recorded from Manaslu Conservation Area (K4) (Thakuri 2013); a common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and Parsa Wildlife Reserve (K7) (Todd 2001); a common resident in Shivapuri (L6) (SNP and BCN 2007) and recorded from Nagarjun Forest (L6) in March 1997 (Giri 1997) in Shivapuri National Park; and a common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005a).

In the buffer zone of Chitwan National Park, the species has been recorded at Barandabhar Forest and wetland (Adhikari *et al.* 2000, Ghimire 2009), Janakauli Community Forest and Bees Hazari Lake, e.g. in February 2008 (Giri 2008), Chitwan District, Tharu Cultural Village Resort, Nawalparasi District in December 2011 (Baral 2011a). In Bardia National Park buffer zone it has been recorded in the Khata Corridor (C5) (Chaudhari 2007) Bardia District.

Indian Pond Heron has been recorded widely outside the protected areas' system since 1990, in suitable habitat and within its altitudinal range. Post-1990 records outside the protected areas' system follow:

In the west records include: from Amargadhi (A2), Dadeldhura District in May 2010 (Baral *et al.* 2010); a common breeding resident in the Mohana River corridor (B4) (Chaudhary 2012) and a common resident in Ghodaghodi Lake area (B4) (CSUWN and BCN 2012); recorded at Tikapur Park (C5) in July 2013 (Baral *et al.* 2013a), Kailali District; Chisapani (C4) in March 1997 (Giri 1997); Nepalgunj (D5), Banke District in March 1992 (Priemé 1992); between Khalanga and Rimna (E4), Jajarkot District in October 2013 (Baral *et al.* 2013b); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); between Rupakot and Buachidi (G5), Gulmi District in May 1999 (Cox 1999); Khadaraphata (F6) in January 2011 (Acharya 2011) and a resident in Jagadishpur Reservoir (G6) (Baral 2008), Kapilvastu District; Gaidahawa Lake (G6) in February 2011 (Baral 2011b), Lumbini (G7) in December 2011 (Baral 2011a), Rupandehi District; a resident in Balewa (H5), Baglung District (Basnet 2009); Rupa Lake (J5) (Kafle *et al.* 2008) and Phewa Lake (H5) in December 2010 (Adcock and Naylor 2011), Kaski District; Rampur Valley (H6), Palpa District (Gautam 2003); between Dumre (J5), Tanahun District and Besisahar (J5), Lamjung District in November 1994 (Fletcher 1994), and the Budigandaki River (K5), Gorkha District in February 2008 (Giri 2008).

In central Nepal records include: from Narayanghat (J6), Chitwan District in April 2001 (Malling Olsen 2001); between Gajuri and Bishaltar (K6) in April 2001 (Malling Olsen 2004), Belkhu (K6) in December 2011 (Carter and James 2011), Dhading District; Trisuli Bazaar (L6), Nuwakot District in April 2001 (Isherwood 2001); a common breeding resident in Kathmandu Valley (L6) (Mallalieu 2008), along Lalitpur (L6), Makwanpur (L7) and Bara (L7) District sections of Bagmati and Bakaiya River Valleys (Basnet and Thakuri 2008, 2013); a common resident in Chitlang Forest (L7) (Manandhar *et al.* 1999), Hetauda (L7) in January 2001 (Hofland 2001), Makwanpur District; Judibela Community Forest (L7), Adarsha Community Forest and National Forest (L7) and Rangapur Collaborative Forest (L7), Rautahat District in September 2013 (Baral *et al.* 2013c); between Belwa (L7) and Kat Mandir (L7), Bara District in April 2003 (Cox 2003); between Gaur (L8), Rautahat District and Sedhawa (L8), Siraha District in April 2003 (Cox 2003); Panauti (M6), Kavrepalanchok District in January 2005 (Mallalieu 2005), and the Melamchi Khola (M6), Sindhupalchok District in November 1996 (Miallier and Miallier 1996).

In the east records include: from Lahan (N8), Siraha District in January 2001 (Hofland 2001); Bhagalpur (P8), Udaypur District in January 1994 (Choudhary 1994); Itahari (Q8) (Pandey 2003), a resident at Chimdi Lake (Q8) (Surana *et al.* 2007) and Dharan Forest (Q8) (Basnet and Sapkota 2008), Sunsari District; between Durgapur and Prajapate (R8) in November 1992 (Cox 1992), fairly common in Raja Rani Community Forest (Q8) (Basnet *et al.* 2005), a common resident in Betana Pond (Q8) (Niroula *et al.* 2011), a fairly common resident in Biratnagar (Q9) (Jha and Subba 2012), Morang District; lower Mai Valley (R8), Mai Valley Important Bird Area (Basnet and Sapkota 2006, Robson *et al.* 2008); Ilam (R8), Ilam District in June 1997 (Chaudhary 1998), and between Chandragadhi (S8) and Khuduna Bari (R8), Jhapa District in March 2008 (Robson *et al.* 2008).

Globally the species has been recorded in Bangladesh, Bhutan, India, Iran, Islamic Republic of, Maldives, Myanmar, Oman, Pakistan, Seychelles, Sri Lanka, Thailand, United Arab Emirates, Yemen (BirdLife International 2013).

#### Elevation

Upper limit: 1525 m (- 2745 m); lower limit: 75 m

#### **Population**

No population survey has been carried out for Indian Pond Heron. However, recent records of the species show a decreasing trend. During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Indian Pond Heron population counts were 742, 536, 456, 722, 658, 582 from 2008 to 2013 respectively (Baral 2013).

In Koshi Area, 250 birds were recorded in December 1991 (Baral 1992), 113 in September 1992 (Baral 1993), 300 in December 1993 and 348 in January 1994 (Choudhary 1994), 362 in January 1995 (Choudhary 1995), 502 in December 1996 and 261 in January 1997 (Chaudhary 1997), 203 in December 1998 (Choudhary 1999), 204 in January 1999 (Ghimire 1999), 211 in December 2000 (Chaudhary 2001), 363 in February 2002 (Chaudhary 2002), 205 in February 2003 (Chaudhary 2003), 180 in November 2004 (Baral and Chaudhary 2004), 200 in February 2005 (Baral 2005b), 250 in December 2007 (Chaudhary 2007), 255 in December 2008 (Chaudhary 2008) and 113 in January 2009 (Acharya 2009).

In Chitwan National Park, a waterbird survey counted 95 birds along the Rapti River and 23 along the Narayani River in December 1982 (Halliday 1982). A total of 13 birds was counted on the Narayani River in December 1995 (Dhakal 1996). Other counts in the park include: 119 birds were recorded in March 1992 (Baral 1992), 100 in February 1998 (Choudhary 1998), 170 in December 2000 (Chaudhary 2001), 250 in February 2003 (Baral 2003), 167 in November 2004 (Baral and Chaudhary 2004) and 208 in December 2007 (Chaudhary 2007). The midwinter waterbird count recorded 47 in January 2005 (Khadka 2005), 40 in January 2010 (Khadka 2010), 64 in February 2011 (Khadka 2012) and 26 in February 2012 (Khadka 2013).

In Suklaphanta Wildlife Reserve, 20 birds were recorded in January 2009 (Baral 2009), 32 in February 2011 (Chaudhary 2011).

In Jagdishpur Reservoir, 24 birds were recorded in October 2005 (Baral 2008), 48 in December 2011 (Baral 2011a).

In Pokhara, 20 in November 2004 (Naylor and Giri 2004), 30 birds in January 2005 (Mallalieu 2005), 25 in December 2008 (Naylor and Turner 2008), 20 birds were recorded in February 2010 (Baral 2010), 30 in November 2011(Baral 2011c).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Indian Pond Heron inhabits paddy-fields, marshes, streams, ponds and ditches (Inskipp and Inskipp 1991). It is often tame and when perched it is inconspicuous, but flies up with a startling flash of white wings (Grimmett *et al.* 1998). It hunts in typical heron fashion. Usually it is solitary when hunting, but will gather in large numbers at drying-out pools to feed on stranded fish. It roosts communally (Grimmett *et al.* 1998). Indian Pond Heron usually breeds in small groups of its own species or mixed with night herons, egrets and cormorants (Ali and Ripley 1987). The nesting site is in isolated large trees or groves such as mangoes and often in the middle of town or village, not necessarily close to water (Grimmett *et al.* 1998). It feeds on frogs, fish, crustaceans, water beetles and other insects (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance; also possibly poisoning and possibly the use of agrochemicals threaten the species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Indian Pond Heron. Post-1990 the species has been recorded from Bardia, Banke, Shivapuri- Nagarjun and Chitwan National Parks, Annapurna and Manaslu Conservation Areas, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC).

#### Rationale for the Red List Assessment

Indian Pond Heron has been assessed as Least Concern. The species is a widespread and common breeding resident recorded from the far west to the far east. It has been recorded from many protected areas and widely outside the protected areas' system since 1990. Habitat loss and degradation, illegal hunting, disturbance; also possibly poisoning and possibly the use of agrochemicals threaten the species. The population seems to be declining, but not to extent that warrants a threatened category.

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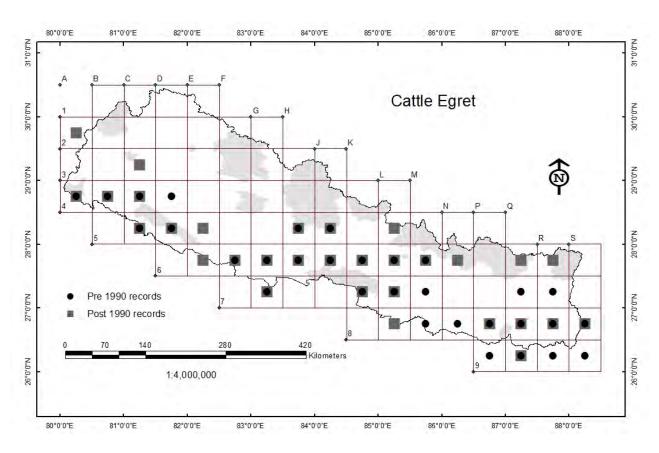
# **Bubulcus ibis** (Linnaeus, 1758) **LC** Subspecies: *Bubulcus ibis coromandus*

Common Name
Cattle Egret (English),
Bastu Bakullaa (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Cattle Egret is a common breeding resident with post-1990 records from Amargadhi, Dadeldhura District (Baral *et al.* 2010) in the far west to between Chandragadhi and Khuduna Bari, Jhapa District (Robson *et al.* 2008) in the far east.

The first Nepal record of the bird was in the 19th century (Hodgson 1829, 1844).

Fleming *et al.* (1976) considered the species a common resident. Inskipp and Inskipp (1991) reported the species as mainly a resident that migrated to lower elevations during winter and mapped its distribution widely from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a common resident in Bardia National Park (C4, C5) (Inskipp 2001) and recorded from Banke National Park (D5) (Baral et al. 2012); Biodiversity Conservation Data Project Team (1994) considered the species a common breeding resident in Annapurna Conservation Area (H5, J5), however, Inskipp and Inskipp (2003) reported it was a rare passage migrant in the area. It is a common

resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and Parsa Wildlife Reserve (K7) (Todd 2001). It is a common resident on Shivapuri (L6) (SNP and BCN 2007) and recorded from Nagarjun (L6), e.g. in February 2002 (Arlow 2002) in Shivapuri Nagarjun National Park; a resident in Gaurishankar Conservation Area (N6) (Baral and Shah 2009); a fairly common resident in Makalu-Barun National Park (Q6) (Cox 1999); a common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005), and recorded from Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008).

In Chitwan National Park buffer zone, the species has been recorded from Bees Hazari Lake and Janakauli Community Forest e.g. in February 2008 (Giri 2008a); Barandabhar corridor forest (Adhikari et al. 2000, Ghimire 2009); Gundre Khola in November 2007 (Baral 2007) and Tharu Cultural Jungle Resort in December 2011 (Baral 2011a). In Bardia National Park buffer zone it has been recorded in the Khata Corridor (C5) (Chaudhari 2007), Bardia District and at Chisapani (C4) in March 1997 (Giri 1997); also at Dhunche in Langtang National Park buffer zone (Chaudhary 1999).

Cattle Egret has been recorded widely from the lowlands and midhills outside the protected areas' system since 1990. Post-1990 records outside the protected areas' system follow.

In the west records include from: Amargadhi (A2), Dadeldhura District in May 2010 (Baral *et al.* 2010); a common resident in Ghodaghodi Lake Area(B4) (CSUWN and BCN 2012) and a common resident in the Mohana River Corridor (B4) (Chaudhary 2012), and recorded from Tikapur (C5), in July 2013 (Baral *et al.* 2013a), Kailali District; Badimalika region (C3) in Achham, Bajura and Kalikot Districts (Karki *et al.* 2003);, Nepalgunj (D2), Banke Bistrict in March 1992 (Priemé 1992); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009 a,b); Salyan (H5), Parbat District in July 2000 (Baral 2000); a resident in Balewa (H5), Baglung District (Basnet 2009); Sagarhawa Lake in April 1993 (Baral 1994), Khadaraphanta (F6) in January 2011 (Acharya 2011) and a resident in Jagadishpur reservoir (G6) (Baral 2008a), Kapilvastu District; Lumbini (G7), Rupandehi District in December 2011 (Baral 2011a); Banpale Danda (H5) (Karki *et al.* 1997), Phewa Lake (H5) and Begnas Lake (J5) in March 1999 (Chartier and Chartier 1999), Rupa Lake (J5) (Kafle *et al.* 2008), Kaski District; Rampur Valley (H6), Palpa District (Gautam 2003), Budhigandaki River (K5), Gorkha District in February 2008 (Giri 2008a).

In central Nepal the species has been recorded from: Bharatpur (J6), Chitwan District in February 2002 (Arlow 2002); Dhading (K6), Dhading District in April 2011 (Baral 2011b); a common breeding resident in the Kathmandu Valley (L6) (Mallalieu 2008) and recorded in the Lalitpur District (L6) sections of the Bagmati and Bakaiya river valleys (Basnet and Thakuri 2013); a common resident in Chitlang Forest (L7) (Manandhar *et al.* 1992) and recorded from Hetauda (H5), Makwanpur District in January 2001 (Hofland 2001); Adarsha Community and National Forest (L7), Rautahat District and Dudhaura Khola forest area (L7), Bara District in September 2013 (Baral *et al.* 2013b); between Gaur (L8), Rautahat District and Sedhawa (L8), Siraha District in April 2003 (Cox 2003), and between Sermathang and Melamchi Bazaar (M6), Sindhupalchok District in May 2007 (Byskov 2007).

In the east records include from: Itahari (R8) (Pandey 2003), a common resident at Chimdi Lake (Q8) (Surana *et al.* 2007) and Dharan Forest (Basnet and Sapkota 2008), Sunsari District; a common resident in Betana Pond (Q8), Morang District (Niroula *et al.* 2011), a resident in Raja Rani Community Forest (Q8) (Basnet *et al.* 2005), a fairly common resident in Biratnagar (Q9), Morang District (Jha and Subba 2012); lower Mai Valley (R8) (Basnet and Sapkota 2006, Robson *et al.* 2008); llam (R8), llam District in September 2010 (Baral 2010a), and between Chandragadhi (S8) and Khuduna Bari (R8), Jhapa District in March 2008 (Robson *et al.* 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Anguilla (to UK), Antarctica, Antigua and Barbuda, Argentina, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda (to UK), Bhutan, Bolivia, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brazil, British Indian Ocean Territory, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, Chile, China (mainland), Christmas Island (to Australia), Cocos (Keeling) Islands (to Australia), Colombia, Comoros, Congo, Congo, The Democratic Republic of the, Costa Rica, Croatia, Cuba, Curaçao (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Falkland Islands (Malvinas), Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Grenada, Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya,

Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Martinique (to France), Mauritania, Mauritius, Mayotte (to France), Mexico, Micronesia, Federated States of, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia (to France), New Zealand, Nicaragua, Niger, Nigeria, Norfolk Island (to Australia), North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Réunion (to France), Romania, Russia (Asian), Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten (to Netherlands), Slovenia, Somalia, South Africa, South Georgia & the South Sandwich Islands, South Korea, South Sudan, Spain, Sri Lanka, St Helena (to UK), St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), Uruguay, USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

#### **Elevation**

Upper limit: 1525 m; lower limit: 75 m

#### **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Cattle Egret Nepal population in Nepal counts were 1038, 770, 954, 1021, 1094, 1360 from 2008 to 2013, respectively (Baral 2013).

In Koshi area: 700 birds were recorded in December 1993 and 600 in January 1994 (Choudhary 1994), 500 in December 2007 (Chaudhary 2007), 400 in May 2008 (Giri 2008b), 500 in October 2010 (Baral 2010b) and 820 in May 2011 (Baral 2011b).

In Chitwan National Park: 500 birds were counted in December 1996 (Chaudhary 1997), 411 in December 2000 (Chaudhary 2001); four in January 2005 (Khadka 2005), 11 in January 2010 (Khadka 2010), 19 in February 2011 (Khadka 2012) and five in February 2012 (Khadka 2013).

In Sukla Phanta Wildlife Reserve: 3000 birds were recorded in May 1996 (Baral 1996a), which represent the maximum number of individuals recorded at any site for the species in Nepal. A total of 502 birds was recorded in May 1997 (Baral 1997a), 127 in March 1998 (Chaudhary 1998) and 150 in February 2008 (Baral 2008b).

In Bardia National Park, 450 birds were recorded in November 2011 (Baral 2011c).

In Lumbini, 400 birds were recorded in February 2011 (Acharya 2011).

In Jagadishpur reservoir, 410 birds were recorded in December 2011 (Baral 2011d).

In the Pokhara valley Kaski District: 225 birds were counted in November 2004 (Naylor and Giri 2004), 155 in November 2005 (Naylor and GC 2005) and 300 in November 2007 (Baral 2007), 128 in November 2011 (Baral 2011c).

In Kathmandu: 700 birds were recorded in March 1993 (Baral 1994), 415 in August 2002 (Baral and GC 2002) and 300 in April 2001 (Inskipp and Inskipp 2001).

The waterbird counts in Chitwan from 1989 to 1999 showed a clear decline in numbers (Baral 1999).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Cattle Egret frequents wet fields, pools and marshes (Inskipp and Inskipp 1991). The species is gregarious when feeding and roosting, typically seen in flocks around domestic livestock feeding on insects disturbed by the animals (Grimmett *et al.* 1998). It also frequents inundated ploughed fields, where the freshly turned up soil provides ample feeding (Ali and Ripley 1987). Unlike other egrets, it feeds mainly on insects and also takes tadpoles and lizards (Grimmett *et al.* 1998). Cattle Egret breeds colonially in large trees, not necessarily close to the water and sometimes with other herons and egrets (Grimmett *et al.* 1998).

#### **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Cattle Egret. Post-1990 the species has been recorded from Bardia, Banke, Chitwan, Shivapuri-Nagarjun and Makalu-Barun National Parks; Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, and Annapurna, Gaurishankar and Kanchenjunga Conservation Areas.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Cattle Egret has been assessed as Least Concern. The species is a common and widespread resident recorded from the far west to the far east. It has been recorded from all lowland protected areas and also widely outside the protected areas' system. There has been no significant change in distribution post-1990 compared to pre-1990. Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species. As a result, the population may be declining.

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## Butorides striata (Linnaeus, 1758) LC

Subspecies: Butorides striata chloriceps

Common Name

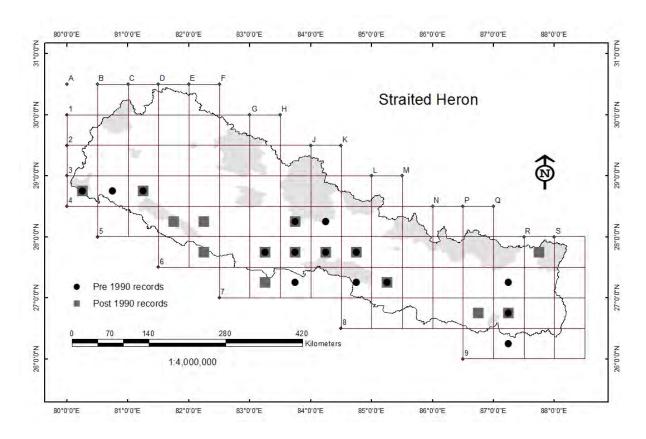
Striated Heron (English),

Chhotakhutte Bakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Striated Heron is a frequent resident and summer visitor recorded since 1990 from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species as a common resident in Nepal. Inskipp and Inskipp (1991) described the species as a fairly common resident and summer visitor.

Post-1990 the species' status in protected areas is: fairly common resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); frequent resident and summer visitor to Bardia National Park (C4) (Inskipp 2001); recorded in Banke National Park (D5) (Baral *et al.* 2012); a frequent resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); fairly common resident in Koshi Area (P8, Q8) (Baral 2005a), and recorded in Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). In Chitwan National Park buffer zone it has been recorded in Bees Hazari Lake, Chitwan District (J6) (Baral 1996a).

Since 1990 the species has been recorded less widely outside the protected areas' system than within protected areas. Records include: from Chisapani gorge, Bardia District (C4) (Baral 1992); Nepalgunj, Banke District (D5) (Choudhary 1999); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); resident in Jagadishpur reservoir, Kapilvastu District (G6) (Baral 2008); recorded from Lumbini, Rupandehi District (G7) (Suwal *et al.* 2002); from Phusre Khola gorge, Kaski District (H5) (Mallalieu 2005), Rampur Valley, Palpa District (H6) (Gautam 2003), and by the Rapti River, Hetauda, Makawanpur District (L7) (Giri 2000).

Globally the species has also been recorded from Angola, Antigua and Barbuda, Argentina, Australia, Bahrain, Bangladesh, Barbados, Benin, Bermuda (to UK), Bhutan, Bolivia, Botswana, Brazil, British Indian Ocean Territory, Brunei, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, Chile, China (mainland), Christmas Island (to Australia), Colombia, Comoros, Congo, Congo, The Democratic Republic of the, Costa Rica, Djibouti, Dominica, Ecuador, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Falkland Islands (Malvinas), Fiji, French Guiana, French Polynesia, Gabon, Gambia, Ghana, Guadeloupe (to France), Guam (to USA), Guinea, Guinea-Bissau, Guyana, India, Indonesia, Iran, Islamic Republic of, Israel, Japan, Jordan, Kenya, Laos, Liberia, Madagascar, Malawi, Malaysia, Maldives, Mali, Martinique (to France), Mauritania, Mauritius, Mayotte (to France), Micronesia, Federated States of, Montserrat (to UK), Mozambique, Myanmar, Namibia, New Caledonia (to France), Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Réunion (to France), Russia (Asian), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Seychelles, Sierra Leone, Singapore, Solomon Islands, Somalia, South Africa, South Georgia & the South Sandwich Islands, South Korea, South Sudan, Sri Lanka, St Helena (to UK), St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Taiwan (China), Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Uganda, United Arab Emirates, Uruguay, Vanuatu, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013).

#### Elevation

Upper limit: 915 m; lower limit: 75 m

## **Population**

No population surveys have been carried out for Striated Heron.

In Koshi area: three birds were recorded in November 1993 and January 1994 (Choudhary 1994), four in January 1995 (Choudhary 1995), six in August 1996 (Choudhary 1996), four in April 1998 (Chaudhary 1998) and March 1999 (Choudhary 1999), six in May 2000 (Giri 2000), 12 in November 2001 (Koshi Camp 2001), four in February 2002 (Chaudhary 2002), three in February 2003 (Chaudhary 2003), three in November 2004 (Baral and Chaudhary 2004), five in February 2005 (Baral 2005b), five in December 2007 (Giri 2007), six in May 2008 (Giri 2008), seven in January 2009 (Baral 2009), five in February 2010 (Baral 2010), and six in February 2011 (Baral 2011).

In Chitwan National Park: three birds were recorded in May 1986 (Bauer 1986), four in April 1992 (Baral 1992), three in January 1993 (Giri 1993), seven in May 2000 (Giri 2000), three in January 2001 (Chaudhary 2001), three in April 2007 (Byskov 2007) and 13 in the midwinter waterbird count in January 2010 (Khadka 2010).

In Bardia National Park: three birds were recorded in January 2001 (Chaudhary 2001) and three in January 2003 from Bardia to Khairapur (Giri 2003).

In Singhpur, Sukla Phanta Wildlife Reserve five birds were recorded in May 1996 (Baral 1996b).

In Chisapani gorge, Bardia District, four birds were recorded in March 1992 (Baral 1992).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Striated Heron is found by lakes and ponds edged with dense foliage and by well-wooded streams. The bird is secretive and usually crepuscular or nocturnal (Inskipp and Inskipp 1991), but is sometimes active during the daytime, particularly in cloudy overcast weather (Ali and Ripley 1987). It is found chiefly in the lowlands and up to at least 1000 m in the Nepal bhabar and duns. Striated Heron builds a platform nest of sticks in a small tree hidden in bushes at the edge of a pond or stream; often near heron colonies (Grimmett *et al.* 1998). It feeds on fish, shrimps, frogs, crabs, water beetles etc. (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Striated Heron. Post-1990 the species has been recorded from Bardia, Banke and Chitwan National Parks; Sukla Phanta and Koshi Tappu Wildlife Reserves and Kanchenjunga Conservation Area.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Striated Heron has been assessed as Least Concern. It is a fairly common resident and summer visitor recorded from the far west to the far east since 1990. It has been recorded from several protected areas and less widely outside the protected areas' system. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. Its population may be stable or possibly declining.

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Thakuri, J. J. (2009b) An ornithological survey of Dang Deukhuri foothill forests and West Rapti wetlands IBA. A report submitted to Oriental Bird Club, UK. Unpublished.

## Casmerodius albus (Linnaeus, 1758) LC

Subspecies: Casmerodius albus modestus

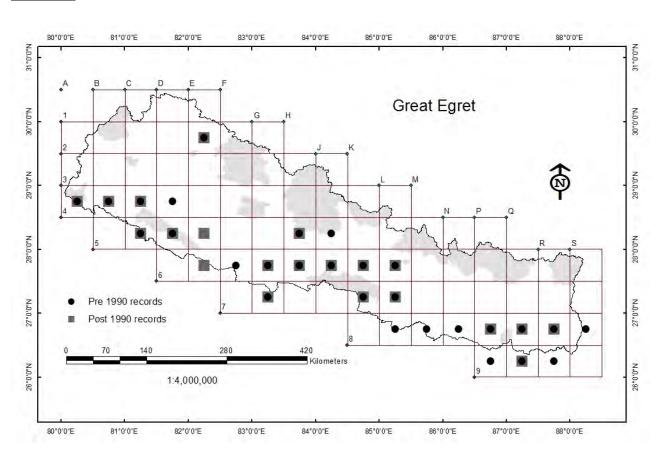
Common Name

Great Egret (English),
Thulo Setobakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Great Egret is a locally fairly common resident and is widespread below 300m.

The first Nepal record of the species was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species as an occasional resident in Nepal. Inskipp and Inskipp (1991) noted the species was a resident seen occasionally throughout the lowlands up to 300m and a fairly common breeding resident at Chitwan. It was common at Koshi and rare at higher altitudes (Inskipp and Inskipp 1991).

Post 1990, the species' status in protected areas is: a fairly common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009), a frequent resident in Bardia National Park (C4, C5) (Inskipp 2001), recorded in Banke National Park (D5) (Baral *et al.* 2012), an uncommon passage migrant to Rara National Park (E2) (Giri 2005), a fairly common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and in Parsa Wildlife Reserve (K7) (Todd 2001) and a common resident in the Koshi Area (P8, Q8) (Baral 2005). In

Chitwan National Park buffer zone it has been recorded in Barandabhar Bird Corridor (Adhikari et al. 2000) and Bees Hazari Lake, Chitwan District (J6) (Giri 2010).

Since 1990 outside the protected areas' system, the species has been recorded quite widely. Records include: from the Mohana River (Chaudhary 2012), a frequent resident in Ghodaghodi Lake area (B4) (CSUWN and BCN 2012), Kailali District, recorded from Chisapani gorge (C4) (Baral 1992), Khairbana (Baral 1996a) and Badhaiya Lake, Bardia District (C5) (Bhuju *et al.* 2007), Nepalgunj, Banke District (D5) (Choudhary 1999), the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009 a,b), recorded in Saghawa Lake (Baral 1994) and resident in Jagadishpur reservoir, Kapilvastu District (G6) (Baral 2008), recorded from Gaidahawa Lake, Rupandehi District (G6) (Baral 2011a), recorded in Pokhara Valley, Kaski District (H5) (Naylor and Giri 2004), and in localities of Nawalparasi District (H6) (Baral 2011b. It is rare, mainly a winter visitor to the Kathmandu Valley (Mallalieu 2008); also recorded from Malpokhari Lake (Baral 1992) and Manohara river of Kathmandu Valley (L6) (Baral 1994b), Hetauda, Makwanpur District (L7) (Inskipp and Inskipp 2001), a common resident at Chimdi Lake (Surana *et al.* 2007) and recorded at Patnali, Dharan forest, Sunsari District (Q8) (Baral 2011c), Biratnagar, Morang District (Q9) (Baral 1992), and several localities in Ilam District (R8) (Baral 2010).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Anguilla (to UK), Antigua and Barbuda, Argentina, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bhutan, Bolivia, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brazil, British Indian Ocean Territory, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, Chile, China (mainland), Christmas Island (to Australia), Colombia, Comoros, Congo, Congo, The Democratic Republic of the, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Falkland Islands (Malvinas), Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Mayotte (to France), Mexico, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia (to France), New Zealand, Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Georgia & the South Sandwich Islands, South Korea, South Sudan, Spain, Sri Lanka, St Helena (to UK), St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, Ukraine, United Arab Emirates, United Kingdom, Uruguay, USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Yemen, Zambia, Zimbabwe (BirdLife International (2013).

#### **Elevation**

Upper limit: 3050 m; lower limit: 75 m

#### **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Great Egret population counts were 163, 295, 116, 159, 211, 164 from 2008 to 2013 respectively (Baral 2013).

In Koshi Tappu Wildlife Reserve, 35 birds were recorded in March 1989 (Babbington 1989), 100 in December 1991 and 30 in January 1992 (Baral 1992), 105 in March 1993 (Danielsen and Falk 1993), 29 in January 1994 (Chaudhary 1994), 76 in January 1995 (Choudhary 1995), 82 in September 1996 (Giri 1996), 27 in January 1997 (Chaudhary 1997), 51 in December 1998 (Choudhary 1999), 100 in 1999 (Sterling 1999), 30 in October 2000

(Baral 2000), 50 in April 2001 (Inskipp and Inskipp 2001), 27 in February 2002 (Chaudhary 2002), 40 in February 2003 (Baral 2003), 44 in February 2005 (Baral and Birch 2005), 50 in December 2007 (Giri 2007), 139 in January 2009 (Baral 2009), 75 in September 2010 (Baral 2010) and 92 in February 2011 (Baral 2011c).

In Chitwan National Park, in two waterbird surveys: 27 birds were counted on the Rapti River and 19 on the Narayani River in December 1982 (Halliday 1982) and 11 birds were counted on the Narayani in November 1995 (Dhakal 1996). Other counts include 20 birds in May 1986 (Bauer 1986) and 21 in February 1998 (Chaudhary 1998), six in April 2007 (Byskov 2007), and 22 in the midwinter waterbird count in January 2010 (Khadka 2010).

In Singhpur, Sukla Phanta Wildlife Reserve 33 birds were recorded in May 1996 (Baral 1996b).

In Nepalgunj, 28 birds were observed in December 1998 (Choudhary 1999).

In Khairbana, 18 birds were noted in October 1993 (Baral 1996a).

In Kapilvastu District, 47 birds were recorded from January to December 1978 (Cox 1978).

In Kathmandu, 35 birds were noted in February 2001 (Baral and GC 2001).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Great Egret frequents wet fields, pools and marshes (Inskipp and Inskipp 1991). It is a typical diurnal heron, but is generally less sociable than other egrets. It is often solitary when hunting, although will feed communally at concentrated food sources. It roosts communally (Grimmett *et al.* 1998). Great Egret feeds on fish frogs, crustacean, water insects etc. (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Great Egret. Post-1990 the species has been recorded from Bardia National Park, Banke National Park, Rara National Park, Chitwan National Park, Sukla Phanta Wildlife Reserve, Parsa Wildlife Reserve and Koshi Tappu Wildlife Reserve.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Great Egret has been assessed as Least Concern. The species is a widespread and locally fairly common resident. Since 1990 it has been recorded in many protected areas and quite widely outside the protected areas' system. The species' population has declined in Chitwan National Park but there is no indication of population decline elsewhere post 1990 compared to pre 1990. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. It is probably declining overall, but this is not considered large enough to warrant a threatened category for the species.

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## Egretta garzetta Linnaeus, 1766 LC

Subspecies: Egretta garzetta garzetta

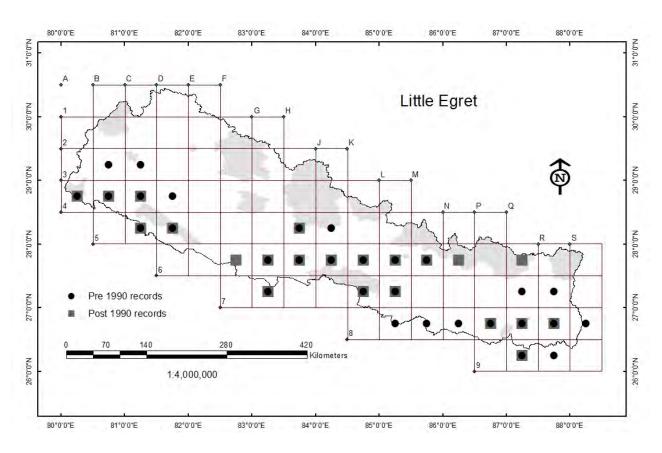
Common Name

Little Egret (English), Sano Setobakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Little Egret is fairly common and widespread resident below 1525m recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Ilam District in the far east (Baral 1994b).

The first Nepal record of the bird was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) described the species as a fairly common resident in Nepal. Inskipp and Inskipp (1991) described the species as a fairly common and widespread resident up to 1525m and mapped its distribution from the far west to the far east.

Post-1990 the species' status in protected areas is: fairly common resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009) and Bardia National Park (C4) (Inskipp 2001), recorded in Banke National Park (D5) (Baral *et al.* 2012), rare in Annapurna Conservation Area (H5) (Inskipp and Inskipp 2003), a common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and in Parsa Wildlife Reserve (K7) (Todd 2001), recorded in Gaurishankar Conservation Area (N6) (Baral and Shah 2009) and in Makalu Barun National Park (Q6) (Baral and Buckton 1994), and a common breeding resident in Koshi Area (P8, Q8) (Baral 2005). In

Chitwan National Park buffer zone it has been recorded in Barandabhar Corridor Forest (Adhikari *et al.* 2000) and Bees Hazari Lake of Chitwan District (J6) (Giri 2008) and in Bardia National Park buffer zone it has been recorded at Chisapani, Bardia District (C4) (Giri 1997).

Since 1990 outside the protected areas' system, Little Egret has been widely recorded.

In the west records include: a common resident in Ghodaghodi Lake area (CSUWN and BCN 2012) and recorded from Deukhuria Lake, Kailali District (B4) (Bhuju *et al.* 2007), recorded from Nepalgunj, Banke District (D5) (Baral 1992), Rupakot, Gulmi District (F6) (Cox 1999), resident in Jagadishpur reservoir, Kapilvastu District (G6) (Baral 2008a), recorded from Lumbini, Rupandehi District (G7) (Baral 1994a), from Rupatal (H5) (Byrne 2000) and lakes of Pokhara Valley, Kaski District (H5) (Baral 2008b), localities of Nawalparasi District (H6) (Baral 2011a), and from Rampur Valley, Palpa District (H6) (Gautam 2003).

In central Nepal records include from: Trisuli River at Belku, Dhading District (K6) (James and Carter 2001), uncommon resident and breeding in Kathmandu Valley (L6) (Mallalieu 2008), recorded from Saibu and Taudaha of Kathmandu Valley (L6) (Riessen 2007), Hetauda, Makwanpur District (L7) (Giri 2000), Parsa District (K7) (Baral *et al.* 2013), localities of Bara (L7), Rautahat (L7) and Siraha (L7) Districts (Cox 2003), and Panauti and Dhulikhel of Kavrepalanchok District (M6) (Baral 1994b).

In the east records include from: Churiabesi, Tumlingtar, Sankhuwasabha District (Q6) (Chaudhary 1998a), Itahari (Pandey 2003), Patnali, Dharan Forest (Baral 2001) and fairly common resident at Chimdi Lake, Sunsari District (Q8) (Surana *et al.* 2007), Biratnagar, Morang District(Q9) (Baral 1994a), lower Mai valley of Ilam and Jhapa Districts (R8) (Basnet and Sapkota 2006), and various localities in Ilam District (R8) (Baral 2010a).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Anguilla (to UK), Antigua and Barbuda, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Christmas Island (to Australia), Cocos (Keeling) Islands (to Australia), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guadeloupe (to France), Guam (to USA), Guinea, Guinea-Bissau, Guyana, Hong Kong (China), Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Zealand, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Papua New Guinea, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013).

#### **Elevation**

Upper limit: 1525 m; lower limit: 75 m

## **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Little Egret population counts were 631, 616, 559, 387, 405, 469 from 2008 to 2013, respectively (Baral 2013).

In Koshi Tappu Wildlife Reserve, 250 birds were recorded in March 1989 (Bose *et al.* 1989), 300 in December 1991 and January 1992 (Baral 1992), 187 in January 1994 (Choudhary 1994), 151 in December 1996 and 116 in January 1997 (Chaudhary 1997), 302 in February 1998 (Chaudhary 1998b), 121 in February 2002 (Chaudhary 2002), 117 in February 2003 (Chaudhary 2003b), 150 in February 2005 (Baral and Birch 2005), 206 in

December 2007 (Chaudhary 2007), 100 in December 2009 (Giri 2009), 150 on September 2010 (Baral 2010a), and 152 in May 2011 (Baral 2011b).

In Chitwan National Park, 60 birds were recorded in February 1996 (Dhakal 1996), 200 in February 1998 (Chaudhary 1998b), 210 birds were recorded in December 2000 (Chaudhary 2001a), 20 in April 2007 (Byskov 2007), and 73 in the midwinter waterbird count in January 2010 (Khadka 2010)

A total of 30 birds was recorded in between Chitwan and Lumbini in November 2011 (Baral 2011c)

In Bardia National Park, 40 birds were recorded January 1992 (Baral 1992), 10 in January 2001 (Chaudhary 2001b), 21 in January 2003 (Giri 2003), 20 in December 2007 (Baral 2008b).

A total of 50 birds was recorded in between Bardia and Lumbini in December 2007 (Baral 2008b).

In Jagdishpur reservoir, 60 birds were recorded in November 2011 (Baral 2011c).

In Lumbini, 12 birds were recorded in December 2011 (Baral 2011c).

In Pokhara Valley, 25 birds were recorded in March 1989 (Cox et al. 1989), 30 in December 2007 (Baral 2008b), and 28 in February 2010 (Baral 2010b).

In Nawalparasi District, 22 birds were recorded in December 2011 (Baral 2011c).

At Hetauda, Makwanpur District, 45 birds were recorded in December 2003 (Stratford 2004).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Little Egret frequents wet fields, pools and marshes (Inskipp and Inskipp 1991). The species is gregarious when feeding and roosting (Grimmett *et al.* 1998). It roosts on favourite trees, often in association with other species (Ali and Ripley 1987). Little Egret stalks on prey in characteristic heron manner. It feeds on fish, frogs, crustaceans, and aquatic insects (Ali and Ripley 1987).

## Threats

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Little Egret. Post-1990 the species has been recorded from Bardia, Banke, Chitwan and Makalu-Barun National Parks; Annapurna and Gaurishankar Conservation Areas, and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Little Egret has been assessed as Least Concern. It is fairly common and widespread resident below 1525 m. Since 1990 it has been recorded from many protected areas and widely outside the protected areas' system. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. As a result, its population is possibly declining, but to an extent that warrants a threatened category for the species.

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## Ixobrychus cinnamomeus (J. F. Gmelin, 1789) LC

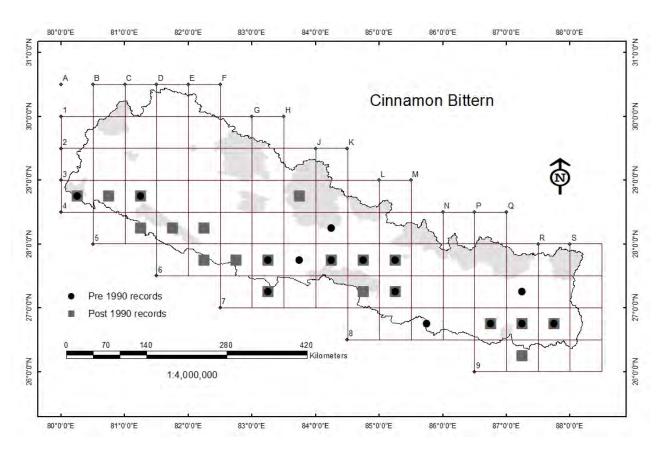
## Common Name

Cinnamon Bittern (English), Rato Junbakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Cinnamon Bittern is a frequent, mainly summer visitor to the terai; however, some birds are resident in Chitwan National Park and Sukla Phanta Wildlife Reserve.

The first Nepal record of the species was in the 19th century by Hodgson, although wrongly listed as Yellow Bittern (Hodgson 1844, Gray and Gray 1846).

Fleming *et al.* (1976) considered the species was an occasional summer visitor. Inskipp and Inskipp (1991) reported the species was occasional and mainly a summer visitor to the lowlands and mapped its distribution from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a frequent breeding resident and summer visitor to Sukla Phanta Wildlife Reserve ((A4)) (Baral and Inskipp 2009), a frequent summer visitor to Bardia National Park (C4, C5) (Inskipp 2001), recorded from Upper Mustang, Annapurna Conservation Area (H4) (Chetri 2004), frequent resident and summer visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay

2006), resident and summer visitor to Parsa Wildlife Reserve (K7) (Todd 2001), and fairly common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005). In Chitwan National Park buffer zone, it has been recorded in Barandabhar Forest and wetlands (Adhikari *et al.* 2000), Bees Hazari Lake and Janakauli Community Forest e.g. in February 2008 (Giri 2008), Chitwan District.

In the west records include: a common summer visitor to Ghodaghodi Lake area (B4), (CSUWN and BCN 2012); Tikapur (C5) in July 2013 (Baral *et al.* 2013), Kailali District; Nepalgunj (D5) (Baral 1994), Banke District; the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), (Thakuri 2009 a,b) Dang District; resident and summer visitor to Jagadishpur reservoir (Baral 2008) and recorded from Khadaraphanta, (F6, G6)) (Acharya 2011) Kapilvastu District; Lumbini, Rupandehi District (G7) (Acharya 2011), and Pokhara Valley, (H5) (Chaudhary 1998a), Kaski District.

In central Nepal records include: from the Bagmati River (L6) (Thakuri and Thapa 2009) and the Rapti River (L7), Makwanpur District (Giri 2000).

In the east records include: from Patnali, Dharan forest (Q8) (Baral 2001) in March 2001 and November 2007 (Baral 2007); a scarce migrant to Chimdi Lake (Q8) (Surana *et al.* 2007); Itahari (P8) (Pandey 2003) Sunsari District; Biratnagar (Q9), (Baral 1994) Morang District; lower Mai valley (R8) (Basnet and Sapkota 2006), and Ilam and Jhapa District (R8) (Baral 2010).

Globally the species has also been recorded from Afghanistan, Bangladesh, Brunei, Cambodia, China (mainland), India, Indonesia, Japan, Laos, Malaysia, Maldives, Micronesia, Federated States of, Myanmar, Oman, Pakistan, Philippines, Seychelles, Singapore, South Korea, Sri Lanka, Taiwan (China), Thailand, Timor-Leste, United Arab Emirates, Vietnam (BirdLife International (2013).

## **Elevation**

Upper limit: 1370 m (- 3715 m); lower limit: 75 m

#### Population

In Koshi Area, six birds were recorded in January 1994 (Choudhary 1994), 11 in August 1996 (Choudhary 1996), seven in March 1997 (Harrap and Basnet 1997), six in April 1998 (Chaudhary 1998b), four in February 1999 (Choudhary 1999), three in May 2000 (Giri 2000), four in April 2001 (Inskipp and Inskipp 2001), one in February 2002 (Arlow 2002), and one in November 2007 (Baral 2007).

In Chitwan National Park, eight birds were recorded in September 1992 (Baral 1993), four in August 1997 (Baral 1997), two in February 2007 (Baral 2007), and one in February 2009 (Baral 2009).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Cinnamon Bittern frequents paddy-field and reed-beds (Inskipp and Inskipp 1991). It is solitary and most active at dusk, usually spending the day concealed in thick waterside vegetation. However, it may be seen in the daytime in cloudy conditions (Grimmett *et al.* 1998). The species forages by creeping through dense vegetation or by standing and waiting at the edges of cover. If disturbed it often freezes with head and bill pointing vertically skywards (Grimmett *et al.* 1998). It feeds on fish, frogs, molluscs, and insects (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Cinnamon Bittern. Post-1990 the species has been recorded from Bardia and Chitwan National Parks; Annapurna Conservation Area and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern

## Rationale for the Red List Assessment

Cinnamon Bittern has been assessed as Least Concern. It is frequent, mainly a summer visitor, although some birds are resident. It breeds in some lowland protected areas. Since 1990 there has been no indication of a decline in population or contraction of range compared to pre 1990. The species has been recorded from a few additional localities probably because of better coverage. Habitat loss and degradation, illegal hunting and possibly the use of agro-chemicals are threats to this species. As a result, its population may be declining, but not to the extent that warrants a threatened category for the species.

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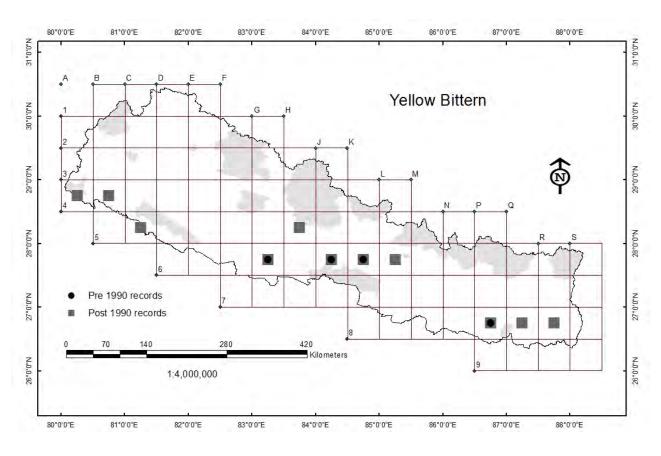
## Ixobrychus sinensis (Gmelin, 1789) LC

<u>Common Name</u> Yellow Bittern (English), Pahelo Junbakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Yellow Bittern is local and uncommon, mainly a summer visitor, with a few winter records. The species was previously found up to 250 m, but in June 2015 for the first time four pairs were recorded at significantly higher altitude, 900 m (Manshanta Ghimire). It is possible the species has moved to breed at a higher altitude as a result of climate change.

The first Nepal record of the species was in 1975 at Koshi Barrage (Gregory-Smith and Batson 1976).

Fleming *et al.* (1976) described the species as a scarce summer visitor to Nepal. Inskipp and Inskipp (1991) noted the species was a local summer visitor, mainly reported from May to October with a few records between mid-February and April. Gurung (1983) considered the bird an uncommon breeding visitor to Chitwan.

Post-1990 the species' status in protected areas is: a frequent breeding resident and summer visitor to Sukla Phanta Wildlife Reserve [A4] (Baral and Inskipp 2009), a rare summer visitor to Bardia National Park [C5] (Inskipp 2001), uncommon summer visitor to Chitwan National Park [J6, K6] (Baral and Upadhyay 2006), and a

fairly common breeding resident in Koshi Area [P8, Q8] (Baral 2005).

Since 1990 outside the protected areas' system, records include: a frequent summer visitor to Ghodaghodi Lake area, Kailali District [B4] (CSUWN and BCN 2012) and resident and summer visitor to Jagadishpur reservoir, Kapilvastu District [G6] (Baral 2008). In June 2015 the species was recorded in the Pokhara valley (H5) for the first time and at higher altitudes than previously recorded (Manshanta Ghimire).

Globally the species has also been recorded from Australia, Bangladesh, Brunei, Cambodia, China (mainland), Christmas Island (to Australia), Guam (to USA), India, Indonesia, Japan, Laos, Malaysia, Maldives, Micronesia, Federated States of, Myanmar, North Korea, Northern Mariana Islands (to USA), Oman, Pakistan, Palau, Papua New Guinea, Philippines, Russia (Asian), Seychelles, Singapore, Solomon Islands, South Korea, Sri Lanka, Taiwan (China), Thailand, Timor-Leste, USA, Vietnam, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

#### Elevation

Upper limit: 915 m; lower limit: 75 m

#### **Population**

No population survey has been carried out for Yellow Bittern.

In Koshi area, eight birds were recorded in August 1996 (Choudhary 1996), four in April 1998 (Chaudhary 1998), seven in May 2000 (Giri 2000), three in February 2003 (Baral 2003), one in April 2008 (Chaudhary 2008), one in February 2009 (Baral 2009), and one in March 2011 (Birdfinders 2011).

In Pokhara valley four pairs were seen in June 2015 (Manshanta Ghimire).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Yellow Bittern frequents reed beds and marshes. The bird is mainly crepuscular and nocturnal (Inskipp and Inskipp 1991). Usually it is solitary and most active at dusk. Typically, it spends the day concealed in thick waterside vegetation, but may be seen in the daytime in cloudy conditions (Grimmett *et al.* 1998). It forages by creeping through dense vegetation or by standing and waiting at the edges of cover. If disturbed it often freezes with head and bill pointing vertically skywards (Grimmett *et al.* 1998). Yellow Bittern feeds on fish, frogs, molluscs, insects, etc. (Ali and Ripley 1987). Four pairs including three birds carrying nesting material were recorded in Pokhara valley at the unusually high altitude of 900 m in June 2015, and so were possibly breeding there (Manshanta Ghimire 2015).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Yellow Bittern. Post-1990 the species has been recorded from Bardia and Chitwan National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Threat status: Least Concern (LC)

#### Rationale for the Red List Assessment

Yellow Bittern has been assessed as Least Concern. The species is local and uncommon, mainly a summer visitor, with few records during winter. Since 1990 it has been recorded in a few protected areas and at a few localities outside the protected areas' system. It has been recorded at a few additional sites, probably partly because of better coverage. Until recently the species was found up to 250 m but, in June 2015 for the first time, four pairs were recorded at a significantly higher altitude, 900 m, in the Pokhara valley and were possibly breeding. It may be that the species has moved to a higher altitude to breed as a result of climate change. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. The current population trend is unknown.

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## Mesophoyx intermedia (Wagler, 1829) LC

Subspecies: Mesophoyx intermedia intermedia

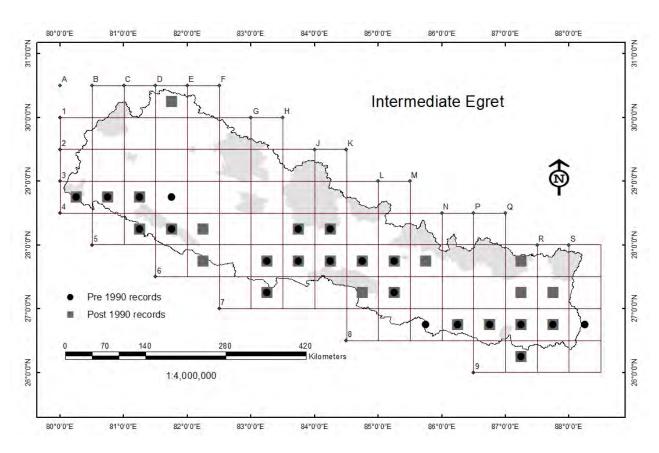
#### Common Name

Intermediate Egret (English), Majhaulaa Seto Bakulla (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Intermediate Egret is mainly a resident and is widespread below 915m. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the Mai valley (Robson *et al.* 2008) in the far east.

The first definite Nepal record of the species was a specimen taken at Chitwan in August 1964 (Fleming and Traylor 1968).

Fleming *et al.* (1976) considered the species an occasional resident. Inskipp and Inskipp (1991) reported the species was mainly a resident and occasionally seen up to 915m and mapped its distribution in the lowlands from the far west to the far east.

The species was recorded at the unusually high altitude of 4696 m between Simikot and Chyakpalung (D1), Humla District in May-June 2013, which is probably the highest record of the species in the world (Ghimirey and Acharya 2013).

The species' status in the protected areas' system post-1990 is: a fairly common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a frequent resident in Bardia National Park (C4, C5) (Inskipp 2001); recorded in Banke National Park (D5) (Baral *et al.* 2012); a fairly common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a common resident in Parsa Wildlife Reserve (K7) (Todd 2001), and a common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005). In Chitwan National Park buffer zone, it has been recorded in Barandabhar Forest and wetlands (Adhikari *et al.* 2000, Ghimire 2009), Chitwan District, and in Tharu Cultural Village Resort, Nawalparasi District in December 2011 (Baral 2011a). In Bardia National Park buffer zone it was recorded in the Khata Corridor (C5) (Chaudhari 2007).

Intermediate Egret has been recorded widely outside the protected areas' system since 1990. Post-1990 records outside the protected areas' system follow.

In the west records include: frequent in the Mohana River corridor (B4) (Chaudhary 2012), and a common resident in Ghodaghodi Lake Area (B4) (CSUWN and BCN 2012), Kailali District; recorded at Badhaiya Lake (C5) (Bhuju *et al.* 2007), Bardia District; between Simikot and Chyakpalung (D1), Humla District in May- June 2013 (Ghimirey and Acharya 2013); Nepalgunj (D5), Banke District in December 1998 (Choudhary 1999); the Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); Sagarhawa Lake (G6) in April 1993 (Baral 1994) and a resident in Jagadishpur Reservoir (G6) (Baral 2008), Kapilvastu District; Gaidahawa Lake (G6) in February 2011 (Baral 2011b) and Lumbini (G7) in December 2011 (Baral 2011a), Rupandehi District; Rupa Lake (J5) (Kafle *et al.* 2008), and Phewa Lake (H5) in December 2011 (Read and Brennan 2012), Kaski District.

In central Nepal records include: rare, mainly in winter in Kathmandu Valley (L6) (Mallalieu 2008), recorded from Bagmati and Taudaha of Kathmandu Valley (L6) (Riessen 2007); Hetauda (L7) in January 2001 (Hofland 2001), and an uncommon visitor to Chitlang Forest (L7) (Manandhar *et al.* 1992), Makwanpur District.

In the east records include: from Lahan (N8), Siraha District in January 2001 (Hofland 2001); Trijuga River (P8), Udaypur District in January 1994 (Choudhary 1994); between Tumlingtar and Chewabesi (Q7), Sankhuwasabha District in November 1994 (Buckton and Baral 1995); Itahari (Q8) (Panday 2003), a resident at Chimdi Lake (Q8) (Surana *et al.* 2007), Dharan Forest (Q8) (Basnet and Sapkota 2008), Sunsari District; a common resident in Biratnagar (Q9), Morang District (Jha and Subba 2012), between Biring Khola to Prajhapate (R8), Jhapa District in November 1992 (Cox 1992); lower Mai Valley (R8) (Robson *et al.* 2008), and Ilam (R8), Ilam District in September 2010 (Baral 2010).

Globally the species has also been recorded from Angola, Australia, Bangladesh, Benin, Bhutan, Botswana, Brunei, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Christmas Island (to Australia), Congo, Congo, The Democratic Republic of the, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guam (to USA), Guinea, Guinea-Bissau, India, Indonesia, Japan, Jordan, Kenya, Laos, Lesotho, Liberia, Malawi, Malaysia, Maldives, Mali, Mauritania, Micronesia, Federated States of, Mozambique, Myanmar, Namibia, New Zealand, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Oman, Pakistan, Palau, Papua New Guinea, Philippines, Russia (Asian), Rwanda, Senegal, Seychelles, Sierra Leone, Singapore, Somalia, South Africa, South Korea, South Sudan, Sri Lanka, Sudan, Swaziland, Taiwan (China), Tanzania, Thailand, Timor-Leste, Uganda, United Arab Emirates, USA, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013).

#### Elevation

Upper limit: 915 m (- 4696 m); lower limit: 75 m

## **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Intermediate Egret population counts were 263,214, 256, 227, 203, 224 from 2008 to 2013 respectively (Baral 2013).

In Koshi Tappu Wildlife Reserve, 300 birds were recorded in December 1991 (Baral 1992), 132 in December 1992 (Baral 1993), 82 in August 1996 (Choudhary 1996)a, 140 in February 1998 (Chaudhary 1998), 35 in February 1999 (Choudhary 1999), 60 in December 2001 (Baral and Parr 2001), 96 in February 2002 (Chaudhary 2002), 150 in February 2003 (Chaudhary 2003), 200 in November 2004 (Baral and Chaudhary 2004), 200 in March 2005 (van der Dol 2005), 50 in February 2007 (Baral 2007a), 55 in December 2008 (Chaudhary 2008), 51

in January 2009 (Acharya 2009), 200 in September 2010 (Baral 2010) and 38 in February 2011 (Baral 2011c).

In Chitwan National Park, a waterbird survey counted 94 birds along the Rapti River and 46 along the Narayani River in December 1982 (Halliday 1982). A later survey recorded 123 birds along the Narayani River in December 1996 (Dhakal 1996). Other counts in the park included 71 in February 1999 (Choudhary 1999), 150 in November 2004 (Baral and Chaudhary 2004), 40 in February 2007 (Baral 2007b) and 40 in December 2010 (Baral 2011a). The midwinter waterbird count recorded 37 birds in January 2005 (Khadka 2005), 32 in January 2010 (Khadka 2010), 48 in February 2011 (Khadka 2012) and 34 in February 2012 (Khadka 2013).

In Phewa Lake, 40 birds were recorded in March 2009 (Harrap and Karki 2009).

In Jagadishpur Reservoir, 29 birds were recorded in March 2006 (Baral 2008), 35 in December 2010 (Baral 2011b) and 40 in December 2011 (Baral 2011a).

A total of 3237 nests were recorded in August 1996 at Koshi Tappu Wildlife Reserve (Choudhary 1996b).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Intermediate Egret frequents wet fields, pools and marshes (Inskipp and Inskipp 1991). It is a typical diurnal heron. It roosts communally (Grimmett *et al.* 1998). The species feeds on fish, frogs, crustaceans, water insects etc. (Ali and Ripley 1987). It is colonial when breeding, and in mixed heronries with other egrets and herons. (Ali and Ripley 1987). Breeding of the species has been proved at Chitwan (Gurung 1983).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Intermediate Egret. Post-1990 the species has been recorded from Bardia, Banke and Chitwan National Parks, and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Intermediate Egret has been assessed as Least Concern. The species is mainly a resident and is widespread below 915 m from the far west to the far east. Since 1990 it has been recorded in all lowland protected areas and widely outside the protected areas' system. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. The population has declined in Chitwan National Park and Koshi Tappu. No evidence was found of a decline elsewhere. The species is probably declining in Nepal but not to an extent that warrants a threatened status for the species. There is no indication of a contraction of range post-1990 compared to pre-1990.

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## Nycticorax nycticorax (Linnaeus, 1758) LC

Subspecies: Nycticorax nycticorax nycticorax

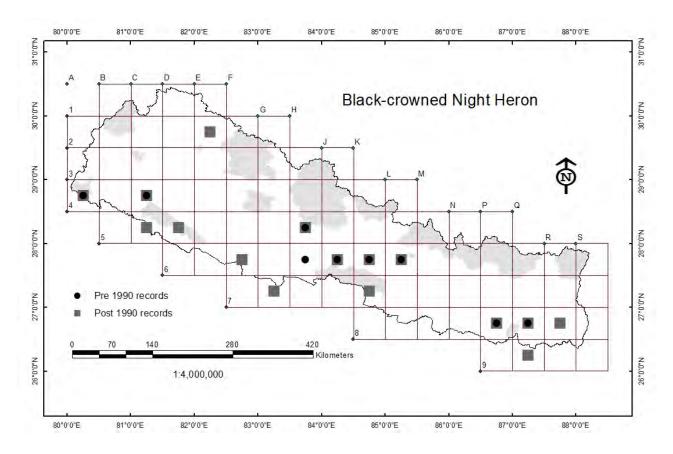
#### Common Name

Black-crowned Night Heron (English), Baanke Bakullaa (Nepali)

Order: Ciconiiformes Family: Ardeidae



## **Distribution**



Black-crowned Night Heron is fairly common, mainly a resident and partly a summer visitor to the lowlands and the midhills. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the Koshi Tappu Wildlife Reserve (Baral 2005) in the far east.

The first Nepal record of the bird was in the 19th century (Hodgson 1844).

Fleming *et al.* (1976) considered the species an occasional summer visitor. Inskipp and Inskipp (1991) reported the species as locally common at Koshi, Chitwan and in the Kathmandu valley and mapped its distribution in several localities from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a frequent breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); an uncommon resident and summer visitor to Bardia National Park (C4, C5) (Inskipp 2001); a frequent summer visitor to Rara National Park (E2) (Giri 2005); a fairly common resident and summer visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a summer visitor to

Parsa Wildlife Reserve (K7) (Todd 2001); recorded at Shivapuri (L6) in July 1992 (Baral 1993) and Nagarjun Forest (L6) in May 1996 (Baral 1996) of Shivapuri-Nagarjun National Park and a common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005).

In Chitwan National Park buffer zone it has been recorded at Bees Hazari Lake and Janakauli Forest, e.g. in March 2010 (Giri 2010), Chitwan District, Gundre Khola in November 2007 (Baral 2007), Tharu Cultural Village Resort in December 2011 (Baral 2011a), Nawalparasi District. It has been recorded in Bardia National Park buffer zone at Chisapani (C4), Bardia District in March 1997 (Giri 1997).

Black-crowned Night Heron has been recorded less widely outside the protected areas' system since 1990. Post-1990 records outside the protected areas' system follow.

In the west records include: from Tikapur (C5), Kailali District in July 2013 (Baral *et al.* 2013); Nepalgunj (D5), Banke District in March 1992 (Priemé 1992); Phewa Lake (H5), Kaski District in November 2010 (Adcock and Naylor 2011); Lumbini (G7), Rupandehi District in April 1993 (Baral 1994), and Khadara Phanta (F6), Kapilvastu District in January 2006 (Mallalieu 2007).

In central Nepal records include: from Bharatpur (J6), Chitwan District in February 2002 (Arlow 2002); fairly common breeding resident in Kathmandu Valley (L6) (Mallalieu 2008), and recorded along the Bagmati River Corridor (L6) (Thakuri and Thapa 2009).

In the east records include: an occasionally recorded as migrant in Chimdi Lake (Q8) (Surana *et al.* 2007), recorded from Itahari (R8) (Pandey 2003), Patnali Forest (Q8) in April 2011 (Baral 2011b), Sunsari District, and a common resident in Biratnagar (Q9), Morang District (Jha and Subba 2012).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Anguilla (to UK), Antigua and Barbuda, Argentina, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda (to UK), Bhutan, Bolivia, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, Chile, China (mainland), Cocos (Keeling) Islands (to Australia), Colombia, Comoros, Congo, Congo, The Democratic Republic of the, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Falkland Islands (Malvinas), Faroe Islands (to Denmark), Finland, France, French Guiana, French Southern Territories, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Greenland (to Denmark), Grenada, Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Mayotte (to France), Mexico, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Somalia, South Africa, South Georgia & the South Sandwich Islands, South Korea, South Sudan, Spain, Sri Lanka, St Helena (to UK), St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miguelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, Ukraine, United Arab Emirates, United Kingdom, Uruguay, USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

## **Elevation**

Upper limit: 1370 m; lower limit: 75 m

#### **Population**

No population survey has been carried out for Black-crowned Night Heron. However, records show its population is decreasing.

In Koshi Tappu Wildlife Reserve, 6,000 birds were recorded in October 1993 (Choudhary 1994), 719 in August 1996 (Choudhary 1996a), 316 in April 1997 (Chaudhary 1997), 211 in April 1998 (Chaudhary 1998), 200 in October 2000 (Baral 2000), 500 in November 2007 (Baral 2007), 500 in September 2010 (Baral 2010) and 400 in October 2011 (Baral 2011c).

At a breeding colony of Khairbana, Koshi Tappu Wildlife Reserve, 4500 birds were recorded in October 1993 (Baral 1996).

In Chitwan National Park, 200 birds were recorded in February 1991 (Baral 1993), 200 in March 1992 (Baral 1992), 502 in March 1996 (Baral 1995/1996), 200 in February 2005 (Anon. 2005), 400 in December 2010 (Baral 2011d). Similarly, the midwinter waterbird count in Chitwan National Park recorded 590 birds between 13 and 18 January 2005 (Khadka 2005), 265 between 18 and 23 January 2010 (Khadka 2010), 102 between 4 and 9 February 2011 (Khadka 2012) and 30 between 4 and 9 February 2012 (Khadka 2013). In Nawalparasi, 450 birds were noted in December 2011 from Tharu Cultural Village Resort (Baral 2011a).

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Black-crowned Night Heron is gregarious, crepuscular and nocturnal except in the breeding season (December to September). Typically, it sits sluggishly in a hunched posture in dense foliage trees during the daytime and is often seen in dusk, flying and foraging singly or sometimes in loose groups (Ali and Ripley 1987, Grimmett *et al.* 1998). Except when foraging to feed its young, it feeds in the morning and evening twilight and during the night (Ali and Ripley 1987). The species occurs on ponds, lakes and reedy pools (Inskipp and Inskipp 1991). Large numbers of breeding birds were found at Koshi Tappu Wildlife Reserve in 1996 (Choudhary 1996b) and breeding has been confirmed also in Chitwan and Kathmandu Valley (Gurung 1983, Hodgson 1829, Mills and Preston 1981). It feeds on fish, frogs, aquatic insects, dragonfly larvae etc. (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### Conservation Measures

No specific conservation measures have been carried out for Black-crowned Night Heron. It has been recorded from Bardia, Rara, Chitwan and Shivapuri-Nagarjun National Parks and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Black-crowned Night Heron has been assessed as Least Concern. The species is fairly common, mainly a resident and partly a summer visitor to the lowlands and the midhills. It has been recorded from the far west to the far east and from a number of protected areas in the lowlands. It has also been recorded quite widely outside the protected areas' system within its altitudinal range and in suitable habitat. There has been no

significant change in distribution post-1990 compared to pre-1990. Habitat loss and degradation, illegal hunting, disturbance and possibly the use of agro-chemicals are threats to this species. There is evidence of a decreasing trend in population, but not to an extent that warrants a threatened category for the species.

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## Pseudibis papillosa (Temminck, 1824) LC

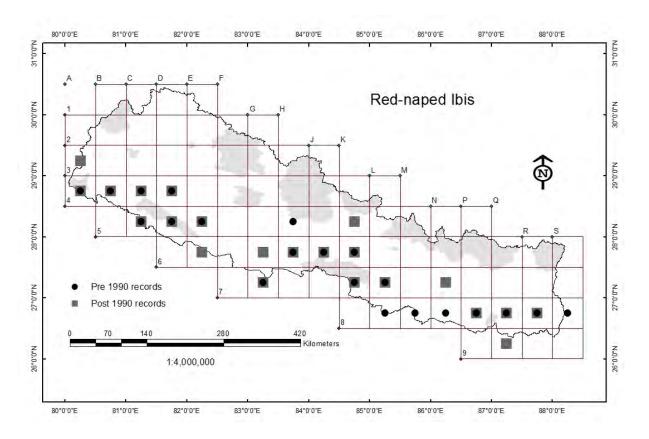
#### Common Name

Red-naped Ibis (English), Karraa Saawari (Nepali)

Order: Ciconiiformes Family: Threskiornithidae



## **Distribution**



Red-naped Ibis is a fairly common and widespread resident. Post 1990, it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the Mai valley (Basnet and Sapkota 2008, Robson *et al.* 2008) in the far east.

The first Nepal record of the bird was in the 19th century (Hodgson 1844).

Fleming at al. (1976) considered the species an occasional resident. Inskipp and Inskipp (1991) reported the species as a breeding resident, largely found up to 275m and mapped its distribution in the lowlands from the far west to the far east.

There has been no significant change in distribution post-1990 compared to pre-1990.

The species' status in the protected areas' system post-1990 is: a fairly common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a frequent resident in Bardia National Park (C4, C5)

(Inskipp 2001); recorded in Banke National Park (D5) (Baral *at al.* 2012); a fairly common resident in Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a resident in Parsa Wildlife Reserve (K7) (Todd 2001) and a fairly common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005a). In Chitwan National Park buffer zone, the species has been recorded at Barandabhar Forest and wetlands (Adhikari *at al.* 2000, Ghimire 2009), Janakauli Forest and Bees Hazari Lake, e.g. in February 2008 (Giri 2008), Sauraha e.g. in January 2012 (Dymond 2012), Chitwan District and Tharu Cultural Village Resort, Nawalparasi District, e.g. in February 2011 (Baral 2011b).

Red-naped Ibis has also been recorded widely outside the protected areas' system since 1990, in suitable habitat and within its altitudinal range, see map and text below. Post-1990 records outside the protected areas' system follow

In the west records include: from Mahendranagar (A4), Kanchanpur District in January 2012 (Dymond 2012); an occasionally recorded resident at Mohana River Corridor (B4) (Chaudhary 2012), a fairly common resident in Ghodaghodi Lake Area (B4) (CSUWN and BCN 2012), Mudha bazaar (B4) in March 1992 (Baral 1992) and Tikapur (C5) in July 2013 (Baral *et al.* 2013a), Kailali District; Chisapani gorge (C4) in March 1992 (Baral 1992), Khata Corridor (C5) (Chaudhari 2007), Bardia District; Rawtkot (D4), Dailekh District in March 1997 (Giri 1997); Nepalgunj (D5), Banke District in December 1998 (Choudhary 1999); Dang Deukhuri foothill forest and west Rapti wetlands (E5, E6), Dang District (Thakuri 2009a,b); Sagarhawa Lake (G6) (Baral 1994), resident in Jagdishpur Reservoir (G6) (Baral 2008a), Kapilvastu District; Jignihawa Lake (G7) (Aryal 2004), Gaidahawa Lake (G6) in February 2011 (Baral 2011b), Lumbini (G7) in January 2011 (Acharya 2011), Rupandehi District; Rampur Valley (H6), Palpa District (Gautam 2003), and Budhigandaki River (K5), Gorkha District in February 2008 (Giri 2008).

In central Nepal records include: from Tandi (J6) in June 1994 (Baral 1996a), Bharatpur (J6) in March 1994 (Zerning and Braasch 1995), Chitwan District; Hetauda, Makwanpur District [L7] (Giri 2000); Adarsha Community and National Forest (L7), Rautahat District in September 2013 (Baral *et al.* 2013b), and Pakarbas (N7), Ramechhap District in April 2012 (Phuyal 2012).

In the east records include: a frequent resident at Chimdi Lake (Q8) (Surana *et al.* 2007) and recorded from Patnali (Q8) in May 2011 (Baral 2011e), Dharan Forest (Q8) (Baral and Sapkota 2008), Itahari (R8) (Pandey 2003), Sunsari District; a common resident at Betana Pond (Q8) (Niroula *et al.* 2010), a common resident in Biratnagar (Q9) (Jha and Subba 2012), Morang District, and the lower Mai valley (R8) (Basnet and Sapkota 2008, Robson *et al.* 2008).

Globally the species has also been recorded from Bangladesh, China (mainland), India, Myanmar and Pakistan (BirdLife International 2013).

#### **Elevation**

Upper limit: 275 m (- 915 m); lower limit: 75 m

## Population

During the midwinter waterbird count globally coordinated by Wetlands International, the Red-naped Ibis Nepal population counts were 332, 432, 192, 322, 254, 372 from 2008 to 2013, respectively (Baral 2013).

Post-1990, a total of 110 birds was counted on 16 December 1992 (Baral 1993) and 183 on 3 and 4 January 1994 (Choudhary 1995) at Koshi Tappu Wildlife Reserve. A total of 101 birds was counted on 5 January 1992 at Bardia National Park (Baral 1992).

The midwinter waterbird count at Chitwan recorded 74 between 13 and 18 July 2005 (Khadka 2005), 84 between 18 and 23 January 2010 (Khadka 2010), 188 between 4 and 9 February 2011 (Khadka 2012) and 83 between 4 and 9 February 2012 (Khadka 2013).

The population of the species seems stable from midwinter waterbird counts, but this may be due to better coverage; however, when numbers of birds at some individual sites are considered, the species appears to be declining.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Red-naped Ibis inhabits drying edges of river banks and open fields, dry cultivation and near rubbish dumps in towns and villages (Inskipp and Inskipp 1991, Grimmett *et al.* 1998). The species is usually found in small parties of up to ten birds (Grimmett *et al.* 1998). It eats mainly on frogs, small fish, earthworms, beetles and other insects (Ali and Ripley 1987).

#### **Threats**

Habitat loss and degradation, illegal hunting, disturbance, and possibly the use of agro-chemicals are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Red-naped Ibis. It has been recorded in Bardia, Banke, Chitwan National Parks and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Red-naped Ibis has been assessed as Least Concern. The species is a fairly common and widespread resident recorded from the far west to the far east. It has been recorded from all lowland protected areas and also widely outside the protected areas' system in suitable habitat and within the species' altitudinal range. There has been no significant change in distribution post-1990 compared to pre-1990. However, numbers at some individual sites are declining. The species is threatened by habitat loss and degradation, illegal hunting, disturbance and possibly use of agro-chemicals. As a result, its population is probably declining, but not to the extent that it qualifies for a threatened category.

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# **Pelecaniformes**



**Great Cormorant** *Phalacrocorax carbo* **Raj Man Singh / Brian Hodgson** 

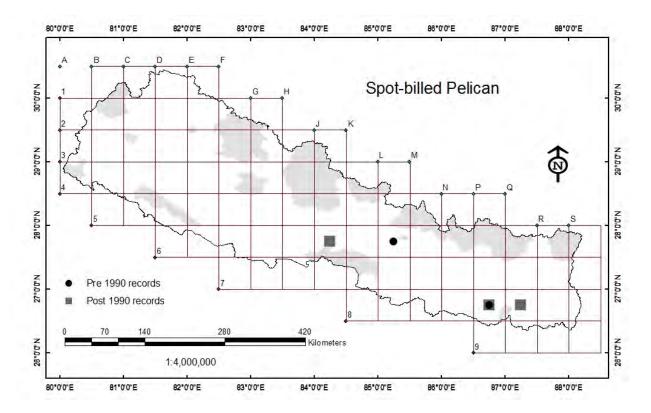
## Pelecanus philippensis J. F. Gmelin, 1789 CR

Common Name
Spot-billed Pelican (English),
Ghaunke Hawasil (Nepali)

Order: Pelecaniformes Family: Pelecanidae



## **Distribution**



Spot-billed Pelican is a rare and irregular non-breeding visitor. Since the 19th century, when one was collected from the Kathmandu Valley in April (year unknown) (Hodgson 1829; 1844), almost all records have been from Koshi Barrage and Koshi Tappu Wildlife Reserve in the south-east terai.

In the 1970s and 1980s at Koshi the species was a very uncommon, but regular non-breeding visitor, mainly from February to May, although stragglers sometimes remained until October; up to 12 were seen together (Inskipp and Inskipp 1991). Spot-billed Pelican was less frequent in the 1990s, although the exceptionally high number of 120 was seen in March 1996 (Giri and Choudhary 1996).

Known 1990s records from Koshi include: one in September 1992 (Baral 1992), five in February 1993 (Lama 1993), one in June 1993 (Baral 1993), two in January 1995 (Choudhary 1995), five in March 1996 (Daulne and Goblet 1996), and three in February 1998 (Prince 1998).

Since 2000 Spot-billed Pelican has been recorded in smaller numbers than previously. At Koshi maximum numbers in each year were: four in April 2001 (Inskipp and Inskipp 2001), one in February 2002 (Malling Olsen 2004), four in March 2005 (Subedi 2010), two in May 2005 (GC 2010), one in May 2006 (GC 2010), one in

February 2007 (Choudhary 2007), one in May 2007 (GC 2010), one in May 2008 (Giri 2008) and one in March 2010 (Baral 2010).

The only known record from elsewhere was one sighted in Patana lake, Chitwan National Park in March 2005 ( Hem Subedi and Tulasi Raut).

Globally the species has also been recorded from Bangladesh, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, South Korea, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

#### **Elevation**

Upper limit: 150 m; lower limit: 75 m

#### **Population**

No population surveys have been carried out for the species, but direct observations have been and continue to be made frequently in the only area where it is known to occur (Koshi Barrage and Koshi Tappu Wildlife Reserve). These observations indicate that the species has declined from up to 12 birds in the 1980s to mainly records of individuals since 2000.

#### **Total Population Size**

Minimum population: 2; maximum population: 10

#### Habitat and Ecology

Spot-billed Pelican inhabits large expanses of water on the Koshi river in Nepal (Fleming *et al.* 1976; Inskipp and Inskipp 1991), where it feeds on fish. It is a local migrant (Grimmett *et al.* 1998).

#### **Threats**

Spot-billed pelican is seriously threatened by food shortages (illegal fishing inside protected areas and over-fishing outside protected areas), illegal hunting and disturbance.

## **Conservation Measures**

No conservation measures have been carried out specifically for Spot-billed Pelican. Some records have been in Koshi Tappu Wildlife Reserve, but all other sightings have been in the Koshi Barrage area which is unprotected, except for one recent sighting of a single bird from Chitwan National Park.

## **Regional IUCN Status**

Critically Endangered (CR C2a(i) D1) upgraded from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Spot-billed Pelican has been assessed as Critically Endangered based on the criteria C2a(i) and D1. The species is a rare and irregular non-breeding visitor, with almost all records from Koshi Barrage and Koshi Tappu Wildlife Reserve. It has an extremely small population, which has declined from up to 12 birds in the1980s to records of mainly single individuals since 2000. The species is seriously threatened by a combination of food shortage (illegal fishing inside protected areas and over-fishing outside protected areas), illegal hunting and disturbance.

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## Anhinga melanogaster Pennant, 1769 NT

Subspecies: Anhinga melanogaster melanogaster

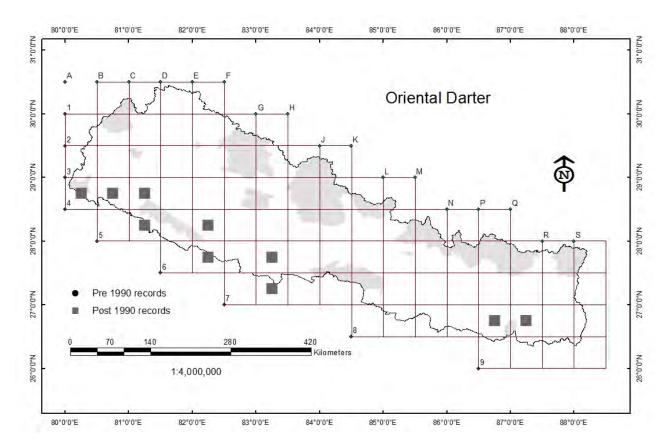
Common Name

Oriental Darter (English), Suiro Thunde (Nepali)

Order: Pelecaniformes Family: Anhingidae



## $\underline{\text{Distribution}}$



Oriental Darter is a local breeding resident and visitor that occurs from the western to eastern lowlands.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

The first record at Koshi was one seen at the Barrage in April 1975 (Gregory-Smith and Batson 1976). The species has been regularly and frequently recorded at Koshi Barrage and Koshi Tappu since (see Population section). Baral (2005) described it as a fairly common breeding resident.

Gurung (1983) reported Oriental Darter was common in Chitwan National Park and that breeding was confirmed there, while Baral and Upadhyay (2006) described the species as fairly common in the park. It has been regularly and frequently recorded in the park buffer zone, e.g. at Bees Hazari Tal (see Population section) and in Nawalparasi District (Baral 2011b) .

Oriental Darter was first recorded in Bardia National Park in 1979 (Dinerstein 1979); chiefly small numbers have been seen since (see Population section).

The species was described as a fairly common resident in Sukla Phanta Wildlife Reserve by Schaaf *et al.* (1980). However, mainly small numbers have been recorded in later years (see Population section).

There are a number of records outside protected areas since 1990.

In the west records include: three on Sakayal Gaad, a tributary of Seti River, Dadeldhura District in 2010 (Karan Shah); less than ten seen regularly Kalikich Tal, Kanchanpur District (Suchit Basnet); three at Geta, Dhanghadi, Kailali District in March 1992 (Baral 1992); recorded at Ghodaghodi Tal, Kailali District, e.g. in March 1992 (Baral 1992), January 2010 (Baral 2010a), and January 2011 (Baral 2011a); 2-3 on Rapti River, Dang District winter 2010-2013 (Dinesh Giri); Jagdishpur Reservoir, Kapilvastu District, e.g. in January 2006 (Baral 2008), January 2009 (Giri 2010) and December 2010 (Baral 2011a).

In central Nepal records include: five in Triveni, Nawalparasi District in 2012 (Dinesh Giri); 1-2 near Khageri River in Padampur, Chitwan District, 2011-2013 (Dinesh Giri); 2-3 at Jhuwani, Chitwan District (Dinesh Giri); recorded at Chepang Tal, Chitwan District (BES), and one Taudaha Lake, Kathmandu Valley in September 2005 (Mallalieu 2008, van Riessen 2010).

In the east records include: two at Biratnager, Morang District in September 1994 (Baral 1994), one between Karkavitta and Koshi Barrage in April 2003 (Baral and Chaudhary 2003); one in Chimdi Tal, Sunsari District in January 2013 (Himalayan Nature/KBS), and one at Ilam, Ilam District in February 2010 (Baral 2010b).

Globally the species has also been recorded in Bangladesh, India, Myanmar, Pakistan, Sri Lanka and South-East Asia (BCN and DNPWC 2011).

#### **Elevation**

Upper limit: 300 m (- 1370 m); lower limit: 75 m

## **Population**

Numbers of Oriental Darter have been monitored as part of the Annual Midwinter Waterfowl Counts in January. Available total numbers for Nepal are: 33 in 2008 (Anon. 2008), 38 in 2009 (Anon. 2009), 97 in 2010 (Anon. 2010) and 76 in 2011 (Anon 2011). The maximum numbers recorded each year are listed below for the Koshi Barrage and Koshi Tappu Wildlife Reserve Important Bird Area, Chitwan National Park (with the Bees Hazari Tal in Barandabhar Important Bird Area listed separately), Bardia National Park and Sukla Phanta Wildlife Reserve. No general trends in numbers are indicated at any of the sites.

At Koshi Barrage and in Koshi Tappu Wildlife Reserve the maximum recorded in all years was 40 birds in May 2008 (Giri 2008a) and 40 in February 2009 (Baral 2009). In other years four birds were seen in April 1981 (Mills and Preston 1981), ten in May 1982 (Robson 1982), ten in April 1983 (Alström and Olsson 1983), 18 in February 1984 (Hornskov 1984), ten in November 1992 (Murphy and Waller 1992), nine in October 1993 (Baral 1993), eight in January 1994 (Choudhary 1994), 17 in September 1996 (Giri 1996), six in November 1997 (Chaudhary 1998), 12 in December 1998 (Chaudhary 1999), 11 in February 1999 (Chaudhary 1999), 20 in October 2000 (Baral 2000), ten in March 2001 (Baral and GC 2001), 29 in November 2002 (Cottridge and Tiwari 2002), nine in February 2003 (Chaudhary 2003), five in February 2007 (Baral 2007), seven at Titrigaachi in February 2010 (Baral 2010a), 12 in September 2010 (Baral 2010b) and ten in January 2011 (Baral 2011a). A total of 21 nests was counted at a heronry in Koshi Tappu Wildlife Reserve in August 1996; these included 18 nests with chicks (Choudhary 1996).

In Chitwan National Park the maximum recorded in all years was 14 in April 1992 (Baral 1992). In other years 12 birds were seen in February 1989 (Kennerley and Turnbull 1989), five in January 1996 (Baral 1996b), nine in January 1997 (Chaudhary 1997), five in December 1998 (Chaudhary 1999), four in February 1999 (Chaudhary 1999), three in January 2001 (Chaudhary 2001b), six in January 2003 (Giri 2003), eight in February 2005 (Giri 2005) five in March 2007 (Chaudhary 2010), ten in February 2008 (Giri 2008b), six in February 2009 (Baral 2009), six in March 2010 (Giri 2010), and eight in November 2011 (Baral 2011b). Breeding has been proved in the park: six nests with 13 chicks at Buddhirapti, Sukibhar area in August 2015 (Ashik Gurung). In addition five were seen at Lami Tal in Chitwan National Park in January 1995 (Anon. 1995) and two there in December 1998 (Anon. 1998). Two were also recorded on the Narayani River in the park in January 2000 (Anon. 2000), two there in January 2001 (Anon. 2001) and eight in January 2002 (Anon. 2002). Ten were seen in the park buffer

zone, Nawalparasi District in December 2011 (Baral 2011b).

Bees Hazari Tal Chitwan National Park buffer zone has been monitored annually in January as part of the Annual Midwinter Waterfowl count. The maximum recorded in all years was 47 in January 2010 (Anon. 2010). In other years nine birds were seen in 1989 (Anon. 1989), 12 in 1994 (Anon. 1994), 12 in 1995 (Anon. 1995), six in 1998 (Anon. 1998), six in 2003 (Anon. 2003), three in 2006 (Anon. 2006), three in 2008 (Anon. 2008), one in 2009 (Anon. 2009), and 24 in 2011 (Anon. 2011).

In Chitwan National Park buffer zone: 19 nests at Tikauli Tal and five nests at Chitrasari village in August 2015 (Raju Tamang and BES); also two nests at Bhandara village, Chitwan District outside the buffer zone (Raju Tamang and BES).

In Bardia National Park the maximum recorded in all years was 15 in January 1992 (Baral and Mills 1992). Records in other years include two in May 1982 (Inskipp and Inskipp 1982), one in June 1988 (Suwal and Shreshta 1988), one in February 1990 (Egger *et al.* 1990), one in November 1997 (Chaudhary 1998), two in January 2001 (Chaudhary 2001a), one in January 2003 (Giri 2003) five in May 2007 (Shahi 2010), and singles in January 2009 (Shahi 2010), April 2009 (Hewatt 2009), and January 2010 (Shahi 2010); also 4-6 regularly seen during winters 2013-15 (Dheeraj Chaudhary).

In Sukla Phanta Wildlife Reserve the maximum recorded was 13 in April 2001 (Inskipp and Inskipp 2001). In other years two birds were seen in May 1982 (Inskipp and Inskipp 1982), two in June 1988 (Suwal and Shrestha 1988), three in March 1991 (Baral 1991), two in May 1996 (Baral 1996a), three in December 1997 (Chaudhary 1998), two in March 1998 (Chaudhary 1998), two in November 2007 (Baral 2007), four in February 2009 (Giri 2009), three in March 2011 (Chaudhary 2011)., and 8-10 during winters 2013-15 (Dheeraj Chaudhary).

Ghodaghodi Tal, Kailali District: three in March 1992 (Baral 1992), one there in January 2010 (Baral 2010a), and three in January 2011 (Baral 2011a).

Jagdishpur Reservoir, Kapilvastu District: one in January 2006 (Baral 2008), one in January 2009 (Giri 2010) and two in December 2010 (Baral 2011a).

## **Total Population Size**

Minimum population: unknown; maximum population: <500

## **Habitat and Ecology**

Oriental Darter frequents ponds, lakes, marshes and slow-moving rivers (Grimmett *et al.* 1998). The species is subject to local movements depending on water conditions. It feeds almost exclusively on fish (Ali and Ripley 1987). Breeding has been proved in Chitwan National Park in Sukhibar area in August 2015 (Ashki Gurung) and the in park buffer zone at Beeshazari Tal (BES), Patna Tal (Chandra S. Chaudhary), Tikauli Tal (Raju Tamang, BES) and annually at Chitrasari, Chitwan District including in October 2015 (Sagar Giri, Raju Tamang, BES); Khairahani, Parsa Bazaar, Chitwan District in June 2014 (Manoj Ghimire); Bhandara Village, Chitwan District in August 2015); also in Koshi Tappu Wildlife Reserve, e.g. in August 1996 (Choudhary 1996) and in reduced numbers (17 pairs) in 2015 (Badri Choudhary).

## <u>Threats</u>

Oriental Darter is threatened by the loss and degradation of wetlands, hunting and disturbance. A study by Dahal (2007) at Koshi found this species (amongst some other waterbird species) is also threatened by the spread of the invasive alien Water Hyacinth *Eichhornia crassipes* which reduces feeding areas. Furthermore, Water Hyacinth can lead to low dissolved oxygen levels and so ultimately impact on bird species which depend on insects and fish (Dahal 2007). Oriental Darters are also likely to be especially affected by Water Hyacinth in Chitwan National Park and Sukla Phanta Wildlife Reserve. Oriental Darter is also at risk from over-fishing resulting in food shortages, notably at Koshi and Chitwan.

#### **Conservation Measures**

No specific conservation measures have been carried out for Oriental Darter. It is regularly recorded in Chitwan National Park and Koshi Tappu Wildlife Reserve, and also recorded in Bardia National Park and Sukla Phanta Wildlife Reserve.

#### **Regional IUCN Status**

Near-threatened (NT) no change from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Oriental Darter has been assessed as Near-threatened, mainly because it is globally Near-threatened. The species is a local breeding resident and visitor that occurs from the western to eastern lowlands. It is monitored each January in the Annual Midwinter Waterfowl counts, but the available figures do not indicate declines at any localities or in the country as a whole. Oriental Darter is regularly and frequently recorded in Chitwan National Park and Koshi Tappu Wildlife Reserve, and also recorded in Bardia National Park and Sukla Phanta Wildlife Reserve. It breeds in Chitwan National Park and buffer zone and at one or two nearby localities outside the buffer zone and also at Koshi. The species is threatened by the loss and degradation of wetlands, hunting and disturbance. It is also threatened by the spread of the invasive alien Water Hyacinth *Eichhornia crassipes* which reduces feeding areas and may ultimately impact on fish populations, and also from overfishing resulting in food shortage. Its population is possibly declining.

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## Phalacrocorax carbo Linnaeus, 1758 NT

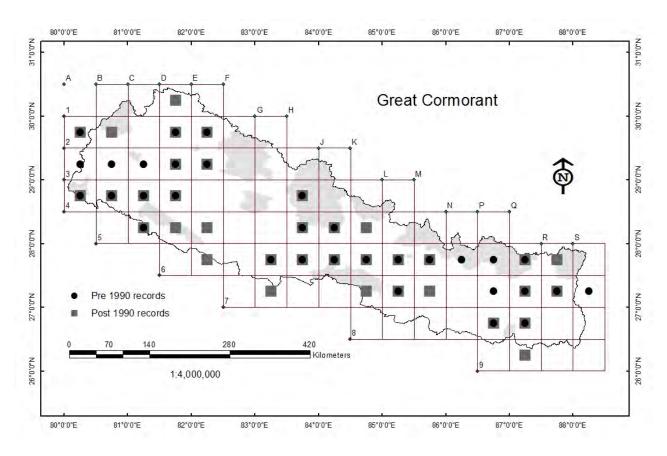
Subspecies: Phalacrocorax carbo sinensis

<u>Common Name</u> Great Cormorant, (English), Jalewaa (Nepali)

Order: Pelecaniformes Family: Phalacrocoracidae



## **Distribution**



Great Cormorant is fairly common and widespread winter visitor. Post-1990 it has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012) in the far west to Mai Valley Important Bird Area (Robson *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a fairly common resident. Inskipp and Inskipp (1991) reported the species as a fairly common resident and mapped its distribution from the far west to the far east.

The species' status in the protected areas' system post-1990 is: recorded from Mahakali Valley (A2) and Chameliya Valley (B2) of Api Nampa Conservation Area (Thakuri and Prajapati 2012); a fairly common winter visitor to Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a fairly common resident in Bardia National Park (C4, C5) (Inskipp 2001); recorded in Banke National Park (D5) (Baral *et al.* 2012); a common visitor to Rara National Park (E2) (Giri 2005); a rare passage migrant to Annapurna Conservation Area (H4, H5)

(Inskipp and Inskipp 2003), but also seen during winter months, e.g. in Modi and Madi Kholas (Manshanta Ghimire), and recorded at Dhumba Tso near Jomosom airport (Rajendra Gurung, Tek Bahadur Gharti Magar), and on the Kali Gandaki River near Jomosom (Rajendra Gurung); in the Budhi Gandaki River, Manaslu Conservation Area (Rajendra Gurung); a common winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006); a winter visitor to Parsa Wildlife Reserve (K7) (Todd 2001); a fairly common resident in Makalu-Barun National Park (Q6) (Cox 1999); a fairly common winter visitor to Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005a) and recorded in Kanchenjunga Conservation Area (R6) (Inskipp *et al.* 2008). The species has been recorded at Barandabhar Forest and wetland (Adhikari *et al.* 2000, Ghimire 2009), Janakauli Forest and Bees Hazari Lake in February 2008 (Giri 2008), Chitwan District and Tharu Cultural Village Resort, Nawalparasi District in December 2011 (Baral 2011a), buffer zone of Chitwan National Park. It has also been recorded in Khata corridor, Bardia National Park buffer zone (Chaudhari 2007).

Great Cormorant has been recorded widely outside the protected areas' system since 1990, (see text and map below). Post-1990 records outside the protected areas' system follow.

In the west records include: from Mahendranagar (A4), Kanchanpur District in March 2000 (Faustino 2000); a common winter visitor in Ghodaghodi Lake Area (B4), Kailali District (CSUWN and BCN 2012), ; recorded from Chisapani (C4), in March 1997 (Giri 1997), Simikot (D2), Humla District (Grimm and Fischer 2003) and Sarkegad in August 2014 (Kusi et al. 2015); between Daurogaon, Beuli, Kalikot, Takula, (D2) Kalikot District and Okharpata (E3), Jumla District in March 1997 (Giri 1997); Karnali River, Jite Bazaar, Kalikot District in April 2011 (Manshanta Ghimire); Rawtkot (D4), Dailekh District in March 1997 (Giri 1997); Nepalgunj (D5), Banke District in December 1998 (Choudhary 1999); Jakhera Tal (Chiranjeevi Khanal) and Dang Deukhuri foothill forest and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); Surahi Khola (G6) in November 2006 (Cox 2008), a winter visitor to Jagadishpur Reservoir (G6) (Baral 2008a), Kapilvastu District; Gaidahawa Lake (G6) in February 2011 (Baral 2011b), Lumbini Farmlands IBA (G7) in February 2011 (Acharya 2011), Rupandehi District; Danu River, Rupendehi District in March 2013 (Dinesh Giri); a resident in Balewa (H5), Baglung District (Basnet 2009); Rupa Lake (J5) (Kafle et al. 2008), and Phewa Lake (H5) in January 2012 (Dymond 2012), Kaski District; recorded in Begnas, Deepang and Khaste Tal (Manshanta Ghimire, Tek Bahadur Gharti Magar); from Rampur Valley (H6), Palpa District (Gautam 2003); Simaltal (J6) in November 1992 (Baral 1993); Damauli (J6) in November 2010 (Baral 2011b), Tanahun District; along Seti River all the way to Trishuli River confluence (Manshanta Ghimire), and Budigandaki Valley near Arughat (K5), Gorkha District in November 1992 (Prodon 1992).

In central Nepal records include: north of Bhandara (Hem Subedi) and between Kurintar (J6), Chitwan District and Gajuri (K6), Dhading District in March 2002 (Malling Olsen 2004); Aankhu (Netrawati) in February 2011-13 (Rajendra Gurung, Hem Subedi); Baireni (K6) in February 1999, Dhading District (Dannenberg 1999); scattered birds along the Trisuli river between Belkhu and Jugedi (Suchit Basnet); fairly common but local, mainly in winter in Kathmandu Valley (L6) (Mallalieu 2008); Hetauda, Makwanpur District in February 2004 (Maling Olsen 2004), and Bhainse and Kulekhani Reservoir (L7), Makwanpur District (Rajendra Gurung).

In the east records include: from Deughat near Nepalthok in December 2010 (Rajendra Gurung) and Khurkot, in March 2015 (Manoj Ghimire) in Sindhuli District; Bhagalpur (P8), Udaypur District in January 1994 (Choudhary 1994); Sabhaya Khola (Q7) in April 1991 (Halberg 1991), between Tumlingtar, Chewabesi, Mude, Phyaksinda and Khandbari (Q7) in November-December 1994 (Buckton and Baral 1995), Sankhuwasabha District; Sankhuwa River (Q7), Bhojpur District in November 1994 (Baral 1995); Sabha Khola and Arun River at Sankhuwasaba District in October 1991 (Karan Shah); a fairly common winter visitor in Chimdi Lake (Q8), Sunsari District (Surana *et al.* 2007); Chautara, Sunsari District (Badri Chaudhary); an uncommon resident at Biratnagar (Q9), (Jha and Subba 2012), and a common winter visitor and passage migrant in Betana Pond (Q8) (Niroula *et al.* 2011), Morang District; Hedanga to Indua Khola (R7), Taplejung District in December 1992 (Cox 1992); Sesambu village (R7), Terathum District in November 1992(Cox 1992); Jamuna (R7), Soktim (R8), Chisapani (R8) and Mai Majuwa (S7) of Mai valley (Robson *et al.* 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Côte d'Ivoire, Chad, China (mainland), Christmas Island (to Australia), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Greenland (to Denmark), Guam (to USA), Guinea, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic

Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Malta, Mauritania, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia (to France), New Zealand, Nigeria, Norfolk Island (to Australia), North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Papua New Guinea, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St Pierre and Miquelon (to France), Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International 2013).

## Elevation

Upper limit: 1000 m (- 3960 m); lower limit: 75 m

#### **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Great Cormorant population counts were 1581, 2705, 1495, 1036, 1755, 2279 from 2008 to 2013 respectively (Baral 2013).

In Koshi Area, 400 in December 1991 (Baral 1992), 600 in January 1992 (Wartmann and Schonjahn 1992), 600 in December 1993 (Choudhary 1994), 600 in January 1994 (Chaudhary 1994), 279 in January 1995 (Choudhary 1995), 403 in November 1996 and 261 in January 1997 (Chaudhary 1997), 201 in December 1998 (Choudhary 1999), 280 in January 1999 (Ghimire 1999), 125 in December 2001 (Baral 2001), 150 in March 2002 (Baral 2002), 350 in February 2003 (Baral 2003), 150 in November 2004 (Baral and Chaudhary 2004), 150 in February 2005 (Baral 2005b), 1000 in December 2007 (Giri 2007), 1400 in February 2009 (Baral 2009), 60 in February 2010 (Baral 2010), 1400 in February 2011 (Baral 2011b). 600 in 2012 (Chandra S. Chaudhary).

In Chitwan National Park, during a waterbird survey 992 birds were counted on the Rapti River and 885 on the Narayani River in December 1982, making a total of 1,877 birds (Halliday 1982). In January 1996 a much smaller figure of 322 birds was counted on the Narayani (Dhakal 1996), 400 in December 1997 (Chaudhary 1998), 200 in December 2001 (Naylor *et al.* 2002), 75 in March 2005 (van der Dol 2005) and 400 at Sauraha in January 2012 (Dymond 2012). The significantly smaller total of 581 birds were recorded in January 2005 (Khadka 2005), 1089 in January 2010 (Khadka 2010), 994 in February 2011 (Khadka 2012), 324 in February 2012 (Khadka 2013), 588 in February 2013, 943 in January 2014 and 918 in January 2015 (Bed Bahadur Khadka) during the midwinter waterfowl counts for the national park.

In a review of ten years of wetland count data between 1989 and 1999 in three Chitwan wetlands in the national park and buffer zone, a decline of Great Cormorant was also recorded (Baral 1999).

A decline was noted in Sauraha area, park buffer zone in the last few years up to 2015 (Bishnu Mahato, Sagar Giri).

Narayani river 60 km stretch from Sikhrauli to Triveni: 300 birds in January 2013, 200 in January 2014, 244 in January 2015 (DB Chaudhary, Bhagirath Chaudhary, Shambhu Mahato, Gyan Bahadur Rai)

Amaltari: 250 birds flying east in February 2014 (DB Chaudhary)

Sukla Phanta Wildlife Reserve 200 birds in April 2007 (Baral 2007) and about 30-40 regularly seen during winter 2013- 15 (Dheeraj Chaudhary).

Bardia National Park: 200 birds in March 1992 (Baral 1992), 300 in November 1997 (Chaudhary 1998), 300 in December 1998 (Choudhary 1999) and 150 in December 2007 (Baral 2008b).

Chisapani, Bardia District: 100 birds in March 1997 (Giri 1997).

Nepalgunj, Banke District: 300 birds in March 1992 (Baral 1992) and 400 in December 1998 (Choudhary 1999).

Rara lake National Park: 10 in winter 2010 (Chandra S. Chaudhary)

Jagdishpur, Kapilvastu District: about 250 in November 2013 (Dinesh Giri)

Danu River, Rupendehi District: about 150 in March 2013 (Dinesh Giri)

Gaidahawa, Rupandehi District: 80 in November 2012 (Dinesh Giri)

Pokhara: 121 birds in December 1996 (Chaudhary 1997), 50 in February-March 2009 (Harrap and Karki 2009), up to 25 daily at Phewa lake from November 2010 to January 2011 2011 (Adcock and Naylor 2011). During the past 20 years up to 300 have been seen annually at Phewa between November to mid February every year, but only 100 in 2014/15) (Hari KC).

In Nawalparasi: 400 birds in December 2011 (Baral 2011a).

Kathmandu Valley: 20 birds at Taudaha (Harrap and Karki 2009); regular sightings of about 20-30 at Taudaha every year 1994-2015 (Suchit Basnet, Tek Bahadur Gharti Magar, Rajendra Gurung); 25-30 birds there in December 2014 (Yadav Ghimirey).

Sabha Khola and Arun River at Sankhuwasaba District: 50 in October 1991 (Karan Shah)

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Great Cormorant frequents large rivers and lakes (Inskipp and Inskipp 1991), sometimes at considerable elevations (Ali and Ripley 1987). It is a good swimmer and catches fishes by underwater pursuit, making a short upward leap before diving from the surface (Grimmett *et al.* 1998). It is found singly or in small groups, although sometimes joins the fishing flock of other cormorants (Grimmett *et al.* 1998). This species often roosts communally in winter (Grimmett *et al.* 1998). It feeds almost exclusively on fish (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance, over-fishing including poisoning which can lead to food shortage and possibly pesticides are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Great Cormorant. Post-1990 the species has been recorded from Bardia, Banke, Rara, Chitwan and Makalu-Barun National Parks; Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, and Annapurna, Manaslu and Kanchenjunga Conservation Areas.

#### **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Great Cormorant has been assessed as Near-threatened. It is a fairly common and widespread winter visitor to Nepal recorded from the far west to the far east. There has been a significant decline in Chitwan National Park post-1990 compared to pre 1990. The overall population in Nepal is declining, especially considering the decline of fish stocks in the rivers and lakes. Data presented above for Chitwan and Koshi after 2005 are not comparable with those before this year. In the later years more areas and sites within the wetland basins have been covered therefore not showing a true trend in population. Habitat loss and degradation, illegal hunting, disturbance, and over-fishing including poisoning which can lead to food shortage are threats to this species.

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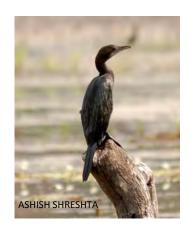
Wartmann, B. and Schonjahn, J. (1992) List of birds observed in Nepal, December 29 1991 – January 16 1992. Unpublished. 23 pp. <a href="http://himalaya.socanth.cam.ac.uk/collections/inskipp/1992">http://himalaya.socanth.cam.ac.uk/collections/inskipp/1992</a> 012.pdf

## Phalacrocorax niger (Gmelin 1789) LC

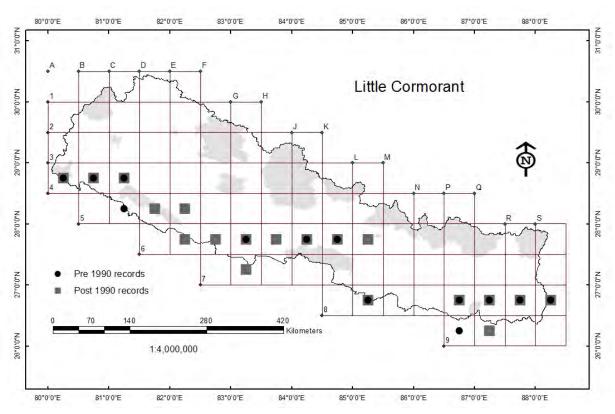
## Common Name

Little Cormorant (English), Saano Jalewaa (Nepali)

Order: Pelecaniformes Family: Phalacrocoracidae



## **Distribution**



Little Cormorant is a resident, winter visitor and passage migrant in the lowlands. Post-1990 it has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Chandragadhi, Jhapa District (Robson *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) considered the species a scarce resident, usually single or in small, scattered groups on rivers and ponds of the terai. Inskipp and Inskipp (1991) reported the species as mainly a winter visitor and passage migrant and mapped its distribution in the lowlands from the far west to the far east.

The species' status in the protected areas' system post-1990 is: a common breeding resident in Sukla Phanta Wildlife Reserve (A4) (Baral and Inskipp 2009); a frequent winter visitor and passage migrant to Bardia National Park (C4, C5) (Inskipp 2001); an uncommon winter visitor to Chitwan National Park (J6, K6) (Baral and Upadhyay 2006) and common breeding resident in Koshi Tappu Wildlife Reserve (P8, Q8) (Baral 2005a). The species has been recorded at Bees Hazari Lake in December 2003 (Nelson and Ellis 2003), Chitwan District and Tharu Cultural Village Resort, Nawalparasi District (H6) in December 2011 (Baral 2011a), buffer zones of

Chitwan National Park. In Bardia National Park buffer zone it has been recorded in the Khata Corridor (C5) (Chaudhari 2007), Bardia District and at Chisapani (C4), Bardia District in March 1997 (Giri 1997).

Little Cormorant has been recorded quite widely outside the protected areas' system since 1990. Some additional localities are probably due to better coverage (See text and map below). Post-1990 records outside the protected areas' system follow.

In the west records include: from Mahakali River (A4), Kanchanpur District in February 2008 (Baral 2008a); a scarce resident in Mohana River corridor (B4) (Chaudhary 2012), and a fairly common resident in Ghodaghodi Lake Area (B4) (CSUWN and BCN 2012), Kailali District; Nepalgunj (D5), Banke District in December 1998 (Choudhary 1999); Dang Deukhuri foothills forests and West Rapti wetlands Important Bird Area (E5, E6), Dang District (Thakuri 2009a,b); Khadara Phanta (F6) and Bajuwa Lake (G6) in November 2006 (Cox 2008), a resident in Jagadishpur Reservoir (G6) (Baral 2008b), Kapilvastu District; Gaidahawa Lake (G6) in February 2011 (Baral 2011b), and Lumbini (G7) in December 2011 (Baral 2011a), Rupandehi District; recorded at Balewa (H5), Baglung District (Basnet 2009) and at Phewa Lake (H5), Kaski District (Gautam and Kafle 2007).

In central Nepal records include: very rare in summer in Kathmandu Valley (L6) (Mallalieu 2008) and recorded between Gaur (L8), Rautahat District and Sedhawa (L8), Siraha District in April 2003 (Cox 2003).

In the east records include: Dharan Forest (Q8) (Basnet and Sapkota 2008), Itahari (Q8) (Pandey 2003), a fairly common migrant to Chimdi Lake (Q8) (Surana et al. 2007), Sunsari District; a common resident in Betana Pond (Q8) (Niroula et al. 2011), an uncommon resident in Biratnagar (Q9) (Jha and Subba 2012) and an uncommon summer visitor in Raja Rani Community Forest (Q8) (Basnet et al. 2005, 2006), Morang District; lower Mai Valley (R8) (Basnet and Sapkota 2006), and from Chandragadhi (S8), Jhapa District in March 2008 (Robson et al. 2008).

Globally the species has also been recorded from Afghanistan, Bangladesh, Bhutan, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Pakistan, Sri Lanka, Thailand, Vietnam (BirdLife International 2013).

## Elevation

Upper limit: 250 m (-1300m); lower limit: 75 m

## **Population**

During the midwinter waterbird count globally coordinated by Wetlands International, the Nepal Little Cormorant population counts were 936, 854, 556, 705, 698, 562 from 2008 to 2013, respectively (Baral 2013). This shows a slight national population decline.

Post 1990, the maxima of 467 birds were recorded in February 2003 (Baral 2003), 400 in December 1991 (Baral 1992), October 2000 (Baral 2000) and February 2005 (Baral 2005b) in Koshi Tappu Wildlife Reserve, and 402 in May 1996 from Sukla Phanta Wildlife Reserve (Baral 1996). About 1337 nests of the species were recorded in August 1996 at Koshi Tappu Wildlife Reserve (Choudhary 1996).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Little Cormorant is found on lakes, ponds and forested streams (Inskipp and Inskipp 1991). The species occurs singly or in small groups on smaller waters, on large inland waters often gathers in large flocks (Grimmett *et al.* 1998). It gathers in large numbers to breed, and often roosts communally in winter (Grimmett *et al.* 1998). It hunts in parties, often with Indian Cormorant, driving the fish towards shallower water (Grimmett *et al.* 1998). Its breeding has also been proved in Sukla Phanta, Koshi Tappu Wildlife Reserve and Chitwan. It feeds mainly on fish, also tadpoles, frogs and crustaceans (Ali and Ripley 1987).

## **Threats**

Habitat loss and degradation, illegal hunting, disturbance and over-fishing resulting in food shortage are threats to this species.

#### **Conservation Measures**

No specific conservation measures have been carried out for Little Cormorant. Post-1990 the species has been recorded from Bardia and Chitwan National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Least Concern (LC), unchanged from the Global Red List assessment: Least Concern

## Rationale for the Red List Assessment

Little Cormorant has been assessed as Least Concern. It is a resident, winter visitor and passage migrant in the lowlands and recorded from the far west to the far east. Since 1990 it has been recorded in most lowland protected areas and quite widely outside the protected areas' system. Habitat loss and degradation, illegal hunting, disturbance and over-fishing resulting in food shortage are threats to this species. The national midwinter waterbird count data for a short period show a declining trend; however, the decline is not on the scale to warrant the species a threatened category.

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## **Falconiformes**



Mountain Hawk Eagle Spizaetus nipalensis Raj Man Singh / Brian Hodgson

## Aquila heliaca Savigny, 1809 CR

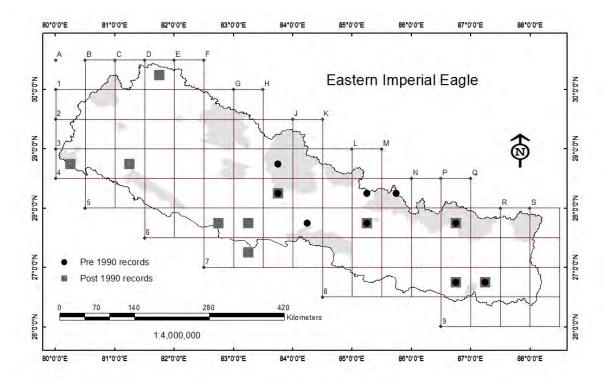
#### Common Name

Eastern Imperial Eagle (English), Ranamatta Mahaachil (Nepali)

Order: Falconiformes Family: Accipitidrae



## <u>Distribution</u>



Eastern Imperial Eagle is a rare passage migrant and winter visitor. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

Inskipp and Inskipp (1991) reported it was uncommon and chiefly a passage migrant recorded from March to early May and late September to November, with a number of winter records. The species was most frequently recorded at Koshi Barrage, e.g. Baker (1981), Fairbank (1982), Dymond (1986), Nicolle (1987), Nielsen (1988), and Halliday (1989,) and also in Koshi Tappu Wildife Reserve e.g. Nielsen and Jakobsen (1989), Gardiner (1990). There were a few winter records from Chitwan National Park e.g. Madge (1986), Eve and Hibbert (1987), Sorensen (1988) and Linderstrom (1989) and also in the Kathmandu Valley e.g. in February 1988 (Sorensen (1988) and in January 1989 (Cooper and Cooper 1989).

Pre-1990 there are several records of passage birds in the upper Kali Gandaki valley e.g. two flying south near Tukche in September 1973 Beaman (1973), and Christensen *et al.* (1984) and also north of Pokhara e.g. nine flying east to west between 20 October and 5 November 1985 (de Roder 1989), Christensen *et al.* (1984), Clugston (1985) and one flying east to west over Ghorepani with Steppe Eagles in November 1986 (Inskipp and Inskipp 1986), and several over the Pokhara valley in November 1976 (Fleming *et al.* 1984). In the Langtang

valley there were a few reports of passage birds e.g. del-Nevo and Ewins (1981) and Halberg and Petersen (1983). One passage migrant was recorded at the high altitude of 3900 m in May 1981 at Dole, Sagarmatha National Park (Mills and Preston 1981).

Since 1990 Eastern Imperial Eagle has declined. Most recent records have been from Koshi Barrage/Koshi Tappu Wildlife Reserve in winter: three in February 1993 (Flack 1993); two in February 2005 (Baral and Birch 2005), March 2005 (van der Dol 2005) and February 2006 (Mallalieu 2006a), four in December 2007 (Choudhary 2007) and singles in most other years, e.g. February 1995 (Wheeldon 1995), February 1998 (Prince 1998), February 2000 (Choudhary 2000), December 2001 (Naylor et al. 2002), February 2002 (Arlow 2002), February 2004 (Choudhary 2004), February 2007 (Baral 2007), November 2008 (Chaudhary 2008), December 2009 (Giri 2009), March 2010 (Baral 2010), 2011 (Ashok Ram and Suchit Basnet) and October 2012 (Inskipp and Inskipp 2012).

Known winter records at other sites since 1990 (single birds) are from: upper Humla (D1) during April 2014 (Naresh Kusi and Jeevan Rai). Bardia National Park in February 2008 (Shahi 2010); Gaidahawa Tal, Rupandehi District in December 2011 (Tulsi Subedi); Kapilvastu District west of Lumbini in January 2006 (Mallalieu 2006b); Lumbini, Rupandehi District in January 2006 (Mallalieu 2006b) and December 2007 (Giri *et al.* 2008), and Kathmandu Valley in January 1992 (Lama 1993).

Passage migrants recorded since 1990 (single birds unless stated) are from: Sukla Phanta Wildlife Reserve in March 1991 (Baral 1991); Phewa Tal, Kaski District in September 1992 (Salzman and Salzman 1992); Pokhara, Kaski District, a single sighting of three birds in November 2011 (Hari KC); two at Jogimara, Dhading District in March 2009 (Hem Subedi); Kathmandu Valley in November 1995 (Rasmussen and Strange 1995), and between Namche Bazaar and Kyangsuma in Sagarmatha National Park in April 2001 (Malling Olsen 2004). At Thulo Kharkha, just south of the Annapurna range one bird migrated west between 27 and 29 November 2013 (Subedi *et al.* 2014) and three birds between 19 September and 8 December 2014 (Subedi 2015).

Globally the species has also been recorded from Afghanistan, Armenia, Austria, Azerbaijan, Bangladesh, Belarus, Bhutan, Bosnia and Herzegovina, Bulgaria, Cambodia, Cameroon, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, Finland, France, Georgia, Germany, Greece, Hong Kong (China), Hungary, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lebanon, Libya, Lithuania, Macao (China), Macedonia, the former Yugoslav Republic of, Malaysia, Moldova, Mongolia, Montenegro, Morocco, Myanmar, North Korea, Oman, Pakistan, Palestinian Authority Territories, Poland, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Korea, Sudan, Sweden, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Turkey, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Vietnam, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 3900 m; lower limit: 100 m

## **Population**

No population surveys have been carried out for Eastern Imperial Eagle, but observations indicate that the population must be very small.

## **Total Population Size**

Minimum population: 10; maximum population: 35

#### Habitat and Ecology

Eastern Imperial Eagle inhabits the vicinity of large water bodies in its winter quarters. It feeds on rodents, reptiles including snakes and lizards, water birds; also carrion (Naoroji 2006).

## **Threats**

Threats to the species are unknown. It is possibly at risk from habitat loss and degradation and could well be threatened by pesticides as these are used widely and often intensively in the lowlands where it winters.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Eastern imperial Eagle. Recently it has been recorded from Koshi Tappu Wildlife Reserve and Bardia National Park.

#### **Regional IUCN Status**

Critically Endangered (CR A2c?e? C2a(i)) upgraded from Global Red List status: Vulnerable (VU)

## Rationale for the Red List Assessment

Eastern Imperial Eagle has been assessed as Critically Endangered based on the criteria Ac?e? C2a(i) and D1. The species is a rare passage migrant and winter visitor. It has declined since 1990. Most post 1990 records have been from the Koshi Barrage and Koshi Tappu Wildlife Reserve and in winter, but there are winter records from the far west east to the Kathmandu Valley, and passage migrant records from the far west to the east. Observations indicate that numbers must be very small. Threats to the species are unknown. It is possibly at risk from habitat loss and degradation, and could well be threatened by pesticides, as these are used widely and often intensively in the lowlands where it winters. Since 1990 it has been recorded in two protected areas.

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## Aviceda jerdoni (Blyth 1842) CR

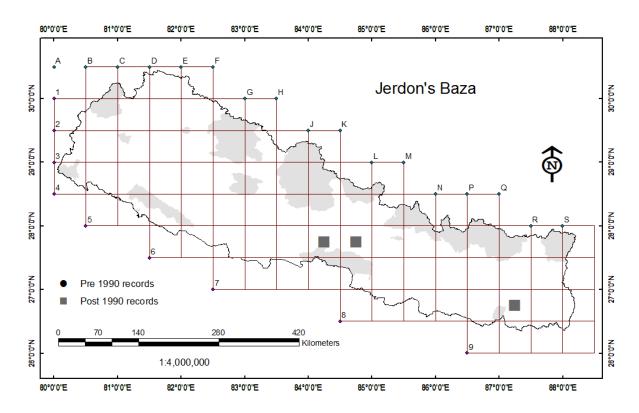
## Common Name

Jerdon's Baza (English), Kailo Jurebaaz (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Jerdon's Baza is very rare and local and probably a breeding resident. The first Nepal record was in March 1999 when a pair was seen in the Dharan forests Important Bird Area, Sunsari District (Basnet *et al.* 1999; Basnet *et al.* 2000); it may have been overlooked there previously. A pair has been regularly sighted there subsequently, e.g. in March 2000 (Giri and Choudhary 2000a), April 2001 (Giri and Choudhary (2001), March 2008 (Basnet and Sapkota 2008; Basnet 2009a,b), a pair copulating in March 2011 (R. Jackson in Internet Bird Collection) and two also seen in March 2011 (Sanzeev Acharya). In May 2000 a pair was seen displaying and carrying food in the locality (Benstead and Benstead 2000).

Singles were seen in Chitwan National Park in November 2000 (Giri and Choudhary 2000b); December 2003 (H. S. Baral *in litt.* January 2004); in July 2006, and by the Surung Khola in December 2008 (Anil Gurung). Two were recorded near Tiger Tops in March 2012 Bishnu Mahato and Sagar Giri).

The only other known locality is western Raja Rani forest, Morang District where one was sighted in May 2004 (Basnet *et al.* 2006).

Globally Jerdon's Baza has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland),

India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 250 m; lower limit: 150 m

#### **Population**

No population surveys have been carried for Jerdon's Baza. Even bearing in mind that the species can be overlooked (see Habitat and Ecology section) and so may be under-recorded, the limited number of observations and a consideration of its declining and very limited habitat indicate that numbers must be very small.

## **Total Population Size**

Minimum population: 10; maximum population: 50

#### **Habitat and Ecology**

Jerdon's Baza inhabits tropical broadleaved evergreen forest in Nepal and is also found in moist deciduous and subtropical broadleaved evergreen forest in India (Naoroji 2006). It is crepuscular and keeps mostly within cover, except during courtship when it is vocal and active, much given to soaring (Naoroji 2006). The species feeds on lizards, frogs, large insects and other small animals (Ali and Ripley 1987). Jerdon's Baza is resident and is not known to undergo migratory movements (Grimmett *et al.* 1998).

## **Threats**

Jerdon's Baza is threatened by the loss and degradation of its broadleaved evergreen forest habitat. This forest type is now of very limited extent and in fragmented areas in Nepal (Inskipp 1989). The only forest where it is known to occur regularly and probably breeds (Dharan forests Important Bird Area), is outside the protected area system.

## **Conservation Measures**

No conservation measures have been carried out specifically for Jerdon's Baza. The only protected area where it has been recorded is Chitwan National Park, but suitable habitat is now very limited in the park.

#### **Regional IUCN Status**

Critically Endangered (CR A2c, D1) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Jerdon's Baza has been assessed as Critically Endangered based on the criteria A2c and D1. The species is very rare and local and probably a breeding resident. Its broadleaved evergreen forest habitat, which now covers very limited and fragmented areas, is seriously threatened. Even bearing in mind that the species can be overlooked and so may be under-recorded, the limited number of observations and a consideration of its declining habitat indicate that numbers must be very small. It has been recorded from one protected area. The only locality where it regularly recorded lies outside the protected areas' system.

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Internet Bird Collection http://ibc.lynxeds.com

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## Circus pygargus (Linnaeus, 1758) CR

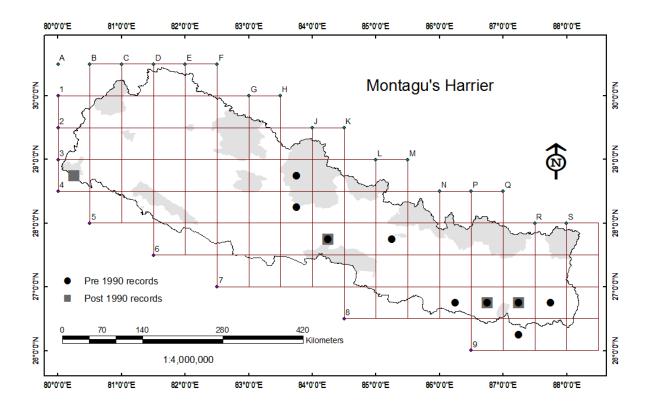
## Common Name

Montagu's Harrier (English), Montagu Bhuinchil (Nepali)

Order: Falconiformes Family: Accipitidrae



## $\underline{\text{Distribution}}$



Montagu's Harrier is a very rare passage migrant. There are only two known dated record since 1998. Post-1990 the species has been recorded from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Koshi Tappu Wildlife Reserve (Chaudhary 1994) in the far east

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

The harrier was described as a scarce passage migrant by Fleming *et al.* (1976) and a scarce winter visitor and passage migrant by Inskipp and Inskipp (1991).

Migrants were seen in the late 1940s in the Kathmandu Valley in April and November (Proud 1949), and there is an undated record from Shivapuri Nagarjun National Park (SNP and BCN 2007, Nepali and Suwal 2004). There are no later reports from the Valley.

A specimen was collected at Raghunathpur, Dhanusa District in January 1954 (Rand and Fleming 1957).

Montagu's Harrier was noted on migration in the Annapurna Conservation Area (ACA) (Inskipp and Inskipp 2003): in the upper Kali Gandaki valley where two flew south on 17 and 19 September 1973 (Beaman 1973).

Migrants were also seen and at Khare (= Khande), Kaski District where three flew west between 21 October and 7 November 1985 (de Roder 1989). One was seen at Naudanda in December 1984 (Calladine 1985).

In the east singles were seen at Loki, Morang District in January 1974 (Madge *et al.* 1974), in the south-east terai in January 1975 (Gregory-Smith and Batson 1976), north of Sunischare, Jhapa District in November 1978 (Cox 1978) and near Biratnagar, Morang District in November or December 1979 (Robson 1979). Two were recorded at Koshi Barrage in February 1986 (Madge and Redman 1986), one was seen at Koshi Tappu Wildlife Reserve in March 1989 (Guinan and Dodman 1989) and the species was listed for the reserve by Heinen (1990). Later known records from Koshi are: one at the barrage in January 1993 (Lama 1993), on the reserve in January 1994 (Lama 1994, Thompson 1994), February 1994 (Lama 1994), March 1994 (Weiss and Wettstein 1994) and in February 1995 (Baral 1995), two by the river in November 1996 (Giri 1996), and one on the reserve in February 1997 (Betton 1997), March 1997 (Baral 1997) and December 1998 (Choudhary 1999). One was also seen at Bhagalpur forest, Koshi River, on the north-west corner of Koshi Tappu Wildlife Reserve, outside the reserve core area in January 1994 (Choudhary 1994).

In Chitwan National Park Montagu's Harrier was described as a rare passage migrant in March/April by Gurung (1983). Known Chitwan records are singles in April 1982 (Inskipp and Inskipp 1982), February 1988 (Kall and Wallander 1988), November 1992 (Murphy and Waller 1992), February 1995 (Baral 1995, Wheeldon 1995), January 1996 (Baral 1996) and October 2012 (Suchit Basnet).

Singles were seen at Sukla Phanta Wildlife Reserve in March 1997 (Giri 1997), December 1997 (Baral and Inskipp 2009, Chaudhary 1997) and in February 2008 (Baral 2008).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Maldives, Mali, Malta, Mauritania, Moldova, Montenegro, Morocco, Mozambique, Namibia, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 2630 m; lower limit: 75 m

## **Population**

No population surveys have been carried out for Montagu's Harrier. There are 35 known sightings of the species, mainly single individuals, but only two known records since December 1998. The decline of Montagu's Harrier in Nepal is not reflected in India. Indeed, the species is considered the commonest migrant harrier in the subcontinent by Naoroji (2006). It is possible that the species has changed its migration route and so visits Nepal less frequently.

## **Total Population Size**

Minimum population: 10; maximum population: 50

#### Habitat and Ecology

Montagu's Harrier inhabits grasslands, marshes and cultivation (Fleming *et al.* 1976, Grimmett *et al.* 1998). Montagu's is the lightest harrier and has the longest wings in proportion to body weight compared to other harriers in the region, resulting in its buoyant flight and ability to forage extensively for small prey items. It feeds on large insects supplemented by frogs, lizards, field mice, small open country birds such as larks, pipits, their eggs and young. Montagu's spends much of the daylight hours hunting; it quarters the ground carefully with steady wing beats interspersed with short glides (Naoroji 2006).

#### **Threats**

Pesticides are a possible threat to Montagu's Harrier; Naoroji (2006) notes that harriers are vulnerable to pesticides.

#### **Conservation Measures**

No conservation measures have been carried out for Montagu's Harrier. Most records have been from protected areas: Chitwan National Park, Koshi Tappu and Sukla Phanta Wildlife Reserves, and one undated record from Shivapuri Nagarjun National Park.

#### **Regional IUCN Status**

Critically Endangered (CR A2ace? D1), upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Montagu's Harrier has been assessed as Critically Endangered, based on the criteria A2ace? D1. It is now a very rare passage migrant; in 1991 it was considered a scarce passage migrant and winter visitor. There are 35 known sightings of the species, mainly of single individuals, but only two known records since December 1998. The decline of Montagu's Harrier in Nepal is not reflected in India. Indeed, the species is considered the commonest migrant harrier in the subcontinent. It is possible that the species has changed its migration route and so visits Nepal less frequently. Most records have been from protected areas. Montagu's Harrier may be threatened by pesticides.

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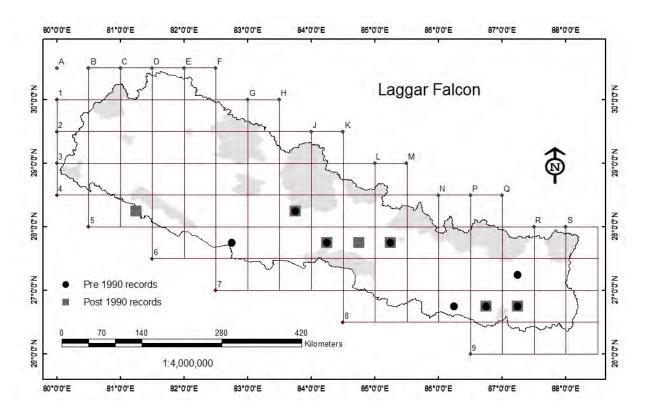
## Falco jugger J.E. Gray, 1834 CR

Common Name
Laggar Falcon (English),
Laggar Baaz (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



Laggar Falcon is very rare, and its current status is uncertain.

The first record of the species for Nepal was in the 19<sup>th</sup> century (Hodgson 1843) when it was collected in the Kathmandu Valley and in the lowlands (Hodgson 1829). Scully (1879) also recorded it in the Valley, only once and in January 1877. There are several later records from the Valley: Meilstrup (1971), Hall (1978), del-Nevo and Ewins (1981), Sorensen (1988) and Giri (2010).

Inskipp and Inskipp (1991) described the species as rare and possibly resident in Nepal. Gurung (1983) considered it rare and possibly resident in Chitwan National Park; there are several later reports of single birds in the park: Couronne and Kovacs (1986), Wittenberg (1989), and in December 1991 (Wartmann and Schonjahn 1992), January 2004 (Malling Olsen 2004) and February 2005 (Giri 2005).

Single birds have been recorded several times from Koshi: March 1992 (Baral 1992), February 1995 (Wheeldon 1995), April 2001 (Inskipp and Inskipp 2001) and January 2002 (Giri 2002).

There are also single records from widely scattered localities: a pair collected from Ranghunathpur, Mahattori District in January 1954 (Rand and Fleming 1957); seen at Pokhara, Kaski District (Thiollay 1978) and one also

there in January 2011 (Hari KC); at Taulihawa, Kapilvastu District in 1978 (Cox 1982), and one collected from the lower Arun valley (Nepali 1982). There were also three sightings in the west in 1992: in January in Bardia District (Wartmann and Schonjahn 1992), in May at Bardia (R. Irwin *in litt*. February 1994), and in November between Butwal, Rupandehi District and Nepalganj Banke District (Mackenzie 1994).

Globally the species has also been recorded from Afghanistan, Bangladesh, India, Iran, Islamic Republic of, Kazakhstan, Myanmar, Pakistan, Turkmenistan, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 1400 m; lower limit: 75 m

#### **Population**

No population surveys have been carried out for the species, but observations indicate that numbers must be extremely small.

## **Total Population Size**

Minimum population: 10; maximum population: 20

#### Habitat and Ecology

Laggar Falcon inhabits open dry country and cultivation, chiefly in the terai (Grimmett *et al.* 1998). It feeds mainly on birds; mammals such as rats and bats, and large flying insects have also been recorded (Naoroji 2006). The species is normally resident, subject to local movements (Grimmett *et al.* 1998).

## **Threats**

The species is seriously threatened by disturbance, for example gravel extraction, fishing and non-timber forest products collection, and by the degradation and loss of its riverine habitat, e.g. by livestock overgrazing.

#### **Conservation Measures**

Laggar Falcon has been assessed as Critically Endangered based on the criteria A2e? C2a(i) and D1. The species has always been rare in Nepal, but the numbers recorded have reduced significantly since the early 1990s. Threats to the species are unknown although it is likely to be at risk from pesticides as these are widely and often intensively used in the terai where Laggar Falcon has been recorded most frequently. Observations indicate the numbers must be extremely small. There are post-1990 records from two protected areas.

## **Regional IUCN Status**

Critically Endangered (CR A2ac, C2a(i), D1) upgraded from the Global Red List status: Near-threatened (NT)

## Rationale for the Red List Assessment

Laggar Falcon has been assessed as Critically Endangered based on the criteria C2a(i) and D1. The species has always been rare in Nepal, but the numbers recorded have reduced significantly since the early 1990s. Threats to the species are unknown, although it is likely to be at risk from pesticides as these are widely and often intensively used in the terai where Laggar Falcon has been recorded most frequently. Observations indicate the numbers must be extremely small. There are post-1990 records from two protected areas.

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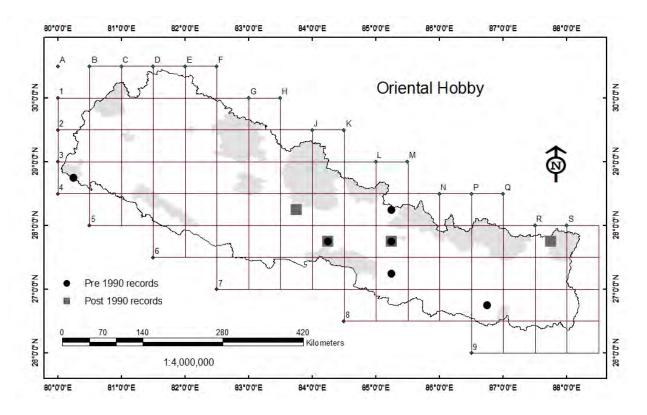
# *Falco severus* Horsfield, 1821 **CR** Subspecies *Falco severus rufipedoides*

Common Name
Oriental Hobby (English),
Chirantak Baaz (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



The status of Oriental Hobby is uncertain as it can be confused with the *peregrinator* race of Peregrine Falcon. Records indicate that it is a very rare resident subject to some altitudinal movements. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844) from the terai in February (year and further locality details are unknown) (Hodgson 1829). It was considered rare in the hills (Hodgson 1829).

The species was formerly reported as a summer visitor breeding in the Kathmandu Valley: in the British Embassy pines by Proud (1949), in the Indian Embassy pines (date unknown) (Fleming *et al.* 1976), and at Balaju, Kathmandu Valley (date unknown) by Nepali (1982). No other reports of breeding in the Valley or the rest of the country are known. There are a few later records from the Kathmandu Valley, including three in October 1970 and singles in October 1970 at Shivapuri and Godavari (Inskipp *et al.* 1971), one in April 1982 (Turton and Speight 1982), in summer in the early 1980s (Hurrell 1985), and one at Chobar Gorge, Kathmandu Valley in December 2008 (Thakuri and Thapa 2009). None was reported from the Valley between 2004 and 2006 (Mallalieu 2008).

There are single reports, chiefly of lone birds occurring widely and irregularly in the rest of the country. The species was collected at Bilauri, Kanchanpur District in January 1953 and was seen several times in the

lowlands near villages (Rand and Fleming 1957), one in October 1970 at Hetauda, Makwanpur District (Inskipp *et al.* 1971), and in the lower Arun valley in September 1986 (Nepali 1986). Gurung (1983) described the species as a rare winter visitor to Chitwan National Park, but there are no known later records from the park.

Known post-1990 records are: one at Ghandruk, Annapurna Conservation Area in November 2002 (Giri and Choudhary 2002); two at Pumdi Kot, Kaski District in February 2011 (Hari K. C.); one at Setidevi Community Forest, Mangalpur VDC, Chitwan District in September 2012 (Raju Acharya); two in Chobar Gorge, Kathmandu Valley in December 2010 (Som GC and Karen Sas), and singles at Daman, Makwanpur District in June 2010 (Anil Gurung and Krishna Pariyar), and between Tapethok and Sekathum, Kanchenjunga Conservation Area in April 1994 (Halberg 1994).

Globally it has also been recorded in Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Palau, Papua New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 1900 m; lower limit: 75 m

#### **Population**

No population survey has been carried out for Oriental Hobby, but observations indicate the numbers must be extremely small.

#### **Total Population Size**

Minimum population: 5; maximum population: 20

## **Habitat and Ecology**

Oriental Hobby is a bird of the forested foothills (Naoroji 2006) and in the tropical and subtropical zone in Nepal. The species feeds mainly on various flying insects such as locusts, cicadas, beetles, dragonflies and termites; also small birds and occasionally lizards, small bats and mice (Naoroji 2006); it haunts villages for chickens (Fleming *et al.* 1976).

## **Threats**

Oriental Hobby is threatened by deforestation and possibly also be threatened by pesticides.

## **Conservation Measures**

No conservation measures have been carried out specifically for Oriental Hobby. The species does not occur regularly within the protected areas' system, although there are two recent records from conservation areas: Annapurna and Kanchenjunga.

#### **Regional IUCN Status**

Critically Endangered (CR A2ce? D1) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Oriental Hobby has been assessed as Critically Endangered based on the criteria A2ce? and D1. Observations indicate that numbers are extremely small and that the species has probably declined although as it can be

confused with the resident *peregrinator* race of Peregrine Falcon, it is difficult to be certain of its status and population trend. The species is threatened by deforestation in the tropical and subtropical zones and possibly also by pesticides. Since 1990 it has been recorded from west-central to east Nepal and there have been only two known records from within the protected areas' system.

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## Gyps bengalensis Gmelin, 1788 CR

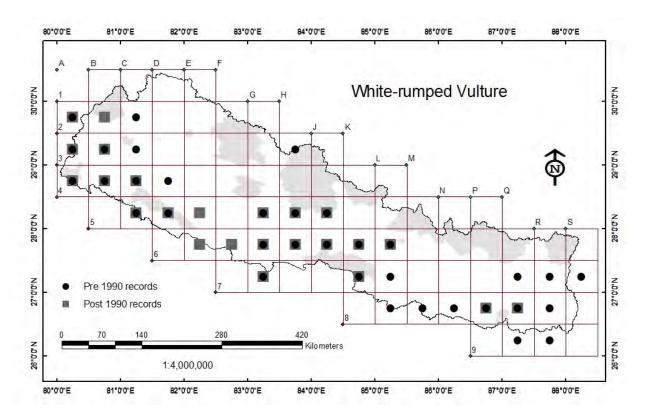
## Common Name

White-rumped Vulture (English), Dangar Giddha (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



White-rumped Vulture is now a patchily distributed resident, rare in the centre, rare and very local in the east and locally frequent in the west. The first Nepal record was in the 19th century (Hodgson 1844) when it was found nesting at Gokarna, Kathmandu Valley in February (year unknown) (Hodgson 1829). The only known recent records from the east are from Koshi Tappu Wildlife Reserve/Koshi Barrage area (see map).

The species was formerly a common and widespread resident up to 1000 m and the most common vulture up to this altitude and in the Kathmandu Valley at 1370 m; less frequent up to 1800 m.

Globally the species has been recorded from Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Iran, Islamic Republic of, Laos, Malaysia, Myanmar, Pakistan, Russia (European), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 1800 m (- 3100 m); lower limit: 75 m

## **Population**

The White-rumped Vulture population was estimated to have declined by 91% since the mid-1990s (Chaudhary *et al.* 2011). This population decline may well have been overlooked for some time because the species was formerly so abundant and widespread.

In the Kathmandu Valley Scully (1879) described it as 'exceedingly common where it breeds and lives throughout the year.' Proud (1949) found it the common vulture of the Valley, breeding in trees at Gaucher and becoming scarcer in the colder months. Fleming *et al.* (1976) noted it in the Valley in summer and it was regularly recorded in the early 1990s (H. S. Baral pers. obs.). Vulture species were seen more often in the Valley until around 1980 when dumping carcasses in the river near Teku was banned (Hari Sharan Nepali pers. comm. to Arend van Riessen September 2011). It is now very rare in the Valley. There were no known records between 2004 and 2006 (Mallalieu 2008); three were seen over Phulchoki in February 2011 (Baral 2011).

Populations have been studied in Koshi Wildlife Reserve; Chitwan National Park; Rupandehi District; Rampur valley, Kaski District, Bardia National Park and Sukla Phanta Wildlife Reserve between 2000 and 2003, and most studies were continued in 2004. Almost all these populations were found to be suffering from high mortality and high nesting failure (Baral 2002; Baral *et al.* 2002a,b; Baral and Gautam 2002; Baral *et al.* 2003; Giri and GC 2002a,b; GC and Giri 2003a, b; Gautam *et al.* 2003a, b; Giri *et al.* 2004; Giri and GC 2005). For instance, the number of nests in the Koshi area showed a massive decline, along with the population, from 61 nests in 2001 to three nests in 2004. The number of fledged chicks was 19 in 2001 and two in 2004 (Baral *et al.* 2004). In Rupandehi District numbers of White-rumped Vultures dropped from 310 in April 1993 to 160 in July 2000 and 64 in March 2002 (Baral *et al.* 2002b).

In the 2002/03 breeding season 71 nests were found at Bardghat, Nawalparasi District, 11 more were located further west and more could possibly be found with more survey work (Baral and Chaudhary 2003). In Dang District a partial survey in 2003 found 51 nests (Baral and Chaudhary 2003).

Breeding colonies have been monitored in Rampur valley, Kaski District between 2002 and 2013 (Baral *et al.* submitted, Gautam and Baral 2009; 2010a,b; 2013a). The valley has the highest density of breeding Whiterumped Vultures in Nepal (Baral *et al.* 2005). The estimated population size of White-rumped Vultures was 111 in 2012/13, a 9.9% increase from the previous year, but, the overall population decline was 25.5% over the last 11 years (Gautam and Baral 2013a). Gautam and Baral (2010b) considered it was unclear where these vultures have gone and suggest breeding failures, destruction of nesting habitats and out migrations of vultures as possible explanations. In 2009/10 for the first time during the monitoring period, there was a marked decline in the number of carcasses encountered in Rampur (Gautam and Baral 2010b). Between 2002 and 2010 declines in occupied, active and productive nests were 68.6%, 72.5% and 85.7%, respectively. In 2009/2010 the breeding success was 36% based on active nests and 23% based on occupied nests. An average rate of decline in the breeding success between 2002 and 2010 was 6.7% per year based on occupied nests and 5.9% per year based on active nests (Gautam and Baral 2010b). However, in 2013 breeding success increased in Rampur and based on active and occupied nests as primary units, breeding success was 53.4% and 35.9% respectively (Gautam and Baral 2013a).

In 2014 the post-breeding population of the species was 67 vultures. The overall decline in population of the species has been 44% in Rampur during the past 12 years. The total number of active nests in Rampur was 32 during the 2013/14 breeding period. Rampur's overall decrease in occupied nests was 50% during the last decade (Gautam and Baral 2014).

Breeding colonies in Syanja District and Tanahu District have been monitored since 2004. The number of nesting colonies has decreased in Syanja and Tanahu, but, the population size, number of nests, and breeding success have remained more or less stable during the study period 2004-2013 (Gautam and Baral 2013). The estimated maximum population size in Syanja and Tanahu was 21 in 2012/13. In 2009/10 there were 20 occupied, 13 active and 8 productive nests. Although breeding success declined slowly since 2004/05 there were no sharp declines in the number of occupied, active and productive nests. The breeding success was 61% and 40% based on active nests and occupied nests, respectively in 2009/10 (Gautam and Baral 2010b). In 2012/13 there were 13 occupied, 11 active and 6 productive nests, a reduction from 2009/10. Compared to 2009/10 the breeding success of active nests reduced a little to 54.5%, but increased a little to 46.1% based on

occupied nests as primary units (Gautam and Baral 2013a). The rate of carcasses encountered in Syanja and Tanahu remained more or less the same between 2004/05 and 2009/10 (Gautam and Baral 2010b).

Monitoring of populations and breeding success were carried out in Pokhara valley between 2006 and 2012. There has been a gradual annual population decline of 57.8 % during the period, from 36 birds in 2006/07 to 2 birds in 2011/12 (Gautam and Baral 2013b). There was a significant increase in the numbers of occupied, active and productive nests between 2006/07 and 2007/08 but since then these numbers have declined. In 2009/10 there were five occupied nests with breeding success 50% and 20% based on active and occupied nests respectively (Gautam and Baral 2010a), and during the past two years no nest building activity was observed (Gautam and Baral 2013b).

In 2008/09, 24 nests were found in Dang Valley, (Bijour VDC, Dang District) and 12 in 2009/10 (Anand Chaudhary *in litt*. August 2010).

In Koshi Tappu Wildlife Reserve nest monitoring data gave a figure of 42 nests for the year 2010-2011 (Baral *et al.* 2013). However, a large number of nesting trees by the Koshi River have been wiped out by floods in recent years. As a result, nesting birds might have shifted to new locations. In 2014 there were 33 nests and chicks were raised from 15 of these (Himalayan Nature, Unpublished data).

The species is showing signs of recovery at some sites in response to conservation measures. Numbers of White-rumped Vulture nests have increased in east Nawalparasi in response to the creation of a Vulture Safe Zone: from 20 active nests in 2005/06, 17 in 2006/07, 31 in 2007/08, 44 in 2008/09, 67 in 2009/10, 47 in 2010/11, 36 in 2011/12, 22 in 2012/13, 18 in 2013/14, and 27 in 2014/15 (D. B. Chaudhary *in litt*. to C. Inskipp January 2012, BCN unpublished data).

The number of nests at Koshi declined from a total of 67 in 2000/01 to three in 2003/04, but in 2009/10, 43 nests were located and the breeding success was 70% (Chaudhary and Baral 2010). In 2010/11 42 nests were located and the breeding success rate increased significantly to 90%, one of the highest in the country (Baral *et al.* 2012).

In Kailali District there were 50 active nests in 2009/10, 55 in 2010/11, 67 in 2011/12, 81 in 2012/13, 75 in 2013/14, and 64 in 2014/15. This area has been designated as Khutiya IBA (BCN unpublished data).

In 2012/13, four nests were recorded and monitored inside Suklaphanta Wildlife Reserve and eight nests were monitored in the buffer zone area; four in Pipladi and four in Parsiya. Out of 12 nests, chicks were successfully fledged from seven nests producing a breeding success of 58.33% (Khadananda Paudel).

13 nests including seven with chicks in Argakhanchi District (Anand Chaudhary *in litt*. August 2010). In 2010/11 the total estimated population in Argha VDC, Arghakhanchi District was 39 birds. Among 15 active nests, eight nests were productive in Gherabir, Arghakhanchi (Bhusal and Dhakal 2011). In 2014/ 2015 Sandikharka Municipality and Dharapani, Dhakabang, Bangi, Hanspur, Khanadaha VDCs of Arghakhanchi District had 14 active nests. This locality has been designated Argha IBA (BCN unpublished data).

In 2009/10 there were nine nests in the western part of Dang-Deukhuri Foothill Forests Important Bird Area (IBA), Dang District. In addition, 45 nests were found in the Kalakate area in the eastern part of Dang-Deukhuri IBA, Dang District close to a vulture-safe feeding site, as opposed to nine the previous year (Anand Chaudhary in litt. August 2010). In 2010/11, there were 50 active nests in the Dang Deukhuri IBA, 28 nests in 2011/12, 30 in 2012/13, 26 in 2013/14 and 20 active nests in 2014/15. The nests were in Goberdia, Kaptangunj, Hanspur and Lalmatiya areas in Dang District (BCN unpublished data).

In 2009/10 a colony of 18 nests including 13 successful nests was found in Rudrapur Community Forest, Rupandehi District (Anand Chaudhary *in litt.* August 2010). In 2014/15 in Banganga and Buddha Bhumi Municipality in Kapilvastu District there were 112 active nests, 13 active nests in Rudrapur VDC in Rupandehi District making a total of 125 active nests of White-rumped Vulture in the Kapilvastu IBA (BCN unpublished data).

In 2014/15 in Tilottama and Devdaha Municipality in Rupandehi District there were 40 active nests of White-rumped Vultures. This locality has been designated Devdaha IBA (BCN unpublished data).

Bird Conservation Nepal and their partners carried out vulture surveys as part of the Vulture Conservation Action Plan. Road transect surveys following the same route, methodology and timing were undertaken in the western lowlands traversing Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardia, and Kailali Districts from 2002 to 2013. The nine survey transects followed Nepal's East-West highway and covered 1,010 km in

three years of the survey, and 638 km in the remaining four years. White-rumped Vultures decreased from 205 to 68 birds over the survey period between 2002 and 2011, with an estimated annual rate of decline of 14% a year (Chaudhary *et al.* 2011). Surveys in 2012 and 2013 each produced the lower total of 43 White-rumped Vultures indicating a further decline (Anon. 2013). However, numbers increased to 68 In 2014 and 71 birds in 2015 (BCN unpublished data).

A population viability analysis carried out on seven nesting colonies in Rampur valley between 2002 and 2012. Three methods of estimating abundance based on count data were compared. Cumulative probabilities of extinction were calculated given the abundance estimates from each method. All methods indicated that extinction of these populations is possible within two decades (Baral *et al.* 2013).

A total of 253 birds was sighted between Parsa and Gaidahawa Lake, Rupandehi District in April 2009 (Tulsi Subedi).

## **Total Population Size**

Minimum population: 1000; maximum population: 2000

## **Habitat and Ecology**

White-rumped Vulture frequents cultivation, open country and around human habitation. The species is resident subject to altitudinal movements (Inskipp and Inskipp 1991). It feeds solely on carrion, small and large (Naoroji 2006).

## **Threats**

Poisoning by scavenging carcasses containing diclofenac, a drug used to treat livestock ailments, has been shown to be the major cause of the species' decline (Oaks *et al.* 2004). However, in the Pokhara valley human disturbance, habitat destruction, and food scarcity were considered the major threats. The White-rumped Vulture population was estimated to have declined by 91% since the mid-1990s (Chaudhary *et al.* 2011). This population decline may well have been overlooked for some time because the species was formerly so abundant and widespread.

In the Kathmandu Valley Scully (1879) described it as 'exceedingly common where it breeds and lives throughout the year.' Proud (1949) found it the common vulture of the Valley, breeding in trees at Gaucher and becoming scarcer in the colder months. Fleming *et al.* (1976) noted it in the Valley in summer and it was regularly recorded in the early 1990s (H. S. Baral pers. obs.). Vulture species were seen more often in the Valley until around 1980 when dumping carcasses in the river near Teku was banned (Hari Sharan Nepali pers. comm. to Arend van Riessen September 2011). It is now very rare in the Valley. There were no known records between 2004 and 2006 (Mallalieu 2008); three were seen over Phulchoki in February 2011 (Baral 2011).

Populations have been studied in Koshi Wildlife Reserve; Chitwan National Park; Rupandehi District; Rampur valley, Kaski District, Bardia National Park and Sukla Phanta Wildlife Reserve between 2000 and 2003, and most studies were continued in 2004. Almost all these populations were found to be suffering from high mortality and high nesting failure (Baral 2002; Baral *et al.* 2002a,b; Baral and Gautam 2002; Baral *et al.* 2003; Giri and GC 2002a,b; GC and Giri 2003a, b; Gautam *et al.* 2003a, b; Giri *et al.* 2004; Giri and GC 2005. For instance, the number of nests in the Koshi area showed a massive decline, along with the population, from 61 nests in 2001 to three nests in 2004. The number of fledged chicks was 19 in 2001 and two in 2004 (Baral *et al.* 2004). In Rupandehi District numbers of White-rumped Vultures dropped from 310 in April 1993 to 160 in July 2000 and 64 in March 2002 (Baral *et al.* 2002b).

In the 2002/03 breeding season 71 nests were found at Bardghat, Nawalparasi District, 11 more were located further west and more could possibly be found with more survey work (Baral and Chaudhary 2003). In Dang District a partial survey in 2003 found 51 nests (Baral and Chaudhary 2003).

Breeding colonies have been monitored in Rampur valley, Kaski District between 2002 and 2013 (Baral *et al.* submitted, Gautam and Baral 2009; 2010a,b; 2013a). The valley has the highest density of breeding Whiterumped Vultures in Nepal (Baral *et al.* 2005). The estimated population size of White-rumped Vultures was 111

in 2012/13, a 9.9% increase from the previous year, but, the overall population decline was 25.5% over the last 11 years (Gautam and Baral 2013a). Gautam and Baral (2010b) considered it was unclear where these vultures have gone and suggest breeding failures, destruction of nesting habitats and out migrations of vultures as possible explanations. In 2009/10 for the first time during the monitoring period, there was a marked decline in the number of carcasses encountered in Rampur (Gautam and Baral 2010b). Between 2002 and 2010 declines in occupied, active and productive nests were 68.6%, 72.5% and 85.7%, respectively. In 2009/2010 the breeding success was 36% based on active nests and 23% based on occupied nests. An average rate of decline in the breeding success between 2002 and 2010 was 6.7% per year based on occupied nests and 5.9% per year based on active nests (Gautam and Baral 2010b). However, in 2013 breeding success increased in Rampur and based on active and occupied nests as primary units, breeding success was 53.4% and 35.9% respectively (Gautam and Baral 2013a).

In 2014 the post-breeding population of the species was 67 vultures. The overall decline in population of the species has been 44% in Rampur during the past 12 years. The total number of active nests in Rampur was 32 during the 2013/14 breeding period. Rampur's overall decrease in occupied nests was 50% during the last decade (Gautam and Baral 2014).

Breeding colonies in Syanja District and Tanahu District have been monitored since 2004. The number of nesting colonies has decreased in Syanja and Tanahu, but, the population size, number of nests, and breeding success have remained more or less stable during the study period 2004-2013 (Gautam and Baral 2013). The estimated maximum population size in Syanja and Tanahu was 21 in 2012/13. In 2009/10 there were 20 occupied, 13 active and 8 productive nests. Although breeding success declined slowly since 2004/05 there were no sharp declines in the number of occupied, active and productive nests. The breeding success was 61% and 40% based on active nests and occupied nests, respectively in 2009/10 (Gautam and Baral 2010b). In 2012/13 there were 13 occupied, 11 active and 6 productive nests, a reduction from 2009/10. Compared to 2009/10 the breeding success of active nests reduced a little to 54.5%, but increased a little to 46.1% based on occupied nests as primary units (Gautam and Baral 2013a). The rate of carcasses encountered in Syanja and Tanahu remained more or less the same between 2004/05 and 2009/10 (Gautam and Baral 2010b).

Monitoring of populations and breeding success were carried out in Pokhara valley between 2006 and 2012. There has been a gradual annual population decline of 57.8 % during the period, from 36 birds in 2006/07 to 2 birds in 2011/12 (Gautam and Baral 2013b). There was a significant increase in the numbers of occupied, active and productive nests between 2006/07 and 2007/08 but since then these numbers have declined. In 2009/10 there were five occupied nests with breeding success 50% and 20% based on active and occupied nests respectively (Gautam and Baral 2010a), and during the past two years no nest building activity was observed (Gautam and Baral 2013b).

In 2008/09, 24 nests were found in Dang Valley, (Bijour VDC, Dang District) and 12 in 2009/10 (Anand Chaudhary *in litt*. August 2010).

In Koshi Tappu Wildlife Reserve nest monitoring data gave a figure of 42 nests for the year 2010-2011 (Baral et al. 2013). However, a large number of nesting trees by the Koshi River have been wiped out by floods in recent years. As a result, nesting birds might have shifted to new locations. In 2014 there were 33 nests and chicks were raised from 15 of these (Himalayan Nature, Unpublished data).

The species is showing signs of recovery at some sites in response to conservation measures. Numbers of White-rumped Vulture nests have increased in east Nawalparasi in response to the creation of a Vulture Safe Zone: from 20 active nests in 2005/06, 17 in 2006/07, 31 in 2007/08, 44 in 2008/09, 67 in 2009/10, 47 in 2010/11, 36 in 2011/12, 22 in 2012/13, 18 in 2013/14, and 27 in 2014/15 (D. B. Chaudhary in litt. to C. Inskipp January 2012, BCN unpublished data).

The number of nests at Koshi declined from a total of 67 in 2000/01 to three in 2003/04, but in 2009/10, 43 nests were located and the breeding success was 70% (Chaudhary and Baral 2010). In 2010/11 42 nests were located and the breeding success rate increased significantly to 90%, one of the highest in the country (Baral *et al.* 2012).

In Kailali District there were 50 active nests in 2009/10, 55 in 2010/11, 67 in 2011/12, 81 in 2012/13, 75 in 2013/14, and 64 in 2014/15. This area has been designated as Khutiya IBA (BCN unpublished data).

In 2012/13, four nests were recorded and monitored inside Suklaphanta Wildlife Reserve and eight nests were monitored in the buffer zone area; four in Pipladi and four in Parsiya. Out of 12 nests, chicks were successfully

fledged from seven nests producing a breeding success of 58.33% (Khadananda Paudel).

13 nests including seven with chicks in Argakhanchi District (Anand Chaudhary *in litt*. August 2010). In 2010/11 the total estimated population in Argha VDC, Arghakhanchi District was 39 birds. Among 15 active nests, eight nests were productive in Gherabir, Arghakhanchi (Bhusal and Dhakal 2011). In 2014/ 2015 Sandikharka Municipality and Dharapani, Dhakabang, Bangi, Hanspur, Khanadaha VDCs of Arghakhanchi District had 14 active nests. This locality has been designated Argha IBA (BCN unpublished data).

In 2009/10 there were nine nests in the western part of Dang-Deukhuri Foothill Forests Important Bird Area (IBA), Dang District. In addition, 45 nests were found in the Kalakate area in the eastern part of Dang-Deukhuri IBA, Dang District close to a Vulture –Safe feeding site, as opposed to nine the previous year (Anand Chaudhary *in litt*. August 2010). In 2010/11, there were 50 active nests in the Dang Deukhuri IBA, 28 nests in 2011/12, 30 in 2012/13, 26 in 2013/14 and 20 active nests in 2014/15. The nests were in Goberdia, Kaptangunj, Hanspur and Lalmatiya areas in Dang District (BCN unpublished data).

In 2009/10 a colony of 18 nests including 13 successful nests was found in Rudrapur Community Forest, Rupandehi District (Anand Chaudhary *in litt.* August 2010). In 2014/15 in Banganga and Buddha Bhumi Municipality in Kapilvastu District there were 112 active nests, 13 active nests in Rudrapur VDC in Rupandehi District making a total of 125 active nests of White-rumped Vulture in the Kapilvastu IBA (BCN unpublished data).

In 2014/15 in Tilottama and Devdaha Municipality in Rupandehi District there were 40 active nests of White-rumped Vultures. This locality has been designated Devdaha IBA (BCN unpublished data).

Bird Conservation Nepal and their partners carried out vulture surveys as part of the Vulture Conservation Action Plan. Road transect surveys following the same route, methodology and timing were undertaken in the western lowlands traversing Nawalparasi, Rupandehi, Kapilvastu, Dang, Banke, Bardia, and Kailali Districts from 2002 to 2013. The nine survey transects followed Nepal's East-West highway and covered 1,010 km in three years of the survey, and 638 km in the remaining four years. White-rumped Vultures decreased from 205 to 68 birds over the survey period between 2002 and 2011, with an estimated annual rate of decline of 14% a year (Chaudhary *et al.* 2011). Surveys in 2012 and 2013 each produced the lower total of 43 White-rumped Vultures indicating a further decline (Anon. 2013). However, numbers increased to 68 In 2014 and 71 birds in 2015 (BCN unpublished data).

A population viability analysis carried out on seven nesting colonies in Rampur valley between 2002 and 2012. Three methods of estimating abundance based on count data were compared. Cumulative probabilities of extinction were calculated given the abundance estimates from each method. All methods indicated that extinction of these populations is possible within two decades (Baral *et al.* 2013).

A total of 253 birds was sighted between Parsa and Gaidahawa Lake, Rupandehi District in April 2009 (Tulsi Subedi).

Baral *et al.* (2005) highlighted the destruction of nesting trees by private landowners is a major challenge in Rampur valley, Kaski District. Gautam and Baral (2013) also found that the destruction of habitats, particularly nesting habitats was a threat to White-rumped Vultures in the Pokhara valley. Here most White-rumped Vultures built nests in kapok trees; in 2008 about 40 kapok trees were cut down by local people in the valley, mainly because they did not like vultures in their homesteads (Gautam and Baral 2013).

A total of 14 chicks of White-rumped Vultures was collected from Pokhara for the Nepal's Vulture Conservation Breeding Centre in 2008 and three more chicks were collected in 2009. The vultures deserted all the nesting trees from which chicks were collected. Since then there has been a total breeding failure of White-rumped Vultures in Pokhara (Gautam and Baral 2013).

Studies in the Pokhara valley between 2006 and 2012 revealed that vultures were facing food scarcity due to changes in carcass disposal practices. Until 2006, bones and hides from slaughterhouses and dead carcasses were disposed of in open fields near the Phedipatan site. Different vulture species including Slender-billed Vultures were seen feeding at this site. However, the land was recently developed for real estate and slaughterhouses now bury the waste and local people also bury dead livestock (Gautam and Baral 2013). Food shortage may well have been a significant factor in the Kathmandu Valley and possibly elsewhere.

Throughout Nepal Gautam and Baral (2009, 2010b) considered that food shortage, poisoning of carcasses, pesticide use and human persecution may be causing a gradual decline in Nepal in the long term. The most

recent available information indicates that the elimination of diclofenac from the vultures' food supply is incomplete, so further efforts are required to fully implement the ban (Prakash *et al.* 2012).

Gautam and Baral (2013a) considered that the gradual decline in population in Rampur valley could be due to breeding failure, food shortage, habitat destruction and out migration.

Nesting colonies at vulture IBAs (Argha, Devdaha, Kapilvastu and Khutiya are threatened by tree-felling, disturbance during the breeding season, illegal use of diclofenac and limited vulture conservation awareness (BCN unpublished data).

Near Sukla Phanta Wildlife Reserve, local people are using high injections of insecticide to kill old cattle; this is thought to be the cause of 18 vultures (species unknown) being found dead in the area in January 2016 (Iswar Pant). Poisoning by scavenging carcasses containing diclofenac, a drug used to treat livestock ailments, has been shown to be the major cause of the species' decline (Oaks *et al.* 2004). However, in the Pokhara valley human disturbance, habitat destruction, and food scarcity were considered the major threats to Whiterumped Vulture (Gautam and Baral 2013).

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#### **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010b) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

The Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). To conserve vultures a Vulture Conservation and Breeding Centre (VCBC) was established in Chitwan National Park in 2008 which by summer 2015 had 57 White-rumped Vultures. Seven community managed Vulture Safe

Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015).

Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC 2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011).

Continuation of efforts to complete the removal of diclofenac and other toxic NSAIDs from the vultures' food supply are essential. A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km² (68.73%) of Nepal (DNPWC 2015). It is planned to start with initial releases into a VSZ, starting in 2016 with wild taken White-rumped Vultures that are not likely to breed at the VCBC.

The goal of the second VCAP plan is to prevent the extinction of White-rumped Vulture and other vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food, maintenance of suitable habitat and captive breeding and re-introduction. The six outputs desired are:

I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic

compounds.

- II. Wild breeding populations of White-rumped Vulture are increased.
- III. White-rumped Vultures are successfully bred in captivity and released into the wild.
- IV. Science based information system maintained.
- V. Vulture conservation awareness among general public increased/maintained.
- VI. Partnership among national and international organizations maintained

In the Rampur valley, Kaski District where felling of nesting trees has threatened the species, efforts have been made to work with some local communities to protect the trees (Gautam et al. 2003 a, b).

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

BCN's Vulture Conservation Programme works on:

- 1. Scientific Research and Monitoring
- 2. Advocacy, Awareness and capacity buildings
- 3. Vulture Safe Zones and Community managed Vulture Safe Feeding Sites
- 4. Vulture Conservation Breeding Centre
- 5. Enhancing Community-Based Vulture Conservation in Western Lowland of Nepal

- 6. In-situ conservation of Critically Endangered White-rumped Vulture (*Gyps bengalensis*) in Dang district, Nepal
- 7. Protecting the critically endangered vultures of Suklaphanta Wildlife Reserve and Kailali District, Nepal through community-based integrated approaches.

Post-1990 White-rumped Vulture has been recorded in Chitwan National Park (Baral and Upadhyay 2006), Bardia National Park (Inskipp 2001) and Khaptad National Park (Chaudhary 2006); Annapurna Conservation Area (Inskipp and Inskipp 2003) and Api Nampa Conservation Area (Thakuri and Prajapati 2012), and Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), Parsa Wildlife Reserve (Todd 2001) and Koshi Tappu Wildlife Reserve (Baral 2005).

## **Regional IUCN Status**

Critically Endangered (CR A2ace) unchanged from the Global Red List status: Critically Endangered (CR)

## Rationale for the Red List Assessment

White-rumped Vulture has been assessed as Critically Endangered based on the criteria A2ace. The species was formerly a common and widespread resident up to 1000 m and regularly occurred up to 1800 m; it was also the most common vulture in Nepal. The population decreased by 91% by the mid 1990s and, although there are signs of recovery including increased breeding success in some areas, in response to conservation measures, it is now a patchily distributed resident, rare and local in the east and locally frequent in western and west-central Nepal. Poisoning by scavenging carcasses containing diclofenac, a drug used to treat livestock ailments, has been shown to be the major cause of the species' decline. The destruction of nesting trees by private landowners is a major challenge in Rampur valley and Pokhara valley, Kaski District. Food shortage was found to be an important factor in the Pokhara valley and may well have been in the past in Kathmandu Valley, and possibly elsewhere. Other factors such as poisoning of carcasses, pesticide use and human persecution may be causing a gradual decline in Nepal in the long term. Following the collection of young vultures from nests in the Pokhara valley in 2008 and 2009, the nests were deserted and no breeding attempts have been made in the valley since 2009. The second Vulture Conservation Action Plan in Nepal (2015-2019) is now underway and has helped prioritize and streamline vulture conservation activities in Nepal. For example, in 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam. Vulture-Safe Feeding Sites have since been established in a number of locations. The project also promotes local livelihoods activities including bee-keeping and organic farming and runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. In response the species is showing signs of recovery at some sites; however, the current population trend is still uncertain and may still be declining. Post-1990 White-rumped Vulture has been recorded from several protected areas.

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## Gyps tenuirostris G. R. Gray, 1844 CR

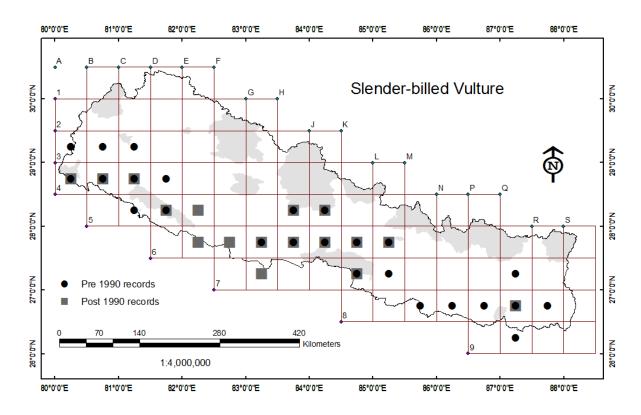
## Common Name

Slender-billed Vulture (English), Sano Khairo Giddha (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Slender-billed Vulture is a local resident; now extremely rare in the east and uncommon in the centre and west. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844). The species was formerly a fairly common and widespread resident (Inskipp and Inskipp 1991).

Since 2004 virtually all records have been from the western and central lowlands and lower hills. Records include from Pokhara, Kaski District e.g. in November 2007 (Baral 2007), Namuna Community Forest, Nawalparasi District, Chitwan National Park buffer zone, e.g. in February 2009 (Chaudhary 2010, four at Lumbini, Rupandehi District in December 2007 (Giri et al. 2008), and from the road between Pokhara and Chitwan, e.g. in February 2010 (Baral 2010). There is only a single known record from the east since 2004: one bird at Koshi in October 2009 (Baral 2009). In 2014/15 it was reported to be common in Devdaha IBA (Tilottama and Devdaha Municipality in Rupandehi District) and in Kapilvastu IBA (Banganga and Buddha Bhumi Municipality in Kapilvastu District and Rudrapur VDC in Rupandehi District) (BCN unpublished data).

At Thoolakharka raptor migration watch site (H5), Kaski District it was recorded occasionally, with a maximum number of four birds in 2012; however, the number was smaller in subsequent years up to at least 2015 (Tulsi Subedi).

Globally the species has also been recorded from Bangladesh, Cambodia, India, Laos, Malaysia, Myanmar, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 1800 m (- 3100 m); lower limit: 75 m

#### **Population**

In Kalakate area in eastern Dang-Deukhuri IBA, close to a Vulture-Safe Feeding Site, Bird Conservation Nepal found one a nest in the 2009/10 breeding season, but it failed (Anand Chaudhary *in litt.* to C. Inskipp, August 2010). A nest was found in Kalakate forest, Gobardia, Dang District in November 2010 (Tulsi Subedi).

A study in the Pokhara valley found that the population had declined annually by 52.8% between 2006/07 and 2011/12 (14 birds observed in 2006/07 and one bird in 2011/12). Monitoring of breeding success was also carried out in the valley between 2006 and 2012. In 2006/07, the breeding success of Slender-billed Vultures was 57%, and there were 5 occupied and 3 active nests but there were no productive nests in 2007/08. After that there was a total breeding failure of SBVs in Pokhara (Gautam and Baral 2013). All nests of Slender-billed Vultures were in kapok trees and there was only one nest per tree (Gautam and Baral 2013).

In 2003 eight birds and one nest (success not known) were found in Nawalparasi District (Chaudhary 2004). In 2009 two nests were recorded (one at Gaidakhal, Nawalparasi and another at Kawasoti, Nawalparasi), one was successful (BCN unpublished data). The only known nest in Nawalparasi in 2010 was located at Gaida Khal, west Nawalparasi District (Tulsi Subedi) which was successful (Khadananda Paudel). No nesting attempts were made in Nawalparasi District in 2011 (D. B. Chaudhary in litt. to C. and T. Inskipp October 2011).

The species was described as 'tolerably common' in the Kathmandu Valley in 1877 (Scully 1879) and formerly common in the Valley in summer (Fleming et al. 1976), but there were no known records between 2004 and 2006 (Mallalieu 2008). One was seen over Phulchoki in February 2009 (Baral 2009). Vulture species were often seen in the Valley until around 1980, when dumping carcasses in the river near Teku was banned (Hari Sharan Nepali pers. comm. to Arend van Riessen September 2011).

Road transect surveys for vultures in the lowlands were carried out by Bird Conservation Nepal and their partners as part of the Vulture Conservation Action Plan for Nepal (see Conservation section). The same route, methodology and timing were undertaken from 2002 to 2011. The survey transects followed Nepal's East-West highway. Slender-billed Vultures were very scarce, with a maximum of five individuals in 2002 and none recorded in 2010 and 2011 (Chaudhary et al. 2011). None were recorded in 2012 and 2013, but one was seen in the 2014 survey and two in 2015 (BCN, unpublished data).

#### **Total Population Size**

Minimum population: 50; maximum population: 75

## Habitat and Ecology

Slender-billed Vulture frequents cultivation, open country and around habitation, especially villages. The species is resident subject to altitudinal movements (Inskipp and Inskipp 1991). It feeds exclusively on carrion, mainly dead livestock and on remains of natural kills in forest (Naoroji 2006).

## Threats

Poisoning by scavenging carcasses containing diclofenac, a drug used to treat livestock ailments, has been show to be the major cause of the species' decline (Oaks *et al.* 2004). However, human disturbance, habitat destruction, food scarcity and wild fire were found to be four major threats to vultures in the Pokhara valley (Gautam and Baral 2013). Loss of nesting trees due to development for settlements which is faster in the east

(compared to the west) may explain the absence of this species and other vultures from eastern districts (Suchit Basnet). In the Pokhara valley in 2008 about 40 kapok trees were felled by local people, mainly because they did not like vultures in their homesteads. Unfortunately, many trees had nests or were used for roosting. After this incident, Slender-billed Vultures failed to breed in Pokhara (Gautam and Baral 2013). This destruction of nesting and roosting trees may well be happening elsewhere.

Studies in the Pokhara valley between 2006 and 2012 revealed that vultures were facing food scarcity due to changes in carcass disposal practices. Until 2006, bones and hides from slaughterhouses and dead carcasses were disposed of in open fields near the Phedipatan site. Different vulture species including Slender-billeds were seen feeding at this site. However, the land was recently developed for real estate, and slaughterhouses now bury the waste and local people also bury dead livestock (Gautam and Baral 2013). Food shortage may well have been a significant factor in the Kathmandu Valley and possibly elsewhere.

Gautam and Baral (2009, 2010b) considered that food shortage, poisoning of carcasses, pesticide use and human persecution may be causing a gradual decline in Nepal in the long term.

The nesting colony at Khutiya IBA, Kailali District is threatened by tree-felling, disturbance during the breeding season, illegal use of diclofenac and limited vulture conservation awareness (BCN unpublished data).

Near Sukla Phanta Wildlife Reserve, local people are using high injections of insecticide to kill old cattle; this is thought to be the cause of 18 vultures (species unknown) being found dead in the area in January 2016 (Iswar Pant).

#### **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010b) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

The Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). To conserve vultures a Vulture Conservation and Breeding Centre (VCBC) was established in Chitwan National Park in 2008 which by summer 2015 had 57 White-rumped Vultures. Seven community managed Vulture Safe Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015).

Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC 2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011).

Continuation of efforts to complete the removal of diclofenac and other toxic NSAIDs from the vultures' food supply are essential. A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km² (68.73%) of Nepal (DNPWC 2015). It is planned to start with initial releases into a VSZ, starting in 2016 with wild taken White-rumped Vultures that are not likely to breed at the VCBC.

The goal of the second VCAP plan is to prevent the extinction of White-rumped Vulture and other vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food, maintenance of suitable habitat and captive breeding and re-introduction. The six outputs desired

are:

I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic

compounds.

- II. Wild breeding populations of White-rumped Vulture are increased.
- III. White-rumped Vultures are successfully bred in captivity and released into the wild.
- IV. Science based information system maintained.
- V. Vulture conservation awareness among general public increased/maintained.
- VI. Partnership among national and international organizations maintained

In the Rampur valley, Kaski District where felling of nesting trees has threatened the species, efforts have been made to work with some local communities to protect the trees (Gautam et al. 2003 a, b).

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

BCN's Vulture Conservation Programme works on:

- 1. Scientific Research and Monitoring
- 2. Advocacy, Awareness and capacity buildings
- 3. Vulture Safe Zones and Community managed Vulture Safe Feeding Sites
- 4. Vulture Conservation Breeding Centre
- 5. Enhancing Community-Based Vulture Conservation in Western Lowland of Nepal
- 6. In-situ conservation of Critically Endangered White-rumped Vulture (Gyps bengalensis) in Dang district, Nepal
- 7. Protecting the critically endangered vultures of Suklaphanta Wildlife Reserve and Kailali District, Nepal through community-based integrated approaches.

Recently Slender-billed Vulture has been recorded in Bardia and Chitwan National Parks, Sukla Phanta and Parsa Wildlife Reserves, and marginally in Koshi Tappu Wildlife Reserve

## **Regional IUCN Status**

Critically Endangered (CR A2ace, C2a(i)) unchanged from the Global Red List status: Critically Endangered (CR)

## Rationale for the Red List Assessment

Slender-billed Vulture has been assessed as Critically Endangered based on the criteria A2ace and C2a(i). The species was formerly fairly common and widespread, but has declined more by than 90%. It is now extremely rare in the east and local and uncommon in the centre and west. Poisoning by diclofenac has been the major cause of its decline. The destruction of nesting trees is an added problem in the Pokhara valley, and perhaps at other localities. Food shortage was found to be an important factor in the Pokhara valley, and may also have been a problem in the Kathmandu Valley and possibly elsewhere. Other factors such as poisoning of carcasses, pesticide use and human persecution may be causing a gradual decline in the long term. The second Vulture Conservation Action Plan for Nepal (2015-2019) is now underway. In 2015, BCN believed the declined had slowed, in response to conservation measures for the species. Recently Slender-billed Vulture has been recorded in several protected areas.

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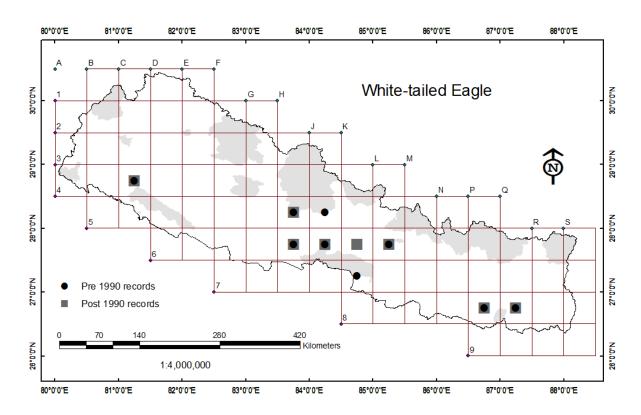
## Haliaeetus albicilla (Linnaeus, 1758) CR

<u>Common Name</u>
White-tailed Eagle (English),
Kankam Chil (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



White-tailed Eagle is now a very rare winter visitor and passage migrant. The first Nepal record of the species was at Begnas Tal, Kaski District in December 1970 (Inskipp *et al.* 1971). It was formerly a local but regularly recorded winter visitor.

White-tailed Eagle was recorded annually at Koshi Barrage between 1979 and 1990 (Inskipp and Inskipp 1991), with the maximum of four in February 1989 (Kennerley and Turnbull 1989) and February 1994 (Cottridge *et al.* 1994), but is now recorded less frequently. One or two birds are still recorded at the Barrage or within Koshi Tappu Wildlife Reserve annually (Badri Chaudhary verbally 2010), e.g. in February 2000 (Choudhary 2000, Basnet 2000), December 2001 (Naylor *et al.* 2002), November 2002 (Basnet 2002), February 2003 (Chaudhary 2003), February 2004 (Choudhary 2004), March 2005 (van der Dol 2005), April 2006 (GC 2010), December 2007 (Chaudhary 2007), January 2008 (Tribe 2008) and winters of 2009 and 2010 (Badri Chaudhary verbally 2010).

Since at least 1990 there has been a decrease in records from other sites. In 1979 seven birds were seen at four Nepal localities (Lambert 1979, Redman and Murphy 1979), a greater number and at more sites than reported subsequently.

Gurung (1983) found it an uncommon winter visitor to Chitwan National Park from November to April. However, since 1990 there have been fewer reports from the park: singles in December 1991 (Mackenzie 1994), February 1998 and December 2000 (Chaudhary 2004), two in February 2005 Sisuwar area Budhi Rapti River, Chitwan (Subedi 2010), singles in January 2010 (Baral 2010 and Giri 2010), in February 2010 (Subedi 2010), and at the old Gaida Tented Camp (Kachhuwani) in December 2010. (Krishna Pariyar) and two in the park in March 2011 (Bird Education Society). One was also seen in Namuna Community Forest, Nawalparasi District in the park buffer zone in December 2007 (Chaudhary 2010).

There were several records from the Kathmandu Valley in the 1980s, e.g. Suter 1983, Hornskov 1984, Andersen *et al.* 1986, Collins 1986) but only three recent records from the Valley: one at Gokarna, Kathmandu Valley in January 1992 (Baral 1992) and two records of singles in December 2005 (Mallalieu 2008; A. van Riessen pers. comm. to H. S. Baral and C. Inskipp January 2011).

There were also several records at Begnas Tal, Kaski District after the species was initially recorded there, e.g. Lambert (1979), Hornskov (1984), Calladine (1985), but no later records. At Phewa Tal, Kaski District there were a few 1980s records, e.g. Joliffe *et al.* (1981). Post 1990 singles were recorded in March 1996 (Daulne and Goblet 1996) and March 2012 (Tulsi Subedi *in litt.* to C. Inskipp, March 2012). Two were seen migrating west from Thoolakharka raptor watch site (H5), Kaski District in late November 2013 (Subedi 2015).

The only other known recent record was two birds in Bardia National Park in February 1995 (Wheeldon 1995).

Globally the species has also been recorded in China, India, Pakistan, Europe, Central Asia, East Asia and the Middle East (BCN and DNPWC 2011).

#### Elevation

Upper limit: 1370 m; lower limit: 75 m

#### **Population**

No population surveys have been carried out for the species, but observations indicate that numbers must be extremely small.

#### **Total Population Size**

Minimum population: 10; maximum population: 20

## **Habitat and Ecology**

White-tailed Eagle inhabits large rivers and lakes in Nepal (Inskipp and Inskipp 1991). It primarily eats fish, but also takes water birds, and occasionally small mammals and carrion (Naoroji 2006).

#### **Threats**

The species is seriously threatened by habitat loss, food shortage caused by illegal fishing in protected areas and overfishing outside the protected area system; also by illegal hunting. It is also possibly threatened by water pollution including pesticides as these are widely and often intensively used in the lowlands where it mainly winters.

#### **Conservation Measures**

No conservation measures have been carried out specifically for White-tailed Eagle. There are some recent White-tailed Eagle records from Koshi Tappu Wildlife Reserve, a very few from Chitwan National Park and one known record from Bardia National Park.

#### **Regional IUCN Status**

Critically Endangered (CR A2acde, C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

White-tailed Eagle has been assessed as Critically Endangered based on the criteria A2acde, C2a(i) and D1. It is a very rare winter visitor and passage migrant. The number of localities and the numbers of birds recorded have decreased since at least the 1990s. The species is seriously threatened by habitat loss, food shortage caused by illegal fishing in protected areas and overfishing in areas outside the protected area system. It is also at risk from hunting. Water pollution, including pesticides, may also threaten the eagle, as these are widely and often intensively used in the lowlands where it mainly winters. Most post-1990 records have been from protected areas.

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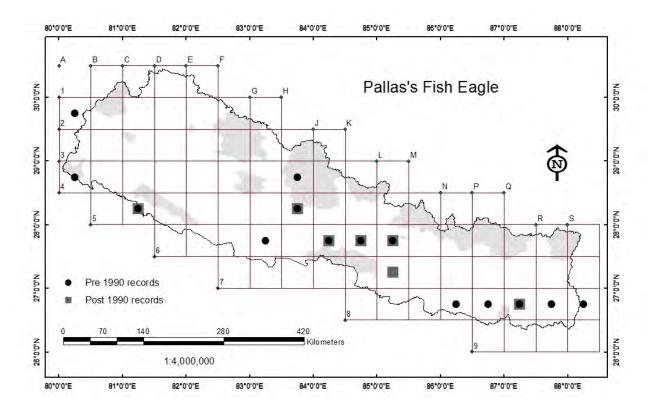
## Haliaeetus leucoryphus (Pallas, 1771) CR

<u>Common Name</u>
Pallas's Fish Eagle (English),
Boksi Chil (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Pallas's Fish Eagle is a very rare visitor.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1836) when it was found in the Kathmandu Valley in April and May (year unknown) (1829). Scully (1879) observed it was 'not common in the Valley but a few examples may generally be seen there, except during the winter months [of 1877]'. There are no later reports from the Valley.

Rand and Fleming (1957) occasionally saw it along the larger lowland rivers in the early 1950s. Inskipp and Inskipp (1991) found it a scarce and local, but a regularly recorded winter visitor up to 305 m, and also a passage migrant recorded up to 2745 m. Seven flew south between 4 September and 1 October 1973 in the upper Kali Gandaki valley (Beaman 1973). Single birds seen in April 1981 at Hans Pokhari Danda, Ilam District (Mills and Preston 1981) and in April 1986 over the upper Mai valley, Ilam District (Heath1986) were probably also migrants.

In the 1980s it was reported annually at Koshi Barrage/Koshi Tappu Wildlife Reserve, with the maximum of four in March 1988 (Kall and Wallander 1988). The eagle continues to be seen at Koshi Tappu Wildlife Reserve

(Badri Chaudhary *verbally* 2010), although less regularly than in the past: singles in February 1995 (Wheeldon 1995) and May 1998 (Basnet 1998a), two in February 2000 (Baral 2000), one in February 2001 (Baral and GC 2001), two in November 2002 (Basnet 2002), two in February and March 2004 (Som G.C. *in litt.* 2004, Kennerley and Karki 2004), two in February 2005 (G.C. 2010), one in January and February 2006 (GC 2010), two in January 2007 (G.C. 2010), singles in February 2008 (G.C. 2010, Tribe 2008), January 2009 (GC 2010), January 2010 (Ashok Ram) and December 2011 (Vicente *et al.* 2011), and up to four in February 2012 (Chaudhary 2012).

Gurung (1983) considered it rare and possibly breeding in Chitwan National Park. Post 1990 the species has been recorded almost regularly along river courses in the park, possibly on passage (Hem Subedi). Known specific records are singles in May 1993 (Roberts 1993), September 1999 (Chaudhary 2004) and February 2008 (Subedi 2010). Two adults and an immature were sighted in Barandabhar, in the park buffer zone in October 2005 (Subedi 2010) and one there in December 2012 (Bhagawan Dahal *in litt*. to H. S. Baral and C. Inskipp, 12 July 2013).

Singles were recorded at Bardia National Park in January 1998 (Basnet 1998b) and Khairapur, Bardia District in January 2003 (Giri 2003). It was found to be resident at Sukla Phanta Wildlife Reserve in 1979 (Schaaf *et al.* 1980), but has not been recorded there later.

One was sighted at Phewa Tal, Kaski District in April 2010 (Hari K C) and an adult was seen flying south east in the Chisapani area of Shivapuri Nagarjun National Park in 2003 (Subedi 2004). An immature was photographed near Karra River, Hetauda (L7), Makwanpur District (Kanchan Parajuli Saroj). Two recorded flying west near Khare (=Khande), Kaski District between 15 September and 4 December 2012, were presumably migrants (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the Annapurna range one was seen migrating west on 19 November 2013 (Subedi *et al.* 2014), and two between 19 September and 8 December 2014 (Subedi 2015).

Globally Pallas's Fish Eagle has also been recorded Afghanistan, Bangladesh, Bhutan, Cambodia, China (mainland), Finland, India, Iran, Islamic Republic of, Iraq, Israel, Kazakhstan, Kyrgyzstan, Mongolia, Myanmar, Netherlands, Norway, Oman, Pakistan, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Tajikistan, Thailand, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 305 m (-2745 m on passage); lower limit: 75 m

## **Population**

No surveys have been carried out for the Pallas's Fish Eagle, but observations indicate that the population must be extremely small.

## **Total Population Size**

Minimum population: 5; maximum population: 10

#### **Habitat and Ecology**

Pallas's Fish Eagle inhabits large rivers and lakes (Inskipp and Inskipp 1991). It preys on fish and waterfowl, sometimes up to the size of a Bar-headed Goose *Anser indicus* waterbirds (Naoroji 2006).

## **Threats**

Pallas's Fish Eagle is seriously threatened by habitat loss, shortage of fish (caused by illegal fishing in protected areas and overfishing outside protected areas) and possibly also by pollution, especially pesticides which are used widely and often intensively in the lowlands where the species mainly occurs (Inskipp and Baral 2011).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Pallas's Fish Eagle. One or two birds now occur in Koshi Tappu Wildlife Reserve in some years and there are a very few recent records of singles from Chitwan National Park. There is only one known record from Bardia National Park. There are no post-1990 records from Sukla Phanta Wildlife Reserve where it was once resident.

#### **Regional IUCN Status**

Critically Endangered (CR A2ace?, C2a(i), D1) upgraded from the Global Red List status: Vulnerable (VU)

#### Rationale for the Red List Assessment

Pallas's Fish Eagle has been assessed as Critically Endangered based on the criteria A2ace?, C2a(i) and D1. It is a very rare visitor mainly up to 305 m. The species is now chiefly found at Koshi Barrage/Koshi Tappu Wildlife Reserve, although it is seen less regularly than in the past. The species' population has also declined, although numbers must always have been small. Pallas's Fish Eagle is seriously threatened by habitat loss, shortage fish (caused by illegal fishing in protected areas and overfishing outside the protected areas' system) and possibly also by pollution including pesticides, especially as they are used widely and often intensively in the lowlands where it mainly occurs.

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## Haliastur indus (Boddaert, 1783) CR

Subspecies Haliastur indus indus

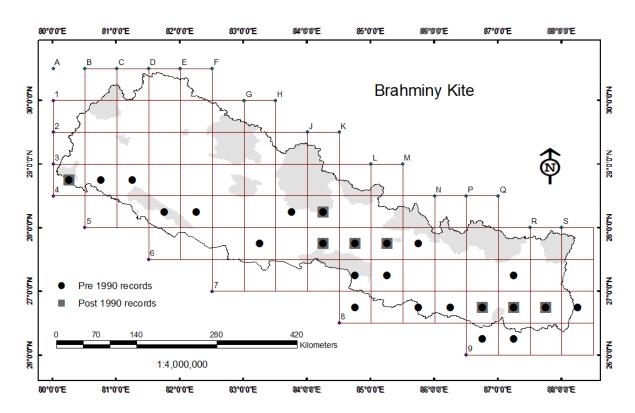
Common Name

Brahminy Kite (English), Setotauke Chil (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Brahminy Kite is very rare; possibly resident or otherwise a visitor. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1836). Specimens were collected in June (year unknown) in the Kathmandu Valley and in the lower hills in April (Hodgson 1829).

In 1877 Brahminy Kite was 'very common in the plains and terai of Nepal where it may constantly be seen hunting over rice fields and marshy ground' (Scully 1879). In 1949-50 it was 'a common kite of the lowlands, usually near water and singly or in pairs' (Rand and Fleming 1957). Proud (1949) noted it to be a late summer (August-September) visitor to the Valley, but the last known record there was in March 1989 (Cox *et al.* 1989). Fleming *et al.* (1976) found it occasionally over open grain fields and ponds.

The species had declined by 1990 when Inskipp and Inskipp (1991) described it as an uncommon resident and most frequent in the eastern lowlands, especially the Koshi marshes. These marshes were almost entirely reclaimed for agriculture in the 1980s; the last known record of the species from there was in April 1986 when three adults and one immature were seen (Heath 1986).

Brahminy Kite suffered a further decline after 1990; since then known records have been mainly single birds at widespread localities: at Sukla Phanta Wildlife Reserve in January 1992 (Baral 1992); up to two young birds

around Begnas Tal fish farms, Kaski District in winters 2006 to 2008 (H. S. Baral pers. obs.) and two there in March 2012 (Hari KC), and one near Syangja Bazaar, Syangja District in February 2012 (Hem Subedi). In Chitwan National Park singles were seen in February 1994 (Cottridge *et al.* 1994), April 1999 (Harrap 1999), Sigrauli Ghat, Narayani in December (Kalu Ram Tamang), in the park in May 2005 (Giri and Choudhary 2005), and at Charara, Rapti River in March 2012 (Bishnu Mahato). Singles were also seen near Trisuli Bazaar, Nuwakot District in May 2003 (H. Chaudhary *in litt*. September 2010); at Taudaha Lake, Kathmandu Valley between November 2012 to April 2013 (Arend van Riessen (*in litt*. to H. S. Baral and C. Inskipp, June 2015); at Prakashpur, Koshi in September 2009 (Sanjib Acharya), and at Koshi Bird Observatory in July 2013 (Tulsi Subedi); two near Danabari, Mai River, Ilam District in May 2006 (Basnet and Sapkota 2006, 2007, and singles in Sunsari District near Jhumka in December 1993 (Choudhary 1994) and near Itahari in December 1997 (Hem Sagar Baral and Hathan Chaudhary 2004).

Globally the species has also been recorded from Australia, Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), Hong Kong (China), India, Indonesia, Laos, Macao (China), Malaysia, Maldives, Myanmar, Pakistan, Palau, Papua New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Taiwan (China), Thailand, Timor-Leste, United Arab Emirates, Vanuatu, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 360 m (-1370 m); lower limit: 75 m

#### Population

No population surveys have been carried out for Brahminy Kite, however observations indicate that numbers must now be extremely small.

## **Total Population Size**

Minimum population: 5; maximum population: 20

## Habitat and Ecology

Brahminy Kite inhabits the vicinity of water: wetlands and flooded paddy fields (Grimmett *et al.* 1998). It is an opportunistic feeder scavenging and hunting for dead and live fish, crabs, frogs, lizards, small snakes, floating garbage, orthopteran insects, termites on the wing, sickly and fledgling birds, and field mice (Naoroji 2006). t is a resident species subject to some seasonal and local movements depending on water conditions (Naoroji 2006).

## **Threats**

The species is seriously at risk from wetland loss and also possibly by water pollution, especially pesticides as these are widely and often intensively used in paddy fields where it often feeds.

## **Conservation Measures**

No conservation measures have been carried out specifically for Brahminy Kite. It has recently been recorded in Chitwan National Park and in Sukla Phanta and Koshi Tappu Wildlife Reserves.

#### **Regional IUCN Status**

Critically Endangered (CR A2ace? C2a(i) D1) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Brahminy Kite has been assessed as Critically Endangered based on the criteria A2ace?, C2a(i), and D1. The species has markedly reduced since the 19th century when it was very common in the plains and terai and a monsoon visitor to the Kathmandu Valley. By 1990 it had declined and was considered an uncommon resident, mainly seen in the eastern lowlands and especially over the Koshi marshes. It declined further after 1990 and is now very rare, with records being mainly of single birds at widespread localities, chiefly in the lowlands. The maximum population is estimated to be 20 birds. Brahminy Kite is seriously at risk from loss of wetlands and may also be threatened by pollution, especially pesticides, as their use in the terai where it often feeds is widespread and often intensive. It has recently been recorded in three protected areas.

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Scully, J. (1879) A contribution to the ornithology of Nepal. Stray Feathers 8: 204-368.

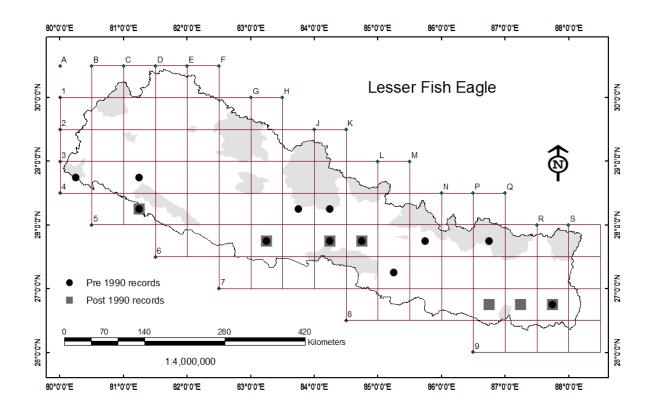
# *Icthyophaga humilis* (Müller & Schlegel, 1841) **CR** Subspecies *Icthyophaga humilis plumbea*

<u>Common Name</u> Lesser Fish Eagle (English), Sano Machhakul (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Lesser Fish Eagle is very rare and presumably resident as the species is not known to undertake movements. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1837) when the species was found in the lower hills and terai (date and further locality details are unknown) (Hodgson 1829).

In 1947 it was seen frequently in the dun, particularly along the large rivers, such as the Rapti and Samri (Biswas 1960). Fleming *et al.* (1976) described it as 'fairly common; along almost all forested rivers of the duns and tarai'.

However, Inskipp and Inskipp (1991) noted it was 'a scarce and local resident that has apparently declined in the previous 40 years'. Gurung (1983) reported it was a rare breeding resident in Chitwan National Park; there were several later reports in the 1980s from the park, e.g. Clugston (1985), Andersen *et al.* (1986), Goodwin (1986). In the 1980s there were a number of sightings from Sukla Phanta Wildlife Reserve, Bardia National Park, Phewa Tal and Begnas Tal, Kaski District, near Barlabas, Kapilvastu District and the eastern terai (Inskipp and Inskipp 1991).

The species' decline continued after 1990. Known records (mainly single birds) are from: Bardia National Park in January 1998 (Basnet 1998), February 2009 (Shahi 2010) and November 2012 (Suchit Basnet); Bakarmodja, Kapilvastu District in April 2007 (Cox 2008); Chitwan National Park in March 1992 (Anon. 1992), November 1992 (Baral 1992), March 1994 (Weiss and Wettstein 1994), March 2000 (Choudhary 2000), May 2003 (Cox 2003) and March 2010 (Giri 2010), also near number one bridge in the park February 2012 (Sagar Giri) and near Tiger Tops Jungle Lodge in March 2012 (H. S. Baral pers. obs.). One was sighted in Bagmara Community Forest in the park buffer zone in March 2012 (Basu Bidari *in litt.* to C. Inskipp, April 2012). Single birds have also been recorded between Dharan and Koshi, Sunsari District in June 1995 (Cox 1995, 1998), and at Garuwa, Ilam District in April 1997 (White and White 1997).

Globally the species has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 250 m (- 915 m); lower limit: 100 m

### **Population**

No population surveys have been carried out for Lesser Fish Eagle, but observations indicate that numbers must now be extremely small.

## **Total Population Size**

Minimum population: 4; maximum population: 10

## **Habitat and Ecology**

Lesser Fish Eagle favours swift-flowing higher forested reaches of the rivers flowing through the lower Himalaya (Naoroji 2006). In the southernmost range, e.g. Chitwan National Park, it sometimes overlaps with Grey-headed Fish Eagle where fast-flowing shallow stretches of water alternate with deep, still, open pools (Naoroji 2006). It feeds exclusively on fish (Ali and Ripley 1987).

## **Threats**

Thiollay (1978) attributed the scarcity of fish-eating birds of prey in Chitwan National Park to food shortage caused by illegal fishing in protected areas and overfishing outside protected areas; this is a major threat at other localities. The species is also seriously threatened by habitat loss and probably also deterioration of habitat quality caused by pollution, including possibly the effects of pesticides which are widely and often intensively used, especially in the lowlands (Inskipp and Baral 2011).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Lesser Fish Eagle. The species has been most regularly reported from Chitwan National Park, but there are very few recent records; there are also two recent records from Bardia National Park.

## **Regional IUCN Status**

Critically Endangered (CR A2ace? C2a (i) D1) upgraded from the Global Red List status: Near-threatened (NT)

## Rationale for the Red List Assessment

Lesser Fish Eagle has been assessed as Critically Endangered based on the criteria A2ace?, C2a(i) and D1. It is very rare and presumably resident. The species' status has declined from being fairly common in the 1940s to scarce and local by 1990, and is now very rare. It is seriously threatened by food shortage (caused by illegal fishing in protected areas and overfishing outside protected areas), habitat loss and probably also deterioration of habitat quality caused by pollution, including possibly the effects of pesticides which are widely and often intensively used, especially in the lowlands. There are post-1990 records from two protected areas.

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## Icthyophaga ichthyaetus Horsfield, 1821 CR

Subspecies: Icthyophaga ichthyaetus ichthyaetus

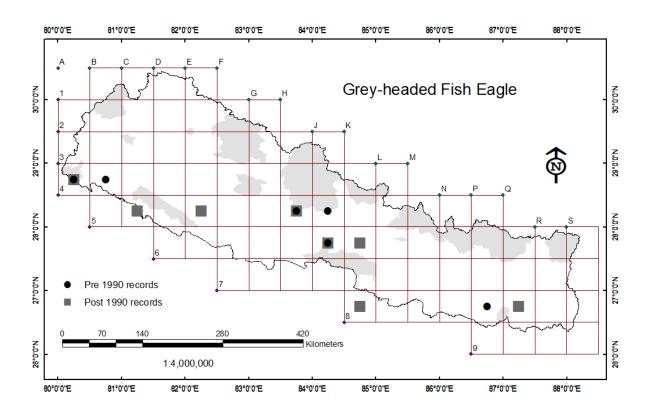
#### Common Name

Grey-headed Fish Eagle (English), Machhakul (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Grey-headed Fish Eagle is a rare and local resident.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1837). However, it was not recorded again in Nepal until the 1970s when it was found at Phewa Tal, Kaski District (Meilstrup 1971) and in Chitwan National Park (e.g. Lambert 1979).

Gurung (1983) found it an uncommon breeding resident in Chitwan National Park. Inskipp and Inskipp (1991) described it as a rare and local resident, mainly occurring in Chitwan National Park, with chiefly single reports from elsewhere.

Since 1990 Grey-headed Fish Eagle has mainly been found in Chitwan National Park and in the buffer zone including the Bees Hazari Tal area. In the park two to four birds have been recorded between 1991 and 2012: three in March 1991 (Baral 1991) and April 2004 (Chaudhary 2004), three adults and one immature in February 2009 (Subedi 2010) and February 2010 (Baral 2010); two at Devi Tal (Bird Education Society); two at Lami Tal and one at the Gharial Breeding Centre in March 2012 (Tika Giri); two at Kamal Tal in March 2012 (Kalu Ram Tamang, Hem Subedi, Hathan Chaudhary) and two to four at Tamor Tal in March 2012 (Tika Giri and Sunaina

## Raut).

At Bees Hazari Tal seven birds were seen in February 2000 (Ghimire 2000) nine adults and six immatures in March 2005, four adults and two immatures in December 2007, three adults and two immatures in both March 2008 (Subedi 2010), seven birds in January 2009 (Subedi 2010), and three adults and two immatures in 2010 (Subedi 2010) and two in September 2012 (Tika Giri).

In Sukla Phanta Wildife Reserve one was recorded in April 1982 (Inskipp and Inskipp 1982); three in March 1991 and January 1992 (Baral 1991, Baral 1992a); singles in April 2001 (Inskipp and Inskipp 2001) and December 2002 (Baral *et al.* 2002), and two at Rani Tal in November 2011 (Tika Giri).

It was found in Bardia National Park in January 2003 (Giri 2003), February 2005 (van der Dol 2005); two at Baghoura Phanta in March 2012 (Ram Shahi), and one in November 2012 (Suchit Basnet).

Known records from localities outside the protected areas' system are: Ghodaghodi Tal, Kailali District in 1988 (Suwal and Shreshta (1988), Vyas (1988) and 1992 (Baral 1992b); Dang Deukhuri IBA, Dang District in June 2009 (Thakuri 2009a,b; 2010); Phewa Tal, Kaski District in 1986 (Couronne and Kovacs 1986), May 1993 (Roberts 1993) and September 2012 (Hari KC); Begnas Tal, Kaski District in 1983 (Ross 1983); Belwa, Bara District in April 2003 (Cox 2003); Koshi Barrage in 1984 (Hornskov 1984); Dharan forests IBA, Sunsari District in March 2008 (Basnet and Sapkota 2008, Basnet 2009), and Kerabari, Morang District in April 1998 (Basnet 2003).

Globally the species has also been recorded from Bangladesh, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 250 m (- 915 m); lower limit: 75 m

## **Population**

No population survey has been carried out for Grey-headed Fish Eagle, but observations indicate that numbers must be very small.

## **Total Population Size**

Minimum population: 10; maximum population: 40

#### Habitat and Ecology

Grey-headed Fish Eagle inhabits slow-moving waters and lakes in wooded country (Grimmett *et al.* 1998). It feeds exclusively on fish except when feeding young when it supplements their diet with medium-sized birds and small mammals (Naoroji 2006). The species is resident and movements have not been recorded (Grimmett *et al.* 1998; Naoroji 2006). It was recorded nesting at Tamor Tal, Chitwan National Park in February 2006 and April 2008 (GC 2010), and in February 2012 when four were seen (Tika Giri). The eagle also nests at Bees Hazari Tal in the Barandabhar Important Bird Area in the park buffer zone in small numbers (Adhikari *et al.* 2000, Byskov 2007, Giri 2007); two were seen nesting there in September 2012 (Tika Giri). A nest with a full grown chick was seen at Kumal Tal in December 2014 (Tulsi Subedi). The species has also bred in Sukla Phanta Wildlife Reserve close to Bahuni Khola and at Rani Tal (Baral 1996).

## **Threats**

Thiollay (1978) attributed the scarcity of fish-eating birds of prey in Chitwan National Park to food shortage caused by illegal fishing and this remains a serious threat in protected areas; overfishing is a major threat outside the protected areas system. In addition, the species is seriously threatened by habitat loss, human disturbance, and probably also deterioration of habitat quality caused by pollution, including possibly the

effects of pesticides which are widely and often intensively used, especially in the lowlands (Inskipp and Baral 2011).

## **Conservation Measures**

No conservation measures have been carried out specifically for Grey-headed Fish Eagle. The species' main population is in Chitwan National Park and the buffer zone (Bees Hazari Tal area). Since 1990 it has been recorded in Sukla Phanta Wildlife Reserve and Bardia National Park.

## **Regional IUCN Status**

Critically Endangered (CR Acde? D1) upgraded from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Grey-headed-headed Fish Eagle has been assessed as Critically Endangered based on the criteria A2cde? and D1. It is a rare and local resident; however, there is no evidence of a population decline. The maximum population has been estimated as 40 birds. The species is seriously threatened by food shortage (caused by illegal fishing in protected areas and overfishing outside the protected areas system), habitat loss, human disturbance, and probably also deterioration of habitat quality caused by pollution, including possibly the effects of pesticides which are widely and often intensively used, especially in the lowlands. The species' main population is in Chitwan National Park and the buffer zone (Bees Hazari Tal area) and there are several post-1990 records from two other protected areas.

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## Lophotriorchis kienerii (de Sparre, 1835) CR

Subspecies Lophotriorchis kienerii kienerii

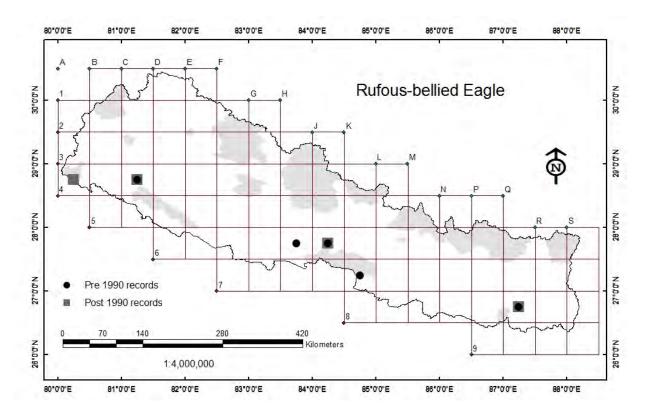
#### Common Name

Rufous-bellied Eagle (English), Setokanthe Chil (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Rufous-bellied Eagle is extremely rare, possibly a visitor. Fleming *et al.* (1976) and Inskipp and Inskipp (1991) described the species as scarce. The first Nepal record of the species was by the Rapti River in November 1970 (Inskipp *et al.* 1971). Subsequently, singles were seen in Chitwan National Park in October 1978 (Thiollay 1980) and November 1979 (Curry-Lindahl 1979), near Tamaspur, Nawalparasi District, Chitwan National Park buffer zone in March 1982 (Parr 1982), near Dharan, Sunsari District in April 1986 (Mayer 1986), in Kosi Tappu Wildife Reserve in October 1987 (Heinen 1988) and two in Bardia National Park in February 1988 (Smith 1988).

There are several known records since 1990, singles: in Sukla Phanta Wildlife Reserve in December 2008 and January 2009 (Baral 2008; Hathan Chaudhary *verbally* 2010; at Thakurdwara in Bardia National Park in December 1998 (Giri *et al.* 1999), by the Surung Khola, Chitwan National Park in December 2008 December (Anil Gurung), and in Dharan forests Important Bird Area, Sunsari District in December 1999 (Giri *et al.* 1999).

However, the species has not been recorded consistently at any locality, despite being conspicuous in the courtship period (Naoroji 2006). It is possible that all Nepal records could be of wandering birds and not residents, although Fleming *et al.* (1976) considered the species could occur throughout forested areas of the eastern bhabar and terai.

Globally it has also been recorded Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 300 m; lower limit: 75 m

## **Population**

No population surveys have been carried out for Rufous-bellied Eagle, but the lack of observations and limited availability of suitable habitat indicates that the population is likely to be extremely small.

#### **Total Population Size**

Minimum population: 5; maximum population: 50

## **Habitat and Ecology**

Rufous-bellied Eagle inhabits broadleaved semi-evergreen and evergreen forest, also moist deciduous broadleaved forest. It feeds chiefly on large birds, for example pheasants and green pigeons, also small mammals, such as squirrels. In the courtship period it is conspicuous as then it frequently soaring in pairs over forested hillsides and valleys. The breeding season for Himalayan birds is unknown, however (Naoroji 2006).

#### **Threats**

The species is seriously threatened by loss and degradation of its forest habitat.

## **Conservation Measures**

No conservation measures have been carried out specifically for Rufous-bellied Hawk Eagle. Recently it has been recorded from Chitwan and Bardia National Parks, and Sukla Phanta Wildlife Reserve; there is a past record from Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Critically Endangered (CR A2c, C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Rufous-bellied Eagle has been assessed as Critically Endangered based on the criteria A2c, C2a(i) and D1, partly because observations indicate that numbers are likely to be extremely small; there has also been a decline in observations since 1990, despite an increase in observer coverage. It is now extremely rare and possibly a visitor. Although Rufous-bellied Eagle is a forest species, it is unlikely to be overlooked during the courtship period when it soars over forest. It is seriously threatened by loss and degradation of its broadleaved evergreen and semi-evergreen forest habitat. Recently it has been recorded from three protected areas. It is possible that birds occurring in Nepal are wandering individuals and not resident.

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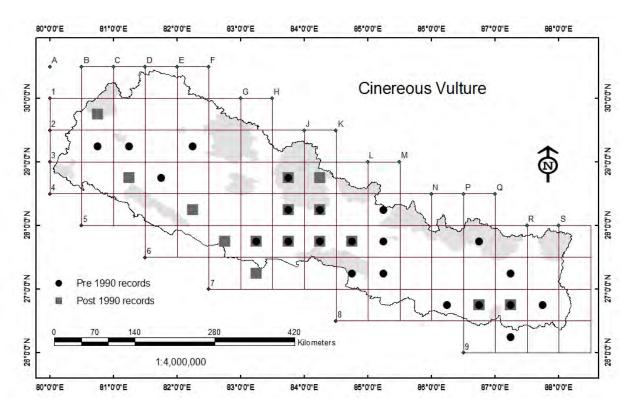
## Aegypius monachus (Linnaeus, 1766) EN

<u>Common Name</u> Cinereous Vulture (English), Rai Giddha (Nepali)

Order: Falconiformes Family: Accipitridae

#### **Distribution**





Cinereous Vulture is a winter visitor and passage migrant; now very uncommon in the centre and west, and rare and very local in the east. The first Nepal record was in the 19th century (Hodgson 1844) when some birds were found in the Kathmandu Valley in winter (Hodgson 1829). However, Scully (1879) only recorded it definitely in the Valley on one occasion. Inskipp *et al.* (1971) observed 20 moving east over Phulchoki on 24 October 1970 and recorded four at Sheopuri in November 1970. It was also recorded from the Valley in 1970 by Meilstrup (1971). Fleming *et al.* (1976) considered it was a winter visitor to the Valley, but there are no known later records.

Inskipp and Inskipp (1991) described the species as mainly an uncommon winter visitor, most frequently seen in central Nepal and eastwards. Since 1990 almost all records in the east have been from Koshi Barrage and Koshi Tappu Wildlife Reserve and it has declined there. The species was formerly fairly common at Koshi (Inskipp and Inskipp 1991), e.g. Madge *et al.* (1974), Lambert (1979), Joliffe *et al.* (1981), Turton and Speight (1982); the maximum of 25 was seen in February 1995 (Wheeldon 1995). Recently it has only been seen at Koshi irregularly; records include two in February 2005 (Baral and Birch 2005) and two in February 2009 (Baral 2009).

In the past the species was recorded at several other localities in the east pre-1990: Raghunathpur, Buxar District in January 1954 (Rand and Fleming 1957), north of Sunischare, Jhapa District (Madge *et al.* 1974), Pakhribas area, Dhankuta District in 1978 (Isherwood 1978); Biratnagar, Morang District in 1979 (Bowden 1979), between Ilam and Soktim, Ilam District in March 1981 (Inskipp and Inskipp 1981), the lower Arun valley,

Sankhuwasabha District (Nepali 1986), and Solukhumbu District in 1986 (Mayer 1986). However, the only known recent record from the east away from Koshi is one seen by the Balan Khola between Siraha and Saptari Districts in 2011 (Ashok Ram).

Cinereous Vulture is now seen more frequently in the west than in the past, probably because of increased observer coverage. Recent records from the west include two in Bardia National Park in February 2005 (van der Dol 2005), in December 2007 (Giri *et al.* 2008) and in January 2008 (Shahi 2010); two at Dhrampani, Arghakhanchi District in December 2012 (Tulsi Subedi); two at Jagdishpur, Kapilvastu District in January 2010 (Giri 2010), singles at Lumbini, Rupandehi District in December 2006 (Giri 2010) and in December 2007 (Giri *et al.* 2008); recorded at Rupendehi District vulture restaurant (Tulsi Subedi); two at Gaidatal, Rupandehi in January 2011 (Khadananda Paudel); two in Dang Deukhauri IBA, Dang District in January 2009 (Thakuri 2009a,b); recorded at Eklebhati (H4) (Yubraj Basnet); Manang District in 2004 (Raju Acharya); four at Pame, Kaski District in March 2012; recorded at Siklis, Kaski District in July 2002 (Raju Acharya) and at Balewa, Baglung District (Basnet 2009). It was fairly common at Pokhara in the past, e.g. Inskipp *et al.* (1971), Robson (1979), del-Nevo and Ewins (1981), Turton and Speight (1982); small numbers are regularly recorded there, e.g. four in December 2007 (Naylor and Metcalf 2007) and three in March 2008 (Rose and Baral 2009).

Concentrations of birds are still reported recently including: the exceptional number of 60 birds, 2 km north of Gandaki Boarding School, north of Pokhara, Gharmi valley area in November 2011, Kaski District (Hari KC *in litt*. to H. S. Baral December 2011); 11 at Bardaghat, Nawalparasi District in February 2007 (Subedi 2010) and three at Jatayu vulture restaurant, also in Nawalparasi District, in January 2009 (Subedi 2010) and six at Sunawal in January 2010 (Som GC and Anil Gurung); 10 in Chitwan National Park in December 2003 (Chaudhary 2004), 17 at Chisapanitar in the Mahabharat Hills in the park in November 2005 (Subedi 2010), and close to the park, and five at Belkhu, Dhading District in February 2010 (Jyotendra Thakuri).

During a study of raptor migration near Khare (=Khande), Kaski District, 11 birds were seen migrating west between 30 October and 2 December 2005 (Gurung 2005) and 73 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the Annapurna range 57 birds migrated west between 12 November and 5 December 2013 (Subedi *et al.* 2014), and 47 birds between 19 September and 8 December 2014 (Subedi 2015).

Globally the species is also recorded from Afghanistan, Albania, Armenia, Austria, Azerbaijan, Bangladesh, Belarus, Bhutan, Bosnia and Herzegovina, Bulgaria, Cambodia, China (mainland), Croatia, Cyprus, Czech Republic, Egypt, France, Georgia, Germany, Gibraltar (to UK), Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Macedonia, the former Yugoslav Republic of, Malaysia, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Oman, Pakistan, Poland, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, South Korea, Spain, Sudan, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan, Vietnam, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 3000 m; lower limit: 75 m

## **Population**

A comprehensive survey of Koshi Tappu Wildlife Reserve in April 2012 counted 12 birds (Baral *et al.* in press). No other population surveys have been carried out for Cinereous Vulture, but numbers are likely to be small.

## <u>Total Population Size</u>

Minimum population: 60; maximum population: 100

#### Habitat and Ecology

Cinereous Vulture inhabits open country. It mostly feeds on carrion of birds and mammals, also dead or stranded fish (Naoroji 2006).

#### **Threats**

Cinereous Vulture may well be threatened by secondary poisoning by use of the NSAID drug, diclofenac, and a shortage of safe food sources resulting from the use of the drug.

#### **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

To conserve vultures the Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). Seven community managed Vulture Safe Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015).

Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC 2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities, including bee-keeping and organic farming, and runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011).

A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km2 (68.73%) of Nepal (DNPWC 2015).

The goal of the second VCAP plan is to prevent the extinction of vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food and maintenance of suitable habitat. The four outputs desired that are relevant to Cinereous Vulture are:

- I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic compounds.
- II. Science based information system maintained.
- III. Vulture conservation awareness among general public increased/maintained.
- IV. Partnership among national and international organizations maintained

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

BCN's Vulture Conservation Programme works on:

- 1. Scientific Research and Monitoring
- 2. Advocacy, Awareness and capacity buildings
- 3. Vulture Safe Zones and Community managed Vulture Safe Feeding Sites

4. Enhancing Community-Based Vulture Conservation in Western Lowland of Nepal

5. Protecting the critically endangered vultures of Suklaphanta Wildlife Reserve and Kailali District, Nepal through community-based integrated approaches.

Recently Cinereous Vulture has been recorded in Chitwan and Bardia National Parks, and in Koshi Tappu Wildlife Reserve.

#### **Regional IUCN Status**

Endangered (EN A2a, C2a(i), D1) upgraded from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Cinereous Vulture has been assessed as Endangered based on the criteria A2a, C2a(i) and D1. The species is a winter visitor and passage migrant; now very uncommon in the centre and west, and rare and very local in the east. There are recent records from Chitwan and Bardia National Parks. It has decreased in the east where it was recorded from several localities in the 1970s and 1980s. Almost all known post-1990 records in the east are from Koshi Barrage and Koshi Tappu Wildlife Reserve, but it has declined here from being fairly common in winter in 1990 to a rare and irregular visitor. However, in the west the number of sites has increased, probably because of greater observer coverage. The species may well be threatened by secondary poisoning from the use of the NSAID drug, diclofenac, and a shortage of safe food resulting from the use of the drug. No population surveys have been carried out, but numbers are likely to be small. Several conservation measures have been carried out for vultures, including Cinereous Vulture. The second Vulture Conservation Action Plan for Nepal (20015-19) has helped prioritise and streamline vulture conservation activities in Nepal. For example, in 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam. Vulture-Safe Feeding Sites have since been established in a number of locations. The project also promotes local livelihoods activities, including bee-keeping and organic farming, and runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. Post-1990 Cinereous Vulture has been recorded from a number of protected areas.

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http://www.researchgate.net/publication/280727305 Autumn 2013 Raptor Migration in Nepal

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## Falco cherrug J. E. Gray, 1834 EN

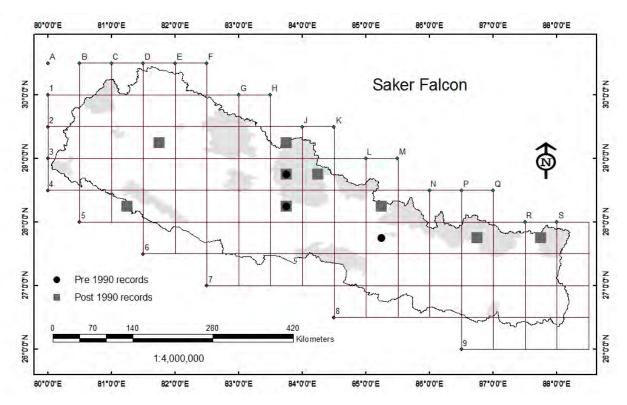
Subspecies: Falco cherrug milvipes

Common Name
Saker Falcon (English),
Top Baaz (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



Saker Falcon is a rare winter visitor and passage migrant.

The first Nepal record of the species was in the 19th century (Hodgson 1843) when a specimen was collected in the Kathmandu Valley (Hodgson 1829). There are only three later known records from the Valley: singles collected in December 1957 (Krabbe 1983), and seen in November 1984 (Christensen *et al.* 1984) and on Phulchoki in February 2001 (Baral and GC 2001).

Saker has been most frequently recorded in the Annapurna Conservation Area (ACA). In the upper Kali Gandaki valley at least two were seen between Marpha and Muktinath between 2590 m and 2795 m in February and March 1981 (Mills and Preston 1981, Richards and Richards 1981), 1982 (Fairbank 1982, Mills *et al.* 1982, Robson 1982, Turton and Speight 1982), 1984 (Christensen *et al.* 1984), and 1990 (Inskipp and Inskipp 1991); also one at Ghasa in 2040 m in February 1986 (Holt *et al.* 1986). Known post-1990 records from ACA are: from Tukche in November 1994 (Fletcher 1994), two at Kagbeni in March 1996 (Mauro 1996) and two at Jomosom, one at Marpha and one at Muktinath in February 1997 (Baral 1997). There were also singles north of Tatopani, ACA in December 2002 (Naylor *et al.* 2002), on the Annapurna circuit trek, ACA at Manang in October 1997 (Chaudhary 1998), and also on the circuit trek in November 2007 (Naylor and Metcalf 2007) and November 2008 (Naylor and Turner 2008). In Mustang, ACA three were seen at Tsele and two at Tsarang in October 1999;

also two at Lo Manthang and one at Geiling in November 1999 (Baral 2000).

Other known records in the west are singles at Karnali Tented Camp, Bardia National Park in January 1997 (Chaudhary 1997); between Daurogoan and Beuli, Kalikot District in March 1997 (Giri 1997) and at Sarangkot, Kaski District in September 2012 (Hari KC). Singles migrated west near Khare (= Khande), Kaski District on 20 and 25 October and 5 November 1985 (de Roder 1989) and five between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the Annapurna range one was seen migrating west on 6 October 2013 (Subedi *et al.* 2014) and one between 19 September and 8 December 2014 (Subedi 2015).

In central areas records include: single birds were seen between Langtang and Kyanjin, upper Langtang valley in April or May 1991 (Mills 1991) and at Langtang village in April 2006 (Baral 2006) in Langtang National Park, and one at Madi, Chitwan District in November 2008 (Kalu Ram Tamang).

In the east records include: single birds were seen between Mong La and Khumjung, Sagarmatha National Park (SNP) in December 2009 (Thewlis *et al.* 2009; from the Mong La pass, SNP in February 2012 (Naylor and Metcalf 2012), and at Ramdang, Kanchenjunga Conservation Area in April 1994 (Halberg 1994, Inskipp *et al.* 2008).

Globally Saker Falcon has also been recorded in Afghanistan, Albania, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Bulgaria, Burundi, Cameroon, Chad, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, Finland, France, Georgia, Germany, Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Lebanon, Libya, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Niger, Oman, Pakistan, Palestinian Authority Territories, Poland, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Slovakia, South Korea, South Sudan, Spain, Sudan, Sweden, Syria, Tajikistan, Tanzania, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 3795 m; lower limit: 75 m

## <u>Population</u>

No surveys have been carried out for Saker. However, direct observations indicate the numbers must be small.

#### **Total Population Size**

Minimum population: unknown; maximum population: <100

## **Habitat and Ecology**

Saker Falcon inhabits semi-desert and open, dry scrubby areas in mountains (Inskipp and Inskipp 1991) and also open country in the lowlands. The species is usually seen singly, sometimes in pairs. When hunting it flies fast and low and swiftly strikes prey on the ground from behind. It also stoops on aerial prey like a Peregrine Falcon (Grimmett *et al.* 1998). It feeds on small mammals, birds and lizards (Ali and Ripley 1987).

## **Threats**

Threats to Saker Falcon in Nepal are uncertain. It is prized by falconers for its tenacity in relentlessly pursuing or out-flying prey (Naoroji 2006) and is therefore possibly threatened by trappers for the bird trade. The species is also possibly threatened by pesticide use. In 1995 five Sakers were rescued at Tribhuvan International Airport in Kathmandu while being trafficked illegally out of the country to Karachi, Pakistan (Anon. 1995). It is not known whether the birds originated in Nepal. Five birds were recovered by police at the Birgunj border, but later they all died (Raju Acharya).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Saker Falcon. Almost all records have been from protected areas, mainly from the Annapurna Conservation Area, with other records from Kanchenjunga Conservation Area, Bardia, Langtang and Sagarmatha National Parks and Koshi Tappu Wildlife Reserve.

#### **Regional IUCN Status**

Endangered (EN A2d? A2e?) no change from the Global Red List status: Endangered (EN)

## Rationale for the Red List Assessment

Saker Falcon has been assessed as Endangered based on criteria A2d? and A2e? It is a rare winter visitor and passage migrant. No surveys have been carried out; however, direct observations indicate the numbers must be small. Most records have been from protected areas, mainly from the Annapurna Conservation Area, with most other records from several other protected areas. Threats to Saker in Nepal are uncertain; it is possibly threatened by hunting for the bird trade and possibly also by pesticides.

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# Falco chicquera Daudin, 1800 EN

Subspecies: Falco chicquera chicquera

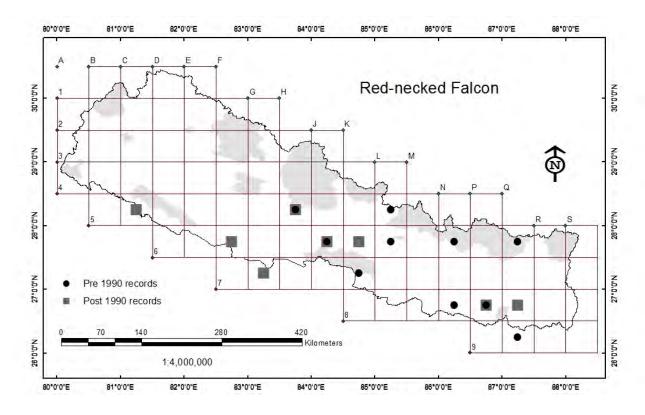
## Common Name

Red-necked Falcon (English), Ratotauke Baundai (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



Red-necked Falcon is uncommon at Koshi but rare and local elsewhere; it is probably resident in the terai. The first Nepal record of the species was in the 19th century (Hodgson 1843) when it was found in the British Residency grounds, Kathmandu Valley in September and December and also in the terai in March (years unknown) (Hodgson 1829). In 1877 the species was a very common breeding resident in the Kathmandu Valley (Scully 1879) and not uncommon there in 1947 (Biswas 1960), but there are only three later records from the Valley, and none recently.

Since the 1980s Koshi is the only site where it is regularly seen; it was uncommon there in the 1980s (Inskipp and Inskipp 1991) and is still uncommon. Two were recorded at Koshi in September 1992 (Baral 1992), March 1999 (Basnet and Holt 1999), February 2006 (Mallalieu 2006a), January 2007 (GC 2010) and December 2009 (Giri 2009) and singles reported irregularly, e.g. Baral (1991), Giri and Choudhary (1996), Inskipp and Inskipp (2001), Cottridge and Tiwari (2002), Baral and Choudhary (2003), Malling Olsen (2004), van der Dol (2005), Choudhary (2007), and Giri (2008), and three birds in March 2010 (Baral 2010).

Gurung (1983) described it as rare and possibly a winter visitor to Chitwan National Park; the only other known records from the park are of one in December 2003 (Stratford 2004) and two in November 2007 (Subedi 2010).

In the buffer zone singles were seen at Sauraha in November 2011 (Krishna Pariyar) and in March 2012 (Tika Giri); also at the Elephant Breeding Centre, Khorsor in March 2011 (Shankar Tiwari). One was sighted at Bharatpur airport, Chitwan District in March 2010 (Hathan Chaudhary).

There are mainly single pre-1990 reports of one or two birds from elsewhere: eastern terai (Gregory-Smith and Batson 1976), Trisuli valley (Madge and Appleby 1980), upper Arun valley (Morioka and Sakane 1981; Nepali 1984), Biratnagar, Morang District (del-Nevo and Ewins 1981), Buludanda, Dolakha District (Fairbank 1982), Phewa Tal, Kaski District (Whitehouse 1982), and Meghauli, Chitwan District (Larson 1988).

Post-1990 records from other localities are: recorded in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009); recorded from the Blackbuck Conservation Area (Kunwar 2015); one from Khadara Phanta, Kapilvastu District (Mallalieu 2006b, Cox and Giri 2007, Cox 2008); one at Lumbini IBA, Rupandehi District in March 2008 (Giri 2010); two at Bhagatpura, Lumbini in August 2008 (Dinesh Giri); two by the Telar River, Lumbini, Rupandehi District (Som G. C. and Anil Gurung); one at Jhabang, Modi Khola, Annapurna Conservation Area in November 1992 (Irvin 1994); near Inaruwa (P8) close to Koshi Barrage in February 2011 (Arend van Riessen); regularly recorded from Koshi Bird Observatory (Tulsi Subedi); two in Dharan forests IBA, Sunsari District in October 2007 (Basnet and Sapkota 2008, Basnet 2009a,b) and one at Kerabari, Morang District in January 1998 (Basnet 2003).

Globally Red-necked Falcon has also been recorded from Angola, Bangladesh, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Central African Republic, Chad, Congo, The Democratic Republic of the, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, India, Iran, Islamic Republic of, Kenya, Lesotho, Malawi, Mali, Mauritania, Mozambique, Myanmar, Namibia, Niger, Nigeria, Pakistan, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 1400 m; lower limit: 75 m

## **Population**

No population survey has been carried out but observations indicate that numbers must be very small. At least five were seen near Koshi Bird Observatory, Sunsari District in spring 2014 (Tulsi Subedi).

## **Total Population Size**

Minimum population: 20; maximum population: 100

## **Habitat and Ecology**

Red-necked Falcon inhabits cultivation with groves and open country with trees (Grimmett *et al.* 1998). It preys mainly on small birds; mice, lizards and large insects are also taken (Naoroji 2006). The species is a resident and partial migrant (Grimmett *et al.* 1998). Two pairs bred successfully in 2010 in the Koshi Tappu Wildlife Reserve (Badri Chaudhary verbally 2010) and up to three pairs in March 2012 (Badri Chaudhary and Sanjib Acharya). A pair was seen nest building near Kusaha, Sunsari District (Buddhi Mahato pers. comm. to Tulsi Subedi).

## **Threats**

Threats to the species are not known, although it may well be threatened by pesticides as pesticide use is widespread and often intensive in the terai (Inskipp and Baral 2011).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Red-necked Falcon. It occurs regularly in Koshi Tappu Wildlife Reserve and there are a few recent records from Chitwan National Park, Annapurna Conservation Area and Sukla Phanta Wildlife Reserve, but most other records have been outside the protected areas' system.

## **Regional IUCN Status**

Endangered (EN A2ae? C2a(i)) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Red-necked Falcon has been assessed as Endangered based on the criteria A2ae?, C2a(i). It is uncommon at Koshi but is widely but very thinly spread over other localities in the terai. Observations indicate a sharp reduction in the species' abundance in the Kathmandu Valley from being very common in the 19th century to absent over at least the last 25 years. Threats to the species are unknown, although it may well be threatened by pesticides as pesticide use is widespread and often intensive in the terai. A part from in Koshi Tappu Wildife Reserve, most records of the species have been from outside the protected areas' system.

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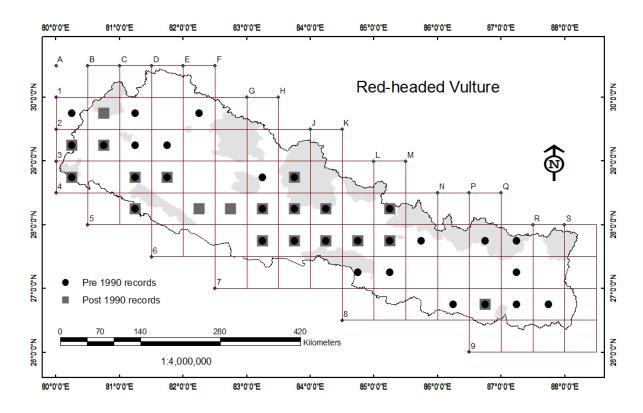
## Sarcogyps calvus (Scopoli, 1786) EN

<u>Common Name</u> Red-headed Vulture (English) Sun Giddha (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Red-headed Vulture is a resident, still widespread in the mid-west to far west, and locally frequent there and in west-central Nepal, but now very rare and virtually absent from most areas east of Kathmandu. The first Nepal record was in the 19th century (Hodgson 1844) when it was recorded in the Kathmandu Valley (Hodgson 1829). The species was formerly a fairly common resident in west-central Nepal, and occasionally recorded in the east and mid to far west. It was mainly reported up to 2000 m, and especially in the hills.

Since 2005 gatherings have been recorded at a number of localities in the centre and west: seven by the Mahakali River near Tanakpur, Kanchanpur District in March 2006 (Subedi 2010); six in Reshunga Important Bird Area, Gulmi District in November 2010 (Thakuri 2011, 2013); five near Jagdishpur, Kapilvastu District in November 2008 (Subedi 2010); up to five in Dhorpatan Hunting Reserve in 1998 (Poorneshwor Subedi); six on the road between Pokhara and Chitwan in February 2008 (Giri 2008); five at Pokhara, Kaski District in April 2008 (GC 2010), 11 adults and one immature by the Kali Gandaki River between Ramdi bridge, Palpa District and Narayanghat, Chitwan District in January 2009 (Tulsi Subedi *in litt.* to C. Inskipp, May 2012), six at the Ghachowk Vulture Safe Zone, 15 km north-east of Pokhara, Kaski District in February 2011 (Jyotendra Thakuri *in litt.* to C. Inskipp August 2011), seven there in November 2011 (DeCandido *et al.* 2011) and twelve in

September 2015 (Khadananda Paudel); five seen at the Pokhara dumping site in September 2012 (Hathan Chaudhary); four adults and one immature in Holangdi, Palpa District in May 2012 (Tulsi Subedi *in litt.* to C.Inskipp May 2012); ); five resting on a cliff by Tinau River on the way to Palpa Barthung, Palpa District in August 2005 (Subedi 2010); three (two adults, one juvenile) at the Jytayu Vulture Restaurant, Nawalparasi District in April 2012 (DB Chaudhary and Yam B. Nepali); nine at Chisapanitar, Mahabharat Hills, Chitwan District in February 2008 (Subedi 2010), and up to five at Siraichuli, Chitwan District in February 2010 (Hem Subedi).

In 2014/15 it was reported to be common in Argha IBA (Sandikharka Municipality and Dharapani, Dhakabang, Bangi, Hanspur, Khanadaha VDCs of Arghakhanchi District) (BCN unpublished data).

During a raptor survey near Khande (=Khare), Kaski District, 75 Red-headed Vultures were seen migrating west between 30 October and 2 December 2005 (Gurung 2005). A total of five birds including two juveniles were regularly seen during the raptor migration monitoring near Khande between 15 September and 2 December 2012 (Tulsi Subedi).

In the east up to six were seen regularly in 2010 and 2011 in Saptari District (Ashok Ram);

Post-1990 Red-headed Vulture has been recorded from Bardia National Park (Inskipp 2001), Khaptad National Park (Chaudhary 2006), Chitwan National Park (Baral and Upadhyay 2006) and Langtang National Park (Karki and Thapa 2001); Api Nampa Conservation Area (Thakuri and Prajapati 2012), Annapurna Conservation Area (Inskipp and Inskipp 2003, and Manaslu Conservation Area (Thakuri 2013); Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) and Koshi Tappu Wildlife Reserve (Baral 2005), and Dhorpatan Hunting Reserve.

Globally the species has also been recorded from Bangladesh, Bhutan, Cambodia, China (mainland), India, Laos, Malaysia, Myanmar, Pakistan, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

#### **Elevation**

Upper limit: 2000 m (- 3050 m); lower limit: 75 m

# **Population**

A population survey of Red-headed Vulture was carried out in the western Middle Mountain region in 2012. A total of 24 birds were estimated: nine in Kaski District, six in both Palpa and Arghakhanchi Districts, three in Pyuthan and none in Salyan Districts. No nests were located during the study, although fresh juvenile birds were repeatedly recorded in the autumn (Subedi 2013). By the 1980s Red-headed Vulture appears to have become very uncommon east of Kathmandu and since 1996 there is only one known one record – a single bird at Koshi in February 2007 (Choudhary 2007). There are several previous records from Koshi: 11 in March 1989 (Babbington 1989), three in November 1992 (Murphy and Waller 1992) and singles in February 1993 (Fouarge 1993), March 1996 (Daulne and Goblet 1996). The species has declined sharply in the Kathmandu Valley. In the 19th century it was described as a common in the Valley and the most abundant vulture there after Whiterumped Vulture Gyps bengalensis (Scully 1879). It could usually be seen along the banks of rivers, especially near the burning ghats. It was considered a fairly common resident in 1949 (Proud 1949). There were four sightings in October 1970 with a maximum of three birds (Inskipp et al. 1971), and other records include 1971 (Meilstrup 1971), 1974 (Madge et al. 1974), 1981 (Hall 1981), 1982 (Turton and Speight 1982), and two in March 1986 (Couronne and Kovacs 1986). Red-headed Vulture and other vulture species were seen more often until around 1980 when dumping carcasses in the river near Teku was banned; Red-headed Vulture must have bred in the Valley then, just living off those carcasses; since then it had only been noted flying over on rare occasions (Hari Sharan Nepali pers. comm. to Arend van Riessen September 2011). The only other later records that are known were both in 2005 - singles over Saibu ridge in April 2005 and in December 2005 (Arend van Riessen in Mallalieu 2008). In the west central hills, although Red-headed Vulture is locally frequent, e.g. in the Pokhara valley, it has sharply declined in at least two areas. Along the Pokhara – Jomosom trekking route it was fairly common to common from at least 1977 to 1989. For example, on the return trekking route there were 11 sightings, with the maximum of three together in December 1977 (Inskipp and Inskipp 1977); 20 sightings between 4 February 1982 and 5 March 1982 (Turton and Speight 1982), but only two seen in January 2001 on the same trek (Collins and Grindle 2002). In February and March 1981 there were

five sightings on the return trek between Pokhara and Ghorepani including six on the Naudanda ridge (Inskipp and Inskipp 1981) and 10+ birds on the same route in March 1989 (Cox et al. 1989). However, none was recorded on the Annapurna circuit trek (which includes the above-mentioned routes) in November and December 2005 (Naylor and GC 2005), November and December 2007 (Naylor and Metcalf 2007), November and December 2008 (Naylor and Turner 2008), April 2001 (Ryan and Chantler 2009), and none in November and December 2010 (Adcock and Naylor 2011). A similar decline has taken place on the Annapurna base camp trekking route. The species was recorded on four dates in March 1985 with a total of six birds (Clugston 1985), five dates in October and November 1986 with five on the Naudanda ridge, five between Chomrong and Ghandrung and ten between Pothana and Pokhara (Inskipp and Inskipp 1986). On the same route none was seen in November 2004 (Naylor and Giri 2004), December 2006 (Naylor et al. 2006), February 2009 (Naylor et al. 2009) and one in February 2011 (Wheatley 2011). During the annual vulture road transect survey in 2009 one was seen between Kakarvitta and Chitwan and between Narayanghat- and Kanchanpur. In the 2011 and 2015 road transect surveys, one bird was observed between Narayanghat and Kanchanpur. The bird was not recorded during the annual vulture road transect surveys in 2010, 2012, 2013 and 2014 (BCN unpublished data).

## **Total Population Size**

Minimum population: 200; maximum population: 400

## **Habitat and Ecology**

Red-headed Vulture inhabits open country near habitation (Inskipp and Inskipp 1991), also well-wooded hills (Grimmett *et al.* 1998). The species feeds mostly on carrion; it also takes slow and wounded birds and readily takes stranded terrapins and occasionally fish in drying marshes during the peak summer months (Naoroji 2006). It is resident, subject to some altitudinal movements. A successful nest was found in a Palpa District community forest in 2012, 2014 and 2015 (Dhakal 2015) and an active nest was found in Barekot IBA, Jajarkot District in 2014/15 in a *Pinus roxburghii* tree (BCN unpublished data, Bhusal 2014).

## **Threats**

Food shortage seems likely to have been significant in the decline of Red-headed Vulture in the Kathmandu Valley (see Population section). The species declined there long before the use of diclofenac began. It is also likely to have been an important factor in the Annapurna region where the large number of ponies that was formerly used for goods transport (mainly to meet tourist needs, as well as for those of local people) has been largely replaced by vehicles. Dead ponies were formerly an important food source for vultures in the Annapurna region. Food shortage is possibly a significant factor elsewhere. The sharp decline in the species' population in India has been attributed to the use of diclofenac on livestock (Cuthbert *et al.* 2006) and it seems likely this is another important threat in Nepal. However, poisoning of carcasses, pesticide use and human persecution, for example destruction of nesting trees may be contributory factors.

## **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan et al. 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert et al. 2007). Gautam and Baral (2010b) point out that the use of human diclofenac for veterinary uses cannot be ruled out. To conserve vultures the Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). Seven community managed Vulture Safe Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015). Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC

2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011). Conservation actions initiated by the first VCAP have been successful at halting decline of *Gyps* vultures in Nepal. Continuation of efforts to complete the removal of diclofenac and other toxic NSAIDs from the vultures' food supply are essential. A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km² (68.73%) of Nepal (DNPWC 2015). The goal of the second VCAP plan is to prevent the extinction of Redheaded Vulture and other vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food and maintenance of suitable habitat. The five outputs desired that are relevant to Red-headed Vulture are:

- I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic compounds.
- II. Wild breeding populations of Red-headed Vulture are increased.
- III. Science based information system maintained.
- IV. Vulture conservation awareness among general public increased/maintained.
- V. Partnership among national and international organizations maintained

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

BCN's Vulture Conservation Programme works on:

- 1. Scientific Research and Monitoring
- 2. Advocacy, Awareness and capacity buildings
- 3. Vulture Safe Zones and Community managed Vulture Safe Feeding Sites
- 4. Vulture Conservation Breeding Centre
- 5. Enhancing Community-Based Vulture Conservation in Western Lowland of Nepal
- 6. Red-headed Vulture Project
- 7. Protecting the critically endangered vultures of Sukla Phanta Wildlife Reserve and Kailali District, Nepal through community-based integrated approaches.

## **Regional IUCN Status**

Endangered (EN A2ace) downgraded from the Global Red List status: Critically Endangered (CR)

## Rationale for the Red List Assessment

Red-headed Vulture has been assessed as Endangered based on the criteria A2ace. The species was formerly a fairly common resident in west-central Nepal, and occasionally recorded in the east and mid to far west. The species has significantly declined and, although it is still a widespread resident in the mid-west to far west, and locally frequent there and in west-central areas, it is now virtually absent from most areas east of Kathmandu. It has also declined sharply in the Annapurna Conservation Area. Mid-west and far west Nepal have been less

well recorded until recently, and it is therefore difficult to make a good comparison with records in the past and assess whether a decline has occurred there. Nowadays, almost all records are from the hills up to 2000 m and it is rarely seen in the terai. Food shortage seems likely to have been significant in the decline of the species in the Kathmandu Valley and in the Annapurna region and possibly elsewhere. The sharp decline in the species' population in India has been attributed to the use of diclofenac for livestock and it seems likely that this is an important threat in Nepal. However, poisoning of carcasses, pesticide use and human persecution may be contributory factors. The second Vulture Conservation Action Plan for Nepal (2015-2019) is now underway, but there is no evidence yet that Red-headed Vulture distribution and/or population have increased in response to the conservation measures taken. Since 1990 the species has been recorded in a number of protected areas, chiefly in western and central Nepal.

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## Aquila chrysaetos (Linnaeus, 1758) VU

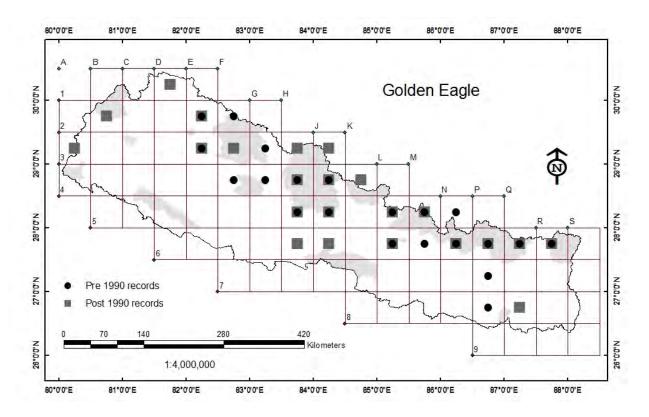
Subspecies Aquila chrysaetos daphanea

Common Name
Golden Eagle (English),
Suparna Mahaachil (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Golden Eagle is a widespread and sparsely distributed resident of the high Himalayas, mainly occurring over 2745 m. There are post-1990 records from Api Nampa Conservation Area in the west to Kanchenjunga Conservation Area in the east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844), when it was found on Shivapuri in December (year unknown) (Hodgson 1829).

The species has been recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012). It was seen frequently in several areas in Shey-Phoksundo National Park in the past (Fleming 1975, 1982, Jackson 1978, Mathiesen 1979, Priemé and Øksnebjerg1995), but only three sightings were made during a survey in August and September 2001 (Chetri 2004). The eagle is a rare resident in Rara National Park (Giri 2005, White and White 1995) and has been recorded from Manaslu Conservation Area (Katuwal *et al.* 2013, Shah 1998, Thakuri 2013). It was considered an uncommon resident in the Annapurna Conservation Area (ACA) by Inskipp and Inskipp (2003, but later records indicate it could now be rare. In upper Mustang in ACA, a survey found it is sparsely distributed (Chetri 2004). One was recorded at Ghatgain, Chitwan National Park at 300 m (Som GC, Anil Gurung, Krishnar Pariyar and Prakash Chapapain, NTNC workshop, October 2012). The eagle was reported

to be a fairly common resident in Langtang National Park by Karki and Thapa (2001), but later records indicate it is now very uncommon. It was recorded in Gaurishankar Conservation Area in May 2009 (Baral and Shah 2009), is a rare resident in Sagarmatha National Park (Basnet 2004), and a vagrant to Shivapuri-Nagarjun National Park (SNP and BCN 2007). Cox (1999) reported it was uncommon in Makalu Barun National Park, but there are few known later records. Inskipp *et al.* (2008) reported it was uncommon in Kanchenjunga Conservation Area based mainly on records from the 1990s. It is a rare winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005).

Chetri (2004) reviewed Golden Eagle's distribution throughout Nepal and concluded it is only sparsely distributed.

The majority of records of Golden Eagle have been from protected areas, pre- and post-1990. This is probably partly because the high Himalayas outside protected areas are relatively poorly known ornithologically.

Known post-1990 records from outside the protected areas' system are from: Yangar and Yari, Humla District in September 1994 (Prodon 1994); one in Limi valley, Humla in May 2011 (Yadav Ghimirey); occasionally seen in upper Humla (D1), Humla District (Kusi *et al.* 2015); Dashrash Chand, Baitadi District in June 2010 (Baral *et al.* 2010); Jumla to 2km before Gothichaur (Priemé 1992); Palpa District at c. 1800 m (Som GC); a juvenile at Dhrampani Village, Agrhatosh, Arghakhanchi District (G6) in December 2012 (Tulsi Subedi); one in Puran Chaur area, Kaski District (Hari KC); seven near Khare (=Khande), Kaski District between 15 September and 4 December 2012 at c. 1700 m (Subedi *et al.* 2013), and in Dolakha District in 1993 (Poulsen 1993).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, Canada, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Macedonia, the former Yugoslav Republic of, Mali, Malta, Mauritania, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, South Korea, Spain, St Pierre and Miquelon (to France), Sweden, Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Western Sahara, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013)

## **Elevation**

Upper limit: 4575 m (- 6190 m); lower limit: 2745 m (- 75 m)

## **Population**

No population surveys have been carried out for Golden Eagle. However, according to villagers of Lo Manthang, Nenhol and Samjung, Upper Mustang, ACA and the nomads of Panga Pasture, Upper Mustang, ACA, numbers of the eagle have declined sharply in the previous 10-15 years. According to local people, the eagle seldom visits the settlement areas in upper Mustang and is generally seen in undisturbed areas where human activities are very low. Observations indicate that the population seems to have decreased elsewhere in the Annapurna Conservation Area, although three were recorded between Muktinath and Tatopani in May 2013 by Munir Virani, Tulsi Subedi and Dikpal Karmacharya. The population also seems to have decreased in Shey Phoksundo, Langtang and Makalu Barun National Parks.

## <u>Total Population Size</u>

Minimum population 100; maximum population: 200

### **Habitat and Ecology**

Golden Eagle inhabits rugged high mountains, usually well above the tree-line (Grimmett *et al.* 1998), and also in open, rocky country in the trans-Himalayas (Chetri 2004). The eagle maintains large territories, vigorously

defended in the breeding season. It spends much time in the air often seen soaring high, shifting position from one ridge to another. Gliding low over a ridge, it pursues prey surprised out in the open or flushed from cover. Pairs often hunt cooperatively (Naoroji 2006). In the upper Kali Gandaki valley, ACA Golden Eagles have been observed attacking Demoiselle Cranes *Grus virgo* while on passage (Thiollay 1979). The eagle takes a wide range of prey, mainly medium-sized mammals and small to large birds from larks and pipits to geese, but usually medium-sized birds such as gamebirds (Naoroji 2006). The species has been proved breeding in Langtang National Park, where three nests have been found: in March 1987 (Kratter 1987), May 1988 (Tyler 1988), at Langtang village in October 2008 (NTNC workshop, October 2012); in an inaccessible cave near Nenhol, Upper Mustang, ACA (Chetri 2004), and above Lupra village, Annapurna Conservation Area in 2013 (Munir Virani pers. comm. to Tulsi Subedi).

## **Threats**

Golden Eagle may be threatened by pesticides, for example in Upper Mustang, Annapurna Conservation Area 5083.3. litres and 2.11 metric tons of pesticide were distributed between 1998 and 2004 to increase agricultural production (Acharya 2004). The eagle is threatened by cultural beliefs in Upper Mustang. If the head of the bird is hung on the door, it is believed that evil cannot enter the house (Acharya 2004, 2005; Chetri 2004). Locals in Upper Mustang also believe that the Golden Eagle makes its nest with expensive golden ornaments, but they are unable to find the nest (Acharya 2005). They also fear that Golden Eagles are as dangerous as Snow Leopard *Panthera uncia* to their livestock, but research into the species' diet elsewhere has shown this is untrue (Chetri 2004). Research focused on livestock loss by the eagle in high altitude pasture and measures to mitigate the conflicts is recommended by Chetri (2004).

## **Conservation Measures**

No conservation measures have been carried out specifically for Golden Eagle. It has been recorded in Shey-Phoksundo, Langtang and Makalu Barun National Parks, and Annapurna, Manaslu, Gaurishankar and Kanchenjunga Conservation Areas. It has also been reported marginally in Shivapuri-Nagarjun, Chitwan, Sagarmatha and Rara National Parks, and in Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Vulnerable (VU A2a) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Golden Eagle has been assessed as Vulnerable based on the criteria A2a. It is a widespread and sparsely distributed resident of the high Himalayas. The majority of records of Golden Eagles are from protected areas; this is probably partly because the high Himalayas outside protected areas are relatively poorly known ornithologically. According to villagers in two locations in Upper Mustang, Annapurna Conservation Area the eagle has sharply declined between 1989 and at least 2004; it is threatened here by local cultural beliefs which have lead to the eagle's persecution. It may also be threatened by pesticide use in Upper Mustang and elsewhere. Observations indicate that the population also seems to have decreased elsewhere in the Annapurna Conservation Area and in Shey Phoksundo, Langtang and Makalu Barun National Parks.

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## Aquila clanga Pallas, 1811 VU

## Common Name

Greater Spotted Eagle (English) Jibahaar Mahaachil (Nepali)

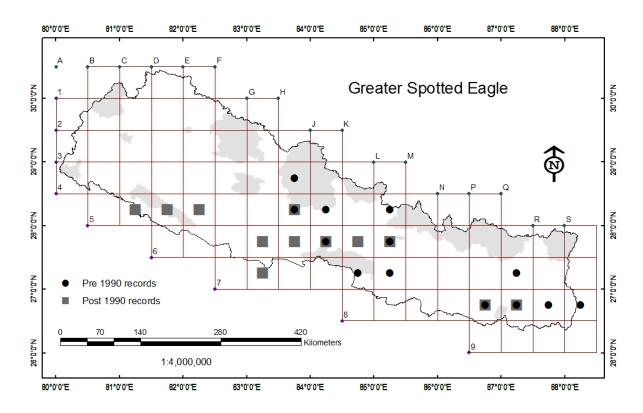
Order: Falconiformes Family: Accipitridae



## **General** information

Recent information indicates previous confusion between this species and Indian Spotted Eagle *A. hastata*. Pre-2003 records should be treated with caution as identification criteria have changed.

## **Distribution**



Greater Spotted Eagle is a rare winter visitor. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

Inskipp and Inskipp (1991) described it as uncommon and regularly recorded north-west of Pokhara, e.g. Mills and Preston (1981), Inskipp and Inskipp (1986); in Chitwan National Park, e.g. Gurung (1983), who describes it as an uncommon winter visitor, Madge (1986), and Linderstrom (1989); Kathmandu Valley, e.g. Madge *et al.* (1974), Kovacs (1987), and Harvey (1988); Koshi Barrage, e.g. Madge *et al.* (1974), Lambert (1979), Turton and Speight (1982), Klapste (1986), Turin *et al.* (1987), Kovacs (1988), and Linderstrom (1989); and north of Sunischare, Jhapa District, e.g. Inskipp and Inskipp (1981), and McKnight *et al.* (1989). Mainly single reports from other localities were noted by Inskipp and Inskipp (1991).

Since 1990 Greater Spotted Eagle has been recorded less frequently. Although it has sometimes been confused

with Indian Spotted Eagle in the past, especially pre-2003, observations indicate that both species are declining. Post-1990 it has been seen most regularly at Koshi Barrage/Koshi Tappu Wildife Reserve with the maximum of four in November 2000 (Basnet and Dowling 2000), three in February 2001 (Baral and GC 2001) and one or two birds in most other years.

Other sites where the species is known to be recorded post-1990 are: Bardia National Park (Baral 1992, van der Dol 2005); Nepalgunj, Banke District (van der Dol 2005); Dang Deukhuri Important Bird Area, Dang District (Cox 2008; Thakuri 2009a,b; 2010); Khadara Phanta, Kapilvastu District (Cox and Giri 2007, Cox 2008); Lumbini and elsewhere in Rupandehi District (Mallalieu 2006); Pokhara, Kaski District (Baral 1992, Giri 2008); Gundrahi Dhakaha Community Forest, Nawalparasi District (Chaudhary 2010); road between Kathmandu and Pokhara (Baral 1992, Kelly 2005); Kathmandu Valley (Eadson 1993, Choudhary 1995/1996, Giri 2005); road between Chitwan National Park and Kathmandu (Giri 2005); Chitwan National Park (Malling Olsen 2004, Choudhary 2004; Byskov 2007); Sauraha, Chitwan National Park buffer zone in March 2012 (Tika Giri), and Langtang National Park (O'Connell-Davidson *et al.* 2001) (where presumably a migrant). Records have been mainly single and sometimes two birds.

Three recorded flying west near Khare (=Khande), Kaski District between 15 September and 4 December 2012, were presumably migrants (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the Annapurna range two birds were seen migrating west between 20 and 26 November 2013 (Subedi *et al.* 2014).

Globally the species has also been recorded from Afghanistan, Albania, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, Cambodia, Cameroon, Chad, China (mainland), Croatia, Cyprus, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, Georgia, Gibraltar (to UK), Greece, Hong Kong (China), Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Malaysia, Mali, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, South Korea, South Sudan, Spain, Sudan, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Yemen, Zambia (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 250 m (- 3840 m on passage); lower limit: 75 m

## **Population**

No population surveys have been carried out for Greater Spotted Eagle, but observations indicate that numbers must be very small and declining.

## **Total Population Size**

Minimum population 20; maximum population: 100

## **Habitat and Ecology**

Greater Spotted Eagle inhabits well-wooded tracts in the vicinity of waterbodies (Naoroji 2006). It is a generalist feeder taking mainly frogs, stranded or dead fish, lizards, and medium-sized birds (Naoroji 2006).

#### **Threats**

Greater Spotted Eagle may well be at risk from pesticides which are widely and often intensively used in the lowlands where has been recorded most frequently.

## **Conservation Measures**

No conservation measures have been carried out specifically for Greater Spotted Eagle. There are a few recent records of the species from Chitwan and Bardia National Parks, and also Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Vulnerable (VU A2ace? D1) no change from the Global Red List status: Vulnerable (VU)

#### Rationale for the Red List Assessment

Greater Spotted Eagle has been assessed as Vulnerable under the criterion A2ace? and D1. The species is a rare winter visitor. Although it has sometimes been confused with Indian Spotted Eagle, especially pre-2003, observations indicate that the population of both species is small and declining. It is threatened by habitat loss and may well be at risk from pesticides which are widely and often intensively used in the lowlands where has been recorded most frequently. There are a few recent records from three protected areas.

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## Aquila hastata (Lesson, 1831) VU

#### Common Name

Indian Spotted Eagle (English) Laghu Mahaachil (Nepali)

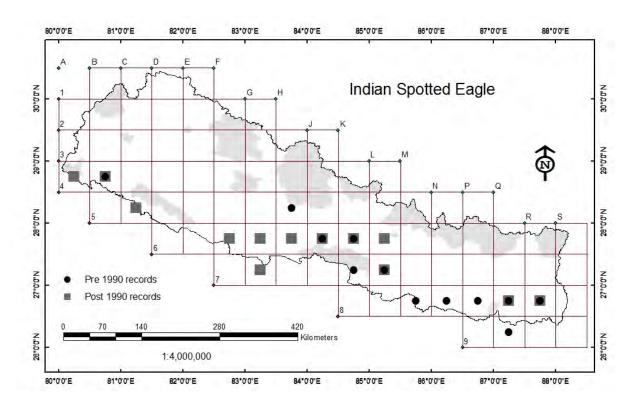
Order: Falconiformes Family: Accipitidrae



## **General** information

Recent information indicates previous confusion between this species and Greater Spotted Eagle *A. clanga*. Pre-2003 records should be treated with caution as identification criteria have changed.

## **Distribution**



Indian Spotted Eagle is a rare resident. The first Nepal record was in December 1952: a specimen collected at Dhanghadi, Kailali District (Fleming and Traylor 1961).

It was considered a very uncommon resident by Inskipp and Inskipp (1991). Since 1990 Indian Spotted Eagle has been recorded less frequently. Although it has sometimes been confused with Greater Spotted Eagle in the past, especially pre-2003, observations indicate that both species are declining.

There are several pre-1990 records from Chitwan National Park, e.g. del-Nevo and Ewins (1981), Gurung (1983), Goodwin (1986), Andersen *et al.* (1996), Kovacs (1987), and a pair nest-building in 1988 (Suwal and Shreshta 1988). Post-1990 there have been a number of records in the park, including a nesting pair in 1996 (Basnet 1996) and three birds, including one displaying, at a different Chitwan site in 1996 (Baral 1996). It was regularly observed breeding in Jai Mangala, former Padampur village in the park until 2007 (Hem Subedi and

Bishnu Mahato); single birds were seen here until March 2012 (Bishnu Mahato). The eagle was also sighted near Chitwan Jungle Lodge between 1994 and 1996 (Suchit Basnet). It was also seen in the buffer zone at Madi village 2011 (Sunaina Raut) and at Sauraha in March 2012 (Tika Giri).

Pre-1990 the species was regularly reported from Koshi Barrage and Koshi Tappu Wildlife Reserve pre-1990, e.g. Joliffe *et al.* (1981), Hornskov (1984), Goodwin (1986), Nicolle (1987), Nielsen (1988), and Bose *et al.* (1989), but there are only two known later records: four at Koshi in November 2002 (Cottridge and Tiwari 2002) and one in Koshi Tappu Wildlife Reserve in October 2012 (Inskipp and Inskipp 2012).

There are several records from Pokhara, Kaski District, e.g. Turton and Speight (1982), Clugston (1985) and Halliday (1986), and a few from Begnas Tal, Kaski District, e.g. Calladine (1985), but the species has not been recorded from either locality subsequently. Three recorded flying west near Khare (=Khande), Kaski District between 15 September and 4 December 2012 were presumably migrants (Subedi *et al.* 2013). The species was found at Hetauda, Makwanpur District in 1981 (Mills and Preston 1981) and in December 1995 (Rasmussen and Strange 1995), but there are no later records from the area.

The species has been regularly recorded recently from Lumbini, Rupandehi District: single pairs were found nesting in July 1994 (Giri and Manandhar 1994), January 2006 (Mallalieu 2006), November 2006 (Giri 2010) and in November 2011 (Suchit Basnet). The maximum of four was sighted there in May-June 2009 (Ramond and Giri 2009).

Post-1990 records from other sites are: singles in Sukla Phanta Wildlife Reserve in May 1998 (Baral 1998) and May 2010 (Baral 2010), Ghodaghodi Tal, Kailali District in April 1993 (Baral 1993); two in Bardia National Park in November 1997 (Choudhary 1998) and one in May 2007 (Shahi 2010); Gaguda, Doti (1200 m) adult on in April 2015 (Arend van Riessen); three at Khadara Phanta, Kapilvastu District in November 2006 (Giri 2010); singles at Jagdishpur, Kapilvastu District in August 2007 (Baral and Shah 2007) and in Gundrahi Dhakaha Community Forest, Nawalparasi district in January 2010 (Chaudhary 2010); Mugling, Chitwan District in December 2001 (Naylor *et al.* 2002); Taudaha, Kathmandu Valley in March 2004 (Kennerley and Karki 2004) (although this record does not fit the normal distribution pattern as it is at an unusually high altitude), and one at Birthamod, Jhapa District in February 1994 (Cottridge *et al.* 1994).

Globally the species has also been recorded in Bangladesh, Cambodia, India, Myanmar, Pakistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 350 m (- 1200 m); lower limit: 75 m

## **Population**

A comprehensive survey of Koshi Tappu Wildlife Reserve counted six birds in April 2012 (Baral *et al.* 2013). No other population surveys have been carried out for the species, but observations indicate that numbers must be very small.

#### **Total Population Size**

Minimum population: 30; maximum population: 70

# **Habitat and Ecology**

Indian Spotted Eagle favours mixed habitats: hunts in open wetlands, marshes and river valleys within or near woodland or deep forest; breeds in well-wooded areas (Naoroji 2006). It feeds on a wide range of prey, mainly small mammals, supplemented by a variety of amphibians, medium to small-sized birds, reptiles, and insects (Naoroji 2006).

#### Threats

Indian Spotted Eagle may well be at risk from pesticides, which are widely and often intensively used in the lowlands, where it has been recorded most frequently.

One was found hanging on an electricity wire on the Daunne-Bardghat section of a Nawalparasi District survey of the electrocution risk to vultures and other birds in November 2010. The survey revealed that the junctions of more electricity wires, metal poles and closely extended wires are a high risk for birds (Anon. 2010).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Indian Spotted Eagle. There are several known post-1990 records of Indian Spotted Eagle from Chitwan National Park and a very few from Bardia National Park and Sukla Phanta Wildlife Reserve.

#### **Regional IUCN Status**

Vulnerable (VU A2ace? D1) no change from the Global Red List status: Vulnerable (VU)

## Rationale for the Red List Assessment

Indian Spotted Eagle has been assessed as Vulnerable based on the criterion A2ace? and D1. It is a rare resident. Although it has sometimes been confused with Greater Spotted Eagle, especially pre-2003, observations indicate that the population of both species is small and declining. It is threatened by habitat loss and may well be at risk from pesticides which are widely and often intensively used in the lowlands where it has been recorded most frequently. It has been recorded from three protected areas since 1990.

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## Aquila nipalensis Hodgson, 1833 VU

Subspecies: Aquila nipalensis nipalensis

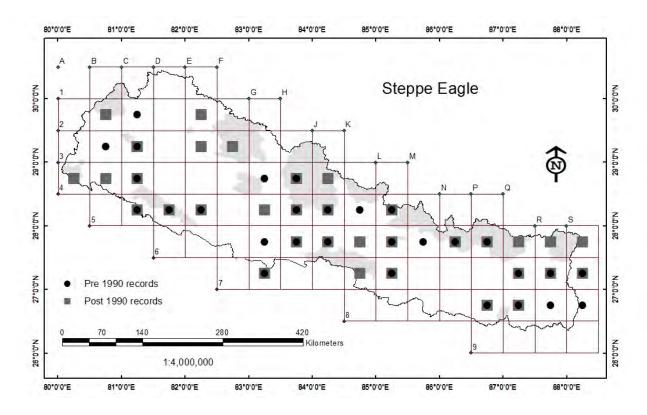
<u>Common Name</u> Steppe Eagle (English),

Gomaayu Mahaachil (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Steppe Eagle is a fairly common winter visitor and passage migrant. It is widespread, recorded post-1990 from Api Nampa Conservation Area in the far west to Kanchenjunga Conservation Area in the far east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1833) when it was recorded in the Kathmandu Valley (date unknown) (1829).

The eagle occurs in most protected areas. It has been recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012); is an occasionally recorded winter visitor in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009; recorded in Rara National Park in October 2015 (Chaudhary et al. 2015); occasionally recorded and possibly a winter visitor and/or passage migrant to Bardia National Park (Inskipp 2001); an occasionally recorded passage migrant in Khaptad National Park (Chaudhary 2006, Khadka 1996); a passage migrant in Shey Phoksundo National Park (Priemé and Øksnebjerg 1995); a common winter visitor and passage migrant in the Annapurna Conservation Area (ACA) (Inskipp and Inskipp 2003); a fairly common winter visitor and passage migrant in Langtang National Park (Karki and Thapa 2001, Madge and Appleby 1980); Shivapuri Nagarjun National Park (SNP and BCN 2007) and Chitwan National Park (Baral and Upadhyay 2006); recorded in Parsa Wildlife Reserve (NTNC workshop, October 2012) and in Gaurishankar Conservation Area (Baral and Shah

2009); an uncommon passage migrant in Sagarmatha National Park (Basnet 2004, Beaman 1982, Inskipp and Inskipp 1998); a common passage migrant in Makalu Barun National Park (Cox 1999); an occasionally recorded passage migrant in Kanchenjunga Conservation Area (Inskipp *et al.* 2008), and a fairly common winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005).

The species has been recorded in Chitwan National Park buffer zone, e.g. at Bees Hazari Tal, Barandabhar Important Bird Area (Baral 1996) and at Tharu Cultural Jungle Resort, Nawalparasi District in December 2011 (Baral 2011).

Steppe Eagle is also widespread outside the protected areas' system pre- and post-1990. No significant changes in distribution have been noted (see map). Known records from unprotected localities post-1990 are given below.

In the west records include: from Badimalika region, Achham District (C3) in 1998 (Karki et al. 2003); north of Jumla, Jumla District in April 2009 (O'Connell Davidson and Karki 2009); Nepalgunj, Banke District in March 1992 (Priemé 1992); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Reshunga Important Bird Area, Gulmi District in February 2011 (Thakuri 2011, 2013); Lumbini, Rupandehi District in February 2011 (Acharya 2011); many records from Pokhara, Kaski District, e.g. 10 in January 2005 (Mallalieu 2005) and 12 in February 2009 (Naylor et al. 2009); recorded at Balewa, Baglung District (Basnet 2009), and Baglungpani to Ganpokhara, Lamjung District in March 2000 (Byrne 2000).

In central areas records include: E. Rupandhehi/ Nawalparasi Districts (H6) (NTNC workshop, October 2012); from Mugling, Makwanpur District in December 2009 (Thewlis *et al.* 2009); trek to the Upardanggadhi hills, Chitwan District in January 2010 (Dymond 2012); ten at Siraichuli Chitwan District in February 2011 (Hem Subedi); Trisuli River, Belkhu, and Dhading District in December 2011 (Carter and James 2011). Mallalieu (2008) reported that it was a common winter visitor and passage migrant to the Kathmandu Valley between 2004 and 2006. Soaring birds range over the entire valley but the largest numbers occur in Chobar. Arend van Riessen (*in litt.* to H. S. Baral and C. Inskipp, June 2015) confirmed it was a common winter visitor and passage migrant in the Bagmati valley, with a maximum of 50 on 2 May (year unknown).

In the east records include: from Sedhawa, Siraha District to camp west of Lal Bakaiya Nadi, Rautahat District in April 2003 (Cox 2003); Dolakha District in 1993 (Poulsen 1993); Bhotebas to Khandbari, Sankhuwasabha District in November 1994 (Baral and Buckton 1994); north of Koshi Tappu Wildlife Reserve, Sunsari District in March 2010 (Baral 2010); Dharan forests Important Bird Area, Sunsari District in 2008 (Basnet and Sapkota 2008); Tinjure forest, Tehrathum District in 1997/1998 (Rai 2003); between Basantapur and Chauki, Terhathum District in April 2008 (Inskipp *et al.* 2008);15 at Suketar, Taplejung District in October 2000 (Goble 2000), and Jamuna and Hange Tham, upper Mai valley in March 2008 (Robson *et al.* 2008).

Large numbers of Steppe Eagle use the Himalayas as an east-west pathway mainly in October and November and have been reported across the breadth of Nepal. Highest counts have been made south of Annapurna, ACA. Between Birethante and Phedi a total of 992 birds migrated west from 26 to 28 October 1984 (Bijlsma 1991). Counts have subsequently been made nearby near Khande (=Khare), Kaski District where 7,852 birds were recorded between 20 October and 7 November 1985 (de Roder 1989), 821 between 27 October and 4 November 1999 (DeCandido *et al.* 2001), 6,503 between 23 October and 5 December 2003 (Gurung *et al.* 2004); 5,498 between 30 October and 5 December 2005 (Gurung 2005); 1,105 between 14 and 28 November 2011 (DeCandido *et al.* 2011), and 6,597 birds between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range 8,684 birds migrated west between 10 and 22 November 2013 (Subedi *et al.* 2014) and 6,133 birds between 3 October and 8 November 2014 (Subedi 2015).

Large numbers were noted roosting above Chandrakot, ACA (date unknown) (Suchit Basnet and Tulsi Subedi). Approximately 25 birds were seen feeding at Okharpouwa rubbish dumping site in Nuwakot District in 2003 (Subedi 2004). A total of 46 was counted at Dharke, Dhading District (Shankar Tiwari) and at Chobar, Kathmandu Valley and 38 were seen in December 2009 (Hathan Chaudhary) and 17 in November 2011 (Som GC).

There are several records of smaller numbers migrating south down Himalayan valleys in October and November including 276 down the Trisuli valley, Langtang National Park in two and a half hours on 24 October 1980 (Madge and Appleby 1980). There are fewer reports of spring migration, including 25 flying north in 15 minutes over the Naudanda ridge, ACA on 10 March 1981 (Kjellen *et al.* 1981) and 150 moving north over Namche Bazaar, Sagarmatha National Park on 10 March 1982 (Beaman 1982).

Globally the species has also been recorded in Afghanistan, Albania, Angola, Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Bhutan, Botswana, Bulgaria, Burundi, Cameroon, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, Georgia, Germany, Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Lebanon, Malawi, Malaysia, Mali, Moldova, Mongolia, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Singapore, Slovakia, Somalia, South Africa, South Sudan, Spain, Sudan, Swaziland, Sweden, Syria, Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 2200 m (- 7925 m on passage); lower limit: 75 m

## **Population**

Mallalieu (2008) estimated the wintering population in the Kathmandu Valley between 2004 and 2006 was 100-150 individuals. No population surveys or other population estimates have been made.

## **Total Population Size**

Minimum population 10,000; maximum population: 20,000

## **Habitat and Ecology**

Steppe Eagle inhabits a range of habitats: wooded hills, open country, lakes and large rivers (Inskipp and Inskipp 1991). It is a pirate and carrion eater, also feeding on easily available prey such as injured birds, stranded fish, rodents, lizards and snakes and anything it can procure through kleptoparasitism and minimum hunting. It readily comes to small carcasses where it does not usually have to compete with vultures (Naoroji 2006).

#### **Threats**

Threats to Steppe Eagle in Nepal are unknown; however, it may be at risk from pesticides. It is suspected that in eastern Asia, a stronghold for breeding Steppe Eagles which are likely to pass through Nepal, this species is in decline due to intensification of agriculture, and overgrazing of steppe habitats by domestic grazing animals (DeCandido *et al.* 2013).

## **Conservation Measures**

No conservation measures have been carried out specifically for Steppe Eagle. Since 1990 it has been recorded in Bardia, Khaptad, Rara, Shey Phoksundo, Langtang, Shivapuri Nagarjun, Chitwan, Sagarmatha and Makalu Barun National Parks; Api Nampa, Annapurna, Gaurishankar and Kanchenjunga Conservation Areas, and Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves.

## **Regional IUCN Status**

Vulnerable (VU A2e?) no change from the Global Red List status: Vulnerable (VU)

#### Rationale for the Red List Assessment

Steppe Eagle has been assessed as Vulnerable because BirdLife International has assessed it as globally Endangered and also based on the criteria A2e? It is a fairly common and widespread winter visitor and passage migrant. The eagle occurs in most protected areas and was found to be widespread outside the protected areas' system pre- and post-1990. No significant changes in distribution or population have been noted. Threats to Steppe Eagle in Nepal are unknown although it may be at risk from pesticides.

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## Circus aeruginosus (Linnaeus, 1758) VU

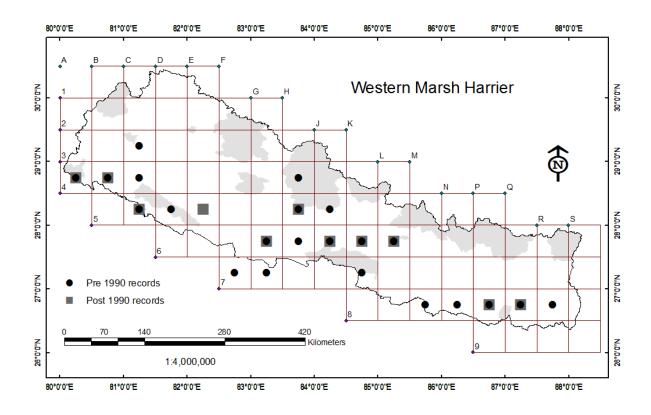
## Common Name

Western Marsh Harrier (English), Sim Bhuinchil (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Western Marsh Harrier is a local and uncommon winter visitor and passage migrant. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844) when it was recorded in the Kathmandu Valley (Hodgson 1829).

Inskipp and Inskipp (1991) reported it was a fairly common winter visitor and passage migrant, occurring widely in the lowlands, but recently it has been recorded from fewer localities.

In the west, Schaaf *et al.* (1980) described it as an occasionally recorded winter visitor to Sukla Phanta Wildlife Reserve. Recently it has been regularly seen on the reserve in small numbers, e.g. two in April 2007 (Baral 2007), two in January 2009 (Baral 2009a), and one in March 2011 (Chaudhary 2011). It was recorded in Bardia National Park pre-1990, e.g. Dinerstein (1979) and in 1989 Madsen (1990) and post-1990, e.g. one in January 1992 (Halliday and Baral 1992, Wartmann and Schonjahn 1992).

Chaudhary (2006) reported it was a rare passage migrant to Khaptad National Park.

One was seen in 1989 in Rara National Park (Barber 1990) and the species is listed as a rare migrant to the park

(Giri 2005).

Gurung (1983) considered the species a fairly common winter visitor to Chitwan National Park and it was regularly reported in the park in the 1970s and 1980s, e.g. a few seen in February 1974 (Madge *et al.* 1974), six plus at Sauraha in the buffer zone in February 1981 (del Nevo and Ewins 1981), but it has been recorded much less often recently, e.g. two in November 1992 (Baral 1993) and two in February 1998 (Chaudhary 1998). D. B. Chaudhary (*in litt.* to C. Inskipp February 2012) confirmed the species has declined in the park. The harrier was recorded at Bees Hazari Tal in the park buffer zone in 1996 (Baral 1996).

The species has been most regularly seen and in greatest numbers on the Koshi marshes near Koshi Barrage and in Koshi Tappu Wildlife Reserve (see Population section).

Known records outside the protected areas' system follow.

In the west records include from Ghodaghodi Tal, Kailali District in 1992 (Baral 1992); two at Jagdishpur Reservoir, Kapilvastu District in January 2006 (Mallalieu 2006) and one in December 2010 (Inskipp and Inskipp 2010), and two in Dang Deukhuri Important Bird Area, Dang District in October 2008 (Thakuri 2009). Large numbers were observed roosting with other harriers near Lumbini, Rupandehi District in November 1997 (Limbu 1997); however, the roost is no longer present (Hem Sagar Baral). The species was also recorded at Lumbini in January 2006 (Mallalieu 2006).

In west-central Nepal three were seen at Phewa Tal, Kaski District in December 1970 and three plus there in January 1981 (del-Nevo and Ewins 1981); also up to five roosting in Pokhara airfield in December 1970 (Inskipp et al. 1971). Singles were also reported at Phewa Tal recently, e.g. in November and December 2006 (Naylor et al. 2006), December 2007 (Naylor and Metcalf 2007) and December 2008 (Naylor and Turner 2008). Four were seen at Begnas Tal, Kaski District in December 1970 (Inskipp et al. 1971) and five in January 1981 (del-Nevo and Ewins 1981), but none has been recorded there recently. It was seen on passage in the upper Kali Gandaki valley: ten flew south between 6 September and 3 October 1973 (Beaman 1973). Singles passed the Thoolakharka raptor watch site, Kaski District in 2013 and in 2014 (Subedi 2015).

In central Nepal, Scully (1879) described it as common throughout the winter in the Kathmandu Valley, the Nawakot district and the terai and plains of Nepal. Proud (1949) and Fleming *et al.* (1976) considered it the common harrier over fields bordering the Manora and other streams. However, it has been very uncommon in the Valley in later years, e.g. one was seen by the Manora in November 1970 (Inskipp *et al.* (1971), one at Taudaha in January 1997 (Baral 1997), and one flying over in April 2001 (Inskipp and Inskipp 2001). In his review of Kathmandu Valley records from 2004-2006, no Marsh Harriers were reported.

Apart from the Koshi Barrage the only additional locality in the east is Chimdi lake, Sunsari District (Surana et al. 2007).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guadeloupe (to France), Guinea, Guinea-Bissau, Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 915 m (- 1525 m); lower limit: 75 m

## **Population**

No surveys have been carried out for Western Marsh Harrier. However, it has been well recorded in the Koshi area since the early 1980s and the observations indicate an overall decline in numbers during the period. The maximum of 50+ was seen in February 1981 (del-Nevo and Ewins 1981) Maximum numbers recorded at Koshi in other years were: 20 in February 1981 (Mills and Preston 1981), March 1982 (Robson 1982), and March 1984 (Redman 1984), 14 in December 1992 (Baral 1992), seven in November 1993 (Tarrant and Tarrant 1993), six in January 1994 (Choudhary 1994), ten in February 1995 (Baral 1995), 17 in November 1996 (Giri 1996), six in January 1997 (Chaudhary 1997), eight in February 1998 (Chaudhary 1998), three in December 2000 (Chaudhary 2001), three in February 2001 (Baral and GC 2001), nine in January 2002 (Giri 2002), three in February 2003 (Chaudhary 2003b), two in February 2004 (Bray and Basnet 2004), seven in February 2005 (Baral 2005), three in February 2007 (Choudhary 2007), one in February 2008 (Tribe 2008), three in October 2009 (Baral 2009b).

#### **Total Population Size**

Minimum population: unknown; maximum population: <750

#### Habitat and Ecology

Western Marsh Harrier frequents marshes and also grasslands and paddy-fields (Inskipp and Inskipp 1991). When wintering feeds on a wide range of prey depending on local availability. Reptiles, mainly small watersnakes, frogs, fish, rodents, a wide range of waterbirds and grassland birds have been specifically recorded. Additionally, it takes insects, mainly grasshoppers and crickets, and often comes down to carrion (Naoroji 2006).

## **Threats**

Western Marsh Harrier is seriously threatened by the loss of marshes, shortage of food and possibly pesticides.

## **Conservation Measures**

No conservation measures have been carried out specifically for Western Marsh Harrier. Recently it has been regularly recorded in Koshi Tappu Wildlife Reserve and Sukla Phanta Wildlife Reserve, and less frequently in Chitwan National Park. It was recorded in the past from Bardia National Park.

# **Regional IUCN Status**

Vulnerable (VU A2ace? C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Western Marsh Harrier has been assessed as VU based on the criteria A2ace?, C2a(i) and D1. The species is now a local and uncommon winter visitor and passage migrant. It has been less widely recorded in recent years than pre-1990. The numbers of Western Marsh Harrier have significantly declined near Koshi Barrage and in the Koshi Tappu Wildlife Reserve, the area where it has been most regularly and frequently recorded, also in the Kathmandu Valley, Pokhara valley and Begnas Tal, Kaski District, and in Chitwan National Park where it was formerly fairly common. Protected areas where it has been recorded recently are Sukla Phanta Wildlife Reserve and Bardia National Park. The species is seriously threatened by the loss of marshes, shortage of food and possibly by pesticides and is probably declining.

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## Circus cyaneus (Linnaeus 1766) VU

Subspecies: Circus cyaneus cyaneus

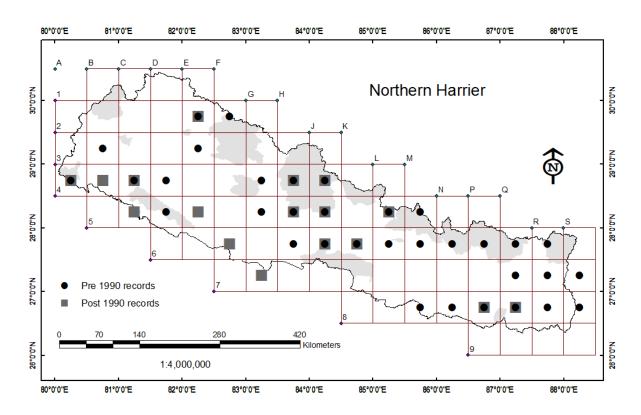
## Common Name

Northern Harrier (English), Challachor Bhuinchil (Nepali)

Order: Falconiformes Family: Accipitidrae



## **Distribution**



Northern Harrier is a winter visitor and passage migrant, recorded occasionally, except in the Koshi area (Koshi Barrage/Koshi Tappu Wildlife Reserve), where it is seen annually in small numbers. It was formerly found from the far west to the far east (Inskipp and Inskipp 1991), but recently almost all records have been from central and western areas, with the exception of Koshi in the far east.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844); specimens included one from the Kathmandu Valley in October (year unknown) (Hodgson 1829).

Inskipp and Inskipp (1991) found the species a fairly common and widespread winter visitor and passage migrant in Nepal.

In the west Schaaf *et al.* (1980) described the species as an occasionally seen passage migrant and possibly a winter visitor in Sukla Phanta Wildlife Reserve. One was seen there in May 1982 (Inskipp and Inskipp 1982). It has been recorded there occasionally in later years: three in March 1991 (Baral 1991), singles in January 1992 (Baral and Mills 1992) and January 1995 (Choudhary 1995), two in December 1997 (Chaudhary 1998), three in March 1998 (Chaudhary 1998), two in December 2002 (Baral *et al.* 2002), and singles in April 2007 (Baral

2007b) and February 2011 (Chaudhary 2011).

The species was listed by Dinerstein (1979) for Bardia National Park; two were seen there in January 1992 (Baral and Mills 1992), and singles in December 1996 (Chaudhary 1997) and November 1997 (Chaudhary 1998). Giri (2005) described the harrier as an occasionally recorded winter visitor and passage migrant in Rara National Park.

Several new localities have been reported in the west in recent years, probably because of better observer coverage. It was reported to be a passage migrant to Khaptad National Park (Chaudhary 2006). One was seen at Ghodaghodi Tal, Kailali District in January 1992 (Baral 1992), two at Badhaiya Tal, Bardia District in January 2008 (Shahi 2010), one in Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b), and three at Khadara Phanta, Kapilvastu District in October 2006 (Giri 2010).

In west-central Nepal the large number of 20 was recorded at a roost on Lumbini Development Trust land, Rupandehi District in April 1993 (Baral 1993b). Limbu (1997) reported a mixed roost of Northern Harriers, Western Marsh Harriers *Circus aeruginosus* and Pied Harriers *C. melanoleucos* here in November 1997, totalling 118 birds (the number of Northern Harriers is not known), but the roost is no longer present (Hem Sagar Baral *in litt*. to C. Inskipp January 2012).

Northern Harrier was fairly common in winter and on passage in the Annapurna Conservation Area (ACA) pre-1990, e.g. between Pokhara and Muktinath five were seen at three localities in 1977 (Inskipp and Inskipp 1977), six at four sites in December 1981 (Hall 1981), eight at six localities in February 1982 (Robson 1982), and 11 in February 1982 (Turton and Speight 1982). However, small numbers have been seen in recent years. For example, none was recorded between Pokhara and Jomosom in December 2002 (Naylor et al. 2002), one was seen at Ghorepani in March 2003 (Naylor et al. 2003) and on three-week treks of the Annapurna Circuit trek in November/December one was seen in 2005 (Naylor and Giri 2005), none in 2007 (Naylor and Metcalf 2007) and one in 2008 (Naylor and Turner 2008).

Up to 15 roosted at Pokhara airfield, Kaski District in December 1970 (Inskipp *et al.* 1971). Smaller numbers have been seen in the Pokhara valley in later years: three in December 1977 (Inskipp and Inskipp 1977), singles in January 1981 (del-Nevo and Ewins 1981), March 1987 (Kovacs 1987), November and December 2004 (Naylor and Giri 2004), December 2008 (Naylor and Turner 2008) and December 2009 (Thewlis *et al.* 2009).

Up to 15 were seen at Begnas Tal, Kaski District in December 1970, probably birds going to roost (Inskipp *et al.* 1971), three in December 1977 (Inskipp and Inskipp 1977) and five in December 1980 (Hall 1981), but no recent records are known.

At Khare (=Khande), a raptor watchpoint in Kaski District, a total of 66 birds migrated west between 20 October and 7 November 1985 (de Roder 1989); none between 27 October and 4 November 1999 (DeCandido et al. 1999); 12 between 23 October and 5 December 2003 (Gurung 2003); none between 14 November and 15 December 2011 (DeCandido et al. 2011) and 19 birds between 15 September and 4 December 2012 (Subedi et al. 2013). At nearby Thulo Kharkha, just south of the Annapurna range nine birds were seen migrating west between 27 September and 17 November 2013 (Subedi et al. 2014), and 19 birds between 19 September and 8 December 2014 (Subedi 2015). A reduction in the migrating population may be the cause of the fall in numbers, although weather conditions could also be a factor.

In central Nepal Scully (1879) reported it was a fairly common winter visitor to the Kathmandu Valley, but subsequently it has been a passage migrant. Proud (1949) observed a pair in March and April 1948, Inskipp *et al.* (1971) had several records in October and November 1970, and Fleming *et al.* (1976) recorded it in spring and autumn. There are few later records from the Valley, e.g. singles by the Manora River in October 1992 (Baral 1992), at Taudaha in March 1993 (Baral 1993a), and near Basnetgaon in April 2007 (Hathan Choudhary in Mallalieu 2008).

Gurung (1983) reported the species was seen occasionally in Chitwan National Park from September to May. It has been less frequently recorded post-1990 and now appears to be uncommon: two were seen in January 1992 (Baral and Mills 1992), March 1996 (Baral 1996), and October 1997 (Baral 1997), and singles in January 2001 (Chaudhary 2001), February 2010 (Baral 2010), one or two in January 2011 (Baral 2011 and Bird Education Society), and January 2012 (Kalu Ram Tamang). D. B. Chaudhary (*in litt*. to C. Inskipp February 2012), also Hem Subedi and Kalu Ram Tamang confirmed that Northern Harrier had declined in the park. Singles were seen in the park buffer zone at Icharni and Sauraha in February 2012 (Kalu Ram Tamang) and also at Sauraha in September 2012 (Tika Giri).

Northern Harrier is listed as a fairly common winter visitor in Langtang National Park by Karki and Thapa (2001), but there are few post-1990 records; one bird was sighted at Rimche in the park in March 2012 (Hathan Chaudhary). The species is reported as an uncommon passage migrant in Sagarmatha National Park (Basnet 2004) and is listed for Kanchenjunga Conservation Area (Inskipp *et al.* 2008).

Up to four have been recorded annually in the Koshi area (near Koshi Barrage and in Koshi Tappu Wildlife Reserve), although only one or two birds have been reported since 2007. Two were seen in February 1981 (Joliffe *et al.* 1981), three in March 1982 (Robson 1982), three in December 1991 (Baral and Mills 1992), three in March 1992 (Baral 1992), three in December 1993 (Choudhary 1994), three in January 1994 (Chaudhary 1994), two in January 1995 (Baral 1995), two in November 1996 (Chaudhary 1997), two in February 1997 (Choudhary 1997), two in February 1998 (Chaudhary 1998), two in April 1999 (Choudhary 1999), four in December 2000 (Chaudhary 2001), three in February 2001 (Baral and GC 2001), four were seen in January 2002 (Giri 2002), four in February 2003 (Chaudhary 2003), one in February 2007 (Baral 2007a), two in February 2009 (Baral 2009), and singles in March 2010 (Baral 2010), March 2011 (Suchit Basnet), and November 2011 (Baral 2011).

The species was previously recorded from a number of localities in east-central and east Nepal where it has not been found post-1990. These include Ilam, Ilam District in January 1974 (Madge *et al.* 1974), Pakhribas, Dhankuta District from January to late March 1978 when groups of up to five birds often gathered at sunset (Isherwood 1978), between Jamuna and Ilam in February 1981 (Baker 1981) and Hetauda, Makwanpur District in 1981 (Mills and Preston 1981).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Antigua and Barbuda, Armenia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Bermuda (to UK), Bhutan, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Bulgaria, Cambodia, Canada, Cayman Islands (to UK), China (mainland), Colombia, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Egypt, El Salvador, Estonia, Faroe Islands (to Denmark), Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Grenada, Guadeloupe (to France), Guatemala, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malaysia, Malta, Martinique (to France), Mexico, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Myanmar, Netherlands, Nicaragua, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Panama, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, South Korea, Spain, St Kitts and Nevis, St Lucia, St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013

#### Elevation

Upper limit: 3000 m (- 5400 m); lower limit: 75 m

# **Population**

No population surveys have been carried out for this species, but observations indicate that the population has declined and that numbers must be quite small.

# **Total Population Size**

Minimum population: unknown; maximum population: <600

#### Habitat and Ecology

Northern Harrier frequents open country, grassland and cultivation (Inskipp and Inskipp 1991). It feeds on a wide range of prey, mainly birds and rodents, supplemented insignificantly by lizards and large insects such as beetles and grasshoppers (Naoroji 2006). The species is the most common harrier over 1400 m. It is often seen up to 3000 m in winter and at much higher altitudes on migration (Inskipp and Inskipp 1991). The maximum height recorded was one flying high over the Thorang La (ACA) at 5400 m in March 1986 (Gawn 1987).

#### **Threats**

Threats to Northern Harrier are unknown, but are possibly pesticides and food shortage.

## **Conservation Measures**

No conservation measures have been taken specifically for Northern Harrier. Recently it has been recorded in Chitwan, Bardia, Langtang, Rara and Sagarmatha National Parks; Sukla Phanta and Koshi Tappu Wildlife Reserves, and Annapurna and Kanchenjunga Conservation Areas.

## **Regional IUCN Status**

Vulnerable (VU A2ae? C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Northern Harrier has been assessed as Vulnerable based on the criteria A2ae? C2a(i) and D1. The species is an occasionally recorded winter visitor and passage migrant, except in the Koshi area where it is seen annually in small numbers. The harrier was formerly found from the far west to the far east, but recently almost all records have been from central and western areas, with the exception of Koshi in the far east. It has declined in the Pokhara valley, Chitwan National Park, Annapurna Conservation Area and in the Koshi Area (Koshi Barrage/Koshi Tappu Wildlife Reserve). There are no recent records from a number of localities in central and east Nepal where it was recorded pre-1990. However, several new localities in the west have been reported in recent years, no doubt because of better observer coverage. Threats to Northern Harrier are unknown but are possibly pesticides and food shortage. Recently it has been recorded in several protected areas.

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# Circus macrourus (Linnaeus 1766) VU

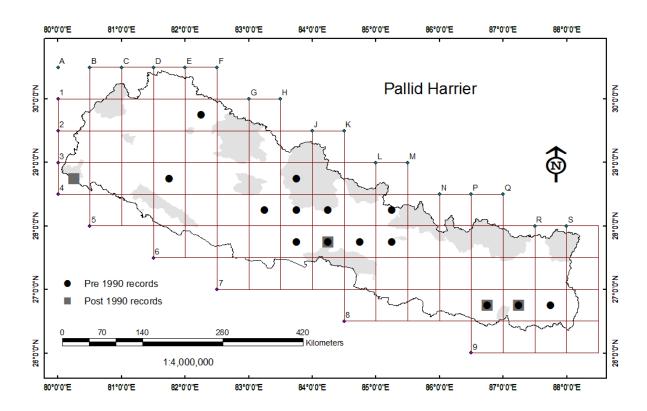
<u>Common Name</u> Pallid Harrier (English),

Swet Bhuinchil (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Pallid Harrier is a local passage migrant and winter visitor, now only known from a few protected areas; it is rare in Koshi Tappu and Sukla Phanta Wildlife Reserves and rare in Chitwan National Park. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844).

Fleming *et al.* (1976) described the species as scarce and Inskipp and Inskipp (1991) reported it was an uncommon winter visitor and passage migrant. The species was formerly quite widespread, with records from Surkhet District in the west to Jhapa District in the east.

Known records from the west include: from Rara National Park (Bolton 1976); Dhorpatan Hunting Reserve (Inskipp 1989); Phewa Tal, Kaski District in January 1981 (del-Nevo and Ewins 1981); Pokhara, Kaski District in February 1982 (Turton and Speight 1982) and at Begnas Tal, Kaski District, where a female was seen on three dates in December 1970 (Inskipp *et al.* 1971). There are no known later records from the above-mentioned localities. Improved recording has resulted in recent records from Sukla Phanta Wildlife Reserve. The harrier was reported as an uncommon winter visitor to the reserve (Baral and Inskipp 2009). Records include two in April 2007 (Baral 2007) and one in February 2009 (Giri 2009).

The harrier has been recorded on passage in the Annapurna Conservation Area (ACA). Three flew south down the upper Kali Gandaki valley in September 1973 (Beaman 1973). Other ACA records in October and November are probably also migrants. These include one at Ghorepani in November 1986 (Inskipp and Inskipp 1986) and one near Chomrong in November 1989 (Jakobsen 1993). No later records are known from ACA. Pallid Harrier was considered a rare passage migrant to ACA by Inskipp and Inskipp (2003).

South of ACA records include singles between Pokhara and Chandrakot in November 1979 (Fairbank 1980); three between Naudanda and Chandrakot in October 1986 (Inskipp and Inskipp 1986), and two flying west at Khare (=Khande), Kaski District on 22 October 1985 (de Roder 1989) and three flying west there between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the Annapurna range two were seen migrating west between 5 October and 7 November 2013 (Subedi *et al.* 2014), and two between 19 September and 8 December 2014 (Subedi 2015).

Pallid Harrier was considered was a rare winter visitor to Chitwan National Park by Gurung (1983) and Baral and Upadhyay (2006). Pre-1990 records include two in November 1978 (Halberg and Petersen 1983), singles in April 1982 (Inskipp and Inskipp 1982), at Chitwan Jungle Lodge in March 1986 (Couronne and Kovacs 1986), Meghauli in March 1987 (Blanchon and Dubois 1987) and two near Tiger Tops in December 1989 (Jakobsen 1993). The only later known records from Chitwan are singles at Meghauli in January 1993 (Lewis 1993) and in the park in January 2008 (Cockram 2008).

In the park buffer zone the harrier was recorded at Tamaspur, Nawalparasi District in 1979 (Lambert 1979, Redman and Murphy 1979) and one was seen at Sauraha in March 1986 (Couronne and Kovacs 1986), but no later records are known from the buffer zone.

It was recorded from the Kathmandu Valley in 1877 (Scully 1879) when it was 'less numerous than Hen Harrier *C. cyaneus* and only noticed in any numbers in the winter months'. Later records include (Proud (1949) who found it occasionally on passage in spring in the late 1940s, one at Nagarjun in what is now the Shivapuri Nagarjun National Park in October 1970 (Inskipp *et al.* 1971) and one at Thankot in December 1977 (Inskipp and Inskipp 1977). No recent records from the Valley are known.

In Langtang National Park singles were recorded above Thare Pati in November 1970 (Inskipp *et al.* 1971) and at Syabru in December 1980 (del-Nevo and Ewins 1981). No later records from the park are known. Karki and Thapa (2001) reported it was a rare migrant to the park.

There are several pre-1990 records from Koshi Barrage, including in 1979 (Lambert 1979, Redman and Murphy 1979), singles in March 1981 (Inskipp and Inskipp 1981) and March 1982 (Turton and Speight 1982), two in January 1985 (Calladine 1985) and in March 1989 (Guinan and Dodman 1989). Post-1990 records are virtually all from Koshi Tappu Wildlife Reserve with a few from the Barrage. These include: singles in December 1991 (Baral 1992), January 1993 (Tarrant and Tarrant 1993) and October 1993 (Baral 1993); the species was recorded in March 1994 (Weiss and Wettstein 1994), and two were seen in February 1996 (Harrap 1996). Singles were seen in January 1998 (Chaudhary 1998a), December 1998 (Chaudhary 1998b), March and April 1999 (Chaudhary 1999), December 2000 (Chaudhary 2001), March 2001 (Baral 2001), April 2001 (Inskipp and Inskipp 2001), December 2001 (Naylor *et al.* 2002), March 2002 (Baral 2002), March 2005 (van der Dol 2005), December 2007 (Giri 2007), February 2008 (Som GC), April 2008 (Chaudhary 2008), February 2009 (Baral 2009) and in March 2012 (Badri Chaudhary, Tika Giri and Dhiraj Chaudhary). Baral (2005) reported the harrier was an uncommon winter visitor to Koshi Tappu Wildlife Reserve.

No recent records are known elsewhere in the eastern terai. Pre-1990 records include: a specimen collected at Dharan, Dhankuta District in January or February 1949 (Ripley 1950), a pair at Sunischare, Jhapa District in February 1974 (Madge *et al.* 1974), one seen in the south-eastern terai in December 1974 (Gregory-Smith and Batson 1976), and one between Belbari and Birtamod, Jhapa District in March 1981 (Inskipp and Inskipp 1981).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories,

Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 2200 m (- 3350 m); lower limit: 75 m

#### **Population**

No population surveys have been carried out for Pallid Harrier. However, observations indicate that it is probably declining.

## **Total Population Size**

Minimum population: 50; maximum population: 150

#### **Habitat and Ecology**

Pallid Harrier inhabits open country, mainly grasslands in Nepal (Fleming *et al.* 1976). When hunting it flies low with graceful, slow wing-beats, hovers and pounces on prey, eating it on the spot (Fleming *et al.* 1976). The harrier eats large insects, such as locusts, open country passerine birds such as larks (Naoroji 2006); also frogs, lizards and field mice (Ali and Ripley 1987). Most birds have been reported between September and April. An unusually late male was photographed at Surkhet, Surkhet District in June 1979 (Pritchard 1980). Pallid Harrier has mainly been recorded up to 250 m, and at higher altitudes up to 2200 m on passage, but one was found at the unusually high altitude of 3350 m in November1970 (Inskipp *et al.* 1971).

#### **Threats**

Pallid Harrier may be at risk from pesticides. Naoroji (2006) notes that harriers are vulnerable to pesticides.

## **Conservation Measures**

No conservation measures have been carried out for Pallid Harrier. All post-1990 records have been from three protected areas: Koshi Tappu and Sukla Phanta Wildlife Reserves and marginally in Chitwan National Park.

# **Regional IUCN Status**

Vulnerable (VU A2a, C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Palllid Harrier has been assessed as Vulnerable based on criteria A2a, C2a(i) and D1. It is a rare and local winter visitor and passage migrant, now only known from three protected areas; it is rare uncommon at Koshi Tappu and Sukla Phanta Wildlife Reserves and in Chitwan National Park. The species was formerly quite widespread, with records from Surkhet District in the west to Jhapa District in the east. It has not been recorded from a number of localities where it was found in the 1970s and/or 1980s: Rara National Park, Annapurna Conservation Area, Phewa Tal, Begnas Tal, Dhorpatan Hunting Reserve, Tamaspur in Nawalparasi District, Kathmandu Valley, Langtang National Park and the eastern terai east of Koshi Tappu. Better recording has resulted in the harrier being found at Sukla Phanta. Pallid Harrier may be threatened by pesticides.

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# Circus melanoleucos (Pennant, 1769) VU

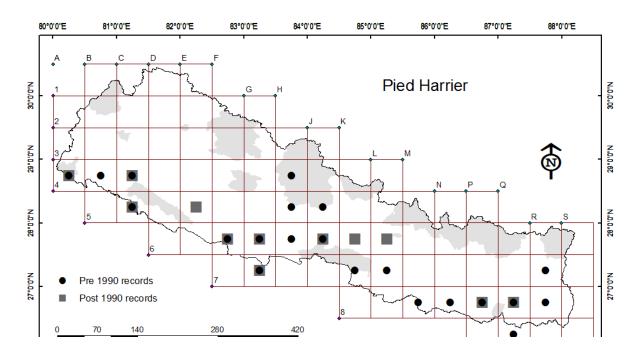
## Common Name

Pied Harrier (English), Ablak Petaha Bhuinchil (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Pied Harrier is a local and very uncommon winter visitor. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844) when it was recorded from the terai (Hodgson 1829). Scully (1879) saw it several times hunting over rice fields and long grass in the terai from October to December. Fleming *et al.* (1976) describe the species as 'occasional' in the terai. Inskipp and Inskipp (1991) considered it was an uncommon winter visitor, although fairly often reported from Chitwan and Koshi Barrage.

Pied Harrier was described as an occasionally recorded winter visitor to Sukla Phanta Wildlife Reserve in 1979 (Schaaf *et al.* 1980). Two were seen there in November 1997 (Baral 1997), and singles in March 1998 (Chaudhary 1998), December 2002 (Baral *et al.* 2002) and January 2011 (Baral 2011).

The species was listed for what is now Bardia National Park by Dinerstein (1979); singles were seen in March 1992 (Baral 1992), December 1996 (Chaudhary 1997) and in January 2001 (Chaudhary 2001). One was also recorded at Gularia, Bardia District in March 1992 (Baral 1992).

Pied Harrier has been recorded in Chitwan National Park and at Koshi Tappu Wildlife Reserve pre- and post-1990 (see Population section).

There are no post-1990 records from any of the localities given below. Pre-1990 Pied Harrier was recorded at Tamaspur, Nawalparasi District in 1979 (Redman and Murphy 1979), in 1981 (Mills and Preston 1981) and one there in February 1986 (Heath 1986). A male observed at the unusually high altitude of 3810 m at Muktinath,

Mustang District in March 1984 was presumably on passage (Powell and Pierce 1984). There were several records from the Pokhara valley, e.g. two seen in February 1981 (Joliffe *et al.* 1981). The species was described as the common harrier at Begnas Tal by Fleming *et al.* (1976) and one was seen there in December 1970 (Inskipp *et al.* 1971). There were also a number of pre-1990 records from several localities in central and eastern Nepal, e.g. seen from south of Hetauda, Makwanpur District in February 1977 (O'Donnell 1977), one collected at Raghunathpur, Dhanusa District in January 1954 (Rand and Fleming 1957); seen at Janakpur, Dhanusa District in June 1978 (Hall 1978). Single birds were seen 8 km south of Chatra, Morang District, and 2 km north of Biratnagar, Morang District in December 1978 (Bowden 1979), and two at Biratnagar airport, Morang District in February 1981 (Joliffe *et al.* 1981), and singles between Jamuna and Ilam, Ilam District in March 1989 (McKnight *et al.* 1989), and 8 km west of Damak, Jhapa District.

However, there are records from several new localities in the west in recent years, no doubt because of better observer coverage. Four were seen at dusk at Khadara Phanta, Kapilvastu District in January 2002 (Cox 2002), and five there in October 2006 (Giri 2010). In November 1997 Limbu (1997) counted 118 harriers (Pied Harriers, Western Marsh Harriers *Circus aeruginosus* and Northern Harriers *C. cyaneus*) in November 1997 on the Lumbini Development Trust land. The roost included about 40 male Pied Harriers and had been present since at least the early 1990s but is no longer there (Hem Sagar Baral). Seven birds were recorded between Lumbini and Jagdishpur Reservoir in January 2006 (Mallalieu 2006), four at Lumbini, Rupandehi District in January 2006 (Mallalieu 2006), and one there in February 2008 (Giri 2010) and two in January 2011 (Acharya 2011). Singles were sighted at Jagdishpur Reservoir, Kapilvastu District in January 2006 (Mallalieu 2006) and January 2009 (Giri 2010); in Dang Deukhuri Important Bird Area, Dang District in October 2008 and January 2009 (Thakhuri 2009); two at Gaidahawa Tal, Rupandehi District in February 2011 (Baral 2011), and recorded at Balewa, Baglung District (Basnet 2009).

The species is a very rare visitor to the Kathmandu Valley: singles were seen along the Manora River and fields in February 1991 (Baral 1991), at Nagarjung in October 1994 (Baral 1994) and Taudaha in November 1994 (Baral 1994).

At Thulo Kharkha (H5), just south of the Annapurna range one was seen migrating west on 7 November 2013 (Subedi *et al.* 2014).

Globally the species has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), Hong Kong (China), India, Indonesia, Japan, Laos, Malaysia, Mongolia, Myanmar, North Korea, Pakistan, Philippines, Russia (Asian), Singapore, South Korea, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# Elevation

Upper limit: 350 m (- 3810 m); lower limit: 75 m

## **Population**

No surveys have been carried out for Pied Harrier. However, observations indicate that numbers must be quite small.

In Chitwan National Park Gurung (1983) considered it an uncommon winter visitor. Other records include three in March 1982 (Turton and Speight 1982), three in April 1983 (Alström and Olsson 1983), one in February 1995 (Baral 1995), three in March 1996 (Baral 1996), one in February 1997 (Chaudhary 1997), one in February 1998 (Chaudhary 1998a), five in December 2000 (Chaudhary 2001), one in March 2004 (Kalu Ram Tamang), eight in November 2004 (Baral and Chaudhary 2004), one in October 2010 (Baral 2010), one in January 2011 (Bird Education Society), and two at Ghatgain in February 2012 (Hem Subedi). D. B. Chaudhary (*in litt.* to C. Inskipp February 2012) confirmed there had been a decline in the park.

Singles were seen at Sauraha in the park buffer zone in November 1978 (Bowden 1979), February 1981 (del-Nevo and Ewins 1981), March 1982 (Robson 1982) and in January 2012 (Hem Subedi).

The population trend in the Koshi area (Koshi Barrage and Koshi Tappu Wildlife Reserve) is uncertain. The known maximum numbers recorded annually are: four in February 1981 (del-Nevo and Ewins 1981), three in April 1982 (Fairbank 1982), two to three in January 1985 (Calladine 1985), six in December 1991 (Baral and

Mills 1992), eight in December 2000 (Chaudhary 2001), 19 in April 2001 (Inskipp and Inskipp 2001), eight in February 2005 (Baral 2005), seven in November 2007 (Baral 2007), 12 in November 2008 (Chaudhary 2008), ten in October 2009 (Baral 2009), up to 20 in winter 2010/11, but only about four in 2011/12 (Badri Chaudhary *verbally* January 2012). The larger numbers recorded are of birds flying to roost, but the route the birds take seems to change, perhaps depending on the habitat condition inside the Reserve (Hem Sagar Baral *in litt.* to C. Inskipp January 2012).

#### **Total Population Size**

Minimum population: unknown; maximum population: <500

#### Habitat and Ecology

Pied Harrier inhabits open grassland and cultivation (Grimmett *et al.* 1998). It feeds on a wide range of prey – small mammals (mainly rodents); reptiles, occasionally small snakes and lizards; frogs, grasshoppers and crickets (Naoroji 2006).

#### **Threats**

The threats to Pied Harrier are unknown, but are possibly the effects of pesticides and food shortage.

#### **Conservation Measures**

No specific conservation measures have been carried out for Pied Harrier. It is regularly recorded in Koshi Tappu Wildlife Reserve and irregularly in Chitwan and Bardia National Parks, and in Sukla Phanta Wildlife Reserve.

# **Regional IUCN Status**

Vulnerable (VU A2ae? C2a(i), D1) upgraded from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Pied Harrier has been assessed as Vulnerable based on the criteria A2ae? C2a(i) and D1. The species is a local and very uncommon winter visitor. Recently it has declined in Chitwan National Park. The roost at Lumbini, Rupandehi District, which was present in the early to mid 1990s, is no longer present. There are no recent records from a number of localities in west-central, central and east Nepal, where it was recorded pre-1990. However, several new localities have been reported in the west in recent years, no doubt because of better observer coverage. The population trend in the Koshi area, where it is now seen most frequently and in greatest numbers, is uncertain. It is regularly recorded in Koshi Tappu Wildlife Reserve and irregularly in Chitwan and Bardia National Parks, and Sukla Phanta Wildlife Reserve. Its population is estimated to be less than 500 birds. Threats to Pied Harrier are unknown but are possibly the effects of pesticides and food shortage.

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# Gypaetus barbatus (Linnaeus, 1758) VU

# <u>Common Name</u> Lammergeier (English),

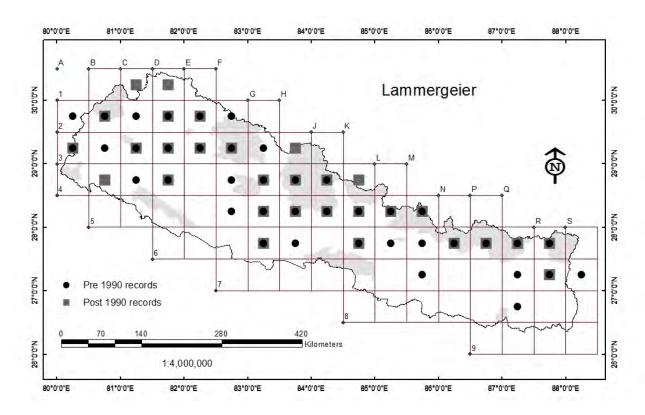
Haadphor Giddha (Nepali)

Order: Falconiformes Family: Accipitidrae



RAJ MAN SINGH/BRIAN HODGSON

# **Distribution**



Lammergeier is a widespread resident in the Himalayas; its current level of abundance is uncertain.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1835). One was collected on Shivapuri top at 2265 m on the edge of the Kathmandu Valley in November (year unknown) (Hodgson 1829).

Inskipp and Inskipp (1991) reported the species was a common and widespread resident throughout the Himalayas. Known records indicate that the species appears to still be widespread (see map).

Post-1990 Lammergeier has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012), Khaptad National Park (Chaudhary 2006, Khadka 1996), Rara National Park (Giri 2005), Annapurna Conservation Area (Inskipp and Inskipp 2003), Shey Phoksundo National Park (Priemé and Øksnebjerg 1995), Dhorpatan Hunting Reserve in 1994 and 1998 (Poorneshwor Subedi), Manaslu Conservation Area (Katuwal *et al.* 2013, KMTNC 1998, Thakuri 2013a), Langtang National Park (Karki and Thapa 2001), Gaurishankar Conservation Area (Baral and Shah 2009), Sagarmatha National Park (Basnet (2004), Makalu Barun National Park (Cox 1999), and Kanchenjunga Conservation Area (Inskipp *et al.* 2008); also at Botamalika, Rara National Park buffer zone in May 2006 (Paras Singh).

High altitude areas outside the protected areas' system are poorly recorded so Lammergeier is probably under-recorded outside parks, conservation areas and reserves.

Known post-1990 records of the species from outside the protected areas' system include: Balarkot VDC, Baitadi District in May 2010 (Baral *et al.* 2010); Simikot, Yangar and Yari, Humla District in September 1994 (Prodon 1994); Soli Khola valley, Humla District in June 2002 (Grimm and Fischer 2003); Limi Valley, Humla District in May 2011 (Yadav Ghimirey); upper Humla (Kusi *et al.* 2015); Chisapani, Kailali District in March 1992 (Hem Sagar Baral); Dailekh District in May 2009 (Tulsi Subedi); Churchi Lagna, Jumla District in June 1999, and the Mugu Karnali valley in June 1999 (Grimm and Fischer 2003); Rawtkot, Kalikot District in March 1997 (Giri 1997); Reshunga Important Bird Area, Gulmi District in March and June 2010 (Thakuri 2011, Thakuri 2013b); Supa Deurali Temple, Argakhanchhi District in May 2010 (Raju Acharya); Ghera Lekh, Arghakhanchhi in October 2011 and Argatos, Arghakhanchhi in April 2012 (Tulsi Subedi); in the Myagdi Khola valley, Myagdi District in June 1999 (Cox 1999b); Rakhu, Myagdi District in June 2012 (Som GC); Pokhara, Kaski District in 2007/08 (Jhalak Chaudhary); Khare, Kaski District in December 2012 (Tulsi Subedi); frequently seen at Thoolakharka raptor migration watch site, 2012-2015 (Tulsi Subedi); recorded at Balewa, Baglung District (Basnet 2009); between Pasgam and Rupa Tal, Lamjung District in April 2000 (Byrne 2000); Bhorle, Dhading District in April 2006 (Shankar Tiwari) and the upper Mai valley, Ilam District valley in 2009 (Bharat Subba).

Fleming *et al.* (1976) recorded it as 'unusual in winter' in the Kathmandu Valley. Two were seen over Phulchoki mountain Important Bird Area in November 2000 (Basnet 2000), but Mallalieu (2008) reported there were no records from the Valley between 2004 and 2006.

Globally the species has also been recorded in Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Djibouti, Egypt, Eritrea, Ethiopia, France, Georgia, Germany, Greece, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lebanon, Lesotho, Liechtenstein, Macedonia, the former Yugoslav Republic of, Mauritania, Mongolia, Montenegro, Morocco, Mozambique, Namibia, North Korea, Pakistan, Palestinian Authority Territories, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Somalia, South Africa, Spain, Sudan, Switzerland, Syria, Tajikistan, Tanzania, Turkey, Turkmenistan, Uganda, Uzbekistan, Yemen, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 5600 m (- 7500 m); lower limit: 250 m

## **Population**

A 2002-2008 study found a rapid and substantial decline in upper Mustang, Annapurna Conservation Area (ACA), a remote part of the Himalayas which had previously been a stronghold of the species (Acharya *et al.* 2010). Lammergeier was surveyed along four predetermined walked transects totalling 188 km in length in upper Mustang in 2002, 2004, 2005 and 2008. The numbers of Lammergeier recorded per day and per kilometre decreased by 73% and 80%, respectively, between 2002 and 2008 (Acharya *et al.* 2010). Surveys of Lammergeiers from an adjacent area (two villages are overlapped) recorded 76 Lammergeiers at a rate of 0.38 birds/km² and 5.1 birds/day (Giri *et al.* 2009). These records are similar to those observed in the first year of the second study, in 2002, suggesting that this frequency of occurrence is more typical than the low rates observed by the end of the second study (Acharya *et al.* 2010). A more recent study in upper Mustang confirmed a substantial decline between 2002 and 2008 and showed a stabilised population trend of the species between 2008 and 2014 (Paudel *et al.* in review).

Surveys carried out between 2002 and 2006 in lower Mustang did not find any evidence of a decline (Giri 2013).

Only small numbers of one or two or sometimes three to four birds are normally seen together. The unusually high number of eight was seen at Kyanjin, upper Langtang valley, Langtang National Park on 5 April 1998 (Chaudhary 1998).

#### **Total Population Size**

Minimum population: unknown; maximum population: <500

## **Habitat and Ecology**

Lammergeier inhabits mountains and trans-Himalayan Tibetan steppe desert. It is mainly a bone scavenger but also eats fresh and old carrion, and often scavenges on refuse and offal near human settlements (Naoroji 2006). Inskipp and Inskipp (1991) reported it usually occurs between 1200 m and 4100 m, although occasionally it is seen much higher. However, Chetri (2010) frequently recorded the species over 5000 m in upper Mustang, ACA and up to 5600 m; a nest site was found at 5200 m at Chhojung. It was observed soaring as high as 7200 m - 7500 m in Khumbu by the Sagarmatha expeditions (Ali and Ripley 1978). The lowest known altitude is 250 m at the Chisapani Karnali River bridge, Bardia National Park where one was seen in March 1992 (Baral 1992). A nest was found at Ghasa, Annapurna Conservation Area in March 1998 (Hathan Chaudhary).

A study of breeding success at Gherabhir, Arghakhanchi District found six birds in both 2010 and 2011. One chick was successfully raised from the nest in 2010 (Bhusal 2011, Bhusal and Dhakal 2011). The species was observed nest-building at the same locality in October 2011 (Tulsi Subedi). One nest was found in Argha IBA (in Sandikharka Municipality and Dharapani, Dhakabang, Bangi, Hanspur, Khanadaha VDCs of Arghakhanchhi District) (BCN unpublished data).

#### **Threats**

Secondary poisoning by diclofenac is suspected because the species' range overlaps with that of other vulture species known to be affected. A recent study suggested that Lammergeier is intolerant to diclofenac and that additional threats are limiting its recovery in upper Mustang (Paudel *et al.* in review).

Veterinary pharmaceutical medicines are commonly available in Mustang District. One of them is diclofenac, but some other NSAIDs are also harmful to vultures. Himalayan Vulture and Lammergeier were found to sharing habitat and roosting sites in China. Sharing of roosting sites by these two species outside the study area was observed in Nepal (Acharya et al. 2010). Lammergeiers are primarily bone-eaters, but with the collapse of the resident Himalayan Vulture Gyps himalayensis from the same area (Acharya et al. 2009) it is possible that Lammergeiers are now able to access and feed on soft tissues from which they previously would have been excluded. It is not known if diclofenac residues remain within bones of treated animals, although residues are known to be passed into feathers and hair. Although the Lammergeier is mainly a resident and non-migratory species, it has been observed flying with other vulture species near the carcass of an Ox Bos indicus at 1100 m in Kaski District (Acharya et al. 2010). In addition to this it has also been observed as low as 305 m at Mugling. The movements of Lammergeier depend on food availability and they live in close proximity with lowland vultures when sharing food with them; hence diclofenac could be one of the reasons for the decline (Acharya et al. 2010). Diclofenac was still being widely used in upper Mustang in February 2012 (R. Acharya in litt. to C Inskipp February 2012).

Along with diclofenac, other toxic substances (fungicides, herbicides and pesticides) could have similar or compounding effects on the decline of the Lammergeier in the area. It has already been observed that poisoning was the principal reason for non-natural mortality of the species in Europe. In addition, unlike other vulture species, Lammergeier is subject to targeted persecution by people. Virtually all local people within the study area in upper Mustang believe that Lammergeier intestines make an effective treatment for diarrhea and that anyone who takes chicks from the nest of a vulture becomes more prosperous. Such beliefs suggest that exploitation of this bird may still occur in upper Mustang (Acharya *et al.* 2010, Paudel *et al.* in review). Local people in lower Mustang had the same belief (Giri 2013).

Road construction and vehicle movements along the Kali Gandaki valley are serious disturbances (Giri 2013).

#### **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the

scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010b) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

To conserve vultures the Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13) which included the attempts to remove diclofenac and other toxic NSAIDs from the vultures' food supply. Continuation of these efforts is essential. A second VCAP was launched in 2015 covering the period 2015-19 (DNPWC 2015). Approaches outlined in the VCAP which are relevant to Lammergeier include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac.

The goal of the second VCAP plan is to prevent the extinction of vulture species in Nepal. The outputs desired that are relevant to Lammergeier are:

- I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic compounds.
- II. Wild populations of Lammergeier are increased
- III. Science based information system maintained.
- IV. Vulture conservation awareness among general public increased/maintained.
- V. Partnership among national and international organisations maintained

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

Post-1990 Lammergeier has been recorded from Annapurna, Kanchenjunga and Manaslu Conservation Areas, and Sagarmatha and Makalu Barun National Parks.

# Regional IUCN Status

Vulnerable (VU A2ae? D1) upgraded from the Global Red List status: Near-threatened (NT)

#### Rationale for the Red List Assessment

Lammergeier has been assessed as Vulnerable (VU) based on the criteria A2ae? and D1. The species still appears to be widespread. A 2002-2008 study in upper Mustang, Annapurna Conservation Area found a sharp and substantial decline. A more recent study confirmed a substantial decline between 2002 and 2008 but showed a stabilised population trend between 2008 and 2014. Secondary poisoning by diclofenac is suspected because the species' range overlaps with that of other vulture species known to be affected. The recent study suggested that Lammergeier is intolerant to diclofenac and that additional threats are limiting its recovery in upper Mustang. These threats include toxic substances (fungicides, herbicides and pesticides) that could have similar or compounding effects on the decline of the Lammergeier in the area. Local people's beliefs that Lammergeier intestines have medicinal qualities, and that taking vulture chicks from the nest makes the person more prosperous, suggest that exploitation of this bird still occurs in upper Mustang. Further monitoring is urgently needed to find out if these declines are found in any other areas of Nepal, if the species' distribution has been affected, and to understand the cause of the decline. The second Vulture Conservation Action Plan for Nepal (2015-19) has helped prioritise and streamline vulture conservation activities in Nepal. For example, in 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam. The project also runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. Lammergeier has been recorded from all high altitude protected areas post-1990. It is probably under-recorded outside the protected areas' system because of poor coverage of these areas at high altitudes.

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# Gyps himalayensis Hume, 1869 VU

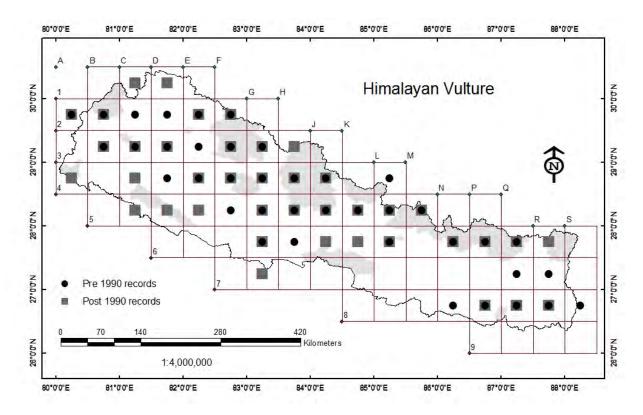
## Common Name

Himalayan Vulture (English), Himali Giddha (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Himalayan Vulture is a widely distributed resident subject to altitudinal movements; its current level of abundance is uncertain. As a result of confusion with Griffon Vulture *G. fulvus* it was significantly under-recorded in the lowlands until at least 2000.

The first Nepal record of the species was in 1877 when it was found in small numbers in the Kathmandu Valley in winter (Scully 1879).

Inskipp and Inskipp (1991) reported Himalayan Vulture occurred throughout the mountains, common along the well-used trade routes in the Kali Gandaki valleys and fairly common elsewhere. Known records indicate that the species is still widespread. However, a 2002-2005 study found a rapid and substantial decline in upper Mustang, Annapurna Conservation Area (ACA), a remote part of the Himalayas (Acharya *et al.* 2009. Recent studies show that decline of the species is now occurring at a slower rate than previously observed in upper Mustang area of Nepal (Paudel *et al.* 2015) (see Population section).

Himalayan Vulture has been recorded recently in almost all protected areas: Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), Api Nampa Conservation Area (Thakuri and Prajapati 2012), Bardia National Park

(Inskipp 2001), Banke National Park (Baral *et al.* 2012), Khaptad National Park (Chaudhary 2006, Khadka 1996), Rara National Park (Giri 2005), Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995), Dhorpatan Hunting Reserve in 1993 and 1998 (Poorneshwor Subedi) and in 2012 (Panthi 2013); Annapurna Conservation Area (Inskipp and Inskipp 2003), Manaslu Conservation Area (Katuwal *et al.* 2013, KMTNC 1998, Thakuri 2013a), Shivapuri-Nagarjun National Park (SNP and BCN 2007), Chitwan National Park (Baral and Upadhyay 2006), Langtang National Park (Karki and Thapa 2001), Gaurishankar Conservation Area (Baral and Shah 2009), Sagarmatha National Park (Basnet 2005), Makalu Barun National Park (Cox 1999), Kanchenjunga Conservation Area (Inskipp *et al.* 2008) and Koshi Tappu Wildlife Reserve (Baral 2005).

Known records outside the protected areas' system include: from Kailali, Darchaula, Tanahu, Nawalparasi Districts (Khadananda Paudel); Khodpe, Baitadi District (Dikpal K. Karmacharya); Yangar and Yari, Humla District (Prodon 1994), Humla District (Ghimire 2011), occasionally seen in Humla District (Kusi et al. 2015); recorded in Limi valley, Humla (Tashi R. Ghale and Rinzin P. Lama); Badimalika region, Bajura District (D3) in 1998 (Karki et al. 2003); Kalikot District in May 1995 (Grimm and Fischer 2003), Kuhire Bhir, Salyan District in May 2012 (Tulsi Subedi); Reshunga Important Bird Area, Gulmi District in November 2010 and February, March and May 2011 (Thakuri 2011, Thakuri 2013b); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Dharampani village, Arghakhanchhi District in December 2012 (Subedi 2013); Pakhapani, Myagdi District (Dikpal K. Karmacharya), Gherabhir, Arghakhanchi District (Krishna Bhusal), Larkya Pass to Namru, Gorkha District (Prodon 1992), Lumbini, Rupandehi District, e.g. 122 in December 2011 and one at Jagdishpur Reservoir, Kapilvastu District in December 2011 (Dinesh Giri in litt. to H. S. Baral, December 2011); Pokhara valley, Kaski District in November 2011 (Hari KC in litt. to H. S. Baral, November 2011); Balewa, Baglung District (Basnet 2009); Koshi, Sunsari District in April 2012 (Hem Sagar Baral); Lungrupa, Panchthar District (Dikpal K. Karmacharya); Bahundangi, Jhapa District in March 2012 (Ashok Kumar Ram). In the Bagmati valley one was seen in February-March 2005 and there have been increasing numbers there since 2011, in February and April, with 25 on 10 April 2015 (Arend van Riessen).

Migrating Himalayan Vultures have been observed south of Annapurna near Khare (= Khande), Kaski District in October and November, e.g. 131 between 20 October and 7 November 1985 (de Roder 1989); 233 between 23 October and 5 December 2003 (Gurung 2004); 32 between 30 October and 2 December 2005 (Gurung 2005); 280 between 15 and 27 November 2011 (DeCandido *et al.* 2011), and 1,270 birds between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range 2,215 vultures migrated between 13 November and 5 December 2013 (Subedi *et al.* (2014) and 1,415 migrated in November and early December, peaking between 10 and 30 November 2014 (Subedi 2015).

Globally the species has also been recorded from Afghanistan, Bangladesh, Bhutan, Cambodia, China (mainland), India, Kazakhstan, Kyrgyzstan, Malaysia, Mongolia, Myanmar, Pakistan, Singapore, Tajikistan, Thailand, Uzbekistan, BirdLife International (2015) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 05/12/2015.

# **Elevation**

Upper limit: 6100 m; lower limit: 75 m

#### Population

Several population surveys have been carried out for Himalayan Vulture. In one study Himalayan Vulture was surveyed along four predetermined walked transects totaling 188 km in length in Upper Mustang, Annapurna Conservation Area (ACA) in 2002, 2004 and 2005. The transects were located north-south from Jomsom to Nichung, Lomanthang to Samjung and back, Lo Manthang to Jomosom, and east-west from Lo Manthang to Yara and back. Birds at breeding colonies were also observed. The number of birds recorded per day and per kilometre of transect declined by 67% and 70% respectively during the period of study. The number of active nests declined by 84% from 2002 to 2005 (Acharya 2006, Acharya *et al.* 2009).

In another study walking surveys were made in ACA in 2001, 2002, 2003, 2004 and 2005. All surveys began from Muktinath (Mustang District) to Beni (Myagdi District) along the Kali Gandaki valley and continued through Ghandruk, Chhomrong, Annapurna Base Camp and Ghorepani; part of the upper Mustang area was included. This survey found no evidence of a recent decline in the population of adult and immature Himalayan Vultures. However, the caveat was added that, because of the short duration of the study (five

years) and the large variance in the number of Himalayan Vultures observed per day, it is possible that a slow decrease in the ACA population occurred, which the study was unable to detect (Virani et al. 2008).

A follow up study of Virani et al. 2008 was made in 2013 and 2014 in ACA, which showed the healthy numbers of Himalayan Vulture in the area after implementation of conservation programmes. Compared to counts over the last 14 years, it appears that Himalayan Vultures may have started to increase in the area (Karmacharya 2014). The recorded Himalayan Vultures were almost twice as many recorded during surveys that were conducted between 2002 and 2006 (Virani and Watson 2013)

A population trend analysis of data between 2002 and 2014 in Upper Mustang, ACA showed a partial recovery of the species and concluded that the decline is now occurring at a slower rate (Paudel *et al.* 2015).

A breeding survey carried out in Khodpe, Baitadi District in 2010 found a flock (mean flock size 7.9±1.58) with a total of 11 occupied nests in cliffs near Siddheshwor Temple. Eight of the nests were unsuccessful, seven failed during egg laying and one during the incubation period. The breeding success was 27% based on occupied nests and 75% based on active nests (Karmacharya 2011). The follow-up study in 2011 recorded large aggregations at Harichan cliff (mean flock size 13.91±4.07) and Siddnath Cliff (mean flock size 11.91±2.64) with 12 occupied nests (five on Siddnath cliff and seven on Harichan cliff) at Khodpe, Baitadi District. The overall, breeding success was 90.9% based on active nests (Joshi et al. 2015).

In July 2015, seven active nests were recorded in Limi valley, Humla District (Tashi R. Ghale and Rinzin P.Lama).

A survey of population status and breeding success in Gherabhir, Arghakhanchhi District estimated a population of 59 birds in 2010-2011. The breeding success was 70.83% based on active nests and 53.12% based on occupied nests. Among 32 occupied nests 24 were active and 17 were productive (Bhusal and Dhakal 2011).

In 2014/15 there were 34 nests in Argha IBA (located in Sandikharka Municipality and Dharapani, Dhakabang, Bangi, Hanspur, Khanadaha VDCs of Arghakhanchhi District and four active nests in Barekot IBA, Jajarkot District (BCN unpublished data).

Himalayan Vultures in the lowlands must have been misidentified or overlooked in the past; there have been several reports of large numbers in recent years. For example, in a study of vultures in Lumbini Important Bird Area, Rupandehi District in December 2006 and January 2007, 69.5% of vulture sightings were of Himalayan Vultures (Paudel 2008). The large number of 258 Himalayan Vultures was recorded at Koshi Tappu Wildlife Reserve in December 2009 (Chaudhary et al. 2009), 128 at Lumbini in January 2011 (Acharya 2011) and 116 at Pokhara, Kaski District in December 2007 (Giri et al. 2008). A total of 100 immatures and two adults were recorded at Dharampani village, Arghakhanchi District in December 2012 (Subedi 2013). A comprehensive April 2012 survey of Koshi Tappu Wildlife Reserve estimated 235-570 birds (Baral et al. 2013).

# **Total Population Size**

Minimum population: unknown; maximum population: <10,000

# **Habitat and Ecology**

Himalayan Griffon inhabits mountains and trans-Himalayan Tibetan steppe desert. It feeds on exclusively on carrion. (Chetri 2010, Naoroji 2006). Inskipp and Inskipp (1991) reported the species was resident in the mountains, usually found between 900 m and 4000 m but may wander as high as 6100 m. Fleming *et al.* (1976) recorded it mainly between 1525 m and 6100 m. Naoroji (2006) considered that, though prone to some altitudinal winter migration, descending to the lower foothills [it] never wanders far from its breeding grounds. However, it is now known that many birds, mainly immatures descend to lowland Nepal, as low as 75 m. Many birds go even further south into northern India and increasing numbers are seen further south in India each year (Acharya *et al.* 2009). Known breeding sites include: Khodpe, Baitadi District (Karmacharya 2011); Limi valley, Humla District (Tashi R. Ghale and Rinzin P.Lama); Argha IBA, Arghakhanchhi District (BCN unpublished data; Gherabhir, Arghakhanchhi District (Bhusal and Dhakal 2011); Barekot IBA, Jajarkot District (BCN unpublished data); Kuhire Bhir, Salyan District (Subedi 2013); Pakhapani, Myagdi District (Dikpal K. Karmacharya); Odar village, Manang District (Tashi R. Ghale). It was recorded breeding in Upper Mustang (Raju Acharya) and three active nests were recorded at Chhunsi cave, near Samar village, Upper Mustang (Tashi R.

Ghale).

## **Threats**

Secondary poisoning by NSAID drugs and a shortage of safe food are suspected to be causing declines in Himalayan Vultures. A wide range of veterinary medicines was found to be promoted and on sale in Mustang District, including one NSAID for treating livestock that contained diclofenac (Acharya *et al.* 2009). These were still freely available in Mustang in February 2012 (Raju Acharya *in litt.* to C. Inskipp, February 2012). Immature Himalayan Vultures that descend to lowland Nepal and further south to India in winter are exposed to the same risk of diclofenac poisoning as the other three globally Critically Endangered *Gyps* vultures (Acharya *et al.* 2009, Paudel 2008).

Near Sukla Phanta Wildlife Reserve, local people are using high injections of insecticide to kill old cattle; this is thought to be the cause of 18 vultures being found dead in the area in January 2016 (Iswar Pant). In addition, the use of pesticides, herbicides and insecticides was found to be common in upper Mustang. These could have similar or compounding effects to diclofenac on the decline of the species. Although the Annapurna Conservation Area Project emphasises organic farming, the rate of pesticide consumption in the area is actually increasing (Acharya *et al.* 2009). Other potential threats include habitat degradation, shortage of suitable nesting sites (H. Kala *in litt.* 2013), as well as use of poison baits targeted at terrestrial predators (Carrete *et al.* 2007, Carrete *et al.* 2009, Cortés-Avizanda *et al.* 2009), and through the consumption of inappropriately disposed poisoned animals.

#### **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

To conserve vultures the Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). Seven community managed Vulture Safe Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015).

Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC 2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities, including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011).

Continuation of efforts to complete the removal of diclofenac and other toxic NSAIDs from the vultures' food supply are essential. A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km² (68.73%) of Nepal (DNPWC 2015).

The goal of the second VCAP plan is to prevent the extinction of vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food, maintenance of suitable habitat. The five outputs desired that are relevant to Himalayan Vulture are:

I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic

compounds.

- II. Wild breeding populations of Himalayan Vulture are increased.
- III. Science based information system maintained.
- IV. Vulture conservation awareness among general public increased/maintained.
- V. Partnership among national and international organisations maintained

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

BCN's Vulture Conservation Programme works on:

- 1. Scientific Research and Monitoring
- 2. Advocacy, Awareness and capacity buildings
- 3. Vulture Safe Zones and Community managed Vulture Safe Feeding Sites
- 4. Enhancing Community-Based Vulture Conservation in Western Lowland of Nepal
- 5. Protecting the critically endangered vultures of Suklaphanta Wildlife Reserve and Kailali District, Nepal through community-based integrated approaches.

#### **Regional IUCN Status**

Vulnerable (VU A2ae?) upgraded from the Global Red List status: Near-threatened (NT)

# Rationale for the Red List Assessment

Himalayan Vulture has been assessed as Vulnerable based on the criteria A2ae? The species still appears to be widespread. A 2002-2005 study found a rapid and substantial decline in Upper Mustang, Annapurna Conservation Area (ACA), a remote part of the Himalayas. However, a population trend analysis of data between 2002 and 2014 in Upper Mustang showed a partial recovery of the species and concluded that the decline is now occurring at a slower rate. Secondary poisoning by diclofenac is suspected to be the cause of the species' decline. A wide range of veterinary medicines was found to be promoted and on sale in Mustang District, including one that contained diclofenac. In addition, many Himalayan Vultures are known to migrate to the Nepal lowlands and further south in India in winter, where they are exposed to the same risk of diclofenac poisoning as the other three globally Critically Endangered Gyps vultures. Along with diclofenac, other toxic substances (fungicides, herbicides and pesticides) could have similar or compounding effects on the decline of Himalayan Vulture. High pesticide injections into old cattle are thought to be the cause of direct poisoning near Sukla Phanta Wildlife Reserve, Kailali District. Further monitoring is urgently needed to find out if these declines are found in any other areas of Nepal, if the species' distribution has been affected and to confirm the cause of the decline. The second Vulture Conservation Action Plan for Nepal (2015-19) has helped prioritise and streamline vulture conservation activities in Nepal. For example, in 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam. Vulture-Safe Feeding Sites have since been established in a number of locations. The project also promotes local livelihoods activities including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. Conservation awareness raising is also urgently needed to stop direct poisoning of vultures caused by feeding on cattle injected with high pesticide levels. Himalayan Vulture has been recorded in almost all protected areas.

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# Neophron percnopterus (Linnaeus, 1758) VU

Subspecies: Neophron percnopterus ginginianus

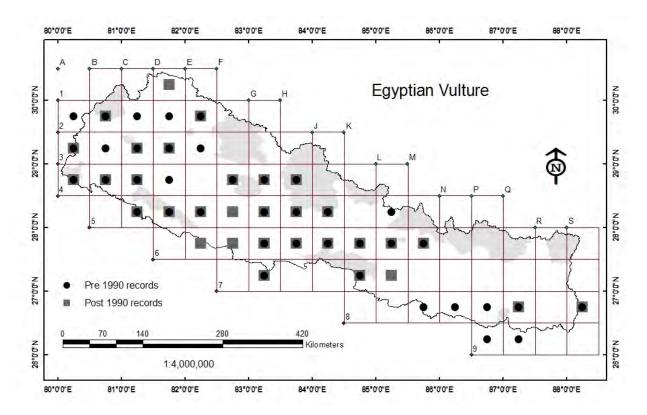
## Common Name

Egyptian Vulture (English), Seto Giddha (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Egyptian Vulture is a resident, now widespread and locally fairly common in west and west-central Nepal, but very rare in the east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844). It was described as fairly common by Fleming *et al.* (1976). Inskipp and Inskipp (1991) described the species as fairly common and widespread; however, their 1990 distribution map shows it less widespread in east-central and east Nepal than in west-central and western areas of the country.

Fleming *et al.* (1976) noted it was occasionally seen over Kathmandu. There are few recent records from the Kathmandu Valley. These include singles near Chobar gorge in April 2006 (Mallalieu 2008) and on Saibu Hill in April 2006 and October 2007 (Arend van Riessen *in litt*. to C. Inskipp, June 2015).

Gregory-Smith and Batson (1976) reported it was a common resident in the south-east lowlands in 1975, including at Koshi Barrage and Koshi Tappu Wildlife Reserve, and it was occasionally seen in the foothills. Madge *et al.* (1974) recorded the species throughout the terai from Chitwan to Koshi, but not east of the Koshi River. Only two were seen at Koshi Barrage in February 1981 (Joliffe *et al.* 1981) and one in May 1982 (Inskipp and Inskipp 1982).

Egyptian Vulture has been recorded post-1990 from the following protected areas: Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009); Api Nampa Conservation Area (Thakuri and Prajapati 2012), Bardia National Park (Inskipp 2001); Khaptad National Park (Chaudhary 2006, Khadka 1996), Annapurna Conservation Area (Inskipp and Inskipp 2003), Chitwan National Park (Baral and Upadhyay 2006), and Koshi Tappu Wildlife Reserve (Baral 2005; Baral *et al.* 2012). It has also been sighted at Kachchya in Rara National Park buffer zone in April 2012 (Jyotendra Thakuri).

In addition to the Pokhara valley (see Population section) concentrations have been recently recorded at several other localities in west-central Nepal, e.g. 175 east of Pokhara, Kaski District in September 2012 (Tulsi Subedi); 73 by the Seti River in January 2008 (Giri et al. 2008); 73 at Pokhara in February 2010 (Baral 2010); 51 in June 2006 (GC 2010) and 44 in December 2009 (Baral 2009) on road between Kathmandu and Pokhara, 70 in December 2009 (Baral 2009) and 54 in February 2010 (Baral 2010) on road between Pokhara and Chitwan; also in west Nepal, e.g. 16 at Lumbini, Rupandehi District in December 2006 (Giri 2010), and 24 in Arghakhanchi District in October 2011 (DeCandido et al. 2011). BCN reported it was common in Khutiya IBA, Kailali District in 2014/115 (BCN unpublished data).

Known post-1990 records from other localities outside the protected areas' system include: near Simikot, Humla District in April 2008 (Yadav Ghimirey and Jhanak Khatiwada, Ghimire 2011), also Humla District (Kusi et al. 2015); Amargadhi, Baitadi District in May 2010 (Baral et al. 2010); Ghodaghodi Tal, Kailali District in 1992 (Baral 1992); Dhanghadi, Kailali District in April 2001 (Inskipp and Inskipp 2001); Badimalika region, Achham (C3) and Bajura Districts (D3) in 1998 (Karki et al. 2003); Nepalgunj, Banke District in December 1998 (Chaudhary 1999); Rawtkot, Kalikot District in March 1997 (Giri 1997); Machchhe, Pyuthan District in October 2010 (Paras B Singh); Pyuthan District in May 2012 (Som GC); Arghakhanchi, Pyuthan, Salyan and Palpa Districts in 2012 (Subedi 2013); Reshunga Potential Important Bird Area, Gulmi District in November 2010 and February, March and May 2011 (Thakuri 2011, 2013); recorded several times on a trek through Baglung and Gulmi Districts in May and June 1999 (Cox 1999); waste disposal sites of Myagdi, Baglung and Parbat Districts in 2009-2011 (Poorneshwor Subedi); Taulihawa, Kapilvastu District in December 2011 (Dinesh Giri pers. comm. to H. S. Baral, December 2011); Khadara Phanta, Kapilvastu District in January 2011 (Acharya 2011); Bhairawa, Rupendehi District in April 1993 (Baral 1994); Gaidahawa Tal in Rupendehi District in April 2011 (Baral 2011a); Nawalparasi District in December 2007 (Baral 2007); Kushma, Parbat District November 2010 (Jyotendra Thakuri), Belawa, Baglung District in October 2008 (Hem Sagar Baral and Sakas GC), also recorded by Basnet (2009); near Baglung Bazaar, Baglung District in August 2009 (Paras Singh); Ramkot Village near Bandipur, Tanahun District in May 2010 (Yadav Ghimirey and Raju Acharya); Gajuri, Dhading District in December 2009 (Hathan Chaudhary); Dhading, Dhading District in April 2011 (Baral 2011b); Belkhu, Dhading District in February 2012 (Bishnu Mahato); Manahari, Makawanpur District in January 2012 (Bishnu Mahato); Kutumsang, Sindhupalchok District in May 1999 (Chaudhary 1999); Amlekghunj, Bara District (Inskipp and Inskipp 2001); by the Mechi River, Jhapa District (Som GC), and in Koshi Tappu Wildlife Reserve in April 2013 (Baral et al. 2013). Almost all of these records are from west and central Nepal with very few from the east.

Small numbers have been observed on migration, moving west along the base of the Himalayas in autumn. Observations have been regular since 1985 near Khare (Khande), Kaski District, e.g. a total of 74 was seen between 20 October and 6 November 1985 (de Roder 1989), 23 between 20 October and 5 December 2003 (Gurung et al. 2004); 45 between 30 October and 2 December 2005 (Gurung 2005), seven between 15 and 27 November 2011 (DeCandido et al. 2011) and 21 between 15 September and 4 December 2012 (Subedi et al. 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range a migration survey was carried out between 15 September and 8 December 2013 and in 2014. A total of 40 vultures were seen in 2013 (Subedi et al. 2014), when all the vultures passed through between 15 and 20 September, and 19 were seen in 2014 (Subedi 2015).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Bangladesh, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, Gambia, Georgia, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hungary, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Lebanon, Lesotho, Libya, Macedonia, the former Yugoslav Republic of, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan,

Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Tajikistan, Tanzania, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Western Sahara, Yemen, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

#### Elevation

Upper limit: 2900 m (- 3810 m); lower limit: 75 m

## **Population**

BCN vulture researchers found seven nests at Argha VDC, Argakhanchhi District and one nest (successful) in Kaptangunj, Dang District in 2009/10 (Anand Chaudhary *in litt*. August 2010).

A population survey of Arghakhanchhi District from January to June 2010 estimated 10 birds (Bhusal 2011). In both 2010 and 2011 two active nests were found and one was productive at Gherabhir, Arghakhanchhi (Bhusal 2011, Bhusal and Dhakal 2011). In 2014/15 five active nests were found in Argha IBA (in Sandikharka Municipality and Dharapani, Dhakabang, Bangi, Hanspur, Khanadaha VDCs of Arghakhanchhi District) and one active nest in Barekot IBA, Jajarkot District (BCN unpublished data).

A population survey of Egyptian Vulture was carried out in the western Middle Mountain region in 2012. A total population of 241 birds was estimated: 189 birds in Kaski District, 30 in Arghakhanchi, eight birds in both Pyuthan and Salyan Districts and six in Palpa District (Subedi 2013). A total of nine nests was recorded at different locations of Arghakhanchi, Pyuthan and Salyan Districts in 2012. The breeding success was 62.5% based on active nests as the primary unit (Subedi 2013, Subedi and DeCandido 2014).

Monitoring of populations and breeding success were carried out in the Pokhara valley between 2006 and 2012. During the period the population showed an annual increase of 21.2%; the total of 147 birds was recorded in 2011/12. Although a slight decreasing trend was observed in the number of nests, Egyptian Vultures continued to breed in Pokhara. The breeding success varied between 13% and 50% over the six years (Gautam and Baral 2013).

Nests recorded in east Nawalparasi District were: one in 2009-10, 2010-11, 2011-12, 2012-13, 2013-14 and in 2014-15. Nests recorded in Ramnagar, Kailali District were one in 2009-2010, 2010-2011, 2012-2013, 2013-2014 and in 2014-2015. Nests recorded in Kaptangunj, Dang District were: one in 2009-2010, two in 2010-11, and one in 2011-12, 2012-13, 2013-2014 and 2014-15 (BCN unpublished data).

A comprehensive April 2012 survey of Koshi Tappu Wildlife Reserve counted four birds (Baral et al. in 2013).

Other known breeding records include: in Chitwan National Park since 2008 (DB Chaudhary); three nests by the Modi Khola in May 2008 (Hem Subedi) and one in Shakla VDC, Jajarkot District (Bhusal 2014),

# **Total Population Size**

Minimum population: 300; maximum population: <1000

#### Habitat and Ecology

Egyptian Vulture is a scavenger that frequents the neighbourhood of towns and villages (Inskipp and Inskipp 1991). It is an opportunistic scavenger and feeds on a variety of bird, mammal, amphibian and reptile remains, offal and any organic rubbish such as rotten vegetable matter; less dependent on large carcasses than other vultures (Naoroji 2006). The species is resident subject to altitudinal seasonal movements and is also a passage migrant (Inskipp and Inskipp 1991).

## <u>Threats</u>

Cuthbert et al. (2006) found that poisoning by scavenging carcasses containing diclofenac, a drug used to treat

livestock ailments is driving the recent declines in India and considered this seems likely to also be happening in Nepal.

However, human disturbance, habitat destruction, food scarcity and wild fire were found to be four major threats in the Pokhara valley (Gautam and Baral 2013). Here vultures were facing food scarcity due to changes in carcass disposal practices. Until 2006, bones and hides from slaughterhouses and dead carcasses were disposed of in open fields near the Phedipatan site. Different vulture species, including Egyptians were seen feeding at this site. The land was recently developed for real estate and slaughterhouses now bury the waste and local people also bury dead livestock (Gautam and Baral 2013). Egyptian Vultures deserted two nesting holes in the valley after a wild fire burned grasses on the nesting cliffs. The first fire incident occurred during the 2010/11 breeding season in Hemja and the second incident occurred during the 2011/12 breeding season in Narayanthan (Gautam and Baral 2013).

The two nests built in pine trees in Arghakhanchi and Pyuthan Districts in 2012 failed possibly because of high disturbance while chopping branches for firewood (Subedi 2013).

## **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010b) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

To conserve vultures the Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). Seven community managed Vulture Safe Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015).

Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC 2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011).

A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km² (68.73%) of Nepal (DNPWC 2015).

The goal of the second VCAP plan is to prevent the extinction of vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food, maintenance of suitable habitat. The five outputs desired that are relevant to Egyptian Vulture are:

- I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic compounds.
- II. Wild breeding populations of Egyptian Vulture are increased.
- III. Science based information system maintained.
- IV. Vulture conservation awareness among general public increased/maintained.
- V. Partnership among national and international organisations maintained

Bird Conservation Nepal, the leading organisation for Nepal bird conservation has been supporting the Vulture Conservation Action Plans through an integrated approach to conserve vultures in the country which involves

scientific research, advocacy, sensitization, monitoring the use of NSAIDs, the collection of veterinarian pledges to stop using diclofenac and the operation of vulture safe feeding sites. Within this line BCN has initiated projects under the Vulture Conservation Programmes. Under these projects a range of conservation action including in-situ and ex-situ measures has been implemented to support the Vulture Conservation Programmes.

BCN's Vulture Conservation Programme works on:

- 1. Scientific Research and Monitoring
- 2. Advocacy, Awareness and capacity buildings
- 3. Vulture Safe Zones and Community managed Vulture Safe Feeding Sites
- 4. Enhancing Community-Based Vulture Conservation in Western Lowland of Nepal
- 5. Protecting the critically endangered vultures of Suklaphanta Wildlife Reserve and Kailali District, Nepal through community-based integrated approaches.

## **Regional IUCN Status**

Vulnerable (VU A2ace, C1) downgraded from the Global Red List status: Endangered (EN)

#### Rationale for the Red List Assessment

Egyptian Vulture has been assessed as Vulnerable based on the criteria A2ace and C1. The species is a widespread and locally fairly common resident in west-central and west Nepal, but is rare in east-central and eastern areas of the country. Up to at least 1990 it was fairly common and widespread throughout, although less widespread in the east-central and eastern areas. Small numbers have been recorded on migration, moving west along the base of the Himalayas in autumn. The population is estimated to be less than 1000 birds. The reason(s) for the difference in distribution and numbers of resident birds between eastern and western areas are unknown. Poisoning by scavenging carcasses containing diclofenac, a drug used to treat livestock ailments is driving the recent declines in India and it seems likely this is also happening in Nepal. However, other threats such as the destruction of nesting trees, persecution and disturbance cannot be ruled out at the local level. Several conservation measures have been carried out for vultures, including Egyptian Vulture. The second Vulture Conservation Action Plan for Nepal (20015-19) has helped prioritise and streamline vulture conservation activities in Nepal. For example, in 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam. Vulture-Safe Feeding Sites have since been established in a number of locations. The project also promotes local livelihoods activities including bee-keeping and organic farming and runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. Post-1990 Egyptian Vulture has been recorded from a number of protected areas.

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# Aviceda leuphotes (Dumont, 1820) NT

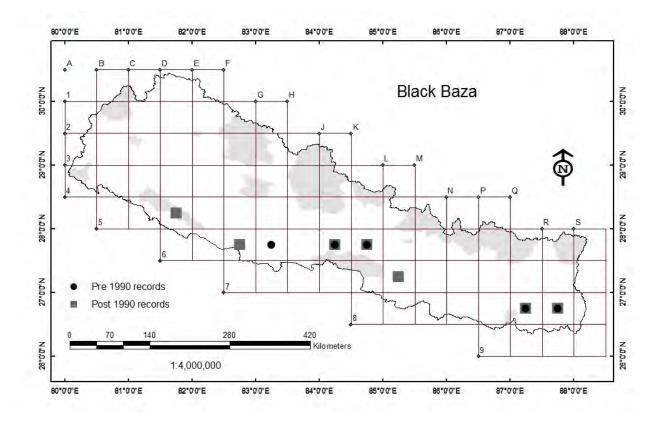
Subspecies: Aviceda leuphotes syama

Common Name
Black Baza (English),
Kalo Jurebaaz (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Black Baza is a local and very uncommon summer visitor recorded from Banke National Park (Acharya 2011) east to Sukhani, Jhapa District (Flack 1993) and chiefly from Chitwan National Park and the east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1836) when specimens were collected in the lower hills in June and August (further locality and date details are unknown) (Hodgson 1829).

Black Baza was recorded as a rare summer visitor in Chitwan National Park by Gurung (1983) and by Baral and Upadhyay (2006). Records include a pair 1 km from Chitwan Jungle Lodge in the east of the park in April 1985 (Hines 1987), up to four near Gaida Wildlife Camp in May 1989 (Baral 1990) and three in April 1990 (Henson 1991). Post-1990 records from the park include a pair in courtship display 3 km west of Sauraha in April 1994 (Halberg 1994), six near Gaida Tented Camp in April 1996 (Baral 1996), three near Chitwan Jungle Lodge and three near Tiger Tops Tented Camp in April 1999 (Chaudhary 1999), four in the park April 2001 (Inskipp and Inskipp 2001) and one in February 2002 (Arlow 2002), one in the Churia hills in April 2009 (O'Connell Davidson and Karki 2009), and two in the park in April 2011 (Baral 2011). Five were recorded near Sauraha in the park buffer zone in April 1992 (Baral 1992) and one in the buffer zone east of the park in April 2001 (Inskipp and

Inskipp 2001).

Black Baza is an uncommon summer visitor to Koshi Tappu Wildlife Reserve (Baral 2005). Records include nine birds in April 1998 (Chaudhary 1998) and one in May 2011 (Baral 2011).

The large number of eight was seen in Banke National Park in April 2011 (Acharya 2011).

Known records from localities outside the protected areas system follow.

In west-central areas records include: from Butwal, Rupandehi District where a pair was seen in July 1978 (Cox 1978, Fleming *et al.* 1984); there are no later reports from the district. In forests at the base of the Churia hills in Kapilvastu District one was recorded at the unusually late date of November in 2006 in (Cox 2008).

In central areas one was seen between Nijgarh and Pathlaiya, Bara District March 2008 (Yadav Ghimirey, Jyotendra Thakuri and Yub Raj Basnet)

There are a number of records from outside the protected areas system in the east. A specimen was collected at Dharan, Sunsari District in what is now the Dharan forest Important Bird Area in 1959 (by G. B. Gurung in Fleming *et al.* 1976). Later reports from Dharan include a party of four in May 1976 (Gregory-Smith and Batson 1976, Fleming *et al.* 1984). Post 1990 the species was recorded here in April 1992 when five were seen circling together (Bräunlich and Oehlschlaeger 1992), also a pair in April 1998 (Rogers 1998), and seen in May 2000 (Benstead and Benstead 2000), May 2007 and March 2008 (Basnet and Sapkota 2008), and one in October 2010 (Baral 2010). Two were recorded in Raja Rani forest, Morang District in June 2011 (Sanjib Acharya and Bhesh Raj Ghimire)

Records from forests north of Sunischare, Jhapa District include four in April 1982 (Fairbank 1982), a pair displaying and another individual between Bogaytcha and Garuwa, and two circling together between Garuwa and Sukhani on the same day in April 1986 (Heath 1986); one in the lower Mai valley in May 1989 (DeLuce and Goodyer 1990). Post-1990 two were seen between Garuwa and Sukhani in April 1993 (Flack 1993), four at Garuwa in April 1997 (White and White 1997), and one displaying at Garuwa in March 2008 (Robson *et al.* 2008). The species was also recorded in the lower Mai valley, Mai valley Important Bird Area in May 2006 (Basnet and Sapkota 2006).

Globally Black Baza has also been recorded from Bangladesh, Bhutan, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 450 m (- 1280 m); lower limit: 75 m

# <u>Population</u>

No population surveys have been carried out for Black Baza. However, direct observations in Chitwan National Park and in the Dharan forests Important Bird Area indicate the population is declining.

## <u>Total Population Size</u>

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Black Baza inhabits tropical broadleaved evergreen forest, often near clearings or broad streams (Grimmett *et al.* 1998), also mixed broadleaved forest in Chitwan National Park and in the west. It is somewhat crepuscular and is more active in cloudy than in sunny weather (Naoroji 2006). It feeds chiefly on lizards, frogs, large grasshoppers, mantises, and other insects; occasionally bats and small birds (Ali and Ripley 1987). Black Baza takes prey on the ground and also plucks insects and birds from the air and trees. It makes hunting sorties from a high lookout perch, often returning to the same or nearby perch (Naoroji 2006). The species is a summer visitor to Nepal, mainly recorded between the beginning of March and the end of August, although

there are records in February, October and November.

Breeding has been proved in Chitwan National Park (Gurung 1983; Tika Giri, Bishnu Mahato and Hem Subedi 2012); also bred on Banderjhola Island in 1990 and used the same nest in successive years until 2000 (Kalu Ram Tamang). Black Baza bred in the Dharan forest Important Bird Area, Sunsari District in 1986 (Heath 1986) and near Koshi Bird Observatory in April 2011 (Sanjib Acharya).

# **Threats**

Black Baza is seriously threatened by loss of tropical broadleaved forest outside protected areas.

### **Conservation Measures**

No conservation measures have been specifically carried out for Black Baza. Chitwan National Park is a stronghold of the species and it has recently been recorded in the recently designated Banke National Park which was been poorly known ornithologically previously. It is also recorded from Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Black Baza has been assessed as Near-threatened. It is a local and very uncommon summer visitor, mainly recorded from March to August, but there are February, October and November records. The species has been found from the west to the far east, but is chiefly found in Chitwan National Park and the east. No population surveys have been carried out for the species, but direct observations in Chitwan National Park and in the Dharan forests Important Bird Area indicate it is declining. It has been recorded from a few protected areas and also at a few sites outside the protected areas' system. Black Baza is seriously threatened by the loss of tropical broadleaved forest outside protected areas.

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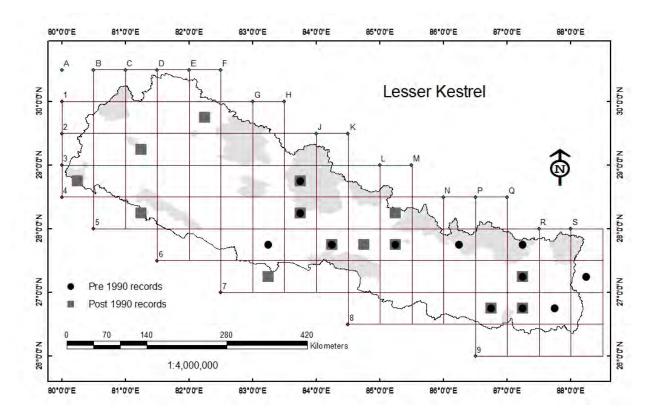
# Falco naumanni Fleischer, 1818 NT

<u>Common Name</u> Lesser Kestrel (English), Sano Baundai (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



Lesser Kestrel is mainly a passage migrant in October and November, when it sometimes occurs in large flocks; it is also an irregular and uncommon winter visitor and a rare spring passage migrant. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve in the far west to Koshi Tappu Wildlife Reserve in the far east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844), when records include a specimen collected in the Kathmandu Valley in October (year unknown) (1829).

On passage it chiefly occurs in October and November and often in flocks.

In the 1970s and 1980s it regularly occurred in a mixed falcon roost, mainly with Amur Falcons *F. amurensis* near Phewa Tal, Kaski District. At least five birds were seen there in November 1977 (Leece and Reece 1977) and a minimum of 60 in November 1986 (Nielsen 1986). In 1989, 50 were seen in November (Jakobsen 1993) and up to 25 were still present at the roost on 26 December 1989 (Slack 1990). The maximum of 340 Lesser Kestrels was counted there in October 1982 (B. Finch in Fleming *et al.* 1984). Nearly 100 of these falcons were noted in the Pokhara valley, Kaski District in late October 1976 (Arjal 1976, Fleming *et al.* 1984). No falcon roost has been located in the Pokhara valley, Kaski District since the 1980s.

Two birds were seen migrating with a flock of Amurs between Lumle and Naudanda on 27 October 1984 (Bijlsma 1991). A total of 77 birds migrated west near Khare (=Khande), Kaski District between 20 October and 6 November 1985 (de Roder 1989); ten between 27 October and 3 November 1999 (DeCandido *et al.* 2001); 186 between 30 October and 2 December 2005 (Gurung 2005); one between 14 November and 15 December 2011 (DeCandido *et al.* 2011), and 66 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range 69 birds migrated west between 6 and 25 October 2013 (Subedi *et al.* 2014) and 22 birds between 19 September and 8 December 2014 (Subedi 2015).

Other October and November records include a pair in October 1970 9 km south-west of Naubise, Dhading District (Inskipp *et al.* 1971), and a flock of nine in November 1970 at Keul in Helambu (Inskipp *et al.* 1971). Lesser Kestrels (numbers unknown) were seen with Amur Falcons in November (year unknown) at Tumlingtar, Sankhuwasabha District (Fleming *et al.* 1984). The species was recorded in Rara National Park in November 1991 (number unknown) (Giri 2005), one at Ghasa, ACA in November 1997 (Chaudhary 1998), and two between Tatopani and Chitre, ACA in November 2003 (Chaudhary 2003).

There are several November records from Koshi Tappu Wildlife Reserve and near Koshi Barrage, including six in November 2000 (Basnet 2000), 40 in November 2001 (Koshi Camp 2001), 60 in November 2004 (Baral and Chaudhary 2004), and 32 in November 2007 (Cottridge and Tiwari 2007). In November 2001 a mixed flock of 35 Lesser Kestrels, with 42 Amur Falcons and 21 Eurasian Hobbies was seen at Koshi; numbers of Lesser Kestrels were 40 and 25 birds on the following two days, 12 later in the month and the falcon continued to be sighted until early December in low numbers (two to four birds) (GC 2002).

Lesser Kestrel has also been recorded irregularly in winter at Koshi. Records include eight going to roost at Kusaha, the reserve headquarters in January 1997 (Chaudhary 1997), one at the reserve in December 1998 (Choudhary 1999), a flock of 15 circling north at Koshi in February 2002 (Arlow 2002), singles at the reserve in December 2001 (Naylor *et al.* 2002) and February 2007 (Choudhary 2007), five in December 2005 (Kelly 2005), 20 in December 2009 (Giri 2009), 80 in December 2011 (Vicente *et al.* 2011) and one in February 2012 (Badri Chaudhary).

There are several pre-1990 winter records from the Annapurna Conservation Area. These include singles at Muktinath in February 1982 at the unusually high altitude of 3700 m (Turton and Speight 1982), at Chandrakot and Ghandruk in January 1988 (Taylor and Abbott 1988), and between Tatopani and Chitre in February 1988 (Good and Ryan 1988). Two were also seen between Suikhet and Pothana and one between Pothana and Ghandruk in February 1989 (Linderstrom 1989).

Other winter records include one at Balaju, Kathmandu Valley in December 1977 (Inskipp and Inskipp 1977), one at Chatra, Sunsari District in December 1978 (Bowden 1979), and one at Lumbini, Rupandehi District in January 2011 (Acharya 2011).

Only a few spring records are known. One was seen at Pakhribas, Dhankuta District in April 1978 (Isherwood 1978), seven flying north over the Kathmandu Valley in April 1981 (Krabbe 1981), one near Santapur, Rautahat District in March 1989 (McKnight *et al.* 1989), one near Lama Hotel, Langtang National Park in April 1998 (Basnet 1998), and two near Dhiphrang, ACA in May 2001 (Baral *et al.* 2001).

Lesser Kestrel's status in protected areas is reported as an uncommon winter visitor and passage migrant to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009). One was sighted at Lamkauli Phanta, Bardia National Park in September 2012 (Ram Shahi). The species was recorded in Khaptad National Park (Khadka 1996), a rare winter visitor to Chitwan National Park (Baral and Upadhyay 2006), frequent in Koshi Tappu Wildlife Reserve, and a rare passage migrant to both Langtang (Karki and Thapa 2001) and to Rara National Parks (Giri 2005).

No significant changes in distribution have been noted, pre- and post-1990 (see map).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Macedonia, the former Yugoslav Republic of, Malawi, Maldives, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Niger, Nigeria, Oman, Pakistan, Palestinian Authority Territories, Portugal, Qatar, Romania, Russia (Asian), Russia

(Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Syria, Tajikistan, Tanzania, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

## **Elevation**

Upper limit: 2745 m (- 3700 m); lower limit: 75 m

### **Population**

No population survey has been carried out for Lesser Kestrel. However, observations indicate that the falcon may be decreasing (see distribution section).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Lesser Kestrel inhabits open grassland and cultivation. It hunts in open country in a similar manner to Common Kestrel *F. tinnunculus,* but with less wing-flapping and for shorter periods and is generally more agile and graceful on the wing. Lesser Kestrel is mainly insectivorous, swooping to catch prey on the ground or by hawking flying insects. It roosts communally, sometimes with Amur Falcons (Grimmett *et al.* 1998).

# **Threats**

Threats to Lesser Kestrel are uncertain; it is possibly threatened by pesticides.

# **Conservation Measures**

No conservation measures have been specifically carried out for Lesser Kestrel. It has been recorded in Khaptad National Park, Annapurna Conservation Area, and Sukla Phanta and Koshi Tappu Wildlife Reserves. It also occurs marginally in Bardia Rara, Chitwan and Langtang National Parks

# **Regional IUCN Status**

Near Threatened (NT), upgraded from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Lesser Kestrel has been assessed as Near-threatened. The species is mainly a passage migrant in October and November, when it sometimes occurs in large flocks; it is also an irregular and uncommon winter visitor and a rare spring passage migrant. It is widespread, occurring from the far west to the far east. No significant changes in distribution have been noted, pre- and post-1990. It has been recorded in several protected areas. Threats to the species are uncertain although it may be at risk from pesticides.

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# Microhierax caerulescens (Linnaeus, 1758) NT

Subspecies: *Microhierax caerulescens caerulescens* 

Common Name

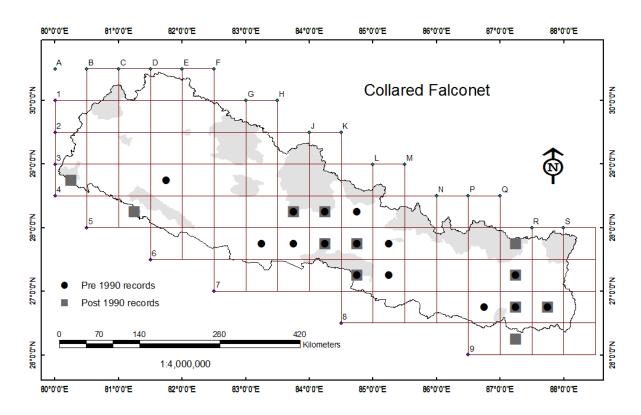
Collared Falconet (English),

Pauri Baaz (Nepali)

Order: Falconiformes Family: Falconidae



# **Distribution**



Collared Falconet is a local and uncommon or frequent resident found from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Jhapa District e.g. Buckton and Morris (1990) in the far east.

However, it is more widely distributed and frequent in Chitwan National Park and in the east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1843) when specimens were collected at Hetauda, Makwanpur District in February (year unknown) and elsewhere in the lower hills (Hodgson 1829). Fleming *et al.* (1976) considered it fairly common in the lower hills, especially in the east. Inskipp and Inskipp (1991) reported it was an uncommon resident.

In the west the species is rare, possibly a winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) and a rare resident in Bardia National Park (S. Khumal 2001 and K. Tamang undated in Inskipp 2001). One was recorded at Surkhet, Surkhet District in June 1979 (Pritchard 1980). One was collected at Butwal, Rupandehi District in February 1950, and was not considered common in the area; the species also seen in the district in January 1981 (Munthe 1981), but there are no later records.

In west-central areas the species is rare in the Pokhara valley, Kaski District. Fleming et al. (1984) reported

several sightings, including in 1977 (Thiollay 1978), and there were singles near Pokhara in January 1981 (del-Nevo and Ewins 1981) and in February 1983 (Nickel and Trost 1983). There are several later records from the Pokhara area, e.g. singles in November 1992 (Murphy and Waller 1992), December 2008 (Naylor and Turner 2008), and February 2009 (Naylor et al. 2009). The species was recorded at Balewa, Baglung District (Basnet 2009) and one was seen at Bimalnagar, Bandipur VDC, Tanahu District in November 2012 (Haris Rai). Collared Falconet is also rare in the Begnas Tal area, Kaski District, for example it was observed in December 1970 and January 1971, with the maximum of four in December (Inskipp et al. 1971), and also seen there in 1979 (Redman and Murphy 1979) and one in March 1981 (Mills and Preston 1981). Two were recorded near Begnas Tal in March 2009 (Baral 2009) and one between Dumre and Besishar in November 1994 (Fletcher 1994).

In central areas one was recorded 40 km west of Kathmandu in December 1977 (Inskipp and Inskipp 1977) and one at Mugling riverside, Gorkha District in December 2004 (Naylor and Giri 2004). It was sighted at Tamaspur, Nawalparasi District in 1979 (Lambert 1979, Redman and Murphy 1979) and one was seen there in February 1986 (Heath 1986), but no later records from the district are known.

Collared Falconet has been regularly recorded from Chitwan National Park. Gurung (1983) considered it rare and a resident or visitor. However, Baral and Upadhyay (2006) listed it as an occasionally recorded resident. Records from the park include a pair mating in February 1987 (Kovacs 1987), five in January 1989 (Cooper and Cooper 1989), seven at Gaida Camp in November 1996 (Giri 1996), five near Gaida Camp in February 1998 (Chaudhary 1998a), four in March 1999 (Heilbrower 2000), two at Gaida Camp and three at Machan in November 2002 (Cottridge and Tiwari 2002), three in April 2003 (O'Connell Davidson *et al.* 2003), three in February 2010 (Baral 2010a), and three in February 2012 (Naylor and Metcalf 2012). It has also been found in the park buffer zone: e.g. one at Sauraha in April 1992 (Baral 1992), and regularly recorded in Barandabhar, e.g. in February 2000 (Adhikari *et al.* 2000) and March 2015 (Badri Chaudhary, Sagar and Tika Ram Giri and C. Inskipp), and at Bees Hazari Tal in October 2000 (Stair and Stair 2000).

The falconet is listed as resident in Parsa Wildlife Reserve (Todd 2001).

Biswas (1961) found it 'not particularly common in the forests of the central bhabar and dun' and collected a specimen at Amlekgunj, Bara District in March 1947, and ten specimens including six juveniles from Hetauda, Makwanpur District in June and July 1947. The species was also recorded at Hetauda in October, November and December 1970, with a maximum of ten in December (Inskipp *et al.* 1971). Later records from Hetauda were in 1979 (Redman and Murphy 1979), one in February 1981 (del-Nevo and Ewins 1981, Mills and Preston 1981), recorded in 1990 (Buckton and Morris 1990), and one in January 1993 (Tarrant and Tarrant 1993). It was also recorded again in Bara District in 1979 (Lambert 1979). No later records are known from Bara or Makwanpur Districts.

Collared Falconet is much more widespread in the east compared to further west. It is uncommon in the lower Arun valley, Sankhuwasabha District. Two were seen in August and September 1986 (Nepali 1986) and the species was also recorded there in 1989 (Gardiner 1990, Nielsen and Jakobsen 1989) and in December 1991 (White and White 1992). Two were seen between Tumlingtar and Chewabesi and five between Chewabesi and Bungling, Sankhuwasabha District in November 1994. One was also observed at Tumlingtar, Bhojpur District in December 1994 (Baral and Buckton 1994) and one there in May 1998 (Chaudhary 1998b). The species was recorded in the upper Arun, Sankhuwasabha District in May or June 1995 (Cox 1999).

Gregory-Smith and Batson (1976) reported the species was a frequent resident in the south-eastern terai and foothills in 1975. Bowden (1979) saw one at Fatepur, Saptari District in January 1979.

One was collected by the Koshi River, Morang District in February 1938 (Bailey 1938) and the species was recorded at Raja Rani Community Forest, Morang District between October 2003 and July 2004 (Basnet *et al.* 2005). It was listed as an uncommon resident at Koshi Tappu Wildlife Reserve by Thompson (1994) and Baral (2005). Records at Koshi include two in November 1993 (Baral 1993), seven in November 1996 (Chaudhary 1997), one in December 2000 (Chaudhary 2001) and March 2005 (van der Dol 2005), two in December 2007 (Giri 2007), six in December 2009 (Giri 2009) and one in October 2011 (Baral 2011). One was also seen between Biratnagar, Morang District and Koshi Camp, Sunsari District in February 1994 (Cottridge *et al.* 1994). One was seen at the Koshi Bird Observatory in October 2012 (Inskipp and Inskipp 2012).

Single specimens were collected from Chatra, Sunsari District in February 1949 (Ripley 1950) and one was seen at Chatra in February 1974 (Madge *et al.* 1974). The species was regularly recorded at Dharan, Sunsari District in what is now the Dharan forests Important Bird Area (IBA). Records include a specimen collected in February 1949 (Ripley 1950), one seen in April 1982 (Mills *et al.* 1982), two to three in November 1989 (Jakobsen 1993),

five in December 1996 (Giri 1996), two in December 1998 (Choudhary 1999), three in December 2001 (Naylor *et al.* 2002), two in November 2002 (Cottridge and Tiwari 2002), one in March 2004 (Kennerley and Karki 2004), and one in January 2010 (Baral 2010b). The species was recorded in all four surveys of the Dharan forests IBA between May 2007 and March 2008 (Basnet and Sapkota 2008).

There are several records from forests north-west of Sunischare, Jhapa District which lies in the Mai valley: one bird in January and two in February 1974 (Madge *et al.* 1974), two in March 1981 (Inskipp and Inskipp 1981), one in April 1986 (Goodwin 1986), four in March 1987 (Eve and Hibberd 1987) and recorded in 1990 (Buckton and Morris 1990), but no later records are known. The species was also recorded further north in the lower Mai valley near Soktim and Chisapani in March 1989 (Bose *et al.* 1989), January 2006 (Basnet and Sapkota 2006) and in March 2008 (Robson *et al.* 2008).

Globally the species has also been recorded in Bangladesh, Bhutan, Cambodia, China (mainland), India, Laos, Myanmar, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 1050 m; lower limit: 75 m

### **Population**

No surveys have been carried out for Collared Falconet, but observations indicate the population is quite small.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Collared Falconet inhabits edges and clearings of broadleaved forest in the terai and low hills (Grimmett et al. 1998). It mainly feeds on large insects, chiefly butterflies, dragonflies, grasshoppers, and beetles, and occasionally small birds (Ali and Ripley 1987). Prey species recorded in Nepal are Crested Tree Swift Hemiprocne coronata, (Madge 2002), Chestnut-capped Babbler Timalia pileata, Olive-backed Pipit Anthus hodgsoni, Plain Martin Riparia paludicola, Wedge-tailed Green Pigeon Treron sphenurus, and Great Tit Parus major (Mahato 2002). Some of these prey are considerably larger than the falconet (Mahato 2002). Collared Falconet is found singly, in pairs or small parties. The species is resident (Grimmett et al. 1998).

# **Threats**

Collared Falconet is threatened by loss and degradation of tropical broadleaved forest.

## **Conservation Measures**

No conservation measures have been implemented specifically for Collared Falconet. However, it has been observed recently in Chitwan National Park and in Parsa and Koshi Tappu Wildlife Reserves and rarely in Bardia National Park and Sukla Phanta Wildlife Reserve.

## **Regional IUCN Status**

Near-threatened (NT) upgraded from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Collared Falconet has been assessed as Near-threatened based on a reduction in distribution and population, as well as habitat loss and degradation. It is a local and frequent or uncommon resident known from the far west to the far east, but is more widespread and frequent in Chitwan National Park and in the east. The species is no longer recorded at several localities, mainly in west-central and central areas, where it was formerly observed from the late 1940s to the 1980s/early 1990s. However, it is still regularly recorded from Chitwan National Park, Parsa Wildlife Reserve and at a few sites in the east, including Koshi Wildlife Reserve. Collared Falconet is threatened by the loss and degradation of broadleaved tropical forest.

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# Accipiter badius (J. F. Gmelin, 1788) LC

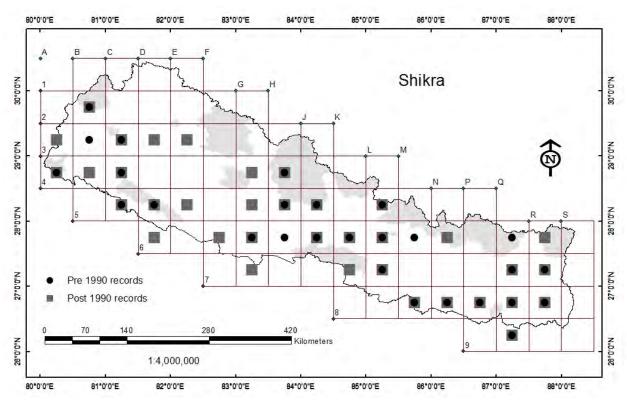
Subspecies: Accipiter badius dussumieri

Common Name Shikra (English), Shikra (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Shikra is a fairly common resident. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1836) when it was collected in the Kathmandu Valley and in the central hills (year and further locality details are unknown) (Hodgson 1829).

It was reported as fairly common by Fleming et al. (1976) and by Inskipp and Inskipp (1991).

The species has been recorded Api Nampa Conservation Area (Thakuri and Prajapati 2012), is a common resident in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), an occasionally recorded resident in Bardia National Park (Inskipp 2001), recorded in Banke National Park (Baral *et al.* 2012), a rare resident in Khaptad National Park (Chaudhary 2006, Khadka 1996), an uncommon resident in the Annapurna Conservation Area (Inskipp and Inskipp 2003), uncommon and possibly resident in Langtang National Park (Karki and Thapa 2001), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), occasionally recorded resident in Shivapuri Nagarjun National Park (SNP and BCN 2007), a fairly common resident in Chitwan National Park (Baral and Upadhyay 2006) and in Parsa Wildlife Reserve (Todd 2001), very uncommon in Kanchenjunga Conservation Area (Inskipp *et al.* 2008) and a common resident in Koshi Tappu Wildlife Reserve (Baral 2005). It was recorded above Talcha (E3) n Rara National Park buffer zone at the unusually high altitude of about 2500 m in October

2015 (Chaudhary et al. 2015).

Shikra is also fairly common and widespread outside the protected areas' system in suitable habitat and within its altitudinal range, pre- and post-1990. Since 1990 better coverage has resulted in records from more localities in the west, but fewer localities were recorded in the east.

Known records from localities outside the protected areas' system post-1990 are given below.

In the west records include: from Dashrash municipality, Baitadi District in June 2010 (Baral *et al.* 2010); Ghodaghodi Tal, Kailali District in January 2010 (Baral 2010a); Nepalgunj, Banke District (Grimm and Fischer 2003); Banke District (D6) (NTNC workshop, October 2012); Rawtkot, Kalikot District in March 1997 (Giri 1997); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Dhorpatan valley (NTNC workshop, October 2012); Reshunga Potential Important Bird Area, Gulmi District in March and June 2011 (Thakuri 2011, 2013); Myagdi District in May 1999 (Cox 1999); Gaidahawa Tal, Kapilvastu District (Baral 2011a); west of Jagdishpur, Kapilvastu District in April 2007 (Baral 2007); Lumbini, Rupandehi District in April 1993 (Baral 1994); Pokhara to Begnas Tal, Kaski District in March 2009 (Baral 2009), and Belawa, Baglung District (Basnet 2009).

In central areas records include: from Dhading, Dhading District in April 2011 (Baral 2011b); Gaur, Rautahat District to Sedhawa, Siraha District and Mewa Gau, Rautahat District to Belwa, Bara District in April 2003 (Cox 2003), and Hetauda, Makwanpur District in May 2000 (Giri 2000). Shikra was reported as uncommon, perhaps mainly a summer visitor, and possibly also a passage migrant to the Kathmandu Valley between 2004 and 2006 (Mallalieu 2008). A total of 13 birds migrated over Thoolakharka, Kaski District, just south of the Annapurna range in autumn 2014 (Subedi 2015).

In the east records include: from Sarlahi District (M8) (NTNC workshop, October 2012); Siraha District (N8) (Yub Raj Basnet); in the Dharan forests Important Bird Area (IBA), Sunsari District in 2008 (Basnet and Sapkota 2008); Patnali in the Dharan forests (IBA) in January 2010 (Baral 2010); Churiabesi, Tumlingtar, Sankhuwasabha District in May 1998 (Chaudhary 1998); near Koshi Bird Observatory, Sunsari District (Tulsi Subedi); Garuwa, Ilam District and Jamuna, Ilam District in March 2008 (Robson *et al.* 2008); Ilam District in September 2010 (Baral 2010b); Biratnagar, Morang District (NTNC workshop, October 2012), and between Basantapur and Chauki, Terhathum District and between Dobhan and Mitlung, Taplejung District in April 2008 (Inskipp *et al.* 2008).

Globally the species has also been recorded in Afghanistan, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Djibouti, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, India, Indonesia, Iran, Islamic Republic of, Iraq, Israel, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lesotho, Liberia, Malawi, Malaysia, Mali, Mauritania, Mongolia, Mozambique, Myanmar, Namibia, Niger, Nigeria, Oman, Pakistan, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sri Lanka, Sudan, Swaziland, Tajikistan, Tanzania, Thailand, Togo, Turkmenistan, Uganda, United Arab Emirates, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="https://www.birdlife.org">https://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 1370 m (- 2500 m); lower limit: 75 m

# **Population**

No population surveys have been carried out for Shikra. The population may be declining in central and eastern Nepal as fewer localities have been recorded since 1990.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

### Habitat and Ecology

Shikra inhabits open wooded country and groves around villages and cultivation. It is a bold and aggressive predator, like other *Accipiter* species, and shares the same hunting techniques. It perches concealed in tree foliage, scanning the surroundings, and captures prey in a short swift dash, relying on surprise tactics. Prey are also sought by swift low flight between trees and patches of cover. It soars frequently, often at considerable heights (Grimmett *et al.* 1998). All living animals of manageable size have been recorded as prey: mammals (field rats and mice, squirrels), birds (sparrows, mynas, babblers, quails, doves and drongos), lizards, frogs, locusts, grasshoppers, mantises, dragonflies, flying termites, caterpillars etc. (Ali and Ripley 1987). Breeding has been proved at Chitwan (Gurung 1983) and in the Kathmandu Valley (Vyas 1988).

## **Threats**

Threats to Shikra are uncertain; it may be at risk from pesticides (Inskipp and Baral 2011).

# **Conservation Measures**

No conservation measures have been carried out specifically for Shikra. It has been recorded in Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves; Api Nampa, Gaurishankar, Annapurna and Kanchenjunga Conservation Areas; Bardia, Banke, Chitwan, Khaptad, Langtang, and Shivapuri-Nagarjun National Parks.

### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Shikra has been assessed as Least Concern. It is a fairly common and widespread resident. The species has been recorded in almost all protected areas and is also widespread outside the protected areas' system in suitable habitat and within its altitudinal range pre- and post-1990. Since 1990 better coverage has resulted in records from more localities in the west, but fewer localities were recorded in the east. Threats to Shikra are uncertain although it may be at risk from pesticides. The population may be declining in central and eastern Nepal, but not to an extent that warrants a threatened category for the species.

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# Accipiter gentilis (Temminck, 1824) LC

Subspecies: Accipiter gentilis schvedowi

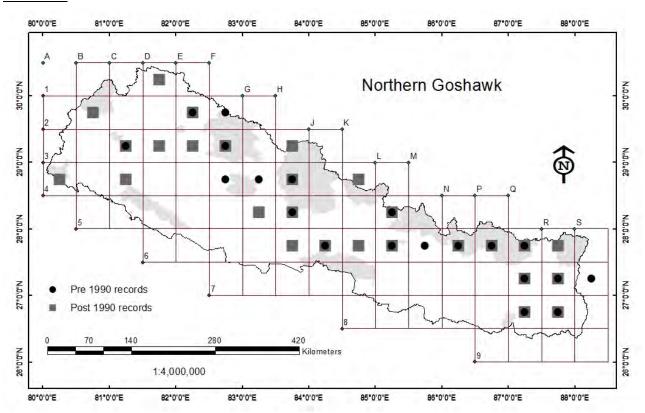
## Common Name

Northern Goshawk (English), Balakanksha Banbaaz (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Northern Goshawk is a frequent resident subject to altitudinal movements. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve (Som GC) in the far west to Ilam District (Cox 1992) in the far east.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844) when specimens were collected in the Kathmandu Valley in October, November and December (year unknown) and in the 'Hills, peculiar to neighbourhood of snows' (date unknown) (Hodgson 1829).

The species has been recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012) and in Sukla Phanta Wildlife Reserve (Som GC). It is a rare winter visitor to Bardia National Park (Inskipp 2001), a rare resident in Khaptad National Park (Chaudhary 2006), recorded in Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995), uncommon and possibly resident in Rara National Park (Giri 2005), a frequent resident in the Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (KMTNC 1998, Thakuri 2013a), a fairly common resident in Langtang National Park (Karki and Thapa 2001), an uncommon winter visitor to Shivapuri in Shivapuri Nagarjun National Park (SNP and BCN 2007), a rare winter visitor to Chitwan National Park (Baral and Upadhyay 2006), a frequent resident in Sagarmatha National Park (Basnet 2004), frequent and possibly resident in Makalu Barun National Park (Cox 1999) and in Kanchenjunga Conservation Area (Inskipp et al. 2008), and a frequent winter visitor in Koshi Tappu Wildlife Reserve (Baral

2005). Two were recorded at Phakding, Solukhumbu District in the Sagarmatha National Park buffer zone in May 1993 (Baral 1996).

Northern Goshawk has been sighted in Chitwan National Park buffer zone: singles at Sauraha in December 2009 (Tika Giri, Anil Gurung, Tulasi Magar and Hem Subedi); Baghmara in March 2012 (Basu Bidari and Anil Gurung) and in Seti Devi Community Forest along the Narayani River in March 2013 (Tulsi Subedi).

The species has also been recorded outside the protected areas' system in suitable habitat and within its altitudinal range, although much less frequently than in protected areas. However, a large proportion of the species' range now lies within protected areas. No significant changes in distribution have been noted, preand post-1990 (see map). Known post-1990 records from localities outside the protected areas' system are given below.

In the west records include: from Kalikot District in March 1997 (Giri 1997); upper Humla (D1), Humla District (Kusi *et al.* 2015); one in Reshunga Important Bird Area, Gulmi District in February 2011 (Thakuri 2011, 2013b); near Jumla, Jumla District in May 1995 (White and White 1995); one in Pokhara, Kaski District in September 2012 (Hari KC), and at Balewa, Baglung District (Basnet 2009).

In central areas records include from Nawalparasi District (DB Chaudhary) and in the Kathmandu Valley, where it was rare in winters 2004-2006 (Mallalieu (2008). Arend van Riessen recently recorded juveniles in Bagmati-Chobar between November and February.

In the east records include: from Dolakha District in 1993 (Poulsen 1993); one at Tumlingtar, Sankhuwasabha District in December 1994 (Baral 1995); two near Kimboche, Sankhuwasabha District in December 1992 (Cox 1992); recorded in Patnali forest, Dharan forests Important Bird Area (no further details known) (NTNC workshop, October 2012); one between Mamangkhe and Yamphudin, Taplejung District in November 2000 (Goble 2000), a pair between Targaun and Romiyang, Ilam District in November 1992 (Cox 1992), and one at Ilam, Ilam District in January 2008 (Baral 2010).

Three birds migrated west near Khare (=Khande), Kaski District between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range ten birds migrated west between 20 and 30 November 2013 (Subedi *et al.* 2014) and 15 birds between 19 September and 8 December 2014 (Subedi 2015).

Globally the species also occurs in Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Bangladesh, Belarus, Belgium, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Bulgaria, Canada, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Hong Kong (China), Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, South Korea, Spain, St Pierre and Miquelon (to France), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# Elevation

Upper limit: 4880 m (- 6100 m); lower limit: 75 m

# **Population**

No population surveys have been carried out for Northern Goshawk.

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Northern Goshawk inhabits oak and high altitude coniferous forest; sometimes hunting above the tree-line. It is a powerful *Accipiter* with a hunting technique similar to that of Shikra *A. badius*. Typically, it perches on rocks that command a wide view or flies fast and low over the ground to make surprise attacks on prey (Grimmett *et al.* 1998). Northern Goshawk preys on birds including pheasants, partridges and pigeons and small mammals, such as hares (Ali and Ripley 1987). It has been found breeding in upper Mustang (Raju Acharya).

## **Threats**

Northern Goshawk may be threatened by deforestation; however, as it mainly inhabits high altitude forests it is much less threatened than species at lower altitudes. It may also be at risk from pesticides.

### **Conservation Measures**

No conservation measures have been carried out specifically for Northern Goshawk. It has been recorded in Koshi Tappu Wildlife Reserve, Api Nampa, Annapurna, Manaslu and Kanchenjunga Conservation Areas; Khaptad, Rara, Shey-Phoksundo, Langtang, Shivapuri-Nagarjun, Sagarmatha and Makalu Barun National Parks, and marginally in Bardia and Chitwan National Parks, and in Sukla Phanta Wildlife Reserve.

### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Northern Goshawk has been assessed as Least Concern. It is a widespread and frequent resident. Most of the species' range lies in protected areas and it has been found in most parks and reserves with suitable habitat and within its altitudinal range. It has also been recorded outside the protected areas' system, although less frequently. Northern Goshawk may be threatened by deforestation; however, as it mainly inhabits high altitude forests it is much less threatened than species at lower altitudes. It may also be at risk from pesticides. Its population may be declining but not to an extent that warrants a threat category for the species.

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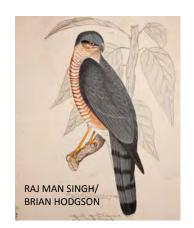
# Accipiter nisus (Linnaeus, 1758) LC

Subspecies: Accipiter nisus nisosimilis, melaschistos

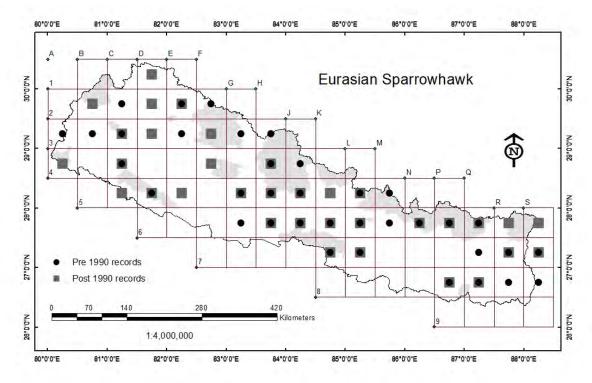
## Common Name

Eurasian Sparrowhawk (English), Banbaaz (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Eurasian Sparrowhawk is fairly common; it is a resident, winter visitor and passage migrant. The species is widespread with post-1990 records from Api Nampa Conservation Area in the far west to Kanchenjunga Conservation Area in the far east. Two subspecies occur: the resident *A. n. melaschistos* and wintering *A. n. nisosimilis*. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1843) when specimens were collected in the Kathmandu Valley, lower hills and mountains (year and further locality details are unknown) (Hodgson 1829).

The species has been recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012); is an uncommon winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009); frequent in Bardia National Park (Inskipp 2001); uncommon in Khaptad National Park (Chaudhary 2006); recorded in Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995); uncommon in Rara National Park (Giri 2005); recorded in Dhorpatan Hunting Reserve (Inskipp 1989); a fairly common resident, winter visitor and passage migrant to the Annapurna Conservation Area (Inskipp and Inskipp 2003); recorded in Manaslu Conservation Area (Thakuri 2013a); a fairly common resident in Langtang National Park (Karki and Thapa 2001); recorded in Gaurishankar Conservation Area (Baral and Shah 2009); a frequent winter visitor to Shivapuri-Nagarjun National Park (SNP and BCN 2007); a rare winter visitor to Chitwan National Park (Baral and Upadhyay 2006); recorded in Parsa

Wildlife Reserve (NTNC workshop, October 2012); a frequent resident and passage migrant to Sagarmatha National Park (Basnet 2004); a fairly common resident in Makalu Barun National Park (Cox 1999); fairly common and possibly resident in Kanchenjunga Conservation Area (Inskipp *et al.* 2008), and an uncommon winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005a).

It has been recorded in the buffer zone of Chitwan National Park, e.g. Bees Hazari Tal (Baral 1996) and at Sauraha (NTNC workshop, October 2012).

Eurasian Sparrowhawk has also been widely recorded in suitable habitat and within its altitudinal range outside the protected areas' system pre- and post-1990. No significant changes in distribution have been noted (see map). Known records post-1990 are give below.

In the west records include: Takche (D2), Humla District in June 2014 (Kusi et al. 2015); Nepalgunj, Banke District in April 2009 (O'Connell Davidson and Karki 2009); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2008); Rawtkot, Kalikot District in March 1997 (Giri 1997); Reshunga Important Bird Area, Gulmi District in February 2011 (Thakuri 2011, 2013b); a few birds regularly seen in Arghakhanchi District with high frequency in spring (Tulsi Subedi); recorded at Phewa Tal, Kaski District in January 2005 (Mallalieu 2005); a few records from Pokhara, Kaski District, e.g. in November 2004 (Nayor and Giri 2004); Navakuna to Charikot, Dolpa District in March 1992 (Priemé1992); , Lumbini, Rupandehi District (NTNC workshop, October 2012); Balewa, Baglung District (Basnet 2009) and Bhujung forest, Lamjung District in January 1992 (Halliday 1992).

In central areas records include: from Nawalparasi District (DB Chaudhary); in the Kathmandu Valley where it was an uncommon winter visitor and passage migrant between 2004 and 2006 (Mallalieu 2008); regularly seen in Balkot, Bhaktapur District (Tulsi Subedi), and recorded west of Belwa, Bara District in April 2003 (Cox 2003).

In the east records include: from Dolangse to Tinsang La, Dolakha District in October 1996 (Cox 1996); Dolakha District in 1993 (Poulsen 1993); between Bhandar and Sete, Dolakha District and between Bupsa and Surkhe, Solukhumbu District in November 2009 (Thewlis *et al.* 2009); between Sanam and Bung, Sankhuwasabha District in November 2011 (Carter and James 2011); between Bhotebas and Khandbari, Sankhuwasabha District in November 1994 (Baral and Buckton 1994); Tinjure forest, Terhathum District in 1997/1998 (Rai 2003); Koshi Barrage, Sunsari District in February 2005 (Baral 2005b); Rajabas to Titrigaachhi, Koshi River, Sunsari District in February 2007 (Baral 2007); Mamamke, Taplejung District in November 2000 (Goble 2000); between Kande Bhanjyang and Lali Kharka, Taplejung District in March 2008 (Inskipp *et al.* 2008); Taplejung to Dobhan, Taplejung District in November 1992 (Cox 1992); Topke Ghola, Taplejung District in December 1992 (Cox 1992); Dharan forests Important Bird Area, Sunsari District in 2008 (Basnet and Sapkota 2008); Mai Majuwa to Kholabari, Panchthar District in November 1992 (Cox 1992); Mai Majuwa, upper Mai valley, Ilam District and Memen, Panchthar District in March 2008 (Robson *et al.* (2008), and Chimdi Lake, Sunsari District (Surana *et al.* 2007).

Migrants have been observed flying south down the Kali Gandaki valley, Annapurna Conservation Area (ACA): 14 between 6 September and 5 October 1973 (Beaman 1973), 23 between 24 September and 5 October 1978 (Thiollay 1979), and 17 between 16 and 27 October 1984 (Bijlsma 1991).

Three birds migrated west near Khare (=Khande), Kaski District between 30 October and 1 November 1999 (DeCandido *et al.* 2001) and eight between 15 and 27 November 2011 (DeCandido *et al.* 2011) and 107 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range 110 birds migrated between 7 and 25 October 2013 (Subedi *et al.* 2014) and 103 birds between 19 September and 8 December 2014 (Subedi 2015).

Globally it has also been recorded from Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Brunei, Bulgaria, Chad, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gambia, Georgia, Germany, Gibraltar (to UK), Greece, Hong Kong (China), Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Malaysia, Mali, Malta, Mauritania, Moldova, Monaco, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), San Marino, Saudi Arabia, Serbia, Slovakia, Slovenia, Somalia, South Africa, South Korea, Spain, Sri Lanka, Sudan, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan,

Vietnam, Western Sahara, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## Elevation

Upper limit: 4200 m (- 5180 m) (summer); 1450 m (winter); lower limit: 2440 m (summer); 250 m (- 100 m) (winter)

### **Population**

No population surveys have been carried out for Eurasian Sparrowhawk.

### **Total Population Size**

Minimum population: 3000; maximum population: 5000

### Habitat and Ecology

Eurasian Sparrowhawk inhabits well-wooded country, open forest and cultivation interspersed with groves of trees. Its hunting methods are very similar to those of Shikra *A. badius*. It uses a combination of speed and surprise and can twist and turn with great dexterity and speed in pursuit of birds (Naoroji 2006). The species chiefly takes birds, including quails, partridges and dove and others normally up to about its own size and weight (Ali and Ripley 1987).

### **Threats**

Threats to Eurasian Sparrowhawk are uncertain; it may be at risk from pesticides.

# **Conservation Measures**

No conservation measures have been carried out specifically for Eurasian Sparrowhawk. it has been recorded in Sukla Phanta and Koshi Tappu Wildlife Reserves; Annapurna, Api Nampa, Gaurishankar, Kanchenjunga and Manaslu Conservation Areas; Dhorpatan Hunting Reserve; Bardia, Khaptad, Rara, Shey-Phoksundo, Langtang, Shivapuri-Nagarjun, Sagarmatha and Makalu Barun National Parks, and marginally in Chitwan National Park and Parsa Wildlife Reserve.

# **Regional IUCN Status**

Least Concern (LC), unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Eurasian Sparrowhawk has been assessed as Least Concern. It is fairly common and widespread and occurs as a resident, winter visitor and passage migrant. The species has been recorded in almost all protected areas with suitable habitat and within its altitudinal range; it is also widely recorded outside the protected areas' system. No significant changes in distribution have been noted pre- and post-1990. Threats to the species are unknown, although it may be at risk from pesticides.

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# Accipiter trivirgatus (Temminck, 1824) LC

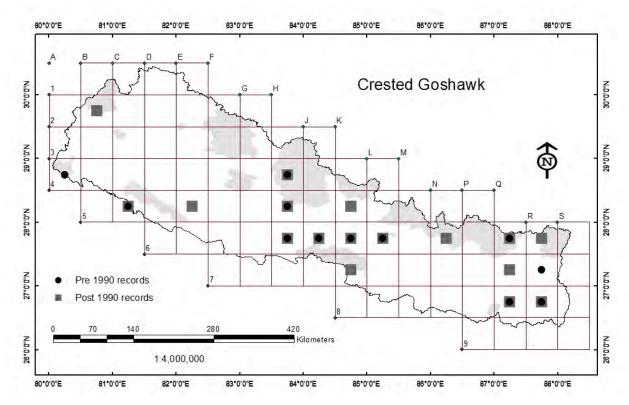
Subspecies: Accipiter trivirgatus indicus

<u>Common Name</u> Crested Goshawk (English), Kalki Besra (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Crested Goshawk is an uncommon resident, mainly recorded from west-central areas and eastwards. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1836) when it collected in June and October in the Kathmandu Valley and in the terai in December (years and further locality details are unknown) (Hodgson 1829).

The species has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012) and is a vagrant to Bardia National Park where one was seen in February 2005 (van der Dol 2005). It is an uncommon resident in the Annapurna Conservation Area (Inskipp and Inskipp 2003; recorded in Manaslu Conservation Area (Thakuri 2013) and in Gaurishankar Conservation Area (Baral and Shah 2009), and is an uncommon resident in Chitwan National Park (Baral and Upadhyay 2006), and in Makalu Barun National Park (Cox 1999). There is one known record from the Kanchenjunga Conservation Area in April 2008 (Inskipp *et al.* 2008). The species is frequent and possibly a winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005, Choudhary 1995; Baral 2010a, 2010b). It has also been recorded in Chitwan National Park buffer zone at Bees Hazari Tal (Baral 1996) and in Jankauli forest in March 2010 (Giri 2010).

Crested Goshawk has been recorded in suitable habitat and within its altitudinal range outside protected areas, pre- and post-1990. No significant changes in distribution have been noted (see map). There are fewer

known records outside protected areas.

Fleming *et al.* (1976) reported Crested Goshawk was a straggler to Kathmandu Valley forests. There are several other pre-1990 reports, including in 1979 (Lambert 1979) and at Gokarna and Phulchoki in January 1982 (Turton and Speight 1982). Mallalieu (2008) reported that Crested Goshawk was a rare resident in the Kathmandu Valley between 2004 and 2006.

Post-1990 known records outside the protected areas' system are given below.

In the west records include: from the Masot Khola forests in the Churia range of Dang District in May 2007 (Cox 2008) and from Nawalparasi District (DB Chaudhary).

In central areas it has been recorded from Parsa District (NTNC workshop, October 2012).

In the east records include from the Dharan forests Important Bird Area, Sunsari District in January 1997 (Chaudhary 1997), recorded in February 1998 (Choudhary 1998), in 2008 (Basnet 2009, Basnet and Sapkota 2008) and in January 2010 (Baral 2010a). The species was recorded at Tumlingtar, Sankhuwasabha District in May 1998 (Chaudhary 1998) and between Phedi and Gurase, Sankhuwasabha District in November 2011 (Carter and James 2011). It was seen in the lower Mai valley in May 2006 (Basnet and Sapkota 2006) and singles recorded between Sukhani and Garuwa and at Chisapani, Jhapa District in March 2008 (Robson *et al.* 2008).

Globally the species has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### **Elevation**

Upper limit: 1370 m (- 2100 m); lower limit: 75 m

### **Population**

There have been no population surveys for Crested Goshawk. It is likely to have declined because of loss of habitat.

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Crested Goshawk has a preference for moist-deciduous and evergreen forested hills but also occurs in open deciduous and semi-evergreen biotope (Naoroji 2006). Typically, it perches hidden among the foliage of a forest tree and dashes out swiftly to pounce on prey on the ground, but can also chase prey through the forest. Often it frequents the same patch of forest day after day (Grimmett *et al.* 1998). It is retiring and seldom seen as it mostly remains hidden in the leafy forest canopy, except during nuptial displays. Crested Goshawk feeds on a wide range of prey but chiefly birds of varying sizes including bulbuls, doves, green pigeons and partridges, also birds' eggs, small mammals, such s rodents and small bats and lizards (Naoroji 2006).

# **Threats**

Crested Goshawk is threatened by deforestation.

## **Conservation Measures**

No conservation measures have been carried out specifically for Crested Goshawk. It has been recorded in Chitwan and Makalu Barun National Parks; Annapurna, Api Nampa, Gaurishankar and Manaslu Conservation Areas, Koshi Tappu Wildlife Reserve and marginally in Bardia National Park and Kanchenjunga Conservation Area.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Crested Goshawk has been assessed as Least Concern. It is an uncommon resident, mainly recorded from west-central areas and eastwards. The species occurs in several protected areas and has also been recorded in suitable habitat and within its altitudinal range outside the protected areas' system, pre- and post-1990. No significant changes in distribution have been noted (see map). Crested Goshawk is threatened by deforestation. It may well have declined, but this is not considered to have occurred to a degree that warrants any threat category for the species.

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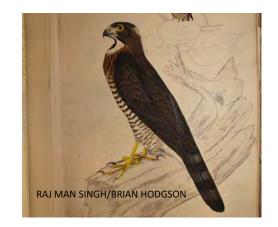
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## Accipiter virgatus (Temminck, 1822) LC

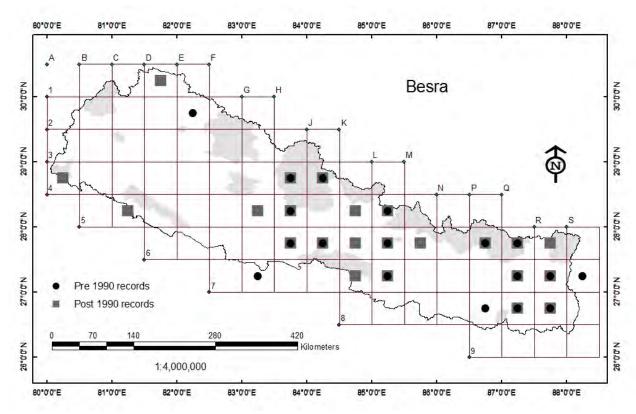
Subspecies: Accipiter virgatus affinis

Common Name Besra (English), Besra (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Besra is an uncommon resident; some birds descend to lower altitudes in winter. It is quite widespread, but is more common from west-central Nepal eastwards. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1836), when it was found in the Kathmandu Valley in March, July, October and December (year unknown) (Hodgson 1829).

It is probably a rare winter visitor to Sukla Phanta Wildlife Reserve (Baral 1997, Chaudhary 1997, 1998); a rare winter visitor to Bardia National Park (Choudhary 1999, Giri 2003); an uncommon resident in the Annapurna Conservation Area (Inskipp and Inskipp 2003); recorded in Manaslu Conservation Area (Shah 1998); an uncommon resident in Langtang National Park (Karki and Thapa 2001) and on Shivapuri in Shivapuri Nagarjun National Park (SNP and BCN 2007); a rare winter visitor to Chitwan National Park (Baral and Upadhyay 2006); recorded in Parsa Wildlife Reserve (NTNC workshop, October 2012); a vagrant to Sagarmatha National Park (Basnet 2004); resident in Makalu Barun National Park (Cox 1999) and in Kanchenjunga Conservation Area (Thapa and Karki 2005, Inskipp *et al.* 2008), and a rare winter visitor to Koshi Tappu Wildlife Reserve (Baral 1992, 1995, 2010a,b). It has also been recorded in Chitwan National Park buffer zone at Bees Hazari Tal (Baral 1996).

Besra has been recorded in suitable habitat and within its altitudinal range outside the protected areas' system

pre- and post-1990. No significant changes in distribution have been noted (see text below and map). Known records post-1990 are given below.

In the west records include: one in Soli Khola, Humla District in June 2002 (Grimm and Fischer 2003); from Reshunga Important Bird Area, Gulmi District in November 2010 and February and March 2011 (Thakuri 2011, 2013); a few records from Pokhara, Kaski District including singles in February 1998 (Choudhary 1998) and February 2008 (Giri 2008a), and recorded from Balewa, Baglung District (Basnet 2009). Besra is a common resident species at Thoolakharka raptor watch site, Kaski District; a few pairs are seen regularly during the raptor migration count (Subedi *et al.* 2013, Tulsi Subedi).

In central areas records include: two between Gul Bhanjyang and Chisapani in May 2004 (Chaudhary 2004). Mallalieu (2008) reported that between 2004 and 2006, it was uncommon and a presumed resident in the Kathmandu Valley, though mostly recorded in summer. Besra was also recorded from Nawalparasi and Dhading Districts and from Hetauda, Makwanpur District (NTNC workshop, October 2012). In the east records include: from Churiabesi, Tumlingtar, Sankhuwasabha District in May 1998 (Chaudhary 1998); between Heluwabesi and Keksuwa Khets, lower Arun valley, Sankhuwasabha District in May 2009 (Cox 2009); Tinjure forest, Tehrathum District in 1997/98 (Rai 2003); Dharan forests Important Bird Area, Sunsari District in April 1992 (Bräunlich and Oehlschlaeger 1992), in 2008 (Basnet and Sapkota 2008) and in May 2008 (Giri 2008b); near Garuwa, Jhapa District and near Sidim, upper Mai valley, Ilam District in March 2008 (Robson *et al.* 2008).

Globally the species has also been recorded in Bangladesh, Bhutan, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### **Elevation**

Upper limit: 2800 m (- 3440 m); lower limit: 1350 m (summer); 250 m (- 75 m) (winter)

## **Population**

There have been no population surveys for Besra.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Besra breeds in dense forest occupying a wide variety of forest types including broadleaved, moist-deciduous and evergreen hill forest (Naoroji 2006). In winter the species may inhabit more open wooded country and some birds descend to lower altitudes usually down to the foothills and occasionally to the lowlands (Grimmett *et al.* 1998). Besra is not a very visible species due to its retiring nature and dense habitat. It is most often visible when perched on tall trees at the forest edge or when soaring over forest clearings. Its overall behaviour and mode of hunting resembles that of Shikra *A. badius* and Eurasian Sparrowhawk *A. nisus.* It is capable of rapid aerial manoeuvres. Besra feeds chiefly on small birds including barbets, bulbuls, thrushes, sparrows, tits and warblers, supplemented by lizards, insects, and small mammals such as bats and mice (Naoroji 2006). The species has been proved breeding in Godaveri Botanical Gardens (Fleming *et al.*1976).

## **Threats**

Besra is threatened by deforestation and possibly also by the bird trade. One was found in a cage in Durbar Marg, Kathmandu in September 1994 (Baral 1994). In June 2015 a student sent a photograph of a Besra which was sitting inside the staff room, IOF Pokhara. It appeared as if someone was keeping the bird; after a few days it was found dead (Chiranjeevi Khanak pers. comm. to Tulsi Subedi).

### **Conservation Measures**

No conservation measures have been carried out specifically for Besra. It occurs in Langtang, Chitwan Makalu Barun and Shivapuri Nagarjun National Parks, Annapurna, Manaslu and Kanchenjunga Conservation Areas, and marginally in Sukla Phanta and Koshi Wildlife Reserves, and in Chitwan, Sagarmatha and Bardia National Parks.

#### **Regional IUCN Status**

Least Concern (LC), unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Besra has been assessed as Least Concern. The species is an uncommon resident which is quite widely distributed, but is more common from west-central areas eastwards. It occurs in several protected areas and also outside the protected areas' system within its altitudinal range and with suitable habitat. No significant changes in distribution have been noted pre-and post-1990. Besra is threatened by deforestation and possibly also by the bird trade.

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# Aquila fasciata Vieillot, 1822 LC

Subspecies: Aquila fasciata fasciata

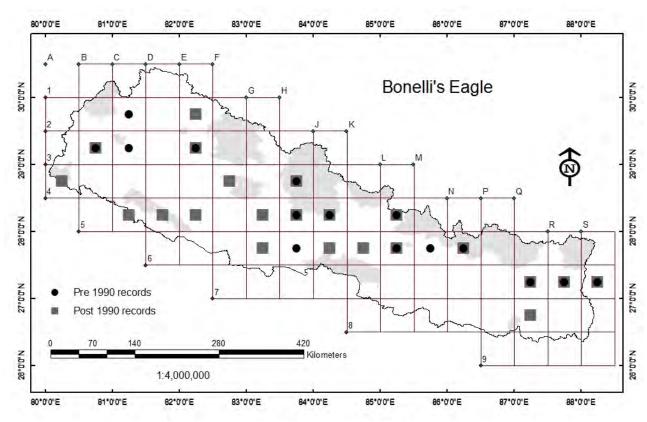
Common Name

Bonelli's Eagle (English), Morangi Chil (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Bonelli's Eagle is an uncommon resident in west and central Nepal, and rare in the east. It is quite widely distributed with post-1990 records from Sukla Phanta Wildlife Reserve in the far west (Baral and Inskipp 2009) to the upper Mai valley (Robson *et al.* 2009) in the far east. The first record of the species was in the 19<sup>th</sup> century (Hodgson 1836), when it was recorded in the Kathmandu Valley in October, November and December and on Shivapuri in October and November, also in the central hills (years and further locality details are unknown) (Hodgson 1829).

Bonelli's Eagle is an uncommon winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009); a rare resident in Bardia National Park (Tamang undated in Inskipp 2001); recorded in Banke National Park (Acharya 2011) and a rare passage migrant in Khaptad National Park (Chaudhary 2006). It is an uncommon resident in Rara National Park (Giri 2005) and the Annapurna Conservation Area (Inskipp and Inskipp 2003) where records include regular sightings from Ghandruk from 2009-12 (Hem Sagar Baral and Hathan Chaudhary). It is also an uncommon resident in Shivapuri in Shivapuri-Nagarjun National Park (SNP and BCN 2007) and Langtang National Park (Karki and Thapa 2001); recorded in Gaurishankar Conservation Area (Baral and Shah 2009), and

a rare visitor to Koshi Tappu Wildlife Reserve (Baral and Birch 2005, Baral 2010) - singles in February 2005 and in February 2010. The species has been recorded in Chitwan National Park buffer zone in Barandabhar forests (Ghimire 2009); also singles at Bees Hazari Tal in September 2012 (Tika Giri and Ted Buhl), near the Rapti River in September 2012 (Tika Giri, Inskipp and Inskipp 2012).

Bonelli's Eagle has also been quite widely recorded in suitable habitat and within its altitudinal range outside the protected areas' system (see map). Known post-1990 records from these areas are given below.

In the west records include from: Amargadhi and between Khalkhale and Dhure, Dadeldhura District in May 2010 (Baral *et al.* 2010); Badimalika region, Bajura District (D3) in 1998 (Karki *et al.* 2003); Jumla, Jumla District in March 1992 (Priemé 1992); Dunai, Dolpa District in October 1999 (Sparks 1999); Masot Khota forests in the Churia Range of Dang Deukhuri, Dang District (Cox 2008); Reshunga Important Bird Area, Gulmi District in March 2011 (Thakuri 2011, 2013); Arghakhanchi District in October 2011 (DeCandido *et al.* 2011); Gaidahawa Tal, Rupandehi District (Hem Sagar Baral); Pokhara, Kaski District in November 1992 (Baral 1993); Balewa, Baglung District (Basnet 2009), and between Pasgam and Rupa Tal, Kaski District in April 2000 (Byrne 2000).

In central areas records include: one at Shaktikhor and Siraichuli, Chitwan District (date unknown) (Anil Gurung and Hem Subedi); two by the Trisuli River, Belkhu, Dhading District in December 2011 (Carter and James 2011); Dhading, Dhading District in April 2011 (Baral 2011). Nalang, Dhading District (NTNC workshop, October 2012). Mallalieu (2008) reported it was an uncommon winter visitor to the Kathmandu Valley between 2004 and 2006. Recently juveniles have been seen irregularly near the Bagmati River valley (Bob DeCandido).

Post-1990 records from unprotected localities in the east include from: Dolkaha District in 1993 (Poulsen 1993); Belahara, Dhankhuta District in September 2003 (Baral 2003), and Mabu, upper Mai valley, Ilam District in March 2008 (Robson *et al.* 2008).

Improved coverage has lead to more records from the west since 1990; otherwise no significant changes in distribution have been noted pre- and post- 1990.

Three birds were seen migrating west near Khare (Khande), Kaski District between 15 and 27 November 2011 (DeCandido *et al.* 2011) and 13 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharka, just south of the nearby Annapurna range 30 birds were seen migrating west between 13 and 22 November 2013 (Subedi *et al.* 2014) and 23 between 19 September and 8 December 2014 (Subedi 2015).

Globally the species has also been recorded in Afghanistan, Albania, Algeria, Austria, Azerbaijan, Bangladesh, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, France, Georgia, Germany, Gibraltar (to UK), Greece, Hong Kong (China), Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Lebanon, Libya, Luxembourg, Macedonia, the former Yugoslav Republic of, Mauritania, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Oman, Pakistan, Palestinian Authority Territories, Portugal, Romania, Saudi Arabia, Serbia, Slovakia, Spain, Sri Lanka, Sweden, Syria, Tajikistan, Thailand, Timor-Leste, Tunisia, Turkey, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# Elevation

Upper limit: 2600 m (- 3050 m); lower limit: 1400 m (- 100 m); 250 m

### **Population**

No population surveys have been carried out for Bonelli's Eagle. It may be declining because of habitat loss.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Bonelli's Eagle predominantly inhabits forested areas in hills and mountains, but outside the breeding season it may wander into a variety of habitats, including in the lowlands. It is a powerful, swift and agile hunter taking prey by surprise, either from a tree or vantage point, by quartering hill slopes or by diving from a soaring position (Naoroji 2006). Bonelli's Eagle feeds on a variety of prey, mainly on large birds including green pigeons, partridges and pheasants, and small mammals such as hares (Ali and Ripley 1987). A pair were observed nest-building near Birethante, Annapurna Conservation Area in October 1984 (Bijlsma 1984). Bonelli's Eagles bred in Dhrampani village, Arghatosh (G6), Arghakhanchi District and eaglets were photographed on the nest in April 2012 (Tulsi Subedi). Breeding was also recorded in Damachour (E5), Salyan District in May 2012 (Tulsi Subedi).

## **Threats**

Bonelli's Eagle is threatened by loss of forest.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Bonelli's Eagle. It occurs in Khaptad, Rara, Shivapuri-Nagarjun, Langtang and Banke National Parks, Annapurna and Gaurishankar Conservation Areas and Sukla Phanta Wildlife Reserve. The eagle has been recorded marginally in Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Bonelli's Eagle has been assessed as Least Concern. It is an uncommon resident in west and central Nepal and rare in the east. It occurs in several protected areas, mainly in west and central Nepal. The eagle is quite widely distributed within protected areas and also outside the protected areas' system. Improved recording has lead to more records from the west since 1990; otherwise no significant changes in distribution have been noted pre-and post-1990. Although Bonelli's Eagle may possibly be decreasing as a result of forest loss, this is not considered to have occurred to a degree that warrants any threat category for the species.

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## Butastur teesa (Franklin, 1831) LC

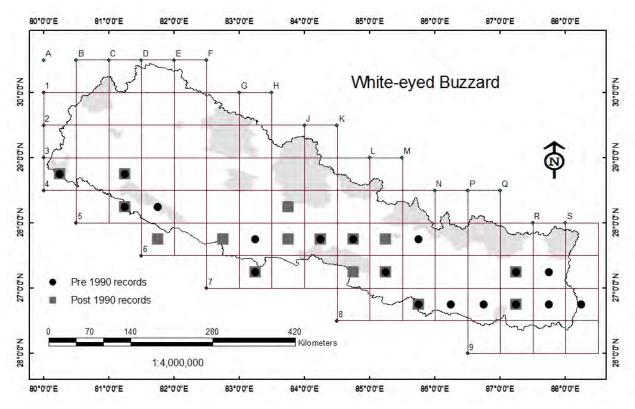
### Common Name

White-eyed Buzzard (English), Jamal Shyenbaaz (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



White-eyed Buzzard is a fairly common resident, mainly found in the lowlands. It is widespread, with post-1990 records from Sukla Phanta Wildlife Reserve in the far west to Koshi Tappu Wildlife Reserve in the far east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1843) when specimens were collected in the lower hills (year and further locality details are unknown) (Hodgson 1829).

The species is a fairly common resident in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), an occasionally recorded resident in Bardia National Park (Inskipp 2001), a fairly common resident in Chitwan National Park (Baral and Upadhyay 2006), resident in Parsa Wildlife Reserve (Todd 2001), and a fairly common resident in Koshi Tappu Wildlife Reserve (Baral 2005). It has been recorded in Chitwan National Park buffer zone in Barandbahar (Adhikari *et al.* 2000) and at Bees Hazari Tal (Baral 1996).

Outside the protected areas' system White-eyed Buzzard was widely recorded in suitable habitat in the lowlands, pre-1990, but records that are currently available indicate that its distribution in the east has reduced post-1990, see map. Known localities post-1990 are given below.

In the west records include: Mahendranagar, Kanchanpur District in May 2001 (Inskipp and Inskipp 2001); Bhaluwang, Dang District in November 2011 (T. Giri); several records from Lumbini, Rupandehi District, e.g.

Baral (1993, 2011), Suwal *et al.* (2002), Mallalieu (2006, 2007), Acharya (2011); Gaidahawa, Rupandehi District in February (Baral 2011); Jagdishpur Reservoir, Kapilvastu District in August 2007 (Baral 2007) and in December 2010 (Baral 2011); Khadara Phanta, Kapilvastu District in January 2011 (Acharya 2011); Seti River, Pokhara, Kaski District (Hari KC).

In central areas records include: Nawalparasi District (NTNC workshop, October 2012); Bara District, north of E-W highway in April 2003 (Cox 2003). A vagrant bird was seen flying above Thamel, Kathmandu Valley in February 2002 (Giri and Choudhary 2002).

In the east records include: from Sarlahi District (NTNC workshop, October 2012); Belahara, Dhankuta District in September 2003 (Baral 2003); Tumlingtar, Sankhuwasabha District in May 1998 (Chaudhary 1998), and Tumlingtar to Gothe Bazaar, Sankhuwasabha District in November 2011 (Carter and James 2011).

Globally the species has also been recorded from Afghanistan, Bangladesh, China (mainland), India, Iran, Islamic Republic of, Myanmar, Oman, Pakistan, United Arab Emirates (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### **Elevation**

Upper limit: 900 m (- 1500 m); lower limit: 75 m

### **Population**

A comprehensive survey of Koshi Tappu Wildlife Reserve in April 2012 counted 64 birds and estimated a reserve population of 80 birds (Baral *et al.* 2013). No other population surveys have been carried out for White-eyed Buzzard, but as its distribution has apparently reduced, its population may be declining.

### **Total Population Size**

Minimum population: 700; maximum population: 1500

## **Habitat and Ecology**

White-eyed Buzzard inhabits dry open country in the lowlands. Its behaviour is sluggish. The buzzard spends long periods perched very upright on a vantage point such as an isolated tree, mound or telegraph pole or wires from where it drops to the ground to seize prey (Grimmett *et al.* 1998). White-eyed Buzzard eats rats, mice, small snakes, lizards, frogs and crabs; also locusts, grasshoppers and other large insects, winged termites, and sick or disabled birds (Ali and Ripley 1987). While White-eyed Buzzard is mainly found in the lowlands, there are several records from 1200 m to 1500 m in Mechi Zone (van Riessen 1989) and it has been observed up to 1200 m in the lower Arun valley (Krabbe 1981). Although not migratory, it is known to make seasonal local movements governed by weather conditions and food availability (Naoroji 2006). Breeding has been proved in Chitwan National Park (Gurung 1983). Breeding was confirmed in Barandabhar Important Bird Area, Chitwan National Park buffer zone (Hem Subedi and Bhagawan Raj Dahal), and regularly in Koshi Tappu Wildlife Reserve in several places up to at least 2012 (Badri Chaudhary).

#### **Threats**

Threats to White-eyed Buzzard are uncertain; it may be at risk from pesticides (Inskipp and Baral 2011).

## **Conservation Measures**

No conservation measures have been specifically carried out for White-eyed Buzzard. It has been recorded in Sukla Phanta and Parsa Wildlife Reserves, and Bardia and Chitwan National Parks.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

White-eyed Buzzard has been assessed as Least Concern. It is a fairly common and widespread resident, mainly found in the lowlands. The species has been recorded in most lowland protected areas with suitable habitat. Pre-1990 it was widely recorded in suitable habitat in the lowlands outside the protected areas' system, but currently available records indicate that its distribution in the east has reduced post-1990 and as a result the population may be declining. However, the decline is not considered enough to warrant a threatened category for the species. Threats to White-eyed Buzzard are unknown, although it may be at risk from pesticides.

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## Buteo buteo (Linnaeus, 1758) LC

Subspecies: Buteo buteo burmanicus

### Common Name

Common Buzzard (English), Shyenbaaz (Nepali)

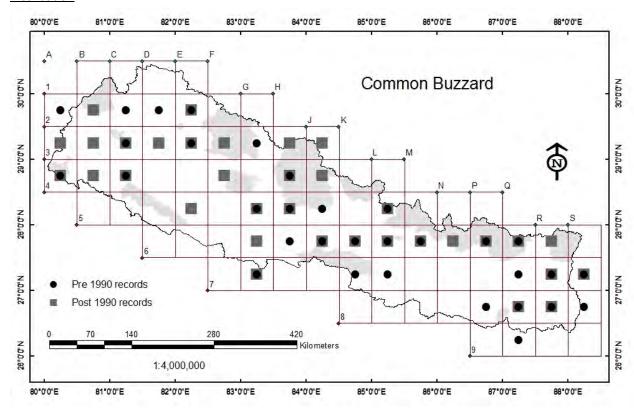
Order: Falconiformes Family: Accipitridae



## **General information**

The taxonomic situation regarding Nepal buzzards is currently confused. Two populations of Common Buzzard occur. One population is a fairly common winter visitor and passage migrant. There is also a breeding population which may be resident. A taxonomic review of eastern Common Buzzard, which is the Common Buzzard that occurs in Nepal, is currently taking place.

### **Distribution**



Common Buzzard is widespread with post-1990 records from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844), when it was found in the central hills in March (the year and further locality details are unknown) (Hodgson 1829).

Common Buzzard has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012), is an occasionally recorded winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a rare winter visitor to Bardia National Park (Inskipp 2001), an occasionally recorded resident in Khaptad National Park (Chaudhary 2006, Khadka 1996); a fairly common winter visitor and passage migrant to Rara National Park

(Anyon- Smith 2000, Barber 1990, Giri 2005, O'Connell-Davidson and Karki 2009), recorded in Shey Phoksundo National Park (Priemé and Øksnebjerg 1995), recorded in Dhorpatan Hunting Reserve (Panthi and Thagunna 2014), a fairly common winter visitor and passage migrant, possibly resident in Annapurna Conservation Area (Inskipp and Inskipp 2003); recorded in Manaslu Conservation Area (Thakuri 2013a) a frequent breeding resident in Langtang National Park (Karki and Thapa 2001), a frequent winter visitor to Shivapuri Nagarjun National Park (SNP and BCN 2007) and to Chitwan National Park (Baral and Upadhyay 2006), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), a frequent winter visitor and passage migrant to Sagarmatha National Park (Basnet 2004), a fairly common winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005), recorded in Makalu Barun National Park (Inskipp *et al.* 2005), and frequent in Kanchenjunga Conservation Area (Inskipp *et al.* 2008).

The species has been recorded in the buffer zone of Chitwan National Park, e.g. Bees Hazari Tal, Barandabhar Important Bird Area (Baral 1996).

Common Buzzard has also been recorded in suitable habitat and within its altitudinal range outside the protected areas' system pre- and post-1990. No significant changes in distribution have been noted (see map). Known records outside the protected areas' system post-1990 are given below.

In the west records include: from Dadeldhura District in May 2010 (Baral *et al.* 2010); Baitadi District, Kailali and Surkhet Districts (NTNC workshop, October 2012); Gorusingha to Sinja, Jumla District in April 2009 (O'Connell Davidson and Karki 2009); Jumla to Gothechaur in March 1992, Jumla District in March 1992 and Ankhe to Dunai, Dolpa District in May 1992 (Priemé 1992); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Rawtkot, Kalikot District in March 1997 (Giri 1997); Reshunga Important Bird Area, Gulmi District in November 2010 and February 2011 (Thakuri 2011, 2013b); Lumbini, Rupandehi District in January and February 2011 (Acharya 2011); Arghakhanchhi District (NTNC workshop, October 2012); several records from Pokhara, Kaski District, e.g. in January 1992 (Halliday 1992), November 2004 (Naylor and Giri 2004), and November 2011 (Baral 2011), and recorded from Balewa, Baglung District (Basnet 2009).

In central areas records include: from the Upardangaddhi hills, Chitwan District in January 2012 (Dymond 2012); Malekhu, Dading District in January 1991 (Baral 1993), and the trek to Tarke Gyang, Sindhupalchok District in May 2004 (Chaudhary 2004). A single wintering bird was sighted regularly in Nayabasti Balkot, Bhaktapur District between January to March in 2012 and 2014 and another was regularly seen near Tribhuvan airport between 2012 and 2014 (Tulsi Subedi)., The species has been regularly recorded recently in the Kathmandu Valley between October and April, mainly in October and November (Arend van Riessen *in litt*. to H. S. Baral and C. Inskipp, June 2015).

In the east records include: from Sanam to Bung, Solukhumbu District in November 2011 (Carter and James 2011); between Shivalaya and Phakding, Solukhumbu District in November 2009 (Thewlis *et al.* 2009); Tinjure forest, Terhathum District in 1997/1998 (Rai 2003); north of Koshi Tappu Wildlife Reserve in February 2010 (Baral 2010); lower Mai valley in 2006 (Basnet and Sapkota 2006); Dharan forests Important Bird Area, Sunsari District in 2008 (Basnet and Sapkota 2008); seen frequently throughout the Mai valley from Garuwa to Hange Tham, Ilam District, and Memen, Panchthar District in March 2008 (Robson *et al.* 2008). Mallalieu (2008) reported that between 2004 and 2006 Common Buzzard was an uncommon winter visitor and passage migrant to the Kathmandu Valley.

Migrants have been recorded flying south down the upper Kali Gandaki valley, Annapurna Conservation Area (ACA): 45 between 31 August and 14 October 1973 (Beaman 1973), 12 between 24 September and 5 October 1978 (Thiollay 1979) and 24 between 7 October and 3 November 1984 (Bijlsma 1991). Common Buzzards have also been observed migrating west near Khare (=Khande), Kaski District: 32 between 20 October and 7 November 1985 (de Roder 1989); four between 27 October and 4 November 1999 (DeCandido *et al.* 2001); 86 between 30 October and 5 December 2005 (Gurung 2005); 45 between 15 and 27 November 2011 (DeCandido *et al.* 2011), and 180 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharka, just south of the nearby Annapurna range 102 migrated west between 7 and 22 October 2013 (Subedi *et al.* 2014) and 66 between 19 September and 8 December 2014 (Subedi 2015).

Globally the species is also recorded from Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Botswana, Brunei, Bulgaria, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany,

Ghana, Gibraltar (to UK), Greece, Guam (to USA), Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Western Sahara, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 4300 m; lower limit: 75 m

## **Population**

No population surveys have been carried out for Common Buzzard. Direct observations do not indicate any changes in population.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Common Buzzard inhabits open country, along river courses and in adjacent fields (Fleming *et al.* 1976, Inskipp and Inskipp 1991). It spends much time perched on prominent positions, such as trees, posts and rocks, but when in flight it soars for long periods. It hunts by pouncing on prey from a vantage point, or by soaring over open country and at times actively hovering with gently fanning wing-tips before dropping onto prey, or by walking or standing on the ground. Common Buzzard takes a variety of prey, such as field rats, reptiles and small birds; also insects such as locusts or grasshoppers when abundant (Naoroji 2006). A pair was seen nest-building at Gosainthan in April 1984 (Powell and Pierce 1984).

#### **Threats**

Threats to Common Buzzard are unknown. It may be at risk from pesticides.

## **Conservation Measures**

No conservation measures have been carried out specifically for Common Buzzard. It has been recorded in a number of protected areas: Bardia, Khaptad, Rara, Shey Phoksundo, Langtang, Shivapuri Nagarjun, Chitwan, Sagarmatha and Makalu Barun National Parks; Sukla Phanta, Koshi Tappu Wildlife Reserves, Api Nampa, Annapurna, Gaurishankar and Manaslu Conservation Areas and Dhorpatan Hunting Reserve, and marginally in Bardia National Park.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Common Buzzard has been assessed as Least Concern. Two populations occur: one is a fairly common winter visitor and passage migrant and the other is a breeding population, which is probably resident. The species is widespread. Common Buzzard has been recorded in many protected areas and also widely outside the protected areas' system within its altitudinal range and with suitable habitat. No significant changes in distribution have been noted pre-and post-1990. Threats to Common Buzzard are unknown; it may be at risk from pesticides.

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## Buteo rufinus (Cretzschmar 1829) LC

Subspecies: Buteo buteo rufinus

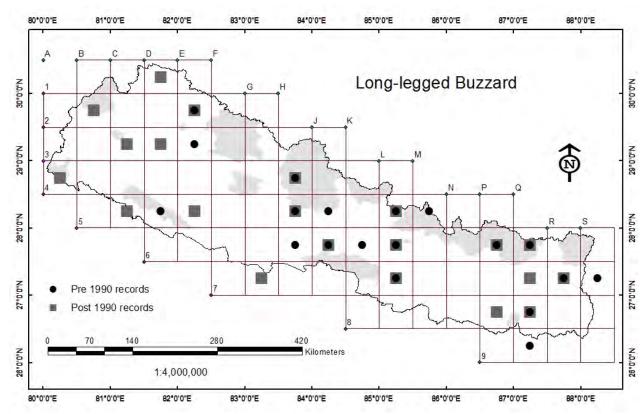
### Common Name

Long-Legged Buzzard (English), Lamkhutte Shyenbaaz (Nepali)

Order: Falconidae Family: Accipitridae



## **Distribution**



Long-legged Buzzard is an uncommon to frequent winter visitor and passage migrant. It is widespread with post-1990 records from Api Nampa Conservation Area (Thakuri and Prajapati 2012) in the far west to the upper Mai valley (Robson *et al.* 2008) in the far east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1836), when it was recorded in the Kathmandu Valley in January and February and during spring and autumn migration (year unknown) (Hodgson 1829).

The buzzard has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012), is a frequent winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a rare winter visitor to Bardia National Park (Inskipp 2001), frequent in Khaptad National Park (Khadka 1996), an uncommon winter visitor and passage migrant to Rara National Park (Giri 2005), very uncommon winter visitor or passage migrant in Annapurna Conservation Area (Mallalieu 2005, Thakuri and Poudyal 2011), an uncommon winter visitor and passage migrant to Langtang National Park (Karki and Thapa 2001, Madge and Appleby 1980) and to Shivapuri Nagarjun National Park (SNP and BCN 2007), a frequent winter visitor to Chitwan National Park (Baral and Upadhyay 2006), a rare passage migrant to Sagarmatha National Park (Basnet 2004), a frequent visitor or passage migrant to Makalu Barun National Park (Cox 1999) and a frequent winter visitor to Koshi Tappu

Wildlife Reserve (Baral 2005).

Long-legged Buzzard has also been recorded in suitable habitat and within its altitudinal range outside the protected areas' system pre- and post-1990. Improved recording has resulted in more records in the west; otherwise no significant changes in distribution have been noted (see text below and map). Known post-1990 records outside the protected areas' system are given below.

In the west records include from: upper Humla (D1), Humla District (Kusi *et al.* 2015); Rawtkot and between Daurogoan and Beuli, Kalikot District in March 1997 (Giri 1997); Dang Deukhuri Important Bird Area, Dang District in 2009(Thakuri 2009a,b); Lumbini, Rupandehi District in January 2006 (Mallalieu 2006), included in Lumbini checklist (Suwal *et al.* 2002), and Pokhara, Kaski District in January 2009 (Baral 2009)

In central areas records include from: Hetauda, Makwanpur District in February 1994 (Cottridge *et al.* 1994), and Chitlang, Chandrigiri range, Makwanpur District in 1992 (Manandhar *et al.* 1992). Mallalieu (2008) reported that between 2004 and 2006 it was an uncommon winter visitor and passage migrant to the Kathmandu Valley, mostly seen from October to April with up to four together on at least two occasions.

In the east records include from: Dhukurpani VDC, Ramechhap district (Som GC); Bhotebas to Khandbari, Sankhuwasabha District in December 1994 (Baral 1995); Patnali, Dharan forests Important Bird Area, Sunsari District in 1996 (Giri 1996), March 2001 (Baral 2001), November 2002 (Cottridge and Tiwari. (2002); several records from Koshi Barrage, Sunsari District, e.g. February 1998 (Chaudhary 1998); singles regularly seen at Koshi Bird Observatory, Sunsari District in 2012 (Sanjib Acharya), and Sidim, upper Mai valley in March 2008 (Robson *et al.* 2008).

Migrants have been seen flying south down the upper Kali Gandaki valley, Annapurna Conservation Area (ACA): 15 between 5 September and 12 October 1973 (Beaman 1973) and five between 24 September and 5 October 1978 (Thiollay 1979). Six were seen flying south down the valley between 7 October and 3 November 1984 (Bijlsma 1991). A total of 16 migrated west near Khare, Kaski District between 20 October and 6 November 1985 (de Roder 1989); between 23 October and 2 December 2003 (Gurung et al. 2003), and six between 30 October and 5 December 2005 (Gurung 2005). The species was also seen migrating west near Khare (= Khande), Kaski District) between 27 October and 4 November 1999 (numbers unknown) (DeCandido et al. 2001) and four between 15 September and 4 December 2012 (Subedi et al. 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range, 11 birds migrated west between 16 and 23 October 2013 (Subedi et al. 2014) and three birds between 19 September and 8 December 2014 (Subedi 2015).

Long-legged Buzzard was recorded in Langtang National Park, presumably on migration, almost daily between 21 October and 2 November with the maximum of five on 29 October 1980 (Madge and Appleby 1980).

One, presumably a migrant, was seen as high as 4800 m in the Barun valley, Makalu Barun National Park in November 1988 (Nielsen 1988).

Globally the species has also been recorded in Afghanistan, Albania, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Lebanon, Libya, Macedonia, the former Yugoslav Republic of, Malawi, Mali, Malta, Mauritania, Mongolia, Morocco, Myanmar, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Romania, Russia, Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, Somalia, South Sudan, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, USA, Uzbekistan, Western Sahara, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

# Elevation

Upper limit: 2755 m (- 5000 m); lower limit: 75 m  $\,$ 

#### **Population**

No population surveys have been carried out for Long-legged Buzzard. Up to the late 1990s it was a fairly common winter visitor and passage migrant in Annapurna Conservation Area (Inskipp and Inskipp 2003) but is now very uncommon (Mallalieu 2005, Thakuri and Poudyal 2011).

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

## **Habitat and Ecology**

Long-legged Buzzard inhabits open country, grasslands, along river courses and cultivation (Fleming *et al.* 1976, Inskipp and Inskipp 1991). It is frequently observed perched on bushes, mounds, poles or the crown of thinly foliaged trees. The buzzard hunts by pouncing on unwary prey from lookout perches or from hovering or active flight. It feeds on small mammals, such as rodents, voles and hares, also injured birds, frogs and lizards (Naoroji 2006). It is mainly recorded from September to April (Inskipp and Inskipp 1991).

### **Threats**

Threats to Long-legged Buzzard are unknown. It may be at risk from pesticides. In India, a large number are electrocuted each year due to a penchant for perching on power poles; mainly older, lower-voltage distribution lines.

#### **Conservation Measures**

No conservation measures have been specifically carried out for Long-legged Buzzard. It has been recorded in Khaptad, Shivapuri Nagarjun, Rara, Langtang, Chitwan and Makalu Barun National Parks, Sukla Phanta and Koshi Tappu Wildlife Reserves and Api Nampa and Annapurna Conservation Areas. It has also been recorded marginally in Bardia and Sagarmatha National Parks.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Long-legged Buzzard has been assessed as Least Concern. It is a widespread and uncommon to occasionally recorded winter visitor and passage migrant. It has been recorded in a number of protected areas, and also outside the protected areas' system within its altitudinal range and with suitable habitat. Improved recording has resulted in more records from the west; otherwise no significant changes in distribution have been noted pre-and post-1990. Threats to Long-legged Buzzard are unknown; it may be at risk from pesticides and power lines. The species' population in Annapurna Conservation Area (a well-recorded area) has apparently decreased in recent years and its overall population may also be declining, but not to a degree that warrants any threat category for the species.

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## Circaetus gallicus (J. F. Gmelin, 1788) LC

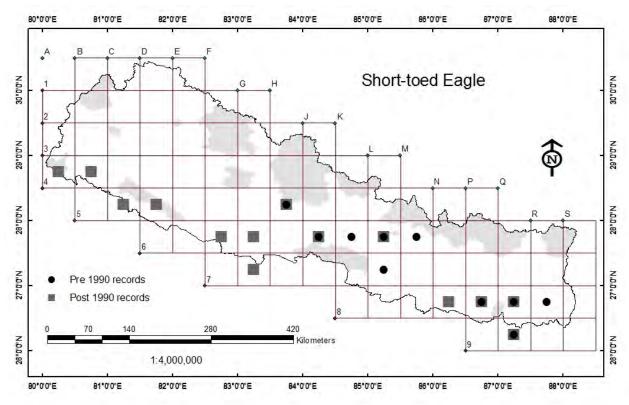
# <u>Common Name</u> Short-toed Snake Eagle (English),

Sarpahari Chil (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Short-toed Snake Eagle is mainly a winter visitor, also a passage migrant, recorded irregularly at Koshi, uncommon in Sukla Phanta Wildlife Reserve and rare elsewhere.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844) when a specimen was collected in the terai in May (year and further locality details are unknown) (Hodgson 1829). The eagle has been chiefly recorded in the terai, but one was seen as high as 2130 m over the Kakani ridge in mid-April 1960 (Proud 1961).

The species was described as of uncertain status, possibly a passage migrant, possibly breeding by Inskipp and Inskipp (1991).

Pre-1990 the snake eagle was reported a few times in Chitwan National Park. Records include singles in March 1979 (Halberg and Petersen 1984), February 1981 (Richards and Richards 1981), and November 1985 (Mayer 1986). Baral and Upadhyay (2006) describe the snake eagle as an uncommon winter visitor to the park.

There are a number of pre-1990 records from Koshi including singles from the barrage in March 1982 (Turton and Speight 1982), December 1984 (Collins and Thomas 1986) and March 1988 (Kall and Wallander 1988). The

species was also recorded in Koshi Tappu Wildlife Reserve (Heinen 1990).

One was recorded migrating west with a flock of Steppe Eagles *Aquila nipalensis* in October 1984 between Naudanda and Lumle, Annapurna Conservation Area (Bijlsma 1991).

There are a few single reports from other localities pre-1990 (see map).

Known records post-1990 follow. Post-1990 there has been an increase in sightings and localities in west Nepal; this may be because the west has been significantly better recorded since 1990.

In the west single birds were seen at Sukla Phanta Wildlife Reserve in November 1997 (Baral 1997), February 2008 (Baral 2008) and March 1998 (Chaudhary 1998) and two in March 2011 (Chaudhary 2011). The snake eagle was described as a frequent winter visitor to the reserve by Baral and Inskipp (2009). Inskipp (2001) reported it was a rare passage migrant in Bardia National Park. Known records from other western localities are: one at Ghodaghodi Tal, Kailali District in January 1992 (Baral 1992); Gaidahawa Lake, Rupandehi District (NTNC workshop, October 2012); singles in January 2006 in Kapilvastu District at Khadara Phanta and at Jagdishpur Reservoir (Mallalieu 2007), Banke National Park in March 2011 (Acharya 2011), and at Lumbini, Rupandehi District in February 2011 (Acharya 2011) and December 2011 (DeCandido *et al.* 2011). Two seen flying west near Khare (= Khande), Kaski District between 15 September and 4 December 2012 were presumably migrants (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the Annapurna range two were seen migrating west between 21 October and 22 November 2013 (Subedi *et al.* 2014).

The only post-1990 record from Chitwan that could be located was one at Madi, Chitwan District in the park's buffer zone in October 2011 (Anil Gurung and Som GC).

Singles were seen near Kakani area in Shivapuri Nagarjun National Park in 2003 (Subedi 2004) and at Lahan, Siraha District in November 2011 (Tika Giri). One was photographed near Koshi Bird Observatory (Q8), Sunsari District in February 2015 (Tulsi Subedi).

A pair was seen displaying at Biratnagar, Morang District in February 1981 (Joliffe *et al.* 1981) and singles were seen there in February 1994 (Cottridge *et al.* 1994) and February 1996 (Harrap 1996).

Post-1990 records from Koshi (Koshi Barrage and Koshi Tappu) include four in November 1992 (Murphy and Waller 1992), four in February 1993 (Danielsen and Falk 1993), two in March 2004 (Kennerley and Karki 2004), and four in March 2005 (van der Dol 2005). One was seen at the barrage in February 1996 (Harrap 1996).

The snake eagle was described as a frequent winter visitor in Koshi Tappu Wildlife Reserve (Baral 2005). Post-1990 records from the reserve include singles in February 1994 (Cottridge *et al.* 1994) and January 1998 (Chaudhary 1998), four in December 1998 (Choudhary 1999), ten in February 1999 (Choudhary 1999), one in February 2002 and February 2004 (Malling Olsen 2004), two in December 2007 (Chaudhary 2007) and two in March 2010 (Baral 2010). Unusually large flocks of over 20 were seen there in December 2010 (Suchit Basnet and Badri Chaudhary) and up to 22 birds in February 2012 (Badri Chaudhary).

Globally the species has also been recorded in Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Bulgaria, Burkina Faso, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, France, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, Niger, Nigeria, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Sudan, Spain, Sudan, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### **Elevation**

Upper limit: 150 m (- 2130 m); lower limit: 75 m

### **Population**

No population surveys have been carried out for Short-toed Snake Eagle.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### Habitat and Ecology

Short-toed Snake Eagle inhabits open country and wetlands. When hunting it typically hovers repeatedly with shallow, slow wing-beats and legs hanging loosely or remains suspended in the wind with slight adjustments to tail and wing movements to maintain its position. Its food comprises a range of medium-sized snakes supplemented by lizards and occasionally frogs, field rats, disabled and young ground birds, and large insects, such as termites and grasshopper nymphs (Naoroji 2006). It has been recorded in Nepal from the beginning of November to the middle of May.

### **Threats**

Threats to Short-toed Snake-Eagle are uncertain; it is possibly threatened by pesticides.

### **Conservation Measures**

No conservation measures have been specifically carried out for Short-toed Snake Eagle. It occurs in Sukla Phanta and Koshi Tappu Wildlife Reserves, Chitwan and Banke National Parks, and marginally in Bardia National Park.

## **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Short-toed Snake Eagle has been assessed as Least Concern. It is mainly a winter visitor, recorded irregularly at Koshi, uncommon in Sukla Phanta Wildlife Reserve and rare elsewhere. Since 1990 the numbers of sightings and localities have increased in the west, but this is probably due to better recording. Threats to the species are uncertain; it may be threatened by pesticides.

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## Elanus caeruleus (Desfontaines, 1789) LC

Subspecies: Elanus caeruleus caeruleus

Common Name

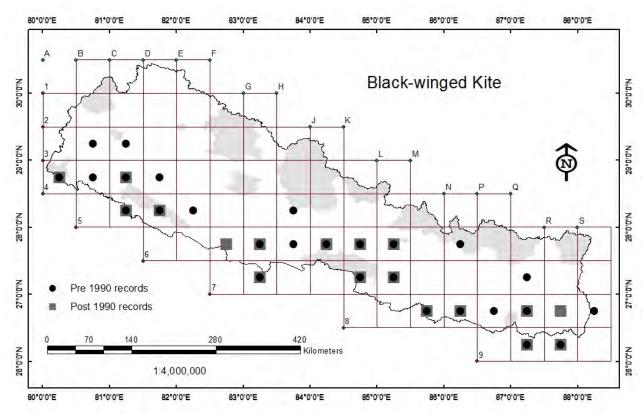
Black-winged Kite (English),

Muse Chil (Nepali)

Order: Falconiformes Family: Accipitridae



## **Distribution**



Black-winged Kite is a fairly common resident in the terai. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve in the far west to Koshi Tappu Wildlife Reserve in the far east. It was reported as fairly common by Fleming *et al.* (1976) and by Inskipp and Inskipp (1991).

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1837) when specimens were collected from the Kathmandu Valley in May, June and July (year unknown) and the terai (locality and date unknown) (Hodgson 1829). Fleming *et al.* (1976) found it occasionally on the Chapagaon road in the Valley in summer. Inskipp and Inskipp (1991) reported it was regularly seen in the Valley in summer at about 1370 m. However, Mallalieu (2008) noted there were no records from the Valley between 2004 and 2006. Subsequently, singles were recorded near the international airport in August 2013 (Tulsi Subedi) and on Saibu Hill in March 2011, and two at Bajrabarahi in April 2015 (Arend van Riessen *in litt*.to H. S. Baral and C. Inskipp, June 2015).

The species is a fairly common resident and possibly also a winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a frequent resident in Bardia National Park (Inskipp 2001), recorded in Banke National Park (Baral et al. 2012), a frequent resident in Chitwan National Park (Baral and Upadhyay 2006),

resident in Parsa Wildlife Reserve (Todd 2001) and a fairly common resident in Koshi Tappu Wildlife Reserve (Baral 2005).

The species is also widespread in open country outside the protected areas' system pre- and post-1990 (see map). Known post-1990 records include from Mahendranagar, Kanchanpur District (Inskipp and Inskipp 2001); Kapilvastu District (Cox 2000, 2002); several records from Lumbini, Rupandehi District, e.g. Baral (2011) and Inskipp and Inskipp (2010); Bakaiya Nadi, Rautahat District and Belwa, Bara District in April 2003 (Cox 2003); Lahan, Siraha District and Dhanusa District (NTNC workshop, October 2012); six between Lauki and Pakali, Sunsari District in 2011 (Hem Sagar Baral), Biratnagar, Morang District and Jhapa District (R9) (NTNC workshop, October 2012).

A comparison of pre-1990 and post-1990 records indicate that this species range has reduced; however, it is almost certainly under-recorded.

Globally the species has also been recorded from Afghanistan, Algeria, Angola, Austria, Bangladesh, Belgium, Benin, Botswana, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Czech Republic, Denmark, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, France, Gabon, Gambia, Germany, Ghana, Gibraltar (to UK), Greece, Guinea, Guinea-Bissau, Hong Kong (China), India, Indonesia, Iran, Islamic Republic of, Iraq, Israel, Italy, Kenya, Kuwait, Laos, Lebanon, Lesotho, Liberia, Libya, Madagascar, Malawi, Malaysia, Mali, Mauritania, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, Oman, Pakistan, Papua New Guinea, Philippines, Poland, Portugal, Qatar, Romania, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Switzerland, Syria, Tanzania, Thailand, Timor-Leste, Togo, Tunisia, Turkey, Uganda, United Arab Emirates, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 1370 m (- 1550 m); lower limit: 75 m

## **Population**

No population surveys have been carried out for Black-winged Kite. Changes in population are uncertain. Naoroji (2006) notes that it readily colonises areas where forest has been cleared and that its expanding range in the Indian subcontinent is closely associated with the loss of forest cover. However, where urban areas are spreading into farmlands, such as in the Kathmandu Valley, Black-winged Kite may be decreasing.

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

Black-winged Kite inhabits open country: cultivation, grassland and open scrubland (Inskipp and Inskipp 1991). It spends much time perched on prominent vantage points such as telegraph wires or isolated trees. The species hunts by quartering open ground, hovering at intervals with wings held high over its back and beaten rather slowly and with feet often trailing (Grimmett *et al.* 1998). It mainly eats large insect such as locusts, grasshoppers and crickets and reptiles; field rats and mice and young or sickly birds. Snakes and frogs have also been recorded (Ali and Ripley 1987).

### **Threats**

Threats to Black-winged Kite are unknown. It is probably at risk from urbanization in the Kathmandu Valley and around expanding towns and cities in the terai. It is possibly threatened by pesticides in cultivated areas (Inskipp and Baral 2011).

### **Conservation Measures**

Threats to Black-winged Kite are unknown. It is probably at risk from urbanisation in the Kathmandu Valley and around expanding towns and cities in the terai. It is possibly threatened by pesticides in cultivated areas (Inskipp and Baral 2011).

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Black-winged Kite has been assessed as Least Concern. It is a fairly common and widespread resident in the terai. Black-winged Kite occurs in all protected areas which have suitable habitat and are within its altitudinal range. It is also widespread in open country outside the protected areas' system. A comparison of pre-1990 and post-1990 records indicates that its range has reduced; however, it is almost certainly under-recorded. Threats to the species are uncertain. It is probably at risk from urbanisation in the Kathmandu Valley and around expanding towns and cities in the terai, and possibly threatened by pesticides in cultivated areas. However, forest losses have favoured range expansion by the species. Changes to the species' population are therefore uncertain.

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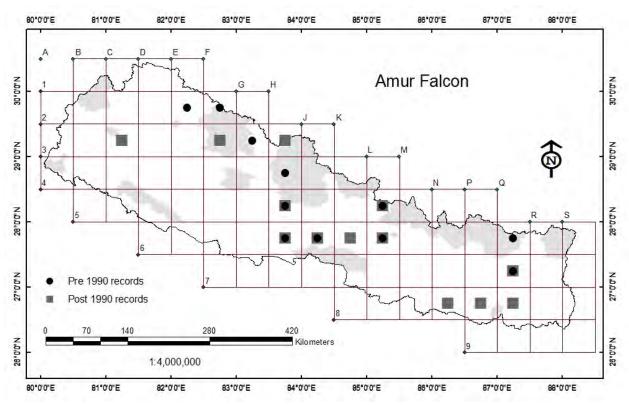
## Falco amurensis Radde, 1863 LC

<u>Common Name</u> Amur Falcon (English), Amur Baaz (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



Amur Falcon is an uncommon passage migrant, mainly occurring in October and November, although it has been recorded in all months. It is quite widespread with post-1990 records from Bardia National Park in the west to Koshi Tappu Wildlife Reserve in the east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844), when records include at least two specimens collected in the Kathmandu Valley in October (year unknown) (Hodgson 1829). Later known records of Amur Falcons in the Valley include the maximum of 328 near Godaveri in November 1985 (Ebels 1986), about 80, mainly juveniles at Harsiddhi in November 1987 (Vyas 1988), and up to 44 near Haatiban in October 1991 (H. S. Baral in Mallalieu 2008).

Since 1990 no significant changes in distribution have been noted, compared to pre-1990 (see map).

The species regularly occurred in a mixed falcon roost near Phewa Tal, Kaski District in October and November in the 1970s and 1980s, but no falcon roost has been located in the Pokhara valley since. The maximum of 305 Amurs was counted there on 29 October 1984 (Bijlsma 1991). Other records at the roost include at least six in November 1977 (Leece and Reece 1977), 220 on 24 and 25 October 1986 (Halliday 1986, Inskipp and Inskipp

1986), and 200 in October 1995 (Rasmussen and Strange 1995). A flock of 63 was seen catching dragonflies over paddy-fields east of Pokhara, Kaski District on 30 October 1984 (Bijlsma 1991). Other records in Kaski District include 12 at Rupa Tal in October 1991 (Mackenzie 1994), seven below Sarangkhot and 100 near Base Camp Resort, Pokhara in November 1992 (Baral 1993a).

A total of 138 migrated west near Khare (= Khande), Kaski District between 20 October and 4 November 1985 (de Roder 1989), 43 between 27 October and 3 November 1999 (DeCandido *et al.* 2001), one between 14 and 27 November 2011 (DeCandido *et al.* 2011), and 78 between 30 September and 5 November 2012 (Subedi *et al.* 2012). At nearby Thoolakharka, just south of the Annapurna range, 90 migrated west between 16 September and 16 November 2013 (Subedi 2014) and 20 between 28 September and 8 November 2014 (Subedi 2015).

Seventeen Amur Falcons were seen migrating on 27 October 1984 between Lumle and Naudanda, ACA (Bijlsma 1991). There are a few sightings from the upper Kali Gandaki valley, ACA in October. These include four at Tukche, in October 1973 (Beaman 1973, Fleming *et al.* 1984) and one south of Jomsom in October 1985 (Mills 1985). One was also seen between Tolka and Dhamping, ACA in November 1996 (Giri 1996). Three were seen over Saibu hill, Kathmandu Valley in October 2013 (Arend van Riessen *in litt.* to H. S. Baral and C. Inskipp June 2015).

A total of 400 was seen between Koshi Barrage, Sunsari District and Lahan, Siraha District on 10 November 2007 (Baral 2007).

In the east in October and November 'numbers were seen with Lesser Kestrels *F. naumanni*' in November (year unknown) at Tumlingtar, Sankhuwasabha District (Fleming *et al.* 1984) and two west of Jorpani, Dhankuta District in October 1978 (Cox 1978, 1984). A flock of 125 birds was seen at Dalkebar, Dhanusa District in October 2011 (Som GC). One was recorded at Koshi Barrage in November 1989 (Jakobsen 1993) and three in November 1996 (Chaudhary 1997). In Koshi Tappu Wildlife Reserve seven were seen in October 1993 (Baral 1993b), three in November 1993 (Choudhary 1994), 42 in November 2001 (Koshi Camp 2001), and one in November 2011 (Baral 2011). A flock of around 500 Amurs was recorded in November 2001 in Dharan forests Important Bird Area, Sunsari District (Giri 2002); the species was recorded there again in October 2007 (Basnet and Sapkota 2008), and 150-200 Amurs over Itahari, Sunsari District in October 2012 (Sanjib Acharya *in litt*. to H. S. Baral, October 2012). In November 2001, 38 Amurs were recorded at Koshi; the number increased to 42 the next day and were mixed with 35 Lesser Kestrels and 21 Eurasian Hobbies *F. subbuteo*; numbers of Amurs decreased to 39 and 32 on the following two days (GC 2002).

Amur Falcon has been recorded much less frequently in March and April. Singles were seen at the base of Chankeli Lekh, Mugu District in April 1983 (Brearey 1985), in the Trisuli valley, Langtang National Park in April and May 1980 (Inskipp and Inskipp 1980), in the upper Arun valley, Makalu Barun National Park in April 1981 (Krabbe 1981), at Sauraha, Chitwan National Park buffer zone in April 1988 (Slack *et al.* 1988), and above Syabru, Langtang National Park in March 1994 (Weiss and Wettstein 1994) and in Nawalparasi District in March 2010 (DB Chaudhary).

There are just a few records in summer: one found dead in northern Dolpo at 4420 m in June 1971 (Fleming *et al.* 1976, Fleming 1982); one seen above Jomsom, ACA in July 1973 (Fleming *et al.* 1976), and a pair at Kosi Bird Observatory in July 2013 that stayed for at least for two days (Tulsi Subedi).

Several winter records are known: in Namlang valley, Mugu District between December 1976 and February 1977 (Jackson 1978); singles at Sauraha in January 1984 (Wotham and Bond 1984); in Kathmandu in December 1992 (Fouarge 1993); between Koshi Barrage and Chitwan in January 1993 (Tarrant and Tarrant 1993), and in Dhap area, Chisapani in Shivapuri Nagarjun National Park in winter 2003 (Subedi 2004); two in December 1998 (Choudhary 1999). The large number of 250 birds was seen in Saptari District in November 2011 (Badri Chaudhary) and 186 there in December 2011 (Hathan Chaudhary); 13 at Sauraha, Chitwan National Park buffer zone in December 2011 (Anil Gurung and Hem Subedi).

The species' status in protected areas is reported as: an uncommon migrant in Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995), recorded in Khaptad National Park (Khadka 1996), a rare passage migrant in Chitwan National Park by Gurung (1983) and as a rare winter visitor to the park by Baral and Upadhaya (2006), a rare passage migrant in Langtang National Park (Karki and Thapa 2001), and a frequent winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005).

Globally the species has also been recorded in Angola, Bangladesh, Bhutan, Botswana, Burundi, China

(mainland), Congo, The Democratic Republic of the, Ethiopia, Hong Kong (China), India, Italy, Japan, Kenya, Laos, Lesotho, Malawi, Maldives, Mongolia, Mozambique, Myanmar, Namibia, North Korea, Northern Mariana Islands (to USA), Oman, Pakistan, Qatar, Russia (Asian), Rwanda, Saudi Arabia, Seychelles, Somalia, South Africa, South Korea, Sri Lanka, St Helena (to UK), Swaziland, Tanzania, Thailand, Uganda, United Arab Emirates, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 2900 m (- 4200 m); lower limit: 75 m

#### **Population**

No population surveys have been carried out for Amur Falcon. Amurs seen in October and November are chiefly in flocks, sometimes hundreds of birds together. The maximum of 576 birds in one flock was recorded between Koshi Barrage, Sunsari District and Lahan, Siraha District on 1 November 2011 (Baral 2011)

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Amur Falcon inhabits open country. It is a highly gregarious and crepuscular falcon and forms communal roosts, often with Lesser Kestrel *F. naumanni* when on migration. Amur Falcon hunts by hawking insects and also by hovering, rather like a Common Kestrel *F. tinnunculus*, although it does so less persistently than that species. It also drops onto or beside prey. Amur Falcon feeds on large insects, such as locusts and beetles (Grimmett *et al.* 1998). One was seen pecking at insects on the ground in Shivapuri National Park in winter 2003 (Subedi 2004).

## **Threats**

Threats to Amur Falcon are uncertain; it may be at risk from pesticides.

## **Conservation Measures**

No conservation measures have been carried out specifically for Amur Falcon. It has been recorded in Annapurna Conservation Area, Chitwan and Khaptad National Parks, and Koshi Tappu Wildlife Reserve. It has also been recorded marginally in Langtang National Park.

## Regional IUCN Status

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Amur Falcon has been assessed as Least Concern. It is an uncommon and quite widespread passage migrant mainly occurring in October and November, although it has been recorded in all months. Amurs seen in October and November have chiefly been in flocks, sometimes hundreds of birds together, with the maximum of 576 birds seen. It has been recorded in several protected areas. No significant changes in distribution have been noted between pre- and post-1990. Threats to the species are uncertain; it may be at risk from pesticides.

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## Falco columbarius Linnaeus, 1758 LC

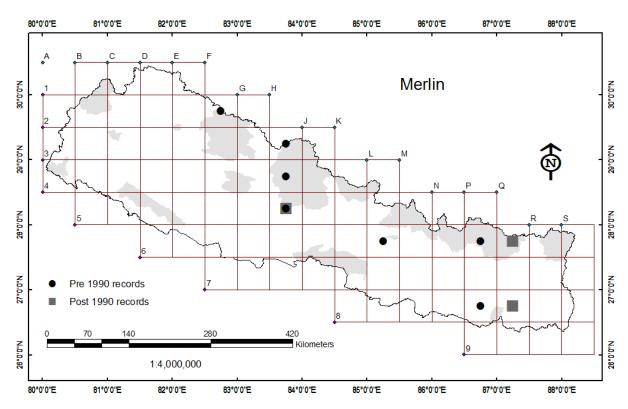
Subspecies: Falco columbarius insignis

<u>Common Name</u> Merlin (English), Sano Baaz (Nepali)

Order: Falconiformes Family: Falconidae



## **Distribution**



Merlin is a very rare passage migrant and possibly also a winter visitor. It has been recorded from the Namlung valley, Mugu District in the west to Makalu Barun National Park in the east. The first Nepal record of the species was by the Manora River, Kathmandu Valley in November 1970 (Inskipp *et al.* 1971). It was recorded again in the Valley at Nagarjun in the Shivapuri-Nagarjun National Park (Baral 2001). No later records are known from the Valley.

The species was reported to be an uncommon winter visitor in the Namlang valley, Mugu District between December 1976 and February 1977 (Jackson 1978).

There are several pre-1990 records from the Annapurna Conservation Area (ACA): in upper Mustang in 1977 (H. S. Nepali in Acharya 2002, Acharya 2004, Suwal 2003), singles at Kagbeni, in December 1979 (Robson 1979), Chandrakot in March 1981 (D. Percival *in litt*. to R. Fleming Jr., 1981), Muktinath in February 1983 (Suter 1983) and Ghasa in February 1987 (Eve and Hibbard 1987).

Two migrants were recorded flying west at Khare, Kaski District on 23 and 24 November 2011 (DeCandido *et al.* 2011).

Merlin has also been recorded several times at Koshi, Sunsari District: two at Koshi Barrage in November 1981 (Gantlett 1981), and singles at Koshi Tappu Wildlife Reserve in March 1992 (Baral 1992), January and February 1997 (Chaudhary 1997, Giri and Choudhary 1997), March 1997 (Harrap and Basnet 1997), February 2003 (Chaudhary 2003), April 2011 (Thomas *et al.* 2011), and in February 2012 (Badri Chaudhary).

There are two known pre-1990 records from Solukhumbu District: at Surkye in April 1981 (Cox 1984) and at Tashinga in April 1982 (Fairbank 1982).

The species was also observed in the Hinkhu Khola watershed, Makalu Barun National Park in April 1995 (Cox 1999).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Anguilla (to UK), Antigua and Barbuda, Armenia, Aruba (to Netherlands), Austria, Azerbaijan, Bahamas, Bahrain, Barbados, Belarus, Belgium, Belize, Bermuda (to UK), Bhutan, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Cayman Islands (to UK), China (mainland), Colombia, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Faroe Islands (to Denmark), Finland, France, French Guiana, Germany, Gibraltar (to UK), Greece, Greenland (to Denmark), Grenada, Guadeloupe (to France), Guatemala, Guyana, Haiti, Honduras, Hungary, Iceland, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malta, Martinique (to France), Mexico, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Netherlands, Nicaragua, North Korea, Norway, Oman, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Senegal, Serbia, Saint Maarten (to Netherlands), Slovakia, Slovenia, South Korea, Spain, St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Svalbard and Jan Mayen Islands (to Norway), Sweden, Switzerland, Syria, Tajikistan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013)

#### **Elevation**

Upper limit: 4000 m; lower limit: 75 m

# **Population**

No surveys have been carried out for Merlin. Observations indicate that numbers are very low, although as it is a small, fast-flying falcon, it can be overlooked.

#### **Total Population Size**

Minimum population: unknown; maximum population: <50

# **Habitat and Ecology**

Merlin inhabits a wide variety of open-country habitats including cultivation, grasslands, wetlands and scrub desert. It is a bold and dashing falcon, normally found singly. Usually it hunts in low flight with fast wingbeats and short glides, catching prey in a surprise attack. It feeds mainly on small birds (Grimmett *et al.* 1998).

# **Threats**

Threats to the Merlin are not known in Nepal; it is possibly at risk from pesticides especially when frequenting cultivation or wetlands.

#### **Conservation Measures**

No conservation measures have been specifically carried out for Merlin. Most records have been from protected areas with a few post-1990 records from Shivapuri Nagarjun and Makalu Barun National Parks and Koshi Tappu Wildlife Reserve.

# **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Merlin has been categorised as Least Concern. The species is a very rare passage migrant and possibly also a winter visitor, recorded from the west to the east. Most records have been from within protected areas. The population appears to be low, although as it is small, fast-moving falcon, it can be overlooked. There is no indication of a decline in population. Threats to the species are unknown in Nepal; it is possibly at risk from pesticides.

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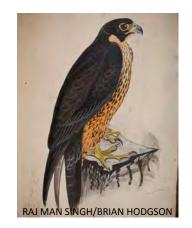
# Falco peregrinus Tunstall, 1771 LC

Subspecies: Falco peregrinus peregrinator, calidus, babylonicus

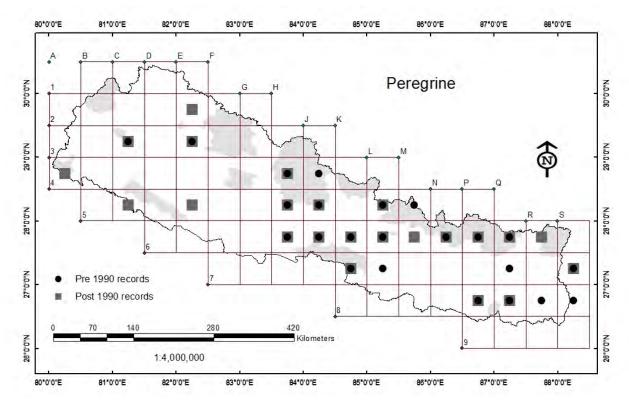
## Common Name

Peregrine Falcon (English), Shahi Baaz (Nepali)

Order: Falconiformes Family: Falconidae



# **Distribution**



Peregrine Falcon is a frequent to uncommon resident, partial altitudinal migrant and passage migrant in protected areas, and uncommon outside protected areas. It is also a winter visitor of uncertain status. Three races occur: the resident Shaheen *F. p. peregrinator*, *F. p. calidus* which is a winter visitor and *F. p. babylonicus* which is a vagrant. The species is widespread with post-1990 records from Sukla Phanta Wildlife Reserve in the far west (Baral and Inskipp 2009) to Handrung, Panchthar District (White and White 1999) in the far east.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1843) when specimens of Shaheen were collected in the Kathmandu Valley (Hodgson 1829).

Inskipp and Inskipp (1991) reported it was a fairly common resident and partial altitudinal migrant; also a winter visitor.

Peregrine is recorded from most protected areas. It is an uncommon winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009); a rare winter visitor to Bardia National Park (Inskipp 2001); recorded in Rara National Park in October 2015 (Chaudhary *et al.* 2015); an uncommon resident in Khaptad National Park (Chaudhary 2006); a frequent resident in Annapurna Conservation Area (ACA) (Inskipp and Inskipp 2003); an uncommon resident in Langtang National Park (Karki and Thapa 2001) and on Shivapuri in Shivapuri-Nagarjun

National Park (SNP and BCN 2007); a frequent winter visitor to Chitwan National Park (Baral and Upadhyay 2006); recorded in winter in Parsa Wildlife Reserve (Todd 2001); recorded in Gaurishankar Conservation Area in May (Baral and Shah 2009); a rare resident in Sagarmatha National Park (Basnet 2004); resident in Makalu Barun National Park (Cox 1999); an uncommon resident and passage migrant in Kanchenjunga Conservation (Halberg 1994, Inskipp *et al.* 2008), and a frequent winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005).

The species has been recorded from the buffer zone of Chitwan National Park, e.g. at Bees Hazari Tal (Baral 1996) and Sauraha, Chitwan District in January 2012 (Naylor *et al.* 2012).

Post-1990 Peregrine Falcon has been uncommon outside the protected areas' system. Although there are records from the west to the far east most are from west and central Nepal (see map). When comparing preand post-1990 records, the species' overall distribution has not changed significantly.

Known records from outside the protected areas' system post-1990 are given below.

In the west records include: near Dhanghadi, Kailali District in October 2012 (Mark Read); from north of Chautha near Churchi Lagna Pass, Jumla District in April 2009 (O'Connell Davidson and Karki 2009); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Pokhara, Kaski District, e.g. in November 2004 (Naylor and Giri 2004), December 2007 (Naylor and Metcalf 2007), and February 2009 (Naylor et al. 2009); Phewa Tal, Kaski District in December 2009 (Thewlis et al. 2009), and Baglungpani, Lamjung District in January 1992 (Halliday 1992).

In central areas records include: from Tharu Cultural Jungle Resort, Nawalparasi District (Baral 2011) and Pati Bhanjyang to Chisopani, Sindhupalchok District in May 1996 (Cocker 1996). Mallalieu (2008) reported it was an uncommon winter visitor and passage migrant in the Kathmandu Valley between 2004 and 2006; but recently recorded frequently in winter on Saibu Hill (Arend van Riessen). One was seen flying over Ratna Park, Kathmandu in spring 2014 (Tulsi Subedi).

In the east records include: from Koshi Barrage and Prakashpur, Sunsari District in February 2007 (Baral 2007); regularly seen at Koshi Bird Observatory, Sunsari District in spring (Tulsi Subedi) and recorded at Handrung, Panchthar District in 1992 (White and White 1999).

Six migrated west near Khare (Khande), Kaski District between 16 and 25 November 2011 (DeCandido *et al.* 2011) and 29 (all *calidus*) between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range 18 birds (all *calidus*) migrated west between 16 and 30 October 2013 (Subedi *et al.* 2014) and 16 between 19 September and 8 December 2014 (Subedi 2015).

At least five were seen in a mixed falcon roost at Phewa Tal, Kaski District in November 1977 (Leece and Reece 1977).

F. p. peregrinator is a frequent and widespread resident subject to altitudinal movements.

The status of *F. p. calidus* is uncertain. It has been definitely recorded from Koshi Barrage, e.g. Redman and Murphy (1979), Koshi Tappu, e.g. Heinen (1988), Kathmandu Valley (Scully 1879) and at Lhonak, Kanchenjunga Conservation Area at 4785 m in May 1994 (Halberg 1994).

F. p. babylonicus is a vagrant.

Peregrine is almost cosmopolitan. Other countries where it has been recorded are: Afghanistan, Albania, Algeria, Andorra, Angola, Anguilla (to UK), Antigua and Barbuda, Argentina, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda (to UK), Bhutan, Bolivia, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, Chile, China (mainland), Christmas Island (to Australia), Colombia, Comoros, Congo, Congo, The Democratic Republic of the, Costa Rica, Croatia, Cuba, Curaçao (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Falkland Islands (Malvinas), Faroe Islands (to Denmark), Fiji, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Greenland (to Denmark), Grenada, Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France),

Mauritania, Mauritius, Mayotte (to France), Mexico, Micronesia, Federated States of, Moldova, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia (to France), Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Samoa, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Georgia & the South Sandwich Islands, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, Ukraine, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), Uruguay, USA, Uzbekistan, Vanuatu, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="https://www.birdlife.org">https://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 3000 m (- 4200 m); lower limit: 1500 m; (- 75 m) (winter)

### **Population**

No population surveys have been carried out for Peregrine Falcon. Observations indicate it may have declined.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

### Habitat and Ecology

No population surveys have been carried out for Peregrine Falcon.

# <u>Threats</u>

Peregrine Falcon breeds in open rugged hills and mountains and is also found by lakes and large rivers in winter (Grimmett *et al.* 1998). The resident Shaheen *F. p. peregrinator* is a partial altitudinal migrant recorded as high as 4200 m in April and uncommon in the terai in winter (Inskipp and Inskipp 1991). The species is a bold, aggressive and powerful falcon highly skilful in flight. After scanning for prey by circling high overhead or from an elevated vantage point, the Peregrine pursues prey rapidly and adeptly, finally rising above it and stooping with terrific force with wings almost closed to seize or strike the victim (Grimmett *et al.* 1998). It feeds on waterfowl (ducks, coots, moorhens etc.), waders such as lapwings, pigeons, partridges and many other bird species. The more robust female can strike much larger and heavier birds than itself such as egrets, herons, storks, cranes and bustards (Ali and Ripley 1987). It has been proved breeding on Nagarjun in the Shivapuri-Nagarjun National Park (Anon. 1977).

# **Conservation Measures**

No conservation measures have been specifically carried out for Peregrine Falcon. However, it has been recorded in most protected areas: Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, Khaptad, Chitwan, Shivapuri-Nagarjun, Langtang and Makalu Barun National Parks, Annapurna, Gaurishankar and Kanchenjunga Conservation Areas, and marginally in Bardia and Sagarmatha National Parks.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Peregrine Falcon has been assessed as Least Concern. It is a frequent to uncommon resident, partial altitudinal migrant and passage migrant in protected areas, and uncommon outside protected areas. It is also a winter visitor of uncertain status. Three subspecies occur: Shaheen *F. p. peregrinator* is resident; *F. p. calidus* is a winter visitor and passage migrant and *F. p. babylonicus* is a vagrant. Peregrine Falcon has been recorded in most protected areas. Post-1990 It is uncommon outside the protected areas' system where records are from the west to the far east, but mainly from west and central Nepal. No significant overall change to the species' distribution is apparent when comparing pre- and post-1990 records. Although it may have declined, especially outside the protected areas' system the decline is not considered sufficient to warrant a threatened status for the species. Threats to Peregrine Falcon are uncertain; it may be at risk from hunting for the bird trade and also by pesticides.

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# Falco subbuteo Linnaeus, 1758 LC

Subspecies: Falco subbuteo subbuteo

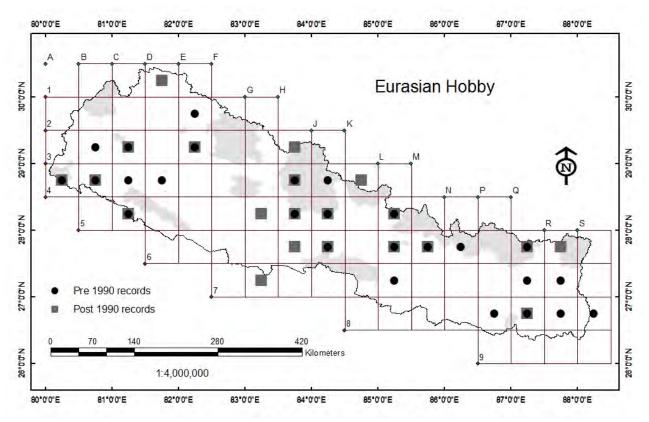
# Common Name

Eurasian Hobby (English), Junge Chirantak Baaz (Nepali)

Order: Falconiformes Family: Falconidae



# **Distribution**



Eurasian Hobby is uncommon; it is a resident, partial migrant, passage migrant and winter visitor. The species is widespread with post-1990 records from Sukla Phanta Wildlife Reserve in the far west to Kanchenjunga Conservation Area in the far east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844) when specimens were collected from the Kathmandu Valley in October and November (year unknown) (Hodgson 1829).

It has been recorded from most protected areas, except those at very high altitudes. Eurasian Hobby is an uncommon summer visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a rare winter visitor and passage migrant to Bardia National Park (Inskipp 2001), a frequent resident in Khaptad National Park (Chaudhary 2006, Khadka 1996). It has uncertain status in Rara National Park where it is possibly a migrant and frequent (Giri 2005), has uncertain status in Annapurna Conservation Area, where uncommon (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (Shah 1998), an uncommon summer visitor to Langtang National Park (Karki and Thapa 2001), and to Shivapuri in Shivapuri-Nagarjun National Park (SNP and BCN 2007). It is a rare winter visitor to Chitwan National Park (Baral and Upadhyay 2006), of uncertain status and

frequent in Makalu Barun National Park (Cox 1999a), there are very few known records from Kanchenjunga Conservation Area in April and May (Inskipp *et al.* 2008), and it is an uncommon passage migrant in Koshi Wildlife Reserve (Baral 2005).

Eurasian Hobby has been recorded quite widely outside the protected areas' system in west and central areas, both pre- and post-1990. No significant changes in distribution have been noted (see map). Known records post-1990 are given below.

In the west records include singles at Dhanghadi, Kailali District and at Mahendranagar, Kanchanpur District in May 2001 (Inskipp and Inskipp 2001); at Simikot, Humla District in September 1994 (Prodon 1994); by the Soli Khola, Humla District in June 2002 (Grimm and Fischer (2003); several birds at Jumla, Jumla District in May 1995 (White and White 1995;) in the Reshunga Important Bird Area, Gulmi District in March 2011 (Thakuri 2011, 2013); between Tansen and Chandibhanjyang, Palpa District in May 1999 (Cox 1999b), and at Lumbini, Rupandehi District (NTNC workshop, October 2012).

In central areas records include: one between Kutumsang and Patibhanjyang, Sindhupalchok District in May 1992 (Baral 1992) and three at Kutumsang in May 1999 (Chaudhary 1999). Mallalieu (2008) reported it was an uncommon summer visitor to the Kathmandu Valley between 2004 and 2006.

Records of migrating birds include: singles at Jomosom on 16, 25 and 27 September, migrating south along the Kali Gandaki valley, Annapurna Conservation Area (ACA) (Beaman 1973) and seven birds migrating south singly along the valley between 16 and 25 October 1984 (Bijlsma 1991). A total of 19 migrated west near Khare (= Khande), Kaski District between 29 October and 3 November 1999 (DeCandido *et al.* 2001) and 80 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range, 211 birds migrated west between 23 September and 9 October 2013 (Subedi *et al.* 2014) and 100 between 19 September and 8 December 2014 (Subedi 2015).

The species was present in a communal roost of falcons near Phewa Tal, Kaski District: at least 12 were recorded in November 1977 (Leece and Reece 1977) and over ten in October 1986 (Inskipp and Inskipp 1986). About 250 birds were seen collecting on telephone wires near Pokhara, Kaski District in late October 1982 (Fleming *et al.* 1984).

On 4 November 2001 a mixed flock of 21 Eurasian Hobbies with 35 Lesser Kestrels *F. naumanni* and 42 Amur Falcons *F. amurensis* was seen at Koshi (GC 2002).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Canada, Côte d'Ivoire, Chad, China (mainland), Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guam (to USA), Guinea, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013)

## **Elevation**

Upper limit: 3050 m (- 4200 m); lower limit: 75 m

#### **Population**

No population surveys have been carried out for Eurasian Hobby.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### **Habitat and Ecology**

No population surveys have been carried out for Eurasian Hobby.

## **Threats**

Eurasian Hobby inhabits well-wooded areas, also open country in winter (Grimmett *et al.* 1998). The species is often crepuscular. It is a graceful falcon, capable of high speed in acrobatic pursuit of flying prey, usually small birds and insects, and occasionally bats. It is usually seen singly, but sometimes a few birds hunt together at good food sources (Grimmett *et al.* 1998). Eurasian Hobby has been proved breeding in the Kathmandu Valley (Vyas 1988) and in the upper Kali Gandaki valley (Beaman 1973).

#### **Conservation Measures**

No conservation measures have been specifically carried out for Eurasian. However, it has been recorded in Sukla Phanta and Koshi Wildlife Reserves; Khaptad, Rara, Langtang, Shivapur Nagarjun and Makalu Barun National Parks, and Manaslu and Annapurna Conservation Areas. It has also been recorded marginally in Bardia and Chitwan National Parks and in Kanchenjunga Conservation Areas.

### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Eurasian Hobby has been assessed as Least Concern. The species is generally uncommon and widespread. It is a resident, partial migrant, passage migrant and winter visitor. Eurasian Hobby has been recorded from most protected areas except those at very high altitudes. It has also been recorded quite widely outside the protected areas' system, in west and central areas. No significant changes in distribution have been noted. Threats to Eurasian Hobby are uncertain; it may be threatened by pesticides.

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White, D. A. and White, K. E. (1999) Notes on birds recorded in Kanchenjunga area, 1994, 1997 and 1999. Unpublished. 4 pp.

# Falco tinnunculus Linnaeus, 1758 LC

Subspecies: Falco tinnunculus tinnunculus, interstinctus

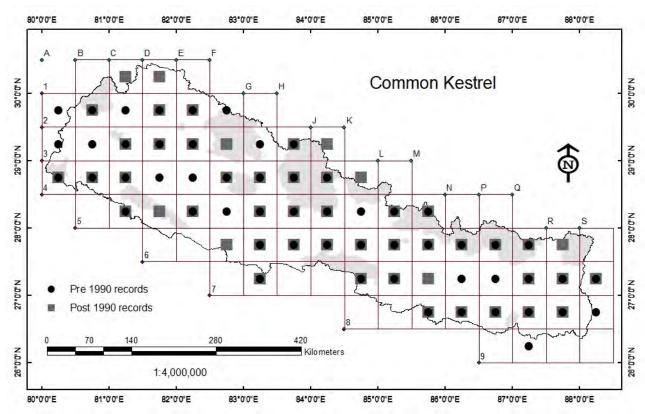
## Common Name

Common Kestrel (English), Baundai (Nepali)

Order: Falconiformes Family: Falconidae



# **Distribution**



Common Kestrel is a common resident, winter visitor and passage migrant. It is widespread, with post-1990 records from Api Nampa Conservation Area in the far west to Kanchenjunga Conservation Area in the far east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1843), when specimens were collected from the terai, central hills and the Kathmandu Valley (Hodgson 1829).

Common Kestrel is recorded in almost all protected areas. It has been found in Api Nampa Conservation Area (Thakuri and Prajapati 2012), is an occasionally recorded winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a rare winter visitor and passage migrant to Bardia National Park (Inskipp 2001), recorded in Banke National Park (Baral *et al.* 2012), a fairly common resident in Khaptad National Park (Chaudhary 2006, Khadka 1996), common in Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995), common and possibly resident in Rara National Park (Giri 2005), recorded in Dhorpatan Hunting Reserve (Panthi 2013); a common resident and passage migrant, and possibly also a winter visitor in the Annapurna Conservation Area (Inskipp and Inskipp 2003); recorded in Manaslu Conservation Area (Katuwal *et al.* 2013, Thakuri 2013a); a common resident in Langtang National Park (Karki and Thapa 2001), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), an occasionally recorded resident in Shivapuri-Nagarjun National Park (SNP and

BCN 2007), an occasionally recorded winter visitor in Chitwan National Park (Baral and Upadhyay 2006), a fairly common resident in Parsa Wildlife Reserve (Todd 2001), an occasionally recorded passage migrant and possible resident in Sagarmatha National Park (Basnet 2004), a common resident, passage migrant and winter visitor in Makalu Barun National Park (Cox 1999a), a common resident in Kanchenjunga Conservation Area (Inskipp *et al.* 2008), and a common winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005).

It was recorded in the buffer zone of Chitwan National Park, e.g. Bees Hazari Tal, Barandabhar Important Bird Area (Baral 1996); Tharu Cultural Jungle Resort, Nawalparasi District in December 2011 (Baral 2011) and of Makalu Barun National Park in May and June 2009 (Cox 2009).

The species is also widespread in open country outside the protected areas system pre- and post-1990. No significant changes in distribution are apparent during the period (see map). Known post-1990 records are given below.

In the west records include from: Humla District (D2) (Ghimirey 2011, Kusi *et al.* 2015); Ghodaghodi Tal, Kailali District (Baral 1992); Simikot and Yari, Humla District in September 1994 (Prodon 1994); recorded from Badimalika region, Achham (C3) and Bajura Districts(D3) in 1998 (Karki *et al.* 2003); several records from Kalikot District in March 1997 (Giri 1997); Jumla, Jumla District and Chaurikot to Hurikot, Dolpa District in March 1992 (Priemé 1992); Jumla area, Jumla District in April 2009 (O'Connell Davidson and Karki 2009); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Rukum District (NTNC workshop, October 2012); Reshunga Important Bird Area, Gulmi District in 2011 (Thakuri 2011, 2013b); Chandi Bhanjyang, Palpa District in May 1999 (Cox 1999b); between Simalchaur, Gulmi/Baglung border to ghot south of Ridhabhot, Gulmi District in May 1999 (Cox 1999b); Myagdi Khola valley, Myagdi District in May 1999 (Cox 1999b); Jagdishpur Reservoir, Kapilvastu District in December 2011 (Baral 2011); Kapilvastu and Rupandehi Districts in 2002 (Cox 2002); several records from Lumbini, Rupandehi District (e.g. Acharya 2011); several records from Pokhara, Kaski District, e.g. Hewatt (2009), Mallalieu (2005), Naylor and Giri (2004); recorded at Balewa, Baglung District (Basnet 2009), and Besisahar, Lamjung District (Byrne 2000).

In central areas records include from: Larkya Pass to Namru, Gorkha District in November 1992 (Prodon 1992); Dhading District (Kalu Ram Tamang); Upardanggadhi hills Chitwan District in January 2012 (Dymond 2012); west of Lal Bakaiya Nadi to Kopuwa gau, Rautahat District in April 2003 (Cox 2003), and Patibhanjyang to Chisapani, Sindhupalchok District (Cocker 1996).

In the east records include from: Dolakha District in 1993 (Poulsen 1993); Sarlahi, Siraha, Mahottari and Dhanusa Districts (NTNC workshop, October 2012); Sindhuli District (Hem Sagar Baral and Hathan Chaudhary); Koshi Barrage, Sunsari District e.g. Chaudhary (1997), Dharan forests Important Bird Area in 2008 (Basnet and Sapkota 2008); Tumlingtar Sankhuwasabha District in November 2011 (Carter and James 2011); fallow khets south-east of Simle gau, Sankhuwasabha District in June 2009 (Cox 2009); several records from the lower Arun valley, Sankhuwasabha District in November 1994 (Baral and Buckton 1994); Mamamkhe to Yamphudin, Taplejung District in November 2000 (Goble 2000); Taplejung to Dobhan, Taplejung District in November 1992 (Cox 1992); lower Mai valley in 2006 (Basnet and Sapkota 2006); throughout the Mai valley, Ilam District and Pranbung, Panchthar District in March 2008 (Robson *et al.* 2008), and Raja Rani Community Forest, Morang District in 2005 (Basnet *et al.* 2005).

Records of passage birds include: 11 flying south down the upper Kali Gandaki valley, Annapurna Conservation Area (ACA) between 6 September and 6 October 1973 (Beaman 1973) and 39 flying down the valley between 24 September and 5 October 1978 (Thiollay 1979). Common Kestrel has also been observed undertaking east to west migration near Khare (= Khande), Kaski District: 27 birds between 16 and 27 November 2011 (DeCandido *et al.* 2011) and 83 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range, 318 birds migrated west between 7 and 17 October 2013 (Subedi *et al.* 2014) and 197 birds between 19 September and 8 December 2014 (Subedi 2015).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bermuda (to UK), Bhutan, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Egypt, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Greenland (to Denmark), Guam (to USA), Guinea, Guinea-Bissau, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait,

Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palestinian Authority Territories, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Svalbard and Jan Mayen Islands (to Norway), Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 5200 m; lower limit: 75 m

#### **Population**

No surveys or population estimates have been made of Common Kestrel. Naoroji (2006) noted that denudation [of forest] of the Himalayan foothills and elsewhere in the region has favoured the species; this may be causing an increase and spread in population. However, the spread of urban areas into open areas may be causing local population decreases.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

### Habitat and Ecology

Common Kestrel frequents a wide range of habitats in open country from the mountains to the terai: cultivation, grassland, semi-desert, subalpine and alpine slopes (Grimmett *et al.* 1998). Characteristically it hovers in open country while scanning the ground for prey, often dropping in a series of gentle swoops before finally pouncing (Grimmett *et al.* 1998). It eats insects, frogs, lizards, small rodents and rarely nestlings (Ali and Ripley 1987). Common Kestrel has been proved breeding in the Kathmandu Valley (Thiede and Thiede 1974, upper Kali Gandaki valley (Heath 1986, Wolstencroft 1981) and along Tinahu river corridor, Papla District in May 2012 (Tulsi Subedi).

# **Threats**

Threats to the species are unknown. It is possibly at risk from pesticides in cultivated areas (Inskipp and Baral 2011) and probably threatened by urbanization around expanding towns and cities.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Common Kestrel. It occurs in most/all protected areas in Nepal: Bardia, Banke, Khaptad, Rara, Shey-Phoksundo, Chitwan, Langtang, Shivapuri-Nagarjun, Sagarmatha, and Makalu Barun National Parks; Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, and Annapurna, Gaurishankar, Kanchenjunga and Manaslu Conservation Areas.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Common Kestrel has been assessed as Least Concern. It is a common and widespread resident, passage migrant and winter visitor. The species occurs in almost all protected areas and is also widespread in open country outside the protected areas' system. No significant changes in distribution are apparent during the periods before and after 1990. Threats to the species are uncertain. It is possibly at risk from pesticides in cultivated areas and probably threatened by urbanization around the expanding towns and cities. However, forest losses have favoured range expansion by the species.

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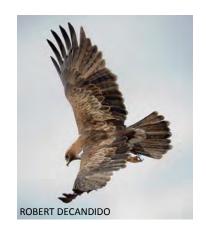
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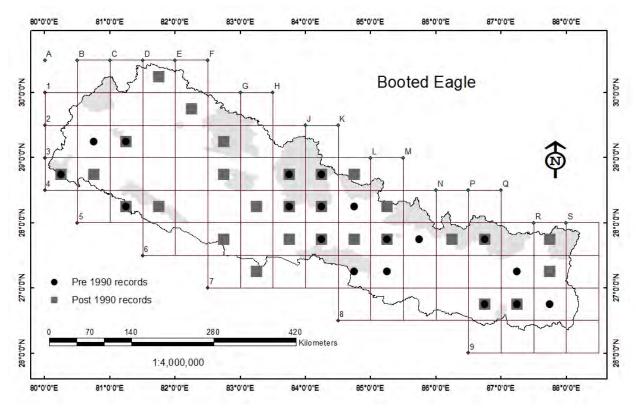
# Hieraaetus pennatus (J. F. Gmelin, 1788) LC

<u>Common Name</u> Booted Eagle (English), Kandhchandra Chil (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Booted Eagle is an uncommon and winter visitor and passage migrant; it has also bred and may be a rare resident. It is quite widespread in winter and on passage, with post-1990 records from Sukla Phanta Wildlife Reserve in the far west to Kanchenjunga Conservation Area in the east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1844) when it was recorded in the Kathmandu Valley and central hills in November (no further locality or date information are available (Hodgson 1829).

The eagle is a frequent winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), an uncommon passage migrant to Bardia National Park (Baral 1992, Giri 1997, Tamang undated in Inskipp 2001), recorded in Banke National Park (Baral et al. 2012), a rare passage migrant to Khaptad National Park (Chaudhary 2006), an uncommon resident in Rara National Park (Giri 2005), uncommon in Shey-Phoksundo National Park (Priemé and Øksnebjerg 1995), an uncommon winter visitor and passage migrant, and possibly also resident in Annapurna Conservation Area (ACA) (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (Shah 1998, Thakuri 2013), a rare passage migrant in Langtang National Park(Karki and Thapa 2001), an uncommon winter visitor to Shivapuri in Shivapuri Nagarjun National Park (SNP and BCN 2007); also recorded on Nagarjun top in Mary 2013 (Arend van Riessen in litt. to C. Inskipp, June 2015); an uncommon winter visitor to Chitwan

National Park (Baral and Upadhyay 2006), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), an uncommon passage migrant in Sagarmatha National Park (Basnet 2004), a frequent winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005), and rare in Kanchenjunga Conservation Area (Inskipp *et al.* 2008). The species has been recorded in Chitwan National Park buffer zone at Bees Hazari Tal (Baral 1996) and in Barandabhar (Ghimire 2009).

Booted Eagle has also been recorded outside the protected areas' system pre- and post-1990 (see map), although most frequently from protected areas. Improved recording has resulted in more records from the west; otherwise there are no significant changes in distribution pre-and post-1990. Known records are given below.

In the west records include: from Ghodaghodi Tal, Kailali District (NTNC workshop, October 2012); upper Humla (D1), Humla District (Kusi *et al.* 2015); a few records from Juphaal, Dolpa District in May 1992 (Priemé 1992); Reshunga Important Bird Area, Gulmi District in March 2011 (Thakuri 2011); Khadara Phanta, Kapilvastu District (Cox and Giri 2007, Cox 2008); Pokhara in December 2008 (Naylor and Turner 2008), February 2010 (Baral 2010a) and six birds, presumably migrants in December 2007 (Baral 2008); Balewa, Baglung District (Basnet 2009), and Lumbini, Rupandehi District in January 2006 (Mallalieu 2006) and November 2011 (Baral 2011).

In central areas records include: from Nawalparasi District in December 2007 (Baral 2008) and over the Trisuli R. at Belkhu, Dhading District in December 2011 (Carter and James 2011). Mallalieu (2008) reported that between 2004 and 2006 it was an uncommon winter visitor and passage migrant to the Kathmandu Valley. Arend van Riessen (*in litt*. to H. S. Baral and C. Inskipp, June 2015) reported it was common in the Valley on Saibu Hill between October and mid-April, and also recorded there in June 2011 and July 2013.

In the east records include: several records from Koshi Barrage, Sunsari District, e.g. in February 2003 Baral (2003); one north of Koshi Tappu Wildlife Reserve in March 2010 (Baral 2010b), three over Koshi Tappu Wildlife Reserve in October 2012 (Inskipp and Inskipp 2012), and one between Basantpur and Chauki, Tehrathum District (Inskipp *et al.* 2008).

A total of 16 migrated south down the upper Kali Gandaki valley, ACA between 24 September and 5 October 1978 (Thiollay 1979) and three between 10 and 19 October 1984 (Bijlsma 1991). Migrants were also recorded flying west near Khare (Khande), Kaski District: three birds between 27 October and 4 November 1999 (DeCandido *et al.* 2001); eight between 23 October and 5 December 2003 (Gurung *et al.* 2004); 28 between 15 and 27 November 2011 (DeCandido *et al.* 2011), and 155 birds between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the nearby Annapurna range, 109 birds migrated west between 20 October and 3 November 2013 (Subedi *et al.* 2014) and 118 birds between 19 September and 8 December 2014 (Subedi 2015).

Six birds soaring over the Trisuli valley, Langtang National Park on 24 October 1980 were possibly migrants or a family party (Madge and Appleby 1980).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Congo, Congo, The Democratic Republic of the, Croatia, Cyprus, Denmark, Djibouti, Egypt, Eritrea, Ethiopia, Finland, France, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Hungary, India, Indonesia, Iran, Islamic Republic of, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lebanon, Lesotho, Liberia, Libya, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, Uzbekistan, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 4000 m; lower limit:75 m

## **Population**

No population surveys have been carried out for Booted Eagle.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Booted Eagle inhabits well-wooded country in hills, mountains and lowlands (Grimmett *et al.* 1998). It is an active, swift and agile hunter, catching prey in trees by a swift dive from above into foliage, followed by pursuit through branches; it also soars at considerable heights over open country, and stoops at great speed at food on the ground. Booted Eagle feeds on small mammals, small forest birds, also waterbirds and gamebirds up to the size of a partridge (Naoroji 2006). A nest was found near Braga, Manang valley, ACA at the unusually high altitude of 3850 m in July 1977 (Thiollay 1978).

## **Threats**

Threats to Booted Eagle are unknown; however, it may be at risk from pesticides.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Booted Eagle. It has been recorded in Bardia, Banke, Khaptad, Rara, Shey-Phoksundo, Shivapuri Nagarjun, Sagarmatha and Chitwan National Parks; Annapurna, Manaslu and Gaurishankar Conservation Areas and Sukla Phanta Wildlife Reserve. It has been recorded marginally in Khaptad and Langtang National Parks, and Kanchenjunga Conservation Area.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Booted Eagle has been assessed as Least Concern. It is a widespread and uncommon and winter visitor and passage migrant; the eagle has also bred and may be a rare resident. It occurs in a number of protected areas and also occurs outside the protected areas' system within its altitudinal range and with suitable habitat. Improved coverage has resulted in more records in the west; otherwise no significant changes in distribution have been noted pre- and post-1990. Threats to Booted Eagle are unknown; however, it may be at risk from pesticides.

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# Ictinaetus malayensis (Temminck, 1822) LC

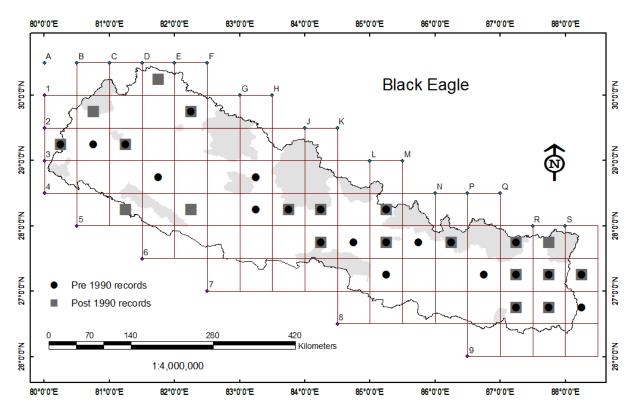
Subspecies: Ictinaetus malayensis perniger

Common Name
Black Eagle (English),
Dronak Chil (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Black Eagle is chiefly a frequent resident; the eagle is also locally fairly common. It is widespread occurring from Api Nampa Conservation Area in the far west to Kanchenjunga Conservation Area in the far east; however, its main distribution is in the east.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1836), when it was found in the mountains of the central region in March 1827, and in the Kathmandu Valley hills in July (year unknown) (Hodgson 1829).

The species has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012), is a rare resident in Bardia National Park (Inskipp 2001), a frequent resident in Khaptad National Park (Chaudhary 2006, Khadka 1996), in Rara National Park (Giri 2005), recorded in Dhorpatan Hunting Reserve (Panthi 2013) and in Annapurna Conservation Area (Inskipp and Inskipp 2003), a fairly common resident in Langtang National Park (Karki and Thapa 2001), a rare winter visitor to Chitwan National Park (Baral and Upadhyay 2006); a frequent resident on Shivapuri in Shivapuri-Nagarjun National Park (SNP and BCN 2007), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), a fairly common resident in Makalu Barun National Park (Cox 1999), recorded in Kanchenjunga Conservation Area (Inskipp et al. 2008) and a rare winter visitor to Koshi Tappu

Wildlife Reserve (Baral 2005). It was recorded in the Makalu Barun National Park buffer zone in May 2009 (Cox 2009).

Black Eagle has also been widely recorded in suitable habitat and within its altitudinal range within and outside protected areas. No significant change in distribution was noted pre- and post-1990.

Known records from outside protected areas post-1990 include: Balarkot VDC, Baitadi District in May 2010 (Baral *et al.* 2010); Humla (Ghimirey 2011); Badimalika region, Achham District (C3) in 1998 (Karki *et al.* 2003); Reshunga Important Bird Area, Gulmi District in November 2010 and February and March 2010 (Thakuri 2011, 2013); Pokhara, Kaski District in January 2009 (Baral 2009); Balewa, Baglung District (Basnet 2009); Pasgam to Rupatal, Lamjung District in March 2000 (Byrne 2000); Chitlang forests, Chandragiri range, Makwanpur District in 1992 (Manandhar *et al.* 1992); Bhotebas, Sankhuwasabha District in December 1994 (Baral 1995); on the Pikhuwa Danda, Bhojpur District in May 2009 (Cox 2009); Dharan forests Important Bird Area, Sunsari District in 2008 (Basnet and Sapkota 2008); between Basantapur and Chauki, Terhathum District, and between Chauki and Gopha Pokhari, also at Lali Kharka in Taplejung District in April 2008 (Inskipp *et al.* 2008); between Phrumba and Suketar, Taplejung District in November 2000 (Goble 2000); at Phedi, 2 km from Pathivera temple, Taplejung District (Tulsi Subedi); Tinjure forest, Terhathum District in 1997/1998 (Rai 2003); Hange Tham and Maimajuwa in the upper Mai valley in March 2008 (Robson *et al.* 2008), and in the Raja Rani community forest, Morang District (Basnet *et al.* 2005, 2006).. This species is a common resident eagle at Thoolakharka raptor migration site, Kaski District (Subedi *et al.* 2013).

Mallalieu (2008) reported it was an uncommon resident in the Kathmandu Valley between 2004 and 2006, when it was recorded on Phulchoki, Shivapuri, Nagarjun, and over the Chobar/Bagmati area, mostly above 1800 m.

Globally it has also been recorded from Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Laos, Malaysia, Myanmar, Pakistan, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

## **Elevation**

Upper limit: 3100 m (- 4000 m); lower limit:1000 m (- 75 m)

# **Population**

No population surveys have been carried out for Black Eagle. At Thoolakharka raptor migration site, Kaski District, one to two pairs are recorded on most days, but five to seven are seen occasionally (Subedi *et al.* 2012, 2013). The large number of 15 of this species was counted in Shivapuri National Park area (Subedi 2004).

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Black Eagle has a preference for forested hills mainly evergreen, semi-evergreen, moist-deciduous, and temperate broadleaved. The most suitable habitat appears to be a mosaic of mainly forest with a few open patches (Naoroji 2006). It is invariably seen on the wing, frequently soaring over forest, often reaching considerable heights. Black Eagle hunts by sailing buoyantly and slowly, very low over the forest canopy, seldom flapping its wings and sometimes weaving in and out of treetops (Grimmett *et al.* 1998); also by quartering open, grassy hill slopes (Naoroji 2006). Although partial to birds' eggs and nestlings, it also takes small mammals such as field mice and large rats, ground birds about the size of thrushes, their nestlings and eggs, doves, babblers etc, rarely up to the size of junglefowl and pheasants (Naoroji 2006). A pair of Black Eagles was considered likely to breed on Phulchoki in 2006 (Mallalieu 2008). One was seen with nest material at Chitre, Annapurna Conservation Area in March 1987 (Blanchon and Dubois 1987).

# **Threats**

Black Eagle is threatened by forest loss.

#### **Conservation Measures**

No conservation measures have been specifically carried out for Black Eagle. It has been recorded in Khaptad, Rara, Langtang, Shivapuri-Nagarjun and Makalu Barun National Parks, Api Nampa, Annapurna, Gaurishankar and Kanchenjunga Conservation Areas. It has also been recorded marginally in Chitwan and Bardia National Parks, and in Koshi Tappu Wildlife Reserve.

## **Regional IUCN Status**

Least Concern (LC), unchanged from the Global Red List status: Least Concern (LC)

# Rationale for the Red List Assessment

Black Eagle has been assessed as Least Concern. It is a widespread resident, occurring from the far west to the far east; however, its main distribution is in the east. It is mainly recorded frequently, although it is locally fairly common. Black Eagle has been widely recorded in suitable habitat and within its altitudinal range within and outside protected areas. No significant change in distribution was noted pre- and post-1990. Black Eagle is threatened by deforestation.

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# Milvus migrans (Boddaert, 1783) LC

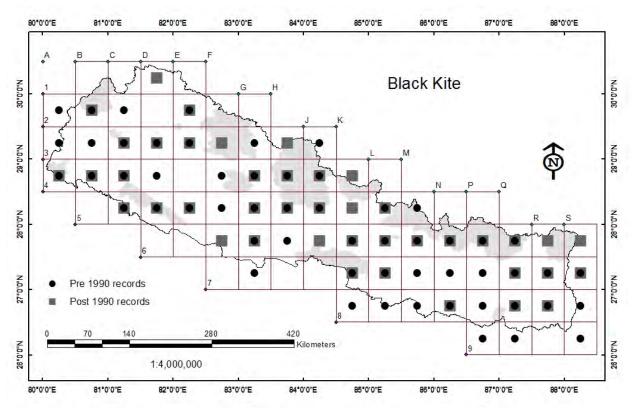
Subspecies: Milvus migrans govinda, lineatus

<u>Common Name</u> Black Kite (English), Kalo Chil (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Black Kite is a common resident subject to altitudinal movements, and a passage migrant. It is widespread, occurring from Api Nampa Conservation Area in the far west to Kanchenjunga Conservation Area in the far east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1843), when specimens were collected from the lower hills and Kathmandu Valley (no other date or locality details are known) (Hodgson 1829).

The species has been recorded in Api Nampa Conservation Area (Thakuri and Prajapati 2012), is a fairly common resident and winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a fairly common resident in Bardia National Park (Inskipp 2001), recorded in Banke National Park (Baral *et al.* 2012), fairly common resident in Khaptad National Park (Chaudhary 2006, Khadka 1996), a common summer visitor to Rara National Park (Giri 2005), recorded in Shey Phoksundo National Park (Priemé and Øksnebjerg 1992); resident or summer visitor to Dhorpatan Hunting Reserve (Panthi and Thagunna 2013), a common resident and passage migrant in Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (KMTNC 1998, Thakuri 2013a), uncommon and possibly resident in Langtang National Park (Karki and Thapa 2001), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), a fairly common resident in Shivapuri-Nagarjun National Park (SNP and BCN 2007), a fairly common winter visitor to Chitwan National Park

(Baral and Upadhyay 2006), a fairly common winter visitor to Parsa Wildlife Reserve (Todd 2001), a rare summer visitor and passage migrant to Sagarmatha National Park (Basnet 2004), a common resident/visitor and passage migrant to Makalu Barun National Park (Cox 1999a), a frequent resident or visitor to Kanchenjunga Conservation Area (Inskipp *et al.* 2008), and frequent resident in Koshi Tappu Wildlife Reserve (Baral 2005).

It has been recorded in the buffer zone of Chitwan National Park, e.g. Bees Hazari Tal, Barandabhar District (Baral 1996).

Black Kite is widespread and common outside protected areas pre- and post-1990. However, the currently known records indicate that the species' distribution has reduced, although it possible that the species has been under-recorded (see map).

Known records from unprotected localities post-1990 in the west include from: several records from Ghodaghodi Tal, Kailali District (Baral 1992); recorded from Badimalika region, Achham (C3) and Bajura Districts (D3) in 1998 (Karki *et al.* 2003); several records from Kalikot District in March 1997 (Giri 1997); upper Humla (D1), District (Kusi *et al.* 2015); Nepalgunj, Banke District in April 2009 (O'Connell Davidson and Karki 2009); Juphaal, Dolpa District in May 1992 (Priemé 1992); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Reshunga Important Bird Area, Gulmi District in November 2010, and February, March and June 2011 (Thakuri 2011, Thakuri 2013b); Siduri, Gulmi District to Gwalichaur, Baglung District in May 1999 (Cox 1999b); West of Jagdisphur Community Forest in August 2007 (Baral 2007); Khadara Phanta, Kapilvastu District in January 2011 (Acharya 2011); Kapilvastu and Rupandehi Districts (Cox 2002); Lumbini, Rupandehi District, e.g. Acharya (2011), Giri (2003); many records from Pokhara, Kaski District, e.g. 35 in December 2004 (Naylor and Giri 2004), 35 in January 2005 (Mallalieu 2005), 40 in February 2010 (Baral 2010); Balewa, Baglung District (Basnet 2009); Begnas Tal, Kaski District in January 2005 (Mallalieu 2005), and Besisahar, Lamjung District in March 2000 (Byrne 2000).

Known records from unprotected localities post-1990 in central Nepal include: 500 in Sanepa area, Lalitpur District in November 2011 (Baral 2011); Buri Gandakhi valley to Arughat Bazar, Gorkha District in November 1002 (Prodon 1992), and Kutumsang to Chisapani, Sindhupalchok District in May 1999 (Chaudhary 1999). Mallalieu (2008) reported it was a common resident, winter visitor and presumed passage migrant to the Kathmandu Valley between 2004 and 2006. Approximately 200 to 400 Black Kites roost around Swayambhunath temple Kathmandu during the winter (DeCandido *et al.* 2014).

Known records from unprotected localities post-1990 in the east include: camp west of Lal Bakaiya, Rautahat to Kopuwa gau, Rautahat District in April 2003 (Cox 2003); Gaur, Rautahat District to Sedhawa, Siraha District in April 2003 (Cox 2003); several records from Koshi Barrage, Sunsari District, e.g. Chaudhary (1997), Baral (2005); Rajabas to Titrigaachhi, Kosi River, Sunsari District in February 2007 (Baral 2007); Patnali in Dharan forests Important Bird Area, Sunsari District in March 2001 (Baral 2001); Dharan forests Important Bird Area in 2008 (Basnet and Sapkota 2008); Chimdi Lake, Sunsari District (Surana *et al.* 2007); between Tumlingtar and Chewabesi, Sankhuwasabha District in November 1994 (Buckton and Baral 1994); Tinjure forest, Terhathum District in 1997/1998 (Rai 2003), and Mabu and Garuwa, Ilam District and Pranbung, Panchtar District in March 2008 (Robson *et al.* 2008).

Migrants have been observed flying south down the Kali Gandaki valley, Annapurna Conservation Area (ACA): 254 between 14 September and 1 October 1973 (Beaman 1973) and 32 between 24 September and 5 October 1978 (Thiollay 1979).

A total of 97 birds migrated west near Khare (= Khande), Kaski District, between 20 October and 6 November 1985 (de Roder 1989); 31 flew west at Khare on 19 and 20 November 2011 (DeCandido *et al.* 2011) and 324 between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharka, just south of the nearby Annapurna range, 601 birds migrated west between 17 September and 13 November 2014 (Subedi *et al.* (2014) and 397 between 19 September and 8 December 2014 (Subedi 015).

In the upper Arun valley, in what is now the Makalu Barun National Park, 22 flew north in May 1981 (Krabbe 1981). In the Sagarmatha National Park a flock of nine flew south between Dingboche and Tengboche on 15 March 1986 (Mayer 1986).

Globally Black Kite has also been recorded in Afghanistan, Albania, Algeria, Angola, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Brunei,

Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Côte d'Ivoire, Central African Republic, Chad, China (mainland), Comoros, Congo, Congo, The Democratic Republic of the, Croatia, Czech Republic, Denmark, Djibouti, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Guam (to USA), Guinea, Guinea-Bissau, Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mayotte (to France), Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Papua New Guinea, Philippines, Poland, Portugal, Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), Uzbekistan, Vietnam, Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# **Elevation**

Upper limit: 4000 m; lower limit: 75 m

# **Population**

No population surveys have been carried out for Black Kite. It is generally more common outside protected areas, probably because it prefers areas around human habitation.

## **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Black Kite *M. m. govinda* is often closely associated with human habitation, mainly in cities, towns and villages. *M. m. lineatus* is mainly a bird of the high mountains and associates less with people (Naoroji 2006). The species is gregarious throughout the year, birds often soaring together and roosting communally, sometimes in large numbers. It feeds mainly on refuse and offal, but is omnivorous. Black Kite is a bold scavenger, swooping to pick up road kills or food scraps even in busy streets (Grimmett *et al.* 1998). Breeding has been proved in the Kathmandu Valley (Fleming *et al.* 1976, Scully 1879).

# **Threats**

Threats to Black Kite are uncertain; it is possibly threatened by pesticides (Inskipp and Baral 2011).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Black Kite. It has been recorded in almost all protected areas: Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves; Manaslu, Gaurishankar, Annapurna and Kanchenjunga Conservation Areas, Dhorpatan Hunting Reserve, and Api Nampa, Bardia, Khaptad, Banke, Rara, Langtang, and Makalu Barun National Parks, and marginally in Sagarmatha National Park.

# **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

## Rationale for the Red List Assessment

Black Kite has been assessed as Least Concern. It is a common and widespread resident subject to altitudinal movements, and a passage migrant. It occurs in almost all protected areas. The kite is generally more common outside protected areas, probably because it prefers the vicinity of human habitation. It was widespread outside protected areas both pre- and post-1990. However, currently known records indicate that the kite's distribution has reduced, although it possible that the species has been under-recorded. Threats to Black Kite are unknown; it may be at risk from pesticides.

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# Nisaetus cirrhatus (J. F. Gmelin, 1788) LC

Subspecies: Nisaetus cirrhatus limnaeetus

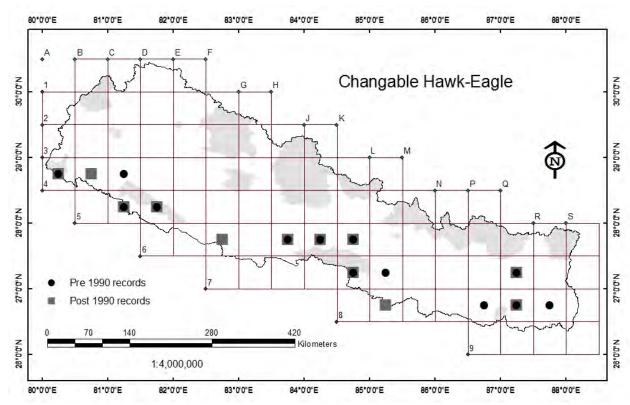
## Common Name

Changeable Hawk Eagle (English), Shadalchil (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Changeable Hawk Eagle is a local resident, mainly occurring in lowland protected areas from Sukla Phanta Wildlife Reserve in the far west to Koshi Tappu Wildlife Reserve in the far west. It is frequent in western and central areas, and is uncommon in the east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1837).

The species is a frequent resident in Sukla Phanta Wildlife Reserve (Baral 1992, 1997, 2008a, Baral and Inskipp 2009, Inskipp and Inskipp 2001, Schaaf *et al.* 1979), Bardia National Park (Baral 2008b, Choudhary 1999), Giri 1997, Hewatt 2009, Inskipp 2001), and in Chitwan National Park (Baral and Upadhyay 2006). It also occurs in Chitwan National Park buffer zone where singles were recorded in Barandabhar Important Bird Area in 2005 (Hem Subedi) and in Jankauli forest in February 2008 (Giri 2008) and March 2010 (Giri 2010). Formerly the hawk eagle was frequent in Koshi Tappu Wildlife Reserve, but is now uncommon there (Baral 1993, 1996; Basnet 2000, Choudhary 1994, Chaudhary 1998, Cottridge *et al.* 1994, Giri 2007). It has also been recorded in Parsa Wildlife Reserve (Todd 2001).

Changeable Hawk Eagle has also been found outside the protected areas' system, but significantly less frequently both pre- and post-1990. Known records are given below.

In the west there is only one known record outside the protected areas' system before 1990: a single bird 1 km WNW of Kohalpur, Banke District in November 1985 near Bardia National Park (Cox 1985). However, since 1990 better recording in the west has resulted in reports from a few new localities. For example, single birds were recorded from Nepalgunj, Banke District in March 1992 (Baral 1992) and in December 1998 (Choudhary 1999), at Ghodaghodi Tal, Kailali District in January 1992 (Baral 1992), in forests of the upper Chirai Khola, Churia hills, NW Kapilvastu District in November 2006 and/or April 2007 (Cox 2008) and in Rudrapur forest, Rupendehi District in November 2009 (Tulsi Subedi). The hawk eagle was in the buffer zone west of the park in 1979 (Lambert 1979, Robson 1979) and also in February 2010 (Baral 2010).

In the east the eagle was recorded in Sarlahi District (NTNC workshop, October 2012). Single birds were recorded in the lower Arun valley, Sankhuwasabha District between Tumlingtar and Khandbari in March 1987 (Turin *et al.* 1987), between Tumlingtar and Bhotabesi, in May 1998 (Chaudhary 1998) and at Maruwabesi in June 2009 (Cox 2009).

However, there are a few pre-1990 localities where Changeable Hawk Eagle has not been recorded since, especially in the east. In spring and summer 1947 it was seen on a very few occasions in the central dun and one was collected in July at Hetauda, Makwanpur District (Biswas 1960); the species was also seen there in 1979 (Lambert 1979). In the east Hall (1978) reported it from Janakpur, Dhanusa District in 1978, two were seen north-west of Sunischare, Jhapa District in April 1981 (Mills and Preston 1981), at Sunischare in January 1985 (Calladine 1985), and one in Itahari forest, Sunsari District in May 1986 (Heath 1986). No later records are known from any of the above-mentioned localities.

Globally the species has also been recorded from Bangladesh, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

### **Elevation**

Upper limit: 360 m (- 1050 m); lower limit:75 m

### **Population**

No population surveys have been carried out for Changeable Hawk Eagle. It has probably declined because of habitat loss.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Changeable Hawk Eagle inhabits fairly open forest of sal and mixed broadleaves (Fleming *et al.* 1976, Naoroji 2006). It spends much of the day perched in an upright posture in a forest tree, often at the edge of a clearing, from where it makes a short dash and pounces on prey on the ground. It soars less frequently than many other raptors (Grimmett *et al.* 1998). The hawk eagle feeds on mammals up to the size of Black-naped Hare *Lepus nigricollis*, also birds including young peafowl, junglefowl, partridges and green pigeons (Naoroji 2006).

### **Threats**

Changeable Hawk Eagle is threatened by deforestation.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Changeable Hawk Eagle. It has been recorded in Bardia and Chitwan National Parks, and Sukla Phanta, Parsa and Koshi Wildlife Reserves.

### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Changeable Hawk Eagle has been assessed as Least Concern. It is a local resident mainly occurring in lowland protected areas from the far west to far east Nepal. The hawk eagle is frequent in western and central areas and is uncommon in the east. In the west better recording since 1990 has resulted in reports from a few new localities. However, there are a few pre-1990 localities where the species has not been recorded since, especially in the east. Changeable Hawk Eagle is threatened by deforestation. Although it has probably declined in recent years, this is not considered to have occurred to a degree that warrants any threat category for the species.

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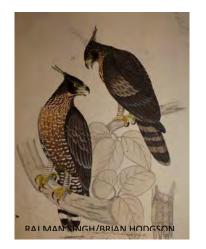
# Nisaetus nipalensis Hodgson, 1836 LC

Subspecies: Nisaetus nipalensis nipalensis

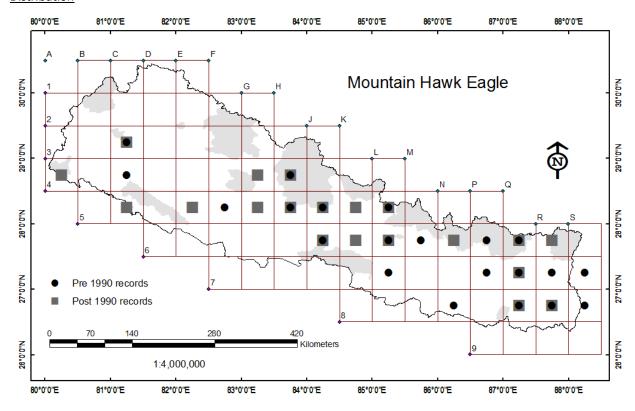
### Common Name

Mountain Hawk Eagle (English), Pahadi Shadalchil (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Mountain Hawk Eagle is a frequent resident and partial altitudinal migrant. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to the upper Mai valley (Robson *et al.* 2008) in the far east. The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1836, Warren 1966) when it was found in the Kathmandu Valley and lower hills (years unknown) (Hodgson 1829).

The species is an uncommon winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), rare and possibly a winter visitor to Bardia National Park (Inskipp 2001), a frequent resident in Khaptad National Park (Chaudhary 2006, Khadka 1996) and in the Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Dhorpatan Hunting Reserve (Subedi 2003) and in Manaslu Conservation Area (Katuwal *et al.* 2013, Shah 1998), a fairly common resident in Langtang National Park (Karki and Thapa 2001), recorded in the Gaurishankar Conservation Area (Baral and Shah 2009), a frequent resident on Shivapuri in Shivapuri Nagarjun National Park (SNP and BCN 2007), and in Chitwan National Park (Baral and Upadhyay 2006) a local resident in Makalu Barun National Park (Cox 1999a), a frequent resident in Kanchenjunga Conservation Area (Inskipp *et al.* 2008), and an uncommon winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005). It was recorded in the Makalu Barun National Park buffer zone in May 2009 (Cox 2009).

Mountain Hawk Eagle has also been widely recorded in suitable habitat and within its altitudinal range outside the protected areas' system pre- and post-1990. Better coverage since 1990 has resulted in a few more localities in the west. No significant changes in distribution have been noted (see map).

Known records from outside the protected areas' system post-1990 are given below.

In the west records include: from Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009a,b); Reshunga Important Bird Area, Gulmi District in February 2010 (Thakuri 2011, 2013); the Myagdi Khola valley, Myagdi District in June 2003 (Cox 1999b); Khare, Kaski District between September and December 2012 (Tulsi Subedi) and Baglungpani, Lamjung District in January 1992 (Halliday 1992).

In central areas records include from Chitlang forest, Chandragiri range, Makwanpur District in 1992 (Manandhar *et al.* 1992). Mallalieu (2008) reported it was an uncommon resident in the Kathmandu Valley between 2004 and 2006 when it was mainly seen on Phulchoki.

In the east records include: from Dolakha District in 1993 (Poulsen 1993); Dharan forests Important Bird Area, Sunsari District in 2008 (Basnet and Sapkota 2008); Patnali in Dharan forests Important Bird Area in October 2012 (Inskipp and Inskipp 2012); Raja Rani community forest, Morang District in 2005 (Basnet *et al.* 2005), and above Mabu, upper Mai valley, Ilam District in March 2008 (Robson *et al.* 2008).

Globally the species has also been recorded from Bhutan, Cambodia, China (mainland), Hong Kong (China), India, Japan, Laos, Mongolia, Myanmar, Pakistan, Russia (Asian), South Korea, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

#### Elevation

Upper limit: 2835 m; lower limit:1500 m

### **Population**

No population surveys have been carried out for Mountain Hawk Eagle. Direct observations do not indicate any significant changes in population.

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Mountain Hawk Eagle inhabits forests, mainly in hills and mountains (Grimmett *et al.* 1998). The species spends much time perched within foliage and is mostly seen flying or soaring low over forested hills. It hunts from ambush taking ground birds and mammals when opportunities avail (Naoroji 2006). Prey composition varies in different localities, depending on prey availability and prey-carrying capacity in different areas. It takes a large range of prey from mammals up to the size of a hare to large game birds like pheasants. Its diet is supplemented with small reptiles like lizards, near forest villages occasionally poultry (Naoroji 2006).

# **Threats**

Mountain Hawk Eagle is threatened by forest loss; however, it appears to tolerate a certain degree of disturbance and fragmentation of its habitat (Naoroji 2006).

#### **Conservation Measures**

No conservation measures have been carried out for Mountain Hawk Eagle. It has been recorded in Khaptad, Langtang, Shivapuri-Nagarjun, Chitwan and Makalu Barun National Parks; Annapurna, Manaslu, Gaurishankar

and Kanchenjunga Conservation Areas; Sukla Phanta and Koshi Tappu Wildlife Reserves; Dhorpatan Hunting Reserve, and marginally in Bardia National Park.

### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

Mountain Hawk Eagle has been assessed as Least Concern. It is a widespread and frequent resident and partial altitudinal migrant. The species has been recorded in almost all protected areas with suitable habitat and within its altitudinal range; it is also widely recorded outside the protected areas' system. Since 1990 better coverage has resulted in a few more localities in the west. No significant changes in distribution have been noted. Mountain Hawk Eagle is threatened by forest loss; however, it appears to tolerate a certain degree of disturbance and fragmentation of its habitat.

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# Pandion haliaetus (Linnaeus, 1758) LC

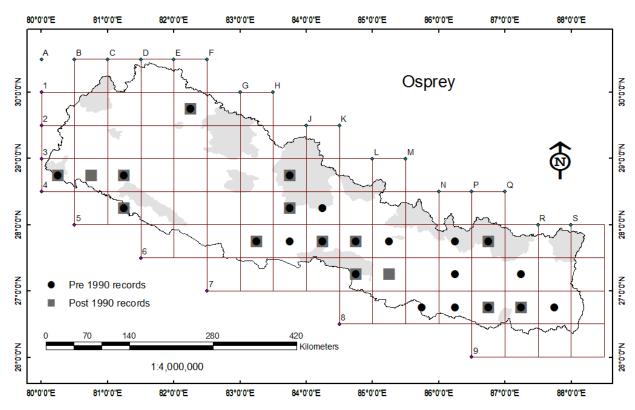
Subspecies: Pandion haliaetus haliaetus

Common Name
Osprey (English),
Malaha Chil (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Osprey is generally frequent, although locally fairly common. It is a winter visitor, passage migrant and non-breeding resident. The species is widespread with post-1990 records from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Koshi Tappu Wildlife Reserve (Baral 2005) in the east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1843) when specimens were collected in the terai, plains and lower hills (Hodgson 1829).

The species was reported as occasionally recorded by Fleming *et al.* (1976) and as fairly common by Inskipp and Inskipp (1991.)

It is a frequent winter visitor to Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a frequent resident or winter visitor to Bardia National Park (Inskipp 2001), a frequent passage migrant in Rara National Park (Giri 2005), an uncommon passage migrant in Annapurna Conservation Area (ACA) (Inskipp and Inskipp 2003), a fairly common resident in Chitwan National Park (Baral and Upadhyay 2006), recorded in Parsa Wildlife Reserve (Baral 1993), a rare passage migrant to Sagarmatha National Park (Basnet 2004), and a fairly common winter visitor to Koshi Tappu Wildlife Reserve (Baral 2005), also recorded there in summer (Tulsi Subedi).

Osprey was fairly widespread by lakes and large rivers outside the protected areas' system in central and eastern Nepal pre- 1990, but a smaller number of localities have been reported there post-1990 (see map). Known post-1990 records include: from Ghodaghodi Tal, Kailali District in January 2010 (Baral 2010); Jagdishpur Reservoir, Kapilvastu District in December 2011 (Baral 2011); Balewa, Baglung District (Basnet 2009); Sedhawa Siraha District to Lal Bakaiya Nadi, Rautahat District and west of Belwa to Kat mandir, Bara District in April 2003 (Cox 2003). The species was recorded as a vagrant to the Kathmandu Valley by Fleming and Fleming (1970), but no post-1990 records could be located and it was not reported between 2004 and 2006 by Mallalieu (2008).

The maximum of 14 birds was recorded on the Koshi River in January 2009 (Baral 2009).

Osprey is occasionally recorded on passage. Migrants have been seen flying south down the upper Kali Gandaki valley, ACA: singles on 4 and 27 September 1973 (Beaman 1973), in late September/early October 1978 (Thiollay 1979) and on 1 April 1984 (Innes and Lewis 1984). Three flew west near Khare (= Khande), Kaski District between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range, five migrated west between 1 and 12 October 2014 (Subedi *et al.* 2013) and two between 19 September and 8 December 2014 (Subedi 2015). Singles at 3965 m at Pangboche, Sagarmatha National Park in November 1987 (Mills 1988) and in May 1993 (Baral 1996) were presumably migrants.

The species is almost cosmopolitation. Other countries where it has been recorded are: Afghanistan, Albania, Algeria, Angola, Anguilla (to UK), Antigua and Barbuda, Argentina, Armenia, Aruba (to Netherlands), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda (to UK), Bhutan, Bolivia, Bonaire, Sint Eustatius and Saba (to Netherlands), Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands (to UK), Côte d'Ivoire, Central African Republic, Chad, Chile, China (mainland), Colombia, Congo, Congo, The Democratic Republic of the, Costa Rica, Croatia, Cuba, Curação (to Netherlands), Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Faroe Islands (to Denmark), Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar (to UK), Greece, Greenland (to Denmark), Grenada, Guadeloupe (to France), Guam (to USA), Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia, the former Yugoslav Republic of, Malawi, Malaysia, Maldives, Mali, Malta, Martinique (to France), Mauritania, Mexico, Micronesia, Federated States of, Moldova, Monaco, Mongolia, Montenegro, Montserrat (to UK), Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia (to France), Nicaragua, Niger, Nigeria, North Korea, Northern Mariana Islands (to USA), Norway, Oman, Pakistan, Palau, Palestinian Authority Territories, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico (to USA), Qatar, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Rwanda, Saudi Arabia, São Tomé e Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten (to Netherlands), Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St Kitts and Nevis, St Lucia, St Martin (to France), St Pierre and Miquelon (to France), St Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan (China), Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands (to UK), Uganda, Ukraine, United Arab Emirates, United Kingdom, United States Minor Outlying Islands (to USA), Uruguay, USA, Uzbekistan, Venezuela, Vietnam, Virgin Islands (to UK), Virgin Islands (to USA), Western Sahara, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 22/08/2013).

### <u>Elevation</u>

Upper limit: 915 m (- 3965 m); lower limit: 75 m

### **Population**

No population surveys have been carried out for Osprey.

### **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Osprey inhabits large rivers and lakes (Inskipp and Inskipp 1991) and except when on migration, the species is almost invariably associated with water (Naoroji 2006). It is usually solitary, frequently perching on stakes or dead trees in or near water. Osprey feeds exclusively on fish which it captures in a powerful shallow dive with feet first to grasp its prey (Grimmett *et al.* 1998). Although Osprey has been recorded in all months, no evidence of breeding in Nepal is known.

### **Threats**

Osprey is threatened by lack of food due to illegal fishing in protected areas and overfishing outside the protected areas' system. In addition, it is probably also at risk from habitat deterioration caused by pollution, including the effects of pesticides. Pesticides are widely and often intensively used, especially in the lowlands (Inskipp and Baral 2011).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Osprey. It is recorded from a number of protected areas: Chitwan, Bardia and Rara National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, Annapurna Conservation Area, and marginally in Sagarmatha National Park.

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Osprey has been assessed as Least Concern. The species is widespread and in protected areas it is occasionally recorded, although locally fairly common. It is a winter visitor, passage migrant and resident. The species is recorded from a number of protected areas. No significant changes in distribution have been noted in protected areas when comparing pre- and post-1990 records. However, post-1990 a smaller number of localities was reported outside the protected areas' system in central and eastern Nepal. Osprey is threatened by lack of food due to overfishing and probably also by habitat deterioration caused by pollution, including the effects of pesticides which are widely and often intensively used, especially in the lowlands. Although Osprey is probably declining, the rate is not sufficient to justify the inclusion of the species in a threatened category.

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Subedi, T., Gurung, S., Smit, H. J. and DeCandido, R. (2014) Autumn 2013. Raptor migration in Nepal. <a href="http://www.researchgate.net/publication/280727305">http://www.researchgate.net/publication/280727305</a> Autumn 2013 Raptor Migration in Nepal

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# Pernis ptilorhynchus (Temminck, 1821) LC

Subspecies: Pernis ptilorhynchus ruficollis

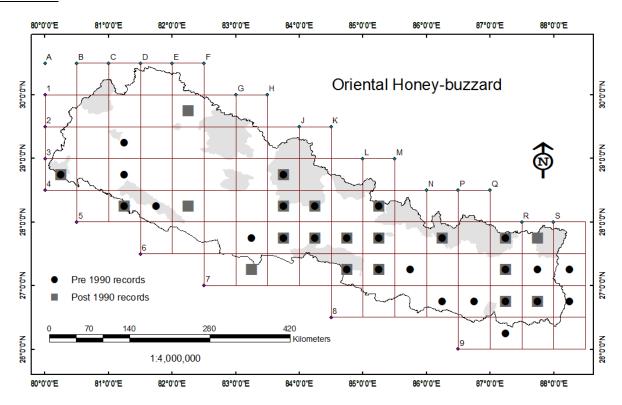
Common Name

Oriental Honey Buzzard (English), Madhuha (Nepali)

Order: Falconiformes
Family: Accipitridae



# **Distribution**



Oriental Honey-buzzard is a fairly common resident and passage migrant in protected areas, but is now very uncommon outside protected areas. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve in the far west (Baral and Inskipp 2009) to Kanchenjunga Conservation Area (Inskipp *et al.* 2008) in the far east.

The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1843) when specimens were collected in the terai and lower hills, and one in the Kathmandu Valley in May (further information on localities and year of collection are unknown (Hodgson 1829).

The species is a common resident in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009); a resident? and/or passage migrant? in Bardia National Park (Inskipp 2001); a fairly common passage migrant to Khaptad National Park (Chaudhary 2006); a rare summer visitor to Rara National Park (Giri 2005); a frequent resident and passage migrant in the Annapurna Conservation Area (Inskipp and Inskipp 2003); recorded in Manaslu Conservation Area (Thakuri 2013); rare and possibly resident in Langtang National Park (Karki and Thapa 2001); singles recorded over Nagarjun in July 2004 and over Shivapuri in November 2004 in Shivapuri Nagarjun National Park (Mallalieu 2008); recorded in Gaurishankar Conservation Area (Baral and Shah 2009), a fairly

common resident in Chitwan National Park (Baral and Upadhyay 2006) and in Parsa Wildlife Reserve (Todd 2001), a fairly common resident and passage migrant to Makalu Barun National Park (Cox 1999), recorded in Kanchenjunga Conservation Area (Inskipp *et al.* 2008), and a fairly common resident in Kosi Tappu Wildlife Reserve (Baral 2005).

The species has also been recorded in Chitwan National Park buffer zone in Barandabhar Important Bird Area e.g. Adhikari *et al.* (2000), Baral (1996), Inskipp and Inskipp (2001), and near the Tharu lodge, Nawalparasi District in December 2011 (Baral 2011).

The species was described as fairly common in Nepal by Fleming *et al.* (1976) and Inskipp and Inskipp (1991). Pre-1990 it was reported as widespread from the west to the far east in suitable habitat and within its altitudinal range outside the protected areas' system (see map). However, since 1990 there have been records from only a small number of localities from these areas (see map).

Known post-1990 records outside the protected areas' system are: from Badimalika region, Achham District (C3) in 1998 (Karki *et al.* 2003); Dang Deukhuri Important Bird Area in 2009 (Thakuri 2009a,b); Lumbini, Rupandehi District e.g. in April 1993 (Baral 1993), January 2006 (Mallalieu 2006), Suwal *et al.* 2002); Pokhara, Kaski District in December 2008 (Naylor and Turner 2008); singles over Phulchowki in November 2004 (Mallalieu 2008); Hetauda, Makwanpur District in May 2000 (Giri 2000); Mewa gau, Rautahat District in April 2003 (Cox 2003); between Tumlingtar and Gothe Bazaar, Sankhuwasabha District (Carter and James 2011) and from Ilam, Ilam District in September 2010 (Baral 2010).

Records of passage birds include 13 birds flying south down the Kali Gandaki valley, Annapurna Conservation Area (ACA) between 13 September and 2 October 1973 (Beaman 1973) and in mid-May 1981 three flew north up the Arun valley (Krabbe 1981).

Near Khare (= Khande), Kaski District, two flew west between 20 October and 7 November 1985 (de Roder 1989); 12 between 14 and 27 November 2011 (DeCandido *et al.* 2011), and 381 birds between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range, 642 birds migrated west between 9 and 24 October 2013 (Subedi *et al.* 2014) and 561 birds between 19 September and 8 December 2014 (Subedi 2015).

Globally the species has also been recorded from Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), Egypt, Hong Kong (China), India, Indonesia, Iran, Islamic Republic of, Israel, Japan, Jordan, Kazakhstan, Kuwait, Laos, Macao (China), Malaysia, Maldives, Mongolia, Myanmar, North Korea, Oman, Pakistan, Philippines, Russia (Asian), Russia (Central Asian), Saudi Arabia, Singapore, South Korea, Sri Lanka, Taiwan (China), Tajikistan, Thailand, Timor-Leste, Turkey, United Arab Emirates, Uzbekistan, Vietnam, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# Elevation

Upper limit: 1700 m (- 3050 m); lower limit:75 m

### **Population**

No population surveys have been carried out for Oriental Honey-buzzard. A total of 13 was seen in Chitwan National Park in December 2011 (Vicente *et al.* 2011).

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

### **Habitat and Ecology**

Oriental Honey-buzzard inhabits open woodland and groves in cultivation and near villages. It utilises a variety of woodland habitats from deciduous to semi-evergreen (Naoroji 2006). The species is secretive, difficult to spot in foliage, and is mostly seen when soaring or displaying (Naoroji 2006). It feeds chiefly on honey and

larvae of bees, even of the ferocious Rock Bee *Apis dorsata*. Large insects, reptiles, mice and young birds are also taken (Ali and Ripley 1987). It spends long periods perched within tree foliage and is usually seen in flight over trees, either soaring or in active flight (Grimmett *et al.* 1998). In spring 2015 one was seen feeding on larvae from a wasp nest on a telephone pole in Ratnapark, Kathmandu (Tulsi Subedi).

#### **Threats**

Threats to Oriental Honey-buzzard are uncertain. It is possibly at risk from pesticides in cultivated areas (Inskipp and Baral 2011).

### **Conservation Measures**

No conservation measures have been carried out for specifically for Oriental Honey-buzzard. It has been recorded in Bardia, Khaptad, Chitwan and Makalu Barun National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, Gaurishankar, Manaslu and Annnapurna Conservation Areas, and marginally in Rara, Langtang and Shivapuri Nagarjun National Parks and Kanchenjunga Conservation Areas.

### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

#### Rationale for the Red List Assessment

No conservation measures have been carried out for specifically for Oriental Honey-buzzard. It has been recorded in Bardia, Khaptad, Chitwan and Makalu Barun National Parks, Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves, Gaurishankar, Manaslu and Annnapurna Conservation Areas, and marginally in Rara, Langtang and Shivapuri Nagarjun National Parks and Kanchenjunga Conservation Areas.

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# Spilornis cheela (Latham, 1790) LC

Subspecies: Spilornis cheela cheela

Common Name

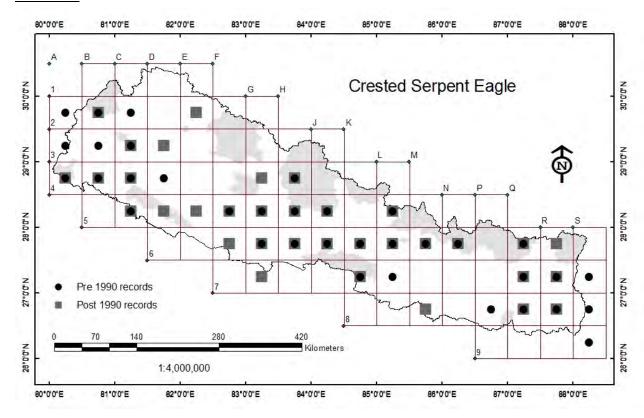
Crested Serpent Eagle (English),

Kakakul (Nepali)

Order: Falconiformes Family: Accipitridae



# **Distribution**



Crested Serpent Eagle is a fairly common resident subject to some altitudinal movements. It is widespread with post-1990 records from Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009) in the far west to Panchthar District in the far east. The first Nepal record of the species was in the 19<sup>th</sup> century (Hodgson 1833) when specimens were collected from Gokarna and Jahar Powah, Kathmandu Valley, and the lower and central hills (dates and further locality details are unknown) (Hodgson 1829).

The species has been recorded from Api Nampa Conservation Area (Thakuri and Prajapati 2012), is a common resident in Sukla Phanta Wildlife Reserve (Baral and Inskipp 2009), a fairly common and possibly resident and possibly a winter visitor to Bardia National Park (Inskipp 2001), recorded in Banke National Park (Baral *et al.* 2012), a fairly common summer visitor to Khaptad National Park (Chaudhary 2006, Khadka 1996), rare summer visitor to Rara National Park (Giri 2005), a fairly common summer visitor to the Annapurna Conservation Area (Inskipp and Inskipp 2003) and to Langtang National Park (Karki and Thapa 2001), recorded in Gaurishankar Conservation Area (Baral and Shah 2009), a fairly common resident in Shivapuri-Nagarjun National Park (SNP and BCN 2007), a common resident in Chitwan National Park (Baral and Upadhyay 2006) and in Parsa Wildlife Reserve (Todd 2001), a fairly common resident in Makalu Barun National Park (Cox 1999a)), a fairly common

summer visitor or resident in Kanchenjunga Conservation Area (Inskipp *et al.* 2008) and a fairly common resident in Koshi Tappu Wildlife Reserve (Baral 2005).

The eagle has been recorded in the buffer zone of Chitwan National Park buffer zone e.g. at Bees Hazari Tal in Barandabhar Important Bird Area, e.g. Baral (1996) and Naylor *et al.* (2012), and several localities in Makalu Barun National Park in May and June 2009 (Cox 2009).

Crested Serpent Eagle is widespread in suitable habitat and within its altitudinal range outside the protected areas' system, pre- and post-1990. No significant changes in distribution have been noted (see map). Known records from unprotected localities post-1990 are given below.

In the west records include: from Ghodaghodi Tal, Kailali District (Baral 1992); Dang Deukhuri Important Bird Area, Dang District in 2009 (Thakuri 2009); Pyuthan District (NTNC workshop, October 2012); Reshunga Important Bird Area, Gulmi District in March and June 2011 (Thakuri 2011, 2013); Daurogoan to Beuli, Kalikot District in March 1997 (Giri 1997); Kavri Dharmsala to Argali, Palpa District, Ghot south of Ridhabhot to Ghot past Bikos, Gulmi District and Lumsum to Deorali Thanti, Myagdi District in May and June 1999 (Cox 1999b); Kapilvastu and Rupandehi Districts in 2002 (Cox 2002); Lumbini Rupandehi District (Acharya 2011, Giri 2007); several records from Pokhara, Kaski District e.g. Baral (2007), Hewatt (2009), Mallalieu (2005); recorded at Balewa, Baglung District (Basnet 2009); walk from Tiger Mountain Lodge Pokhara to Begnas Tal (Baral 2009); Pusgam to Rupatal, Lamjung District (Byrne 2000).

A total of 26 birds was seen flying west near Khare (=Khande), Kaski District between 15 September and 4 December 2012 (Subedi 2012); this is probably an altitudinal movement as the species is not known to migrate.

In central areas records include from: west of Chitwan National Park, Nawalparasi District in February 2010 (Baral 2010); Tharu Cultural Jungle Resort, Nawalparasi District (Baral 2011); Kathmandu Valley where it was an uncommon summer visitor between 2004 and 2006; Dhading District (NTNC workshop, October 2012); Kutumsang to Chisapani, Sindhupalchok District (Chaudhary 2007), and the trek to Sermathang, Sindhupalchok District (Chaudhary 2004).

In the east records include from: Dolakaha District in 1993 (Poulsen 1993); Sarlahi District (NTNC workshop, October 2012); between Tumlingtar and Chewabesi, Sankhuwasabha District in November1994 (Baral and Buckton1995); between Bhotebas and Mude and Churiabesi Tumlingtar, Sankhuwasabha District (Chaudary 1998); fallow khets below Sime gau, Sankhuwasabha District (Cox 2009), Dharan forest Important Bird Area, Sunsari District in 2008 (Basnet and Sapkota 2008); Three Community Forest, Dhankuta (Baral 2003), Tinjure forest, Terhathum District in 1997/1998 (Rai 2003); between Kande Bhanjyang, Taplejung District in April 2008 (Inskipp *et al.* 2008); Patnali in Dharan forests Important Bird Area (Baral 2001); lower Mai valley, Ilam District in 2006 (Basnet and Sapkota 2006); throughout the Mai valley, Ilam and Panchthar Districts up to 2100 m, maximum seven birds together in March 2008 (Robson *et al.* 2008); Raja Rani Community Forest, Morang District in 2005 (Basnet *et al.* 2005) and Panchthar District (Yadav Ghimirey).

Globally the species has also been recorded in Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), Hong Kong (China), India, Indonesia, Japan, Laos, Macao (China), Malaysia, Myanmar, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan (China), Thailand, Vietnam (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

# Elevation

Upper limit: 2100 m (- 3350 m) (summer); 915 m (winter); lower limit:75 m

## **Population**

No population surveys have been carried out for Crested Serpent Eagle. Five birds were seen in the lower part of Annapurna Conservation Area in early June 2014. (Tulsi Subedi, Munir Virani and Dikpal Karmacharya). Approximately 15 individuals were seen around Beeshazari lake Chitwan National Park buffer zone in December 2014 (Tulsi Subedi)

# **Total Population Size**

Minimum population: unknown; maximum population: unknown

#### Habitat and Ecology

Crested Serpent Eagle inhabits forest and well-wooded country. It has a characteristic habit of soaring over forest in pairs, the birds screaming to each other and sometimes rising to great heights. Typically, birds spend long periods perched very upright on a forest tree. It eats mainly snakes, but also frogs, lizards, field rats and mice and maimed or sickly birds (Grimmett *et al.* 1998). Breeding has been proved in Chitwan National Park (Gurung 1983) and in the Kathmandu Valley (Biswas 1960).

### **Threats**

Crested Serpent Eagle is threatened by the total loss of forest; however, it is capable of surviving in secondary and degraded forest (Naoroji 2006).

#### **Conservation Measures**

No conservation measures have been carried out specifically for Crested Serpent Eagle. Since 1990 it has been recorded in Sukla Phanta, Parsa and Koshi Tappu Wildlife Reserves; Bardia, Banke, Khaptad, Langtang, Shivapuri-Nagarjun, Chitwan, and Makalu Barun National Parks and in Api Nampa, Gaurishankar, Annapurna and Kanchenjunga Conservation Areas. It has also been recorded marginally in Rara National Park;

#### **Regional IUCN Status**

Least Concern (LC) unchanged from the Global Red List status: Least Concern (LC)

### Rationale for the Red List Assessment

Crested Serpent Eagle has been assessed as Least Concern. It is a fairly common and widespread resident subject to some altitudinal movements. Crested Serpent Eagle occurs in all protected areas that have suitable habitat and are within its altitudinal range and is also widespread outside the protected areas' system. No significant changes in distribution have been noted. Total loss of forest threatens the species; however, it is capable of surviving in secondary and degraded forest.

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# Aquila rapax (Temminck, 1828) DD

Subspecies: Aquila rapax vindhiana

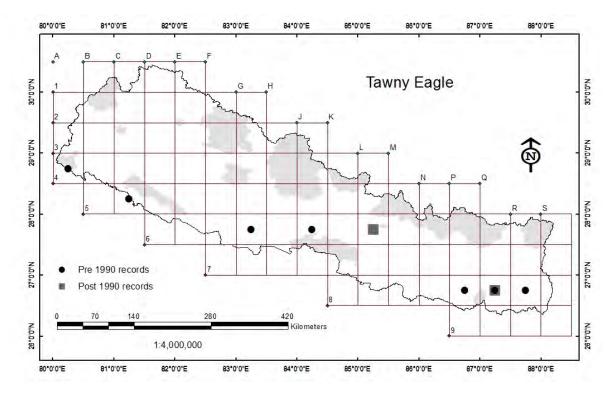
# Common Name

Tawny Eagle (English),
Raag Mahaachil (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Tawny Eagle is very rare.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1944). Inskipp and Inskipp (1991) described it as very uncommon and presumably resident. However, the species may be overlooked because of confusion with other *Aquila* eagles.

Singles were formerly recorded in the western lowlands. It was observed in 1978 in Kapilvastu District (Cox 1982) and was considered a resident in Sukla Phanta Wildlife Reserve by Schaaf *et al.* (1980). Singles were recorded there, and between Bardia National Park and Nepalganj, Banke District in May 1982 (Inskipp and Inskipp 1982).

In the far eastern lowlands one was seen between Sukhani and Birthamod, Jhapa District in April1981 (Inskipp and Inskipp 1981) and four between Loki and Itahari, Sunsari District in May 1982 (Inskipp and Inskipp 1982).

Gurung (1983) considered it an uncommon winter visitor that possibly breeds in Chitwan National Park.

There are no later records from any of the above mentioned localities.

The species has been most regularly recorded over the Koshi marshes: singles in February 1981 (Joliffe *et al.* 1981), March 1982 (Robson 1982), May 1982 (Inskipp and Inskipp 1982), November 1984 (Andersen *et al.* 1986) and March 1988 (Kall and Wallander 1988). The only post-1990 Nepal records of the species are singles at Koshi in 1999 (Tika Giri verbally 2004), November 2001 (Koshi Camp staff 2001), January 2002 (Giri and GC 2002), February 2011 Koshi (H. S. Baral) and in February 2012 (Hathan Chaudhary).

An unusually high altitude record of one on Saibu Hill, Kathmandu Valley was seen on 29 and 30 July 2013 (Arend van Riessen).

Globally the species has also been recorded from Algeria, Angola, Bangladesh, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Central African Republic, Chad, Congo, Congo, The Democratic Republic of the, Djibouti, Egypt, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Gibraltar (to UK), Guinea, Guinea-Bissau, India, Iran, Islamic Republic of, Israel, Italy, Kenya, Lesotho, Liberia, Malawi, Mali, Mauritania, Morocco, Mozambique, Myanmar, Namibia, Niger, Nigeria, Oman, Pakistan, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Thailand, Togo, Tunisia, Uganda, Vietnam, Yemen, Zambia, Zimbabwe (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: 250 m (-1500 m); lower limit: 75 m

#### **Population**

No population surveys have been carried out for the species, but if it still occurs, numbers must be extremely small.

### **Total Population Size**

Minimum Population: unknown; maximum population: 10

#### Habitat and Ecology

Tawny Eagle inhabits open dry country, mainly in the terai (Naoroji 2006). It takes an extremely wide range of prey from small to large insects, small mammals, particularly a wide variety of rodents, birds including ducks and reptiles, such as lizards and snakes (Naoroji 2006). The species is mostly sedentary, with some local movement after nesting is over (Naoroji 2006).

## **Threats**

Threats to Tawny Eagle are not known. However, it may well be at risk from pesticides which are widely and often intensively used in the terai where it has mainly been recorded.

#### **Conservation Measures**

No conservation measures have been carried out specifically for Tawny Eagle. It has recently been recorded in Koshi Tappu Wildlife Reserve and formerly in Chitwan National Park and Sukla Phanta Wildlife Reserve.

### Regional IUCN status

Data Deficient (DD); its Global Red List status is Least Concern (LC)

# Rationale for the Red List Assessment

Tawny Eagle has been assessed as Data Deficient, because of possible confusion over identification with other *Aquila* eagles. Observations indicate that it is very rare and that numbers must be extremely low. Threats to the species are unknown, but it may well be at risk from pesticides which are widely and often intensively used in the lowlands where it has been recorded. The only recent records are from Koshi, including Koshi Tappu

Wildlife Reserve. Its population is probably declining.

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# Buteo hemilasius Temminck & Schlegel, 1844 DD

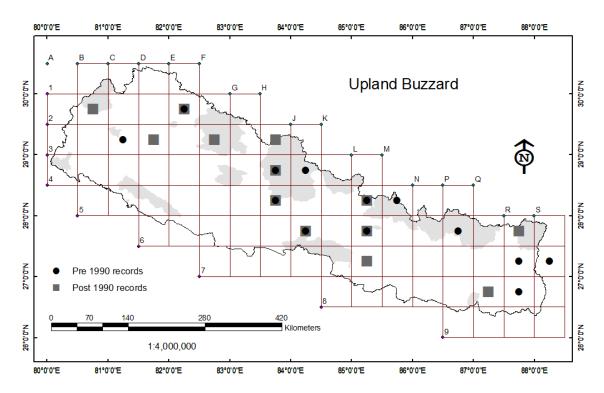
### Common name

Upland Buzzard (English), Pahadi Shyenbaaz (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Upland Buzzard is probably an uncommon winter visitor and possibly also a resident breeder. The species' status is uncertain because of the difficulty of separating it from eastern races of Common Buzzard *B. buteo* and from Long-legged Buzzard *B. rufinus*. It is widespread, with post-1990 records from Api Nampa Conservation Area in the far west to Kanchenjunga Conservation Area in the far east.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844) when it was recorded in the Kathmandu Valley in October (year unknown) (Hodgson 1829).

Localities of confirmed pre-1990 records include Mugu District (Hillard and Jackson 1989), the Annapurna Conservation Area (ACA) (e.g. Andersen *et al.* 1986, Gawn 1987, Madsen and Poulsen 1980), Kathmandu Valley (e.g. Fleming *et al.* 1976, Inskipp and Inskipp 1986, Cooper and Cooper 1989), Langtang National Park (e.g. Redman and Murphy 1979, Heath 1986), and the upper Mai valley, Ilam District (now the Mai valley Important Bird Area) (e.g. Madge and Redman 1986, McKnight *et al.* 1989, van Riessen 1989); also one at Sauraha in Chitwan National Park buffer zone in February 1988 (Kall and Wallander1988).

The majority of post 1990 records have been from within protected areas. The species was recorded in Api Nampa Conservation Area in December, March and April 2012 (Thakuri and Prajapati 2012), a rare winter visitor and also recorded in May in Rara National Park (Giri 2005, White and White 1995), resident in Shey

Phoksundo National Park (Priemé and Øksnebjerg 1995), an uncommon winter visitor and passage migrant and possibly resident in the Annapurna Conservation Area (Inskipp and Inskipp 2003), recorded in Manaslu Conservation Area (Thakuri 2013), occasionally recorded and possibly resident in Langtang National Park (Karki and Thapa 2001), an uncommon winter visitor to Shivapuri Nagarjun National Park (SNP and BCN 2007), a vagrant to Chitwan National Park (Baral and Upadhyay 2006), resident or a visitor to Makalu Barun National Park (Cox 1999) and recorded in Kanchenjunga Conservation Area including in April 2008 (Inskipp *et al.* 2008). It is a vagrant to Koshi Tappu Wildlife Reserve: one was seen in October 2011 (Baral 2011a) and November 2011 (Baral 2011b).

Post-1990 known records outside the protected areas' system include: two between Kalikot and Takula, Kalikot District in March 1997 (Giri 1997) and one seen at Pokhara, Kaski District in October 1995 (Rasmussen and Strange 1995). There are several records from the Kathmandu Valley where it is a very rare winter visitor or passage migrant. Mallalieu (2008) reported it was very rare in the Valley in winter between 2004 and 2006, singles were seen over the Chobar Bagmati area on four dates: in October and November 2004and in January and March 2006. Other known post-1990 records are: one 20 km east of Bharatpur, Makwanpur District in Feb 2002 (Arlow 2002) and one along the proposed route of the North South fast track road in 2008 (Basnet and Thakuri 2008, 2013).

Four were seen migrating west from near Khare (= Khande), Kaski District between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thulo Kharkha, just south of the Annapurna range, eight were seen migrating west between 7 and 13 November 2013 (Subedi *et al.* 2014), and seven between 19 September and 8 December 2014 (Subedi 2015).

Globally the species has also been recorded in Bhutan, China (mainland), Hong Kong (China), India, Japan, Kazakhstan, Kyrgyzstan, Mongolia, North Korea, Russia (Asian), Russia (Central Asian), South Korea, Tajikistan, Uzbekistan (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### Elevation

Upper limit: 4420 m; lower limit: 1370 m (-75 m)

# **Population**

No population surveys have been carried out for Upland. The species' population trend is unknown.

#### **Total Population Size**

Minimum Population 50 Maximum Population 100

### **Habitat and Ecology**

Upland Buzzard inhabits open country, including grasslands and cultivation in hIlls and mountains. Its habits are similar to those of Common Buzzard *B. buteo* (Grimmett *et al.* 1998). It mainly feeds on rodents (Naoroji 2006). Upland Buzzard is a winter visitor and possibly a resident breeder. A pair of buzzards, probably of this species, was observed attending a nest in June 1977 at 4050 m in Manang, ACA and one was seen carrying prey to a nest containing at least two young, at 3900 m near Braga, ACA in July 1977 (Thiollay 1978). A pair was found possibly breeding in Rara National Park in May 1995 (Robson 1996, White and White 1995).

#### **Threats**

Threats to Upland Buzzard are unknown; it may be at risk from pesticides.

# **Conservation Measures**

No conservation measures have been specifically carried out for Upland Buzzard. It has been recorded in

Khaptad, Shey Phoksundo, Langtang, Shivapuri Nagarjun, and Makalu Barun National Parks, Api Nampa, Annapurna, Kanchenjunga and Manaslu Conservation Areas, and marginally in Rara and Chitwan National Parks, and in Koshi Tappu Wildlife Reserve.

#### Regional IUCN status

Data Deficient (DD); its Global Red List status is Least Concern (LC)

#### Rationale for the Red List Assessment

Upland Buzzard has been assessed as Data Deficient. The species' status is uncertain because of possible confusion with other buzzard species; therefore, it is not possible to assess any changes in distribution or population that may have occurred. Currently it is considered probably a widespread and uncommon winter visitor; possibly also a resident breeder. The species has been recorded in a number of protected areas and also outside the protected areas' system within its altitudinal range and with suitable habitat. Threats to Upland Buzzard are unknown; it may be at risk from pesticides.

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# Gyps fulvus (Hablizl, 1783) DD

Subspecies: Gyps fulvus fulvescens

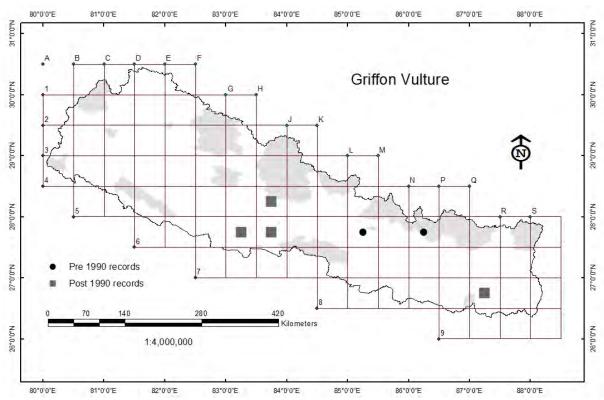
Common name

Griffon Vulture (English), Khairo Giddha (Nepali)

Order: Falconiformes Family: Accipitidrae



# **Distribution**



Griffon Vulture is probably mainly a passage migrant and also a rare winter visitor in small numbers.

This species has frequently been confused with Himalayan Vulture *Gyps himalayensis*, especially in the past and it also wrongly described as a resident in Fleming *et al.* (1976) and in Inskipp and Inskipp (1991). Confirmed records are given below.

The first Nepal record was in the 19<sup>th</sup> century (Hodgson 1844), a few birds collected from the Kathmandu Valley (Hodgson 1829). A specimen was also collected at Bigu, Dolakha District at 1980 m in November 1960 (Fleming and Traylor 1964).

Two birds were seen near Bardaghat, west Nawalparasi District (H6) in winter 2008, one at Gaidahawa vulture restaurant (G6), Rupandehi District in December 2011, and a maximum of 11 birds was recorded at Ramdhuni vulture restaurant (Q8), Sunsari District in January 2014 (Himalayan Nature 2015).

A total of 85 was seen flying west near Khare (= Khande) (H5) Kaski District between 15 September and 4 December 2012 (Subedi *et al.* 2013). At nearby Thoolakharkha, just south of the nearby Annapurna range, a migration survey was carried out between 15 September and 8 December in 2013 and 2014. A total of 44

vultures was seen flying west in 2013 (Subedi et al. 2014) when all the vultures passed through between 19 and 30 November, and 25 vultures were seen in 2014 (Subedi 2015).

Globally the species has also been recorded from Afghanistan, Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bhutan, Bosnia and Herzegovina, Bulgaria, Canada, China (mainland), Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, France, Georgia, Germany, Gibraltar (to UK), Greece, Hungary, India, Iran, Islamic Republic of, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Macedonia, the former Yugoslav Republic of, Mali, Malta, Mauritania, Mexico, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Netherlands, North Korea, Norway, Oman, Pakistan, Palestinian Authority Territories, Poland, Portugal, Romania, Russia (Asian), Russia (Central Asian), Russia (European), Saudi Arabia, Serbia, Slovakia, Slovenia, South Korea, Spain, St Pierre and Miquelon (to France), Sweden, Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, USA, Uzbekistan, Western Sahara, Yemen (BirdLife International (2013) IUCN Red List for birds. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a> on 22/08/2013).

#### **Elevation**

Upper limit: uncertain, at least 2000 m; lower limit: 75 m

### **Population**

No population surveys have been carried out for Griffon Vulture.

#### **Total Population Size**

Minimum population: unknown; maximum population: unknown

# **Habitat and Ecology**

Griffon Vulture feeds exclusively on carrion (Grimmett *et al.* 1998). The species gathers at carcasses to feed together with White-rumped Vulture *G. bengalensis* and Slender-billed Vulture *G. tenuirostris* and dominates over both. Regularly covers long distances in search of food (Grimmett *et al.* 1998).

### <u>Threats</u>

It seems likely that Griffon Vulture is facing the same threats as the other *Gyps* vultures in Nepal, from diclofenac poisoning.

### **Conservation Measures**

In 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam (Swan *et al.* 2006). The use of diclofenac has since declined by 90% across parts of Nepal; however, its complete elimination from the scavenger food chain has yet to be achieved (Gilbert *et al.* 2007). Gautam and Baral (2010) point out that the use of human diclofenac for veterinary uses cannot be ruled out.

To conserve vultures the Government of Nepal endorsed the first Vulture Conservation Action Plan (VCAP) for Nepal (2009-13). Seven community managed Vulture Safe Feeding Sites (VSZ) were established in Nawalparasi, Rupandehi, Dang, Kailali, Kaski and Sunsari districts between 2007 and 2013 (DNPWC 2015).

Bird Conservation Nepal established the first community-managed Vulture Safe Feeding Site at Pithauli/Kasawoti in Nawalparasi District in 2007. Within this area, safe, diclofenac-free carrion is provided at feeding stations. The community acquires cattle that are nearing the end of their working lives. After the animals have died naturally, the carcasses are skinned (the hides provide an important income) and fed to the

vultures. In addition, a viewing area has been created overlooking the feeding area which has helped generate tourism revenue for the community (BCN and DNPWC 2011). The project monitors drug use in the surrounding area, removing all diclofenac stock and also promotes local livelihoods activities including bee-keeping and organic farming runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. This vulture conservation programme has provided a highly successful model for community-based conservation of vultures (BCN and DNPWC 2011).

A second VCAP was launched in 2015. Approaches outlined in the VCAP include: advocating additional bans on NSAIDs; continual education programmes; continual monitoring of NSAID use; swapping diclofenac with meloxicam; collection of veterinarian pledges to stop using diclofenac; operation of seven vulture safe feeding sites; and maintaining and expanding VSZ. Diclofenac-free Zones have been created in 46 Districts covering a total area of 101, 160 km² (68.73%) of Nepal.

The goal of the second VCAP plan is to prevent the extinction of vulture species in Nepal. The objective is to restore viable wild populations of all species of vultures through provision of safe food and maintenance of suitable habitat. The four outputs desired that are relevant to Griffon Vulture are:

I. Available NSAIDs are primarily meloxicam and/or other vulture-safe compounds; with no diclofenac or other vulture-toxic

compounds.

- II. Science based information system maintained.
- III. Vulture conservation awareness among general public increased/maintained.
- IV. Partnership among national and international organizations maintained

#### Regional IUCN status

Data Deficient (DD); its Global Red List status is Least Concern (LC)

#### Rationale for the Red List Assessment

Griffon Vulture has been assessed as Data Deficient. It is probably mainly a passage migrant and also a rare winter visitor in small numbers; however, more information is needed to accurately assess the species' status and distribution. Changes in population and distribution are unknown because of confusion with Himalayan Griffon. Several conservation measures have been carried out for vultures, including Griffon Vulture. The second Vulture Conservation Action Plan for Nepal (20015-19) has helped prioritise and streamline vulture conservation activities in Nepal. For example, in 2006, a ban was introduced on the production and importation of diclofenac for veterinary use. Pharmaceutical firms are encouraged to promote a safe alternative called meloxicam. Vulture-Safe Feeding Sites have since been established in a number of locations. The project also promotes local livelihoods activities, including bee-keeping and organic farming, and runs educational events raising awareness of the socio-economic value of vultures and the damage done by diclofenac. The species' population is probably declining.

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