BIBLIOGRAPHY ON THE FAUNA AND MICROFLORA OF THE INDIAN HIMALAYAN REGION

NMSHE
Climate Change Programme (CCP)
Department of Science & Technology
Government of India

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

Environmental Information System
INDIA

Bibliography on the Fauna and Microflora of the Indian Himalayan Region

ENVIS

WILDLIFE AND PROTECTED AREAS

VOL. 17

ENVIS Bulletin

Bibliography on the Fauna and Microflora of the Indian Himalayan Region

Vol. 17, 2015-2016

Printed in India, 2016

ENVIS bulletin is also available online at

http:/wiienvis.nic.in;http://wii.gov.in/envis

WII email:

wii@envis.nic.in; envis@wii.gov.in

WII website link:

http://wiienvis.nic.in;http://wii.gov.in/envis

Design and Layout

XPRESSIONS PRINT & GRAPHICS PVT LTD.
GURGAON, DEHRADUN
09219552563

Front cover photos
Snow leopard –WII KBR Project Camera trap image; Himalayan Snowcock –Subharanjan Sen; White lipped pit viper –Naitik G. Patel, Snow trout –Aashna Sharma; Birdwing -Manish Bhardwaj; Lichen –Arun Kumar, A; landscape –Naitik G Patel

Chapter photos
Mammal: WII Camera Trap image, Naitik G. Patel; **Bird:** Naitik G. Patel
Herpetofauna: Naitik G. Patel; **Fish:** Aashna Sharma; **Butterfly and Odonate**: Naitik G. Patel; **Soil Nematode:** Ishwari Datt Rai, Naitik G. Patel; **Microflora:** Ishwari Datt Rai

ENVIS Center
Wildlife and Protected Areas

ENVIS Centre Team

Project Leader & Coordinator
V.B. Mathur

Project Co-coordinator
S.A. Hussain

Programme Officer
Anant Pande

Information Officer
Jyoti Prasad Nautiyal

Advisory Committee

Dr. V.B. Mathur, Director	Project Leader & Coordinator
Dr. S.A. Hussain, Scientist G	Project Co-Coordinator
Dr. G.S. Rawat, Scientist G	Member
Dr. K. Sivakumar, Scientist F	Member
Sh. Rajesh Thapa, Syst. Manager	Member
Sh. Y.S. Verma, Librarian	Member
Sh. K.K. Srivastava, Editor	Member
Sh. Dinesh Pundir, Asstt. Prog.	Member
Sh. Anant Pande, Programme Officer	Member
Sh. Jyoti Prasad Nautiyal, Information Officer	Member

Editor
S. Sathyakumar

Editorial support
WII NMSHE Project Team, Anant Pande

Editorial Processing
Jyoti Prasad Nautiyal

Citation: Sathyakumar, S., (Ed.). 2016. Bibliography on the Fauna and Micro flora of the Indian Himalayan Region. ENVIS Bulletin: Wildlife and Protected Areas. Vol. 17. Wildlife Institute of India, Dehradun 248 002, India **319 pp**.

Example of citation for individual chapters: Patel, N. and A. Das. 2016. Herpetofauna. (IN) Sathyakumar, S., (Ed.). Bibliography on the Fauna and Micro flora of the Indian Himalayan Region. ENVIS Bulletin: Wildlife and Protected Areas. Vol. 17. Wildlife Institute of India, Dehradun 248 002, India. 128-157 pp.

This publication is partly funded by the WII National Mission on Sustaining the Himalayan Ecosystem (NMSHE) Project funded by the Department of Science and Technology. Grant NoDST/SPLICE/CCP/NMSHE/TF-2/WII/2014[G] dated 26.08.2014

ENVIS

The Environmental Information System (ENVIS) Centre at the Wildlife Institute of India, set up in September 1997, is part of the ENVIS setup of the Ministry of Environment, Forest and Climate Change, Government of India. It deals with general matters concerning 'wildlife' and specifically those related to 'Protected Area.' It's objectives are to:

- Build up information storage: retrieval and dissemination capabilities in subject areas related to wildlife science.
- Establish linkages with all information sources in wildlife conservation and management in the country and abroad for increasing the information content.
- Respond to user queries by supplying substantive information in the form of published reports, documents, extracts, research papers and other unpublished and analyzed information as far as possible.
- Maintain links with other ENVIS Centers with the ultimate objectives of identification of data and knowledge gaps in specified subject areas and take action towards filling these gaps Publish bulletins on the thematic areas.
- Publish bulletins on the thematic focus areas.

CONTENTS

Director's Note

There is an increasing demand for scientific information on the state of environment particularly biodiversity in different regions of the world. While information is scanty for poorly studied regions, there is substantial information for some regions but most of it is not readily available as either it is widely scattered or largely unpublished. In such situations, it is very difficult for a user to find the required information on a given subject or topic in the absence of proper documentation or database. In today's world, quick and easy access to correct information is gaining momentum for which various databases are being maintained.

The Himalayan region has been less studied when compared to many other mountain ecosystems in the world. With the emerging threat of climate change and its impacts on the ecology and environment of the Himalaya, there have been efforts in recent times to gather scientific information on various aspects, most importantly on biodiversity. Much of the climate change investigations around the world have revealed that there are shifts in distribution range of species or changes in life history strategies and/or behaviour. While baseline status for species/taxa are being established through surveys and studies in the recent past, consequences of climate change impacts on species could be better understood from historical information that presently lies scattered in various journals, books, expedition reports and gazetteers. In this context, bibliographical databases are of immense value.

Under the National Mission for Sustaining the Himalayan Ecosystem (NMSHE), the Wildlife Institute of India has been assigned the responsibilities for operating the Task Force on Fauna and Micro flora by the Department of Science and Technology. The project personnel of WII NMSHE team under the supervision of concerned faculty have carried out the mammoth task of conducting literature survey on faunal and micro floral groups/taxa and have prepared the state of knowledge report, based on over 4,500 references. I appreciate the efforts of the WII Library and Documentation Centre who had compiled this bibliography and the searchable database.

This ENVIS bulletin on the 'Bibliography of the Fauna and Micro Flora of the Indian Himalayan Region' will be of immense use to students, researchers, scientists, wildlife managers, naturalists, conservationists and policy makers, who are interested in the conservation of biodiversity in the Indian Himalayan Region.

19 September, 2016
Dehradun

(V.B. Mathur)
Director, WII
& Project Leader, ENVIS Centre, WII

Foreword

I am delighted to write these words for this important and very useful publication for all those who have interest in the wildlife of the Himalaya and in the Himalaya itself.

The Himalayan mountain range along with its exceptionally beautiful wilderness areas, encompasses wildlife habitats that are home to a wide array of floral and faunal species. I have been immensely interested in learning about the mountain fauna and their conservation for over six decades now. Till the 1970s, information on the wildlife of the Himalaya were confined to a few books, expedition reports and gazetteers, but a significant amount of information were confined to out of print personal records or diaries maintained by hunters, naturalists, explorers, and mountaineers and remained largely inaccessible. By the late 1970s, some information on species accounts, distribution, status, natural history information and field guides on the mammals, birds, flowers, trees and insects, were available from the pioneering works of George Schaller, S.H.Prater, Salim Ali, and Wynter Blyth, and Records of the Zoological and Botanical Surveys of India.

Since mid 1980s, research on the fauna of the Indian Himalayan Region had grown steadily, leading to a wealth of information that has been generated from different regions of the Himalaya. Most importantly, research on herpetofauna, fish and invertebrates have steadily grown in the last few decades. This ENVIS Bulletin on the bibiliography on the fauna and micro flora of the Indian Himalayan Region contains over 4,500 references across eight faunal/micro-floral taxa/groups. Apart from this hard copy publication, the Wildlife Institute of India has brought out a CD with a specially designed database, for this bibliography.

I am sure that this publication that includes compilation of references of pioneering works as early as 1785, would now be within reach of every user because of this bibliography. I congratulate the Wildlife Institute of India for bringing out this publication and hope that this would encourage young biologists and field managers to document and publish their significant observations on the wildlife of the Himalaya and what is even more important, to inspire future generations to trek and travel in this magnificent terrain, which for its biotic richness has no parallel in the world.

16 September, 2016
New Delhi

(Dr. M. K. Ranjitsinh)
Former Additional Secretary, MoEF, New Delhi
& Director of Wildlife Preservation, India

01

Introduction to the Bibliography on the Fauna and Microflora of the Indian Himalayan Region

Introduction to the Bibliography on the Fauna and Microflora of the Indian Himalayan Region

Sunita Agarwal, Shashi Uniyal, Ummed Singh Chauhan, and Sambandam Sathyakumar

Introduction

In recent years, there has been a demand for information on all spheres of life and such demand is growing exponentially. The likely impacts on global environment and biodiversity due to climate change and anthropogenic pressures is one such field for which information is required to plan for the future, most importantly for decision making to balance development and conservation priorities. It is often very difficult to find the required information or literature on a particular topic in the absence of proper documentation particularly when the information is either scarce or widely scattered. Further, the literature doubling is taking place at an unabated pace, in certain fields and such growth is less than 6 to 8 years.

The effects of climate change are pronounced in places such as the Himalaya, where the network of snow-clad mountains, ice-peaks, high intensity drainage and precipitation characterises the bio-social landscape. Evidence suggests that responses of species to impacts of climate change are inter-alia manifested in changes in phenology, earlier onset of spring, migration, and lengthening of growing seasons. Similarly, humans are affected by declines in health, increased population movement, unforeseen changes in food productivity, obstacles to development, and progressive environmental damage. Realizing the need for developing science based action plans to address both the existing as well as emerging threats of climate change in the fragile mountain ecosystems of the Indian Himalayan Region (IHR), the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) has been conceived and is expected to offer practical adaptation strategies based on inputs from various reputed Institutions. The Wildlife Institute of India (WII) has been assigned the responsibilities for operating the Task Force on Fauna and Microflora by the Department of Science and Technology, Government of India. The goal of this project is to: Develop strategies to mitigate climate change effects on wild animal species and ecosystems in the IHR. The thematic areas identified under the research project area (A) Terrestrial System, (B) Aquatic System, (C) Human Ecology, and (D) Spatial Ecology, and include assessments of: (a) animal species/communities diversity, distribution, abundance (b) wildlife habitats, ecosystems, and ecosystem services; (c) anthropogenic and climate change impacts on wildlife and ecosystems through scenario building and visualization; (d) vulnerability of species / habitats to climate change; and prioritization of species/taxa and sites for monitoring.

When compared to other mountain systems of the world, the amount of literature or documented knowledge on the biodiversity of the Himalaya is not much. While baseline status for species/taxa are being established through surveys and studies in the recent past, consequences of climate change impacts on species could be better understood from historical information that presently lies scattered in various journals, books, expedition reports and gazetteers. In such a situation, even an expert will be able to access and acquaint with only a small fraction of available literature. To overcome this major constraint, the subject specialists and information scientists were able to find means of 'bibliographies' and 'databases' respectively.

Keeping the above in view, this 'Bibliography on Fauna and Microflora of Indian Himalayan region' has been compiled as part of this project. These references have beene categorised based on the scope of the articles and placed them under ten main taxa/group viz., Mammals, Birds, Herpetofauna, Fish, Butterflies, Odonates, Soil Nematodes, Soil Bacteria, Soil fungi and Lichen.

WINISIS software was used for compilation of this bibliography and this includes publications from 1775 to 2016. However, majority of the references are of the period after 1900. The geographical coverage of the database as given in the title is restricted to the IHR i.e., Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh and West Bengal (northern hill districts only). The computerized database contains 4,674 references. Each reference is marked with serial number for retrieval purpose. For quick retrieval of information, author and publication year index are appended for each taxa.

Bibliometric Analyses

The bibliographic output was subjected to the following bibliometric analysis and order to understand the chronological development, Geographical area (State wise) distribution, Subject wise distribution, collaborative pattern of authorship and number of research workers in particular taxa.

Of the total 4,674 references, 4,031 pertain to fauna while the remaining 643 deal with microflora. Maximum numbers of publications are on birds followed by fishes and mammals.

Table 1.1 Taxa-wise distribution of Literature on the fauna and micro flora of the Indian Himalayan Region

S.No.	Taxa	Number of References
	A. Fauna	
1	Mammal	639
2	Bird	1,567
3	Herpetofauna	394
4	Fish	812
5	Butterflies	276
6	Odonates	135
7	Soil nematodes	208
	B. Micro Flora	
1	Soil Bacteria	218
2	Lichen	310
3	Soil Fungi	115
	Total	643
	Total (A+B)	4,674

The trend in Chronological development of literature has been shown by an interval of ten years' period in the following Figure 1.1. The numbers of publications before 1900 are 203 only. This Table also reveals that 1,127 references has been published from 2001-2010.

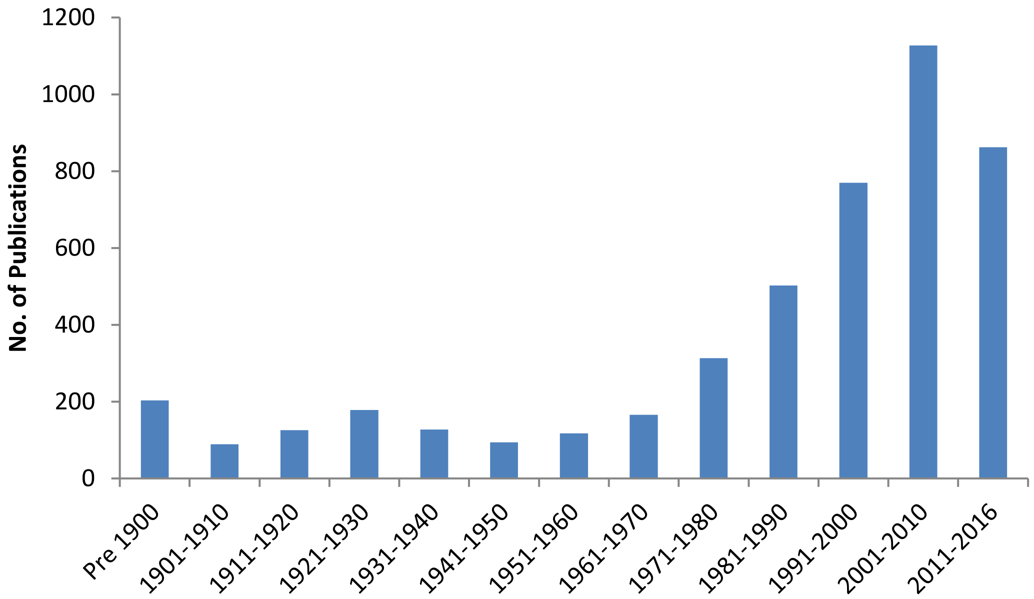


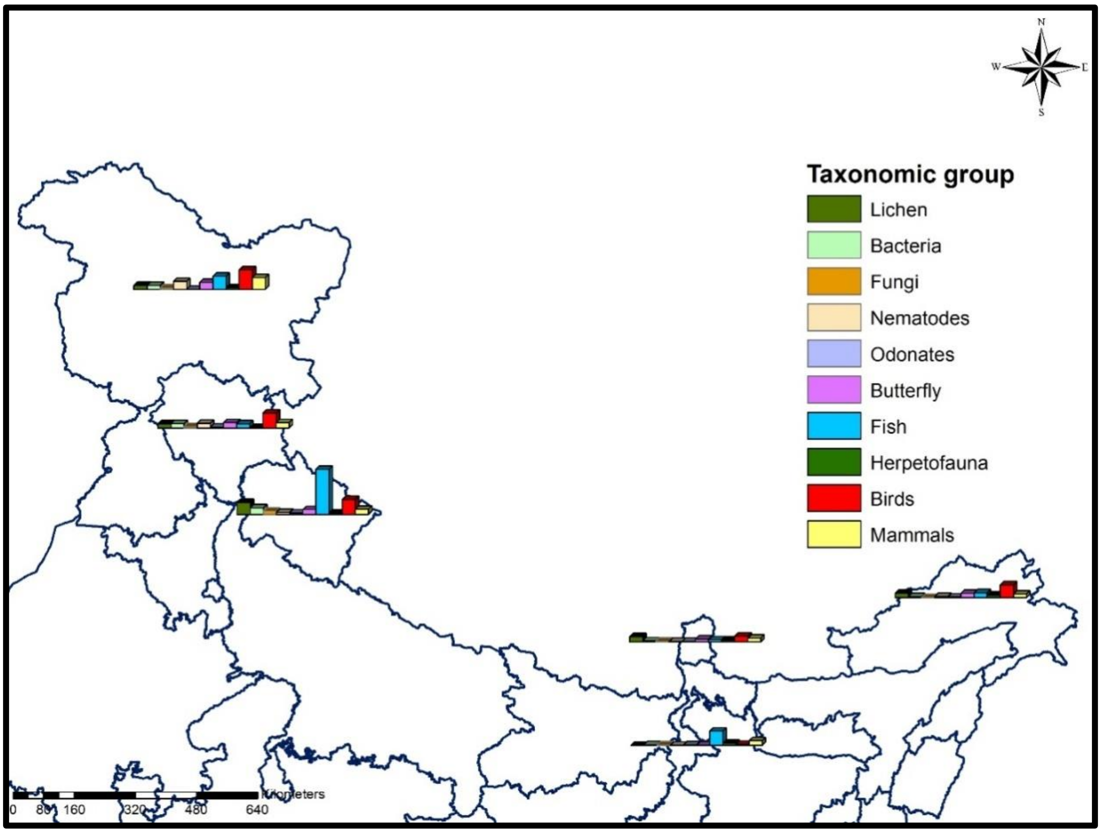
Figure 1.1 Temporal distribution of Literature on the fauna and micro flora of the Indian Himalayan Region

The State wise distribution of literature shows that maximum number of studies have been carried out in Uttarakhand followed by Jammu and Kashmir. About 1,224 numbers of publications are in general to the Himalayan region.

Table 1.2 State-wise distribution of Literature on the fauna and micro flora of the Indian Himalayan Region

State	Lichen	Bacteria	Fungi	Nematodes	Odonates	Butterfly	Fish	Herpetofauna	Birds	Mammals	Total
Jammu and Kashmir	54	50	19	103	1	90	172	22	252	151	914
Himachal Pradesh	54	58	21	61	12	72	56	5	193	70	602
Uttarakhand	156	86	45	26	19	64	582	19	194	68	1259
Sikkim	65	12	8	5	3	35	25	23	73	46	295
Arunachal Pradesh	59	12	1	14	7	54	63	32	164	44	450
West Bengal	0	7	3	0	5	0	184	29	10	60	298
General	0	0	18	0	88	0	0	249	669	200	1224

Figure 1.2 State-wise distribution of Literature on the fauna and micro flora of the Indian Himalayan Region



We have categorized the bibliography based on the scope of the article and placed them under 7 broad subject headings (Ecology, Distribution, Taxonomy, Molecular biology, Climate change, Conservation and Others). Among these Subjects Ecology dominates the database.

Table 1.3 Subject-wise distribution of Literature on the fauna and micro flora of the Indian Himalayan Region

Subject	Lichen	Bacteria	Fungi	Nematodes	Odonates	Butterfly	Fish	Herpetofauna	Birds	Mammals	Total
Ecology	19	27	62	141	7	151	314	79	581	256	1637
Distribution	139	114	0	0	0	351	206	182	417	74	1483
Taxonomy	70	97	43	75	128	263	215	157	209	46	1303
Molecular biology	3	19	0	37	0	0	34	5	8	14	120
Climate change	16	0	0	1	0	2	10	0	3	6	38
Conservation	0	3	0	0	4	15	85	11	174	97	389
Others	65	0	10	12	0	0	218	97	1050	146	1598

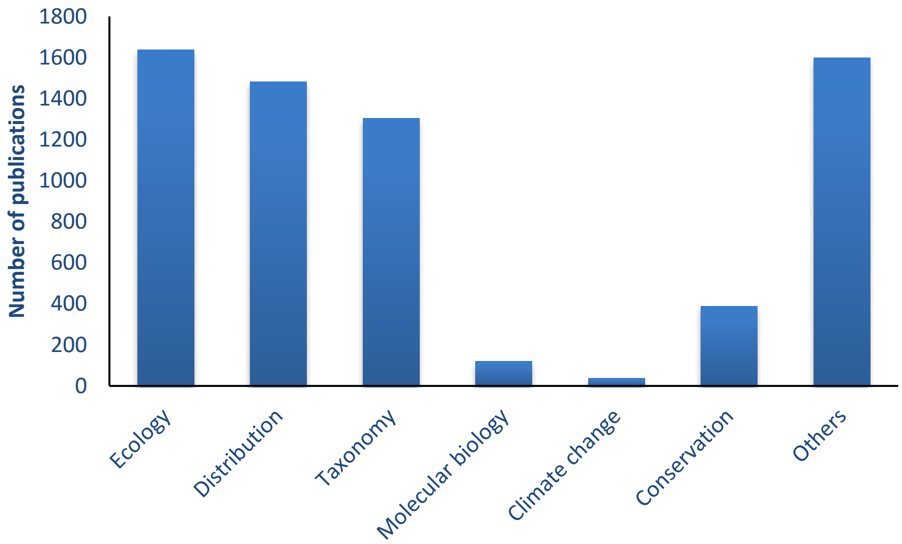


Figure 1.3 Subject-wise distribution of Literature on the fauna and micro flora of the Indian Himalayan Region

Table 1.4 shows the number of authors in the publications on each taxa. About four authors were involved in each publication on Bacteria.

Table 1.4 Number of authors in the publications on the fauna and micro flora of the Indian Himalayan Region

S.No.	Taxa	No. of References	Total no. of Authors	Authors/ publications
1	Bacteria	218	859	3.9
2	Birds	1,567	2,297	1.5
3	Butterfly	276	455	1.6
4	Fish	812	1,740	2.1
5	Herpetofauna	394	742	1.9
6	Lichen	310	807	2.6
7	Mammals	639	1,411	2.2
8	Nematodes	208	422	2.0
9	Odonates	135	186	1.4
10	Soil fungi	115	333	2.9
Total		**4,674**	**9,252**	**2.0**

The authorship ranged from single author to 25 authors for a single publication. Of the 4,674 references, only 2,216 were published in multiple authorships. It is observed that the overall percentage of single authors and multiple authors were 52.6% and 47.4% respectively. While the percentage of single authors paper were maximum (73.9%) for birds, the percentage of multiple authors were high for bacteria (93.6%).

Table 1.5 Authorship patterns in the publications on the fauna and micro flora of the Indian Himalayan Region

S.No.	Taxa	Single authorship (%)	Multiple authorship (%)	Total
1	Bacteria	14 (6.4)	**204 (93.6)**	218
2	Birds	**1,158 (73.9)**	409 (26.1)	1,567
3	Butterfly	166 (60.1)	110 (39.9)	276
4	Fish	353 (43.5)	459 (56.5)	812
5	Herpetofauna	226 (57.4)	168 (42.6)	394
6	Lichen	64 (20.6)	246 (79.4)	310
7	Mammals	309 (48.4)	330 (51.6)	639
8	Nematodes	64 (30.8)	144 (69.2)	208
9	Odonates	93 (68.9)	42 (31.1)	135
10	Soil fungi	11 (9.6)	104 (90.4)	115
Total		**2,458 (52.6)**	**2,216(47.4)**	**4,674**

For the convenience of the user, this bibliography is also available in database form at the Wildlife Institute of India, Library and Documentation Centre. It is hoped that providing information both in traditional printed form as well as through machine readable database will be very useful and act as a ready reference to both professional and amateur wildlife ecologists and protected area managers, interested in the IHR. We would also like to add that this database is not complete. While all possible efforts have been made to cite the references as accurately as possible, it is probable that some mistakes may have remained, largely owing to the compilation of the majority of references from secondary sources. We would be grateful if such mistakes are brought to our notice for correction and continuous updation of this database.

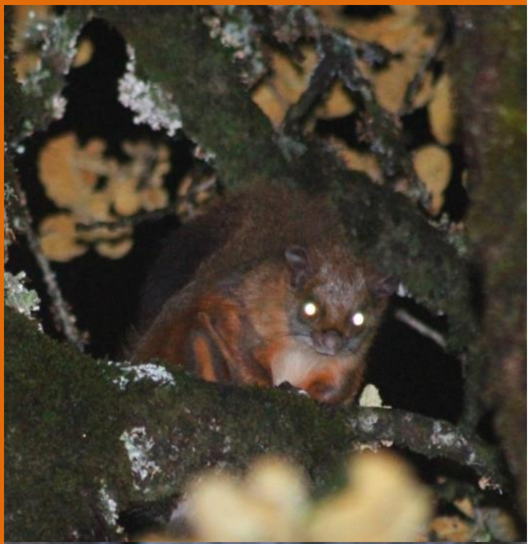
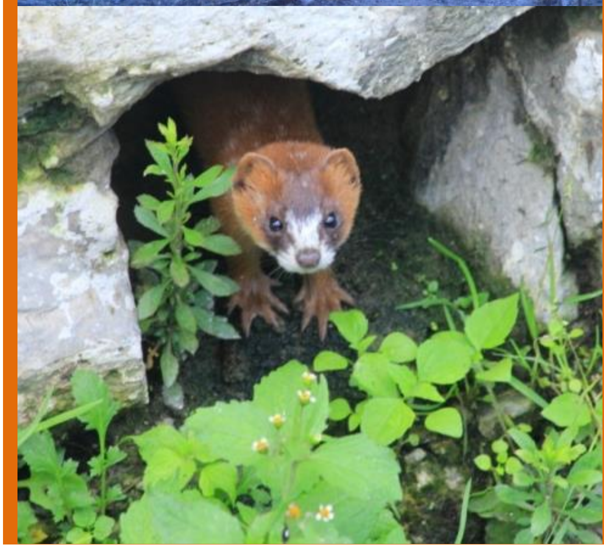
This bibliography is also distributed in machine readable form (CD) along with user friendly search engine. We hope that availability of this bibliography in Print/CD form will immensely help students, teachers, biologists, scientists, wildlife managers, naturalists, conservationists, policy makers and other users.

Acknowledgements

This study is a component of the project 'National Mission for Sustaining the Himalayan Ecosystem' (NMSHE) supported by the Department of Science & Technology (DST) (Grant no: DST/SPLICE/CCP/NMSHE/TF-2/WII/2014[G] dated 26.08.2014). Special mentions are required for the facilities provided by the Director of CSIR-National Botanical Research Institute, Lucknow. We thank Dr. D.K. Upreti (Chief Scientist, Lichenology Laboratory, CSIR-NBRI, Lucknow) for providing information about their laboratories and copies of reprints. We acknowledge the contribution of Dr. Anjum N. Rizvi of Zoological Survey of India to prepare the bibliography on soil nematodes of the Indian Himalayan Region. We thankfully acknowledge the contribution of Dr. Punyasloke Bhadury of Indian Institute of Science, Education and Research, Kolkata to prepare the bibliography of soil bacteriaof the Indian Himalayan Region. In Wildlife Institute of India, contributions of Dr. Samrat Mondol (Animal Ecology and Conservation Biology) in microflora bibliography preparation is also acknowledged. We thank the entire team of WII NMSHE Project who had painstakingly conducted literature review and compiled the bibliography. Apart from the authors, other NMSHE team members namely Malvika Pandey, Neha Aswal and Project Interns contributed substantially for this compilation.

02

Mammals of the Indian Himalayan Region


Bibliography on the Mammals of the Indian Himalayan Region

Ranjana Pal, Bhavya Iyer, Shashank Arya, Shagun Thakur, Krishnendu Mondal, Tapajit Bhattacharya and Sambandam Sathyakumar

Introduction

Of the 428 mammalian species reported across India (Sharma et al., 2015), about 291 species (39 families, 13 orders) have been recorded from the Indian Himalayan Region (IHR). A further breakdown of the list reveals that 40 of these species are known from the Indian trans-Himalaya; 77 from the north-west Himalaya, 102 from the western Himalaya, and 172 from the eastern Himalaya (Sharma et al., 2015). Notable mammalian species of the region, and ones of conservation concern include the Kashmir markhor (*Capra falconeri*), Asiatic ibex (*Capra sibirica*), Kashmir stag or *hangul* (*Cervus elaphus hanglu*), Tibetan antelope (*Pantholops hodgsonii*), Himalayan brown bear (*Ursus arctos isabellinus*), and Eurasian lynx (*Lynx lynx*) from the western Himalaya. The Namdapha flying squirrel (*Biswamoyopterus biswasi*), slow loris (*Nycticebus bengalensis*), hoolock gibbon (*Bunopithecus hoolock*), Arunachal macaque (*Macaca munzala*), black musk deer (*Moschus fuscus*), leaf deer (*Muntiacus putaoensis*), takin (*Budercos taxicolor*), red panda (*Ailurus fulgens*), sun bear (*Helarctos malayanus*), clouded leopard (*Neofelis nebulosa*), and golden cat (*Catapuma temmincki*) occur in the eastern Himalaya (Macdonald, 2001, Sathyakumar and Bashir 2010, Choudhury 2015).

The earliest publication on mammals of the IHR dates back to 1841. Information on mammals of the northwestern and western Himalaya are higher when compared to the eastern Himalaya. This included detailed investigations or doctoral studies and short-term studies on species ecology and behavior and the remaining were largely status surveys (Agarwal et al. 1998, Sathyakumar and Bhatnagar 2002, Sathyakumar and Bashir 2010). In the eastern Himalaya status surveys and short term studies on mammals have been carried out (Shah, 1994; Kakati, 1996; Datta, 2003; Datta et. al. 2008a, 2008b; Kumar et. al., 2003; Mishra et. al. 2006, Choudhury 2015).

Methods

Online research databases were searched using the search terms “Himalaya” and name of the six Himalayan States such as “Jammu and Kashmir”, “Himachal Pradesh”, “Uttarakhand”, “Sikkim”, “Arunachal Pradesh” and “West Bengal”. All the information was entered in a Microsoft Excel Spreadsheet and arranged alphabetically to remove any duplication. All the analyses were carried out in Microsoft Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gap.

Results and Discussion

The bibliography on mammalian fauna of theIHR includes 639 unique entries covering a period of nearly two centuries, starting from 1841 to 2016. We categorized the articles in three distinct ways: A) The first category was based on the regions of six Himalayan States (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, West Bengal-Darjeeling and Jalpaiguri district and Arunachal Pradesh) where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1840 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the broad subjects (ecology and behaviour, taxonomy, evolution, conservation and climate change impact) at which the research was carried out. Articles were also categorized based on the mammal groups which were the object of research in the various publications, and this was compared with the subjects of each paper to better understand past research trends, and predict future ones.

Geographical Distribution of Publications:

Publications have been categorized based on the state or states of focus. The most amount of research has been carried out in Jammu and Kashmir, especially in the Ladakh region (Table 2.1). This is followed by West Bengal (northern hill districts), Uttarakhand, Himachal Pradesh, Arunachal Pradesh and Sikkim in that order. Other papers were more broadly focused and could not be classified.

Table 2.1 State wise distribution of publications

States	Number of Publications
Jammu and Kashmir	151
Himachal Pradesh	70
Uttarakhand	68
Sikkim	46
West Bengal	60
Arunachal Pradesh	44
Others	200

Temporal Pattern of Publications:

Publications that were accessed date from the year 1841 to 2016. The most number of publications so far was in the 2001-2010 decade, with 193 publications, though it is likely that the 2011-2020 period will exceed this number by the end of the decade, as there are already 146 publications in the five-year period from 2011 to 2016 (Fig. 2.1). A glance at the publications since 1841 shows that most of the papers in the 19th century (16 publications) were general descriptions of fauna and flora of an area, or notes on new species or taxonomic families. In the first half of the 20th century (1901-1950), out of 30 publications, a majority are about geographic distributions or on the fauna of different areas. About a third of these describe new species. The second half of the 20th century shows a marked increase in research (207 publications) which begin to broaden in scope from just geography and taxonomy to behaviour, ecology, conservation, and evolution. Finally, the 21st century has the greatest amount of literature published and available on the IHR so far, with 341 publications. Papers on conservation surpass the number of papers on geography and distribution. There are few papers on taxonomy, and instead many more on ecology and behaviour, and a few on climate change.

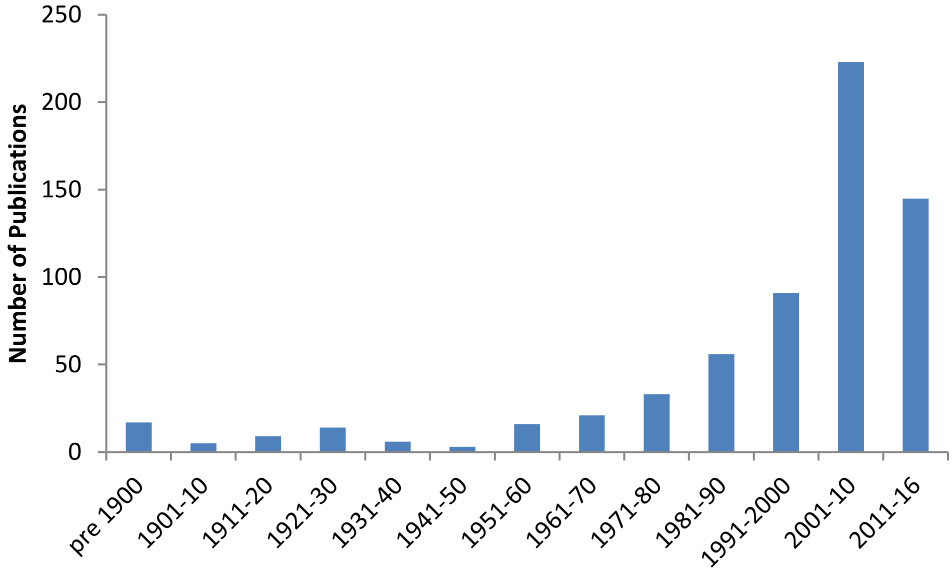


Figure 2.1 Temporal pattern of publications on mammalian fauna of the Indian Himalayan Region

Publications by subject

Publications have been classified based on subject focus – Ecology, Behaviour, Geography, Taxonomy, Genetics and Evolution, Conservation, Climate Change, and General. Some of these topics are further sub-divided. The highest numbers of publications were on ecology (232) – feeding, habitat, and other (which includes status surveys, population estimation, community and general ecology) (Fig. 2.2). Conservation of species with 97 publications is the second most studied topic. A majority of these are on the status and conservation of various endangered species such as the snow Leopard (*Panthera uncia)*, Tibetan kiang (*Equus kiang*), Kashmir stag (*Cervus elaphus hanglu)*, Tibetan argali (*Ovis ammon hodgsoni)* and others. The remaining publications pertain to human-wildlife conflict and its mitigation which included Asiatic black bear (*Ursus thibetanus)*, common leopard (*Panthera pardus*), snow leopard (*Panthera uncia)*, Tibetan wolf (*Canis lupus chanko*), and rhesus macaque (*Macaca mulatta*). There were less number of publications on genetics andevolution (14) and climate change (6). Many papers also dealt with geography (74) either on range of a species or the general fauna of a region.

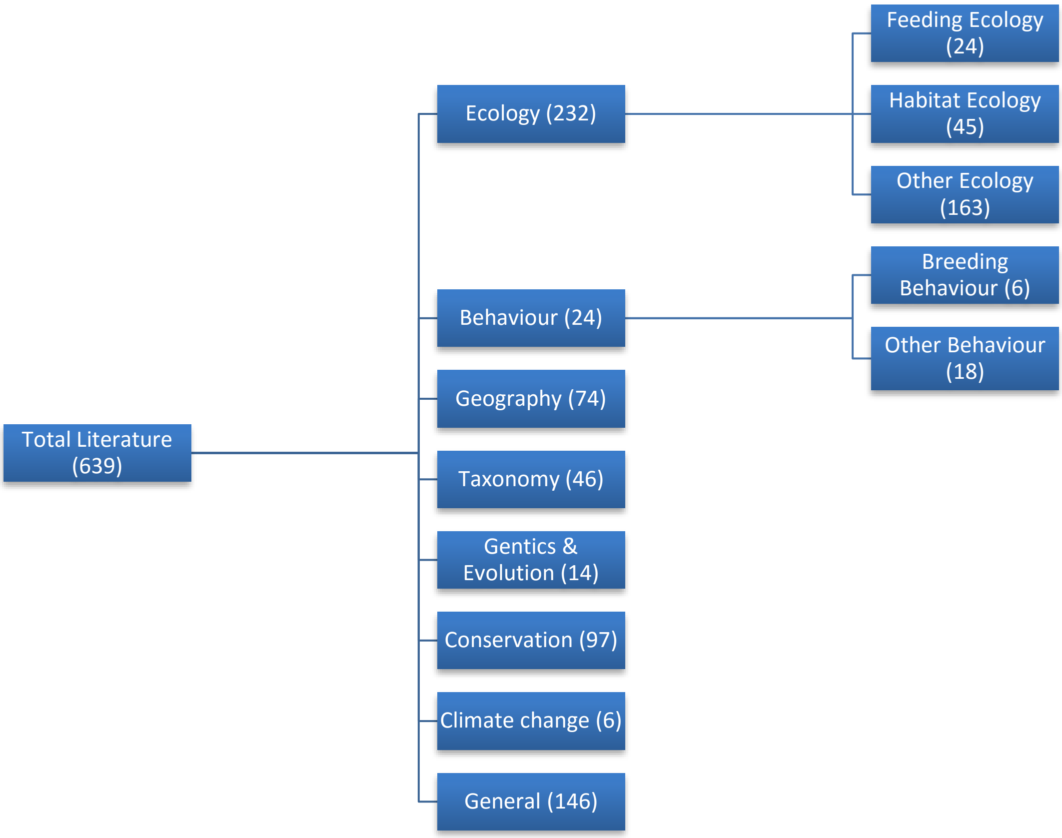


Figure 2.2 Number of publications on mammals of the Indian Himalayan Region in different subject categories

Research Gaps and Future Priorities

Research on mammals of the IHR has in the past, focused mostly on a few specific topics – abundance, occupancy, range use, distribution, and conservation status. Studies on human-wildlife interactions – especially negative interactions, or conflict – have increased with time, as have these interactions. However, few papers address mitigation of this conflict, but speak of it only as a reason for the decline of a particular species, and the need for its conservation (Table 2.2).

In the future, research on mitigating such conflict will be of great importance, as increasing human population puts further pressure on wildlife and their habitats. Few studies have been carried out on evolution, and use of molecular phylogeny will further research on evolution as well as taxonomy. Studies into ecological aspects such as behaviour, inter-species dynamics (or community ecology on a macro level) and adaptations of wildlife – especially megafauna – to human disturbance will be of increasing importance, and will address several research gaps.

Climate change has been severely understudied in mammal species, perhaps because they do not make good indicator species to study the phenomenon. However, research can be carried out to study not just the effects of climate change on wildlife, but also the adaptations and either species diversification or extinction caused by climate change. Hence, going forward, research on species behaviour will be of great importance as they will be a part of studies on a variety of topics, from climate change to conservation as well as ecology.

Table 2.2 The key past and future research priorities based on the current assessment

Subject Area	Key past research priorities	Research Gap and future priorities
Ecology and Behaviour	Abundance	Behaviour and behavioural ecology
	Occupancy	Inter-species dynamics
	Range use	Adaptations to human interference and anthropogenic pressure
	Habitat ecology	
Geography	Distribution	
Taxonomy	Species and family descriptions	Molecular phylogeny
Evolution	Evolutionary origin	
Conservation	Conservation Status Human-wildlife Conflict	Mitigating Human-Wildlife Conflict Conservation strategies Integrating technology and conservation
Climate change	Effects of climate change on habitat	Effect of anthropogenic climate change on distribution, ecology, behaviour of species
		Adaptation, diversification or extinction of species due to climate change

References:

Agarwal, S., Sathyakumar, S., Rana, M.S. (1998). An annotated bibliography on Musk deer. *Wildlife Institute of India, Dehradun*. 64p.

Choudhury, A. (2015). The mammals of North-East India. *Published by Gibbon books, Guwahati, Assam and the Rhino Foundation for Nature in NE India, Assam*. 431p.

Datta, A. (2003). A survey of endangered mammals in Changlang district, Arunachal Pradesh: discovery of two new muntjac from India.Interim Report, Wildlife conservation society, Nature Conservation Foundation.

Datta, A., Anand, M. O. and Naniwadekar, R. (2008a). Empty forests: Large carnivore and prey abundance in Namdapha National Park,north-east India. Biological Conservation. 141:1429-1435.

Datta, A., Naniwadekar, R. and Anand, M.O. (2008b). Occurrence and conservation status of small carnivores in two Protected Areas in Arunachal Pradesh, north-east India. Small Carnivore Conservation. 39: 1-10

Kakati, K. (1996). Survey of the Red Panda (*Ailurusfulgens*) in Eagle Nest Wildlife Sanctuary, Arunachal Pradesh. Report, WildlifeInstitute of India, Dehra Dun.

Kumar, A., Vijayan, L. and Bhupathy, S. (2003). An Ecological study on Mammals, Birds, Herpetofauna in Teesta Basin, Sikkim.In:Annual Report I (2002-2003) of the Salim Ali Centre for Ornithology and Natural History, Coimbatore.

Mishra, C., Madhusudanand, M.D. and Datta, A. (2006). Mammals of the high altitudes of western Arunachal Pradesh, Eastern Himalaya:an assessment of threats and conservation needs. Oryx. 40 (1): 29-35.

Sathyakumar, S.; Bashir, T. (2013). Wildlife of the Himalaya: Conservation issues and the Way forward. *IN: Arora, S., Negi, B.S., Bhan, S., Bali, J.S. and Bharti, V.K. (eds.) Mountain people and their environment. Soil Conservation Society of India, New Delhi*. P. 322-343.

Sathyakumar, S.; Bhatnagar, Y.V. (2002). Envis Bulletin: Wildlife and Protected Areas - Mountain ungulates. *Wildlife Institute of India, Dehradun*. 1(1): 130p.

Shah, N. (1994). Status Survey of Southern Kiang (*Equus kiang polyodon*) in Sikkim. Unpublished Report. Maharaja Sayajirao University, Baroda, India.

Sharma, G., Kamalakannan, M., Dam, D and Husain, A. (2015). Status and conservation of mammalian diversity in Indian Himalaya. Biological Forum 6(2): 273-299.

Bibliography

Mammals of the Indian Himalayan Region

001. Agarwal, M.; Chauhan, D.S.; Goyal, S.P.; Qureshi, Q. (2011). Managing human leopard conflicts in Pauri garhwal, Uttaranchal India using Geographical Information System and Remote Sensing.*International Journal of Scientific and Engineering Research*. 2: 1-7.

002. Agarwal, M.; Sain, K.; Singh, D.; Goyal, S.P. (2016). Monitoring Human-Leopard Conflict in Altitudinal Variations with Landscape Characteristics Using GIS and Remote Sensing in Pauri Garhwal, India.*International Journal of Science, Engineering and Technology*. 4(2): 402-408.

003. Agarwal, S.; Sathyakumar, S.; Rana, M.S. (1998). An annotated bibliography on Musk deer.*Wildlife Institute of India, Dehradun*. 64p.

004. Aggarwal, R.K.; Kivisild, T.; Ramadevi, J.; Singh, L. (2007). Mitochondrial DNA coding region sequences support the phylogenetic distinction of two Indian wolf species. *Journal of Zoological Systematics and Evolutionary Research.* 45(2): 163-172.

005. Aggarwal, R.K.; Ramadevi, J.; Singh, L. (2003). Ancient origin and evolution of the Indian wolf: evidence from mitochondrial DNA typing of wolves from Trans-Himalayan region and Pennisular India. *Genome Biology*. 4(6): 1.

006. Agrawal, V.C. (1969). Occurrence of the woolly flying squirrel *Eupetaurus cinereus* Thomas (Mammalia - Rodentia - Sciuridae)in north Sikkim.*Journal of the Bombay Natural History Society*. 66(3): 615-616.

007. Agrawal, V.C. (2000). Taxonomic Studies on Indian Muridae and Hystricidae (Mammalia Rodentia).*Rec. Zool. Surv. India, Occasional Paper No.* 180.i-viii, 1-186 pp.

008. Agrawal, V.C.; Chakraborty, S.; Chakraborty, R. (1992). Taxonomic study on the Large Indian Civet, *Viverra Zibetha* (Linnaeus)from the Indo-Burmese Subregion (Mammalia: Viverridae). *Records of the Zoological Survey of India*. 91(1): 1-7.

009. Ahmad, K. (2008). Aspects of ecology of hangul (*Cervus elephas hanglu*)in Dachigam National Park, Kashmir, India.*Ph.D. thesis submitted to FRI deemed University*.

010. Ahmad, K.; Khan, J.A. (2011). Status of mammals with special reference to Muntjac (*Muntiacus muntjak*)in Khulgarh Watershed area of Kumaon Himalayas.*Tigerpaper*. 38(1): 15-19.

011. Ahmad, K.; Nigam, P.; Habib, B.; Mir, M.S.; Rais, Z.; Shah, M.; Malik, N.A. (2013). Reappearance of the wild pig *Susscrofa cristatus* in Dachigam National Park, Kashmir, India.*Journal of the Bombay Natural History Society*. 110(2): 2013.

012. Ahmad, K.; Qureshi, Q.; Agoramoorthy, G.; Nigam, P. (2016). Habitat use patterns and food habits of the Kashmir red deer or Hangul (*Cevus elaphus hanglu*)in Dachigam National Park, Kashmir, India.*Ethology Ecology and Evolution*. 28(1): 85-101.

013. Ahmad, K.; Qureshi, Q.; Nigam, P.; Suhail, I. (2013). Status and Conservation of Hangul (*Cervus Elaphus hanglu*)in its Relic Range Areas Outside Dachigam National Park, Kashmir.*Indian Forester*. 139(10): 883-887.

014. Ahmad, K.; Sathyakumar, S.; Qureshi, Q. (2005). Aspects of Ecology of Hangul (*Cervus elaphus hanglu*)in Dachigam National Park, Kashmir, India.*Final Report, Jammu and Kashmir Wildlife Protection Department and Wildlife Institute of India, Dehradun*.

015. Ahmad, K.; Sathyakumar, S.; Qureshi, Q. (2005). Feeding preferences of Hangul (*Cervus elaphus hanglu*)at Dachigam National Park, India.*Interim Report, Department of Wildlife Protection, Jammu and Kashmir and Wildlife Institute of India, Dehradun*.

016. Ahmad, K.; Sathyakumar, S.; Qureshi, Q. (2009). Conservation status of the last surviving wild population of hangul or Kashmir deer *Cervus elaphus hanglu* in Kashmir, India.*Journal of the Bombay Natural History Society*. 106(3): 245.

017. Ahmad, R. (2015). An investigation into the interactions among wild ungulates and livestock in the temperate forests of Kaj I Nag.*Ph.D. thesis, Submitted to Manipal University*. 182p.

018. Ahmad, R.; Mishra, C.; singh, N.J.; Kaul, R.; Bhatnagar, Y.V. (2016). Forage and security trade-offs by markhor *Capra falconeri* mothers. *Current Science*. 110(8): 1559-1563.

019. Aiyadurai, A.; Singh, N.J.; Milner-Gullan, E.J. (2009). Wildlife hunting by indigenous tribes: a case study from Arunachal Pradesh, north-east India. *Oryx*.1-9 pp.

020. Akhtar, N.; Chauhan, N.P.S. (2006). Status of human-wildlife conflict in Kashmir region, Jammu and Kashmir, India.*Wildlife Institute of India, Dehradun.*

021. Akhtar, N.; Chauhan, N.P.S. (2010). Intolerant attitude of people towards black bear and mitigation strategies in Kashmir Valley.*Tigerpaper.* 37(1): 7-11.

022. Akhtar, S.A. (1957). Further notes on the Himalayan mouse-hare, or Pika (*Ochotona rufescens*).*Journal of the Bombay Natural History Society*. 54(2): 455-457.

023. Alfred, J.R.B. (2006). Status of Kiang.*Published by the Director, Zoological Survey of India, Kolkata.*

024. Alfred, J.R.B.; Sharma, R.M.; Tak, P.C.; Sharma, D.K. (2006). Status of Himalayan Marmot, *Marmota himalayana* (Hodgson, 1841)in Eastern Ladakh, Jammu and Kashmir, India.*Published by Director, Zoological Survey of India, Kolkata*. 18pp.

025. Ali, M. (2014). Habitat suitability modeling for exploration of the spatial distribution of kashmir musk deer in Dachigam National Park Kashmir. *American Journal of Environmental Sciences*. 10(5): 446 pp.

026. Anandam, M.; Ahuja, P.V.; Shah, T.A. (2013). Himalayan langur project final report.(2012-2013). *Zoo Outreach Organization.*25 pp.

027. Anon. (1987). Fauna of Nanda Devi National Park (Mammals and Birds)- Conservation Area Series. *Published by Director, Zoological Survey of India, Kolkata*. 51p.

028. Areendran, S. (1996). Sighting of takin (*Budorcas taxicolor*)in the Mehao Wildlife Sanctuary, Arunachal Pradesh.*Journal of the Bombay Natural History Society*. 93(3): 585.

029. Avasthe, R.K.; Jha, A. (1999). Mammals of Sikkim.*World Wide Fund for Nature - India, Sikkim Field Office*. 97p.

030. Awasthi, A.; Uniyal, S.K.; Rawat, G.S.; Sathyakumar, S. (2003). Food plants and feeding habits of Himalayan Ungulates.*Current Science*. 85: 719-723.

031. Aziz, M.A.; Lone, S.; Lone, F.A. (2010). An overview of Hangul (*Ceruvs elaphus hanglu*, Wagner)in Dachigam National Park, Kashmir, India.*Forestry Nepal*.

032. Bagchi, S.; Hatnagar, Y.V.; Ritchie, M.E. (2012). Comparing the effects of livestock and native herbivores on plant production and vegetation composition in the Trans-Himalayas.*Pastoralism: Research, Policy and Practice*. 2: 21.

033. Bagchi, S.; Mishra, C. (2006). Living with large carnivores: predation on livestock by the snow leopard (*Uncia uncia*).*Journal of Zoology*. 268: 217-224.

034. Bagchi, S.; Mishra, C.; Bhatnagar, Y.V. (2004). Conflicts between traditional pastoralism and conservation of Himalayan ibex (*Capra sibirica*)in the Trans-Himalayan Mountains.*Animal Conservation*. 7:121-128.

035. Bagchi, S.; Namgail, T.; Ritchie, M.E. (2006). Small mammalian herbivores as mediators of plant community dynamics in the high altitude arid rangelands of Trans-Himalaya.*Biological Conservation.* 127: 438-442.

036. Bagchi, S.; Ritchie, M.E. (2010). Herbivore effects on above and belowground plant production and soil nitrogen availability in the Trans-Himalayan shrub-steppes. *Oecologia.* 164(4): 1075-1082.

037. Bahuguna, A.; Mukherjee, S. (2000). Use of SEM to recognise Tibetan antelope (Chiru)hair and blending in wool products.*Science and Justice*. 40: 177-182.

038. Bahuguna, N.C.; Dhaundyal, S.; Vyas, P.; Singhal, N. (1998). Red panda in Darjeeling at Singalila National park and adjoining forest: A status report. *Small Carnivore Conservation : The Newsletter and Journal of the IUCN/SSC Mustelid, Viverrid and Procyonid Specialist Group.* 19: 11-12.

039. Bahuguna, N.C.; Mallick, J.K. (2004). Ungulates of West Bengal and its adjoining areas including Sikkim, Bhutan and Bangladesh.*In: Sankar, K., Goyal, S.P. (eds.)Ungulates of India, ENVIS Bulletin: Wildlife and Protected Areas, Wildlife Institute of India, Dehradun*. pp. 219-238.

040. Bahuguna, S.N.; Upadhyay, M.K. (2008). Geographical Distribution of Himalayan mouse hare (Royle's pika, *Ochotona roylei*; Lagomorpha)in Garhwal Himalaya, Uttarakhand India.*International Journal of Bioscience Reporter.* 6(2): 409-417.

041. Baidya, N.G. (2010). Trans-boundary movement of elephants in Eastern Nepal.*Tigerpaper*. 37(4): 5-9.

042. Bailey, F.M. (1944). The Himalayan Tahr (*Hemitragus jemlahicus* - H. Sim)in Sikkim. *Journal of the Bombay Natural History Society*. 45: 82-83.

043. Banerjee, S. (2009). Shift from Transhumance and Subtle Livelihood Patterns of the Bhotia Community and its Impact on Tibetan Sheep Population in Sikkim (India).*World Applied Sciences Journal*. 7(12): 1540-1546.

044. Banerji, H. (1955). The leaf monkey of Kashmir valley.*Journal of the Bombay Natural History Society.* 53(3): 463-464.

045. Bardhan Roy, B.K. (1975). Wildlife in North Sikkim.*Cheetal*. 17(2): 9-13.

046. Bargali, H.S. (2012). Distribution of Different Species of Bears and Status of Human-Bear Conflict in the State of Uttarakhand, India.*Advances in Biological Research*. 6(3): 121-127.

047. Bashir, T. (2013). An assessment of abundance habitat use and prey selection by Carnivores in Khangchendzonga Biosphere Reserve, Sikkim.*Ph.D. thesis submitted to Saurashtra Univesity Rajkot.* 251p.

048. Bashir, T.; Bhattacharya, T.; Poudyal, K.; Sathyakumar, S. (2011). Notable observations on the melanistic Asiatic Golden cat (*Pardofelis temmincii*)of Sikkim India.*NeBio Journal.* 2: 2-4.

049. Bashir, T.; Bhattacharya, T.; Poudyal, K.; Sathyakumar, S.; Qureshi, Q. (2013). Estimating leopard cat *Prionailurus bengalensis* densities using photographic captures and recaptures. *Wildlife Biology*. 19(4): 462-472.

050. Bashir, T.; Bhattacharya, T.; Poudyal, K.; Sathyakumar, S.; Qureshi, Q. (2013). Integrating aspects of Ecology and predictive modelling: Implications for the conservation of the leopard cat (*Prionailurus bengalensis*)in the Eastern Himalaya.*Acta Theriologica*.59(1).

051. Bashir, T.; Bhattacharya, T.; Poudyal, K.; Roy, M.; Sathyakumar, S. (2014). Precarious status of the endagered dhole *Cuon alpinus* in the high elevation Eastern Himalayan habitats of Khangchendzonga Biosphere Reserve, Sikkim, India.*Oryx.* 48: 125-132.

052. Baskaran, S.T. (1974). A note on the hoolock.*Journal of the Bombay Natural History Society.* 72(1): 194.

053. Bhardwaj, A.K. (2006). Action plan for the conservation of hangul or Kashmir stag (*Cervus elaphus hanglu*). *Department of Wildlife Protection, Govt. of Jammu and Kashmir Srinagar.*

054. Bhardwaj, M.; Uniyal, V.; Sanyal, A.; Sanyal, A.K. (2010). Estimating relative abundance and habitat use of Himalayan blue sheep *Pseudois nayaur* in Gangotri National Park, Western Himalaya, India.*Galemys : Boletin informativo de la Sociedad Espanola Para la conservacion y estudio de los mamiferos.* 22: 545-560.

055. Bhargava, R.N. (1987). The stump-tailed macaque (*Macaca arctoides* I. Geoffroy)in Arunachal Pradesh.*Journal of the Bombay Natural History Society*. 85(1): 182.

056. Bhat, B.A. (2008). Ecological studies of hangul deer (*Cervus elephus hanglu* Wagner)with reference to its conservation at Dachigam National park Kashmir, India *Ph.D. thesis submitted to Department of Zoology, University of Kashmir, Srinagar*.

057. Bhat, B.A.; Fazili, M.F. (2016). Historical Range and Present Status of Hangul Deer *Cervus elaphus hanglu* in Kashmir, India.*Global Journal for Research Analysis*.4(11).

058. Bhat, B.A.; Shah, G.M.; Jan, U.; Ahangar, F.A.; Fazili, M.F. (2009). Observations on rutting behaviour of Hangul deer *Cervus elaphus hanglu* (Cetartiodactyla: Cervidae)in Dachigam National Park, Kashmir, India. *Journal of Threatened Taxa.* 1(6): 355-357.

059. Bhat, H.R. (1968). Dobson's Long tongued Fruit Bat, *Eonycteris spelaea* (Dobson)for Kumaon Hills, U.P.: An Addition to the Chiropteran fauna of India. *Journal of the Bombay Natural History Society*. 64: 550-551.

060. Bhat, H.R. (1974). Records and observatins on bats of Himalayan region of Uttar Pradesh and West Bengal, India.*Journal of the Bombay Natural History Society*. 71(1): 51-57.

061. Bhatkoti, D. (1982). Himalayan Musk Deer in Kedarnath Wildlife Sanctuary.*Cheetal.* 23(3): 12-15.

062. Bhatnagar, Y.V. (1993). Origin and distribution of Himalayan ungulates and the factors affecting their present distribution.*IN: High altitude of the Himalaya. Nainital, Gyanodaya prakashan*. P. 247-254.

063. Bhatnagar, Y.V. (1997). Ranging and habitat utilization by the Himalayan ibex (*Capra ibex sibirica*)in Pin valley National Park.*Ph.D. thesis, Saurashtra University*. 130p.

064. Bhatnagar, Y.V. (2008). Relocation for Wildlife Reserves in the Greater and Trans Himalayas: Is it Necessary? *Conservation and Society*. 6(3): 263.

065. Bhatnagar, Y.V.; Ahmad, R.; Kyarong, S.S.; Ranjitsinh, M.K.; Seth, C.; Lone, I.A.; Easa, P.; Kaul, R.; Raghunath, R. (2009). Endangered markhor *Capra faconeri* in India: through war and insurgency. *Oryx.* 43: 407-411.

066. Bhatnagar, Y.V.; Mathur, V.B.; Sathyakumar, S.; Lal, P. (2016). Snow leopard status and conservation: regional reviews and updates : South Asia - India. *IN: Nyphus, P.J., McCarthy, T. and Mallon, D. (eds.)Snow Leopard - biodiversity of the World - Conservation from Genes to Landscape.* P. 457-469.

067. Bhatnagar, Y.V.; Mishra, C.; McCarthy, T. (2002). Forage relations between ibex *Capra ibex* and livestock in the Indian Trans-Himalaya. *Wildlife Institute of India, Dehradun*.

068. Bhatnagar, Y.V.; Rawat, G.S.; Johnsingh, A.J.T.; Stuwe, M. (1999). Ecological separation between ibex and resident livestock in a trans-himalaya protected area. *IN: Richard, C. and other (ed)Proceedings of International Workshop on the Grassland Ecology ad Management in Mountain Protected Areas of Nepal, Royal Bardia National Park, Nepal DNPWC HMG, Nepal, ICIMOD and WWF Nepal, March 15-19 Nepal*. P. 70-85.

069. Bhatnagar, Y.V.; Seth, C.; Takpa, J.; Ul-Haq, S.; Namgail, T.; Bagchi, S.; Mishra, C. (2007). A strategy for conservation of the Tibetan gazelle *Procapra picticaudata* in Ladakh.*Conservation and Society*.5: 262.

070. Bhatnagar, Y.V.; Starkey, R.W. (2002). Status conservation of the Tibeta Gazelle (*Procapra picticaudata*)in Ladakh.*IN: Conserving biodiversity in the Trans-Himalaya: Initiatives of Field conservation in Ladakh. Report submitted to the Wildlife Institute of India, the International Snow Leopard Trust and US Fish and Wildlife Service*.

071. Bhatnagar, Y.V.; Starkey, R.W.; Jackson, R. (1999). A survey of depredation and related wildlife human conflicts in Hemis National Park, Ladakh, Jammu and Kashmir.*International Snow Leopard Trust,Seattle.*

072. Bhatnagar, Y.V.; Wangchuk, R.; Mishra, C. (2006). Decline of the Tibetan gazelle *Procapra picticaudata* in Ladakh, India.*Oryx*. 40: 229-232.

073. Bhatnagar, Y.V.; Wangchuk, R.; Prins, H.H.; Van Wieren, S.E.; Mishra, C. (2006). Perceived conficts between pastoralism and conservation of the Kiang *Equus kiang* in the Ladakh Trans-Himalaya, India.*Environmental Management*. 38: 934-941.

074. Bhattacharjee, S. (2006). Monitoring leopard (*Panthera pardus*)and its prey in different human- leopard conflicts zones (high, medium and low)Pauri Garhwal, Uttaranchal. *Forest Research Institute*. 74p.

075. Bhattacharya, S.; Adhikari, B.S.; Rawat, G.S. (2009). Abundance of Royle's Pika (*Ochotona roylei*)along an altitudinal gradient in Uttarakhand, Western Himalaya.*Hystrix*. 20: 111-119.

076. Bhattacharya, S.; Adhikari, B.S.; Rawat, G.S. (2014). Influence of Microclimate on the activity of Royle's Pika in the Western Himalaya, India. *Zoological Studies*. 53(1): 1-11.

077. Bhattacharya, S.; Ray, C. (2015). Of plants and Pikas: evidence for a climate-mediated decline in forage and catche quality. *Plant Ecology and Diversity*. 8(5-6): 781-794.

078. Bhattacharya, T. (2013). Developing spatial database and habitat modelling for ungulates in Khangchendzonga Biosphere Reserve, Sikkim.*Ph.D. thesis, University of Calcutta, Kolkata.*

079. Bhattacharya, T.; Bashir, T.; Poudyal, K.; Sathyakumar, S.; Bisht, S.; Ganguli-Lachungpa, U. (2010). Distribution, relative abundance and habitat use by mountain ungulates in Prek Chu catchment of Khangchendzonga Biosphere Reserve, Sikkim, India. *Galemys : Boletin informativo de la Sociedad Espanola Para la conservacion y estudio de los mamiferos*. 22: 149-170.

080. Bhattacharya, T.; Bashir, T.; Poudyal, K.; Sathyakumar, S.; Saha, G.K. (2012). Distribution occupancy and activity patterns of goral *Nemorhaedus goral* and Serow (*Capricornis thar*)in Khangchendzonga Biosphere Reserve, Sikkim, India.*Mammal Study*. 37: 173-181.

081. Bhattacharya, T.; Kittur, S.; Sathyakumar, S.; Rawat, G.S. (2012). Diet overlap between wild ungulates and domestic livestock in the Greater Himalaya: implications for management of grazing practices. *Proc. Zool. Society*. 65: 11-21.

082. Bhattacharya, T.P.; Murmu, A.; Chaudhuri, S.; Mazumder, P.C. (2008). Status of four arboreal species of Mammals in Darjeeling District, West Bengal, India.*Journal of Indian Zoology*. 108(3): 1-118.

083. Bhattacharya, T.; Sathyakumar, S.; Rawat, G.S. (2007). Studies on animal habitat interactions in the buffer zone of Nanda Devi Biosphere Reserve.*Final Report. Dehradun, India: Wildlife Institute of India*.

084. Bhattacharya, T.; Sathyakumar, S. (2008). Abundance, group size and habitat use pattern of Himalayan tahr (*Hemitragus jemlahicus*)and goral (*Nemorhaedus goral*)in Chenab valley, Chamoli district, Uttarakhand. *Indian Forester*. 134: 1359-1370.

085. Bhattacharya, T.; Sathyakumar, S. (2010). Sighting of Tibetan wolf *Canis lupus chanko* in the Greater Himalayan range of Nanada Devi Biosphere reserve, Uttarakhand, India.*Journal of Threatened Taxa*. 2: 1345-1348.

086. Bhattacharya, T.; Sathyakumar, S. (2011). Natural Resource use by humans and response of wild ungulates: a case study from Bedini-Ali, Nanda Devi Biosphere Reserve, India. *Mountain Research and Development.* 31: 209-219.

087. Bhattacharyya, S.; Adhikari, B.S.; Rawat, G.S. (2013). Forage selection by Royle's pika (*Ochotona roylei*)in the western Himalaya, India. *Zoology*. 116(5): 300-306.

088. Bhattacharyya, S.; Adhikari, B.S.; Rawat, G.S. (2014). Influence of Snow, Food, and Rock Cover on Royle's Pika Abundance in Western Himalaya.*Arctic Antarctic and Alpine Research.* 46(46): 558-567.

089. Bhattacharyya, S.; Dutta, S.; Adhikari, B.S.; Rawat, G.S. (2015). Presence of a small mammalian prey species in open habitat is dependent on refuge availability. *Mammals Research*.60(4).

090. Bhowmik, M.K.; Chakraborty, T. (2001). Density of hog deer in Jaldapara and Gorumara Protected areas of Himalayan West Bengal.*Tigerpaper*. 29(1): 28-29.

091. Bishop, N.H. (1979). Himalayan Langurs: Temperate Colobines. *Journal of the Human Evolution*. 8: 251-281.

092. Biswas, G.G.; Das, D.; Mukhopadhyay, A. (1999). Richness of mammalian species in the higher elevations of Neora Valley National Park, *Zoo's Print.* 14(4): 10-12.

093. Biswas, T.; Mathur, V.B. (2000). A review of the present conservation scenario of hog deer (*Axis porcinus*)in its native range.*The Indian Forester*. 126: 1068-1084.

094. Blanford, W.T. (1872). Account of the visit to the eastern and northern frontiers of independent Sikkim, with notes on Zoology of the alpine and sub-alpine region, Part II, Zoology. *Journal of the Asiatic Society of Bengal*. 40(2): 367-420.

095. Blanford, W.T. (1875). List of Mammalia Collected by the late Dr. Stoliczka in Kashmir.Ladak, Eastern Turkestan and Wakhan; with descriptions of new species.*Journal of the Asiatic Society of Bengal.* 44: 105-115.

096. Blanford, W.T. (1898). Notes on *Lepus oiostolus* and *L. pallipes* from Tibet, and on a Kashmir Macaque.*Proc. Zool. Soc. Land*. 357-362 pp.

097. Blumstein, D.T. (1992). Playing with fire. Alpine choughs play with a Tibetan red fox. *Journal of the Bombay Natural History Society*. 90(3): 513-515.

098. Blyth, E. (1841). Description of another new species of Pika (*Lagomys*)from the Himalaya.*Journal of the Asiatic Society of Bengal*. 10: 816-817.

099. Blyth, E. (1864). A Memoir on the Rats and Mice of India.*Journal of the Asiatic Society of Bengal*.XXXII(4): 327-354.

100. Bonhote, J.L. (1903). On a new rat of the Mus rufescens group from Simla. *Mag. Nat. Hist.* 7(11): 473-474.

101. Bonhote, J.L. (1904). On the Mouse-Hares of the Genus *Ochotona*.*Proceedings of the Zoological Society of London*. 74(4): 205-220.

102. Bonhote, J.L. (1905). A new vole from Kashmir.*Ann. Mag. Nat. Hist*. 7(15: 197-199.

103. Borang, A.; Thapliyal, G. (1993). Natural distribution and ecological status of non-human primates in Arunachal Pradesh.*Indian Forester*. 119: 834-844.

104. Brandon-Jones, D. (2004). A taxonomic revision of the langurs and leaf monkeys (Primates: Colobinae)of South Asia. *Zoo's Print.* 19: 1552-1594.

105. Bujarbarua, P. (2001). Hoolock gibbon *Hylobates hoolock* feeding on Lichens.*Journal of the Bombay Natural History Society*. 98(3): 432.

106. Burrard, G. (1925). Big game hunting in the Himalayas and Tibet.*London: H. Jenkins*. 320p.

107. Camperio, C.A. (1984). A case of infanticide in a free-ranging group of rhesus monkeys (*Macaca mulatta*)in the Jackoo Forest, Shimla, India.*Primates*. 25: 372-377.

108. Carpenter, C.; Bauer, K.; Nepal, R. (1994). Report on flora and fauna of the Kanchanjunga region. *Report series no. 14. Kathmandu, WWF Nepal Program.*

109. Caughley, G. (1970). Habitat of the Himalayan Tahr *Hemitragus jemlahicus* (H. Smith).*Journal of the Bombay Natural History Society*. 67(1): 103-105.

110. Cavillini, P. (1992). Survey of the goral *Nemorhaedus goral* (Hardwicke)in Himachal Pradesh.*Journal of the Bombay Natural History Society.* 89(3): 302-307.

111. Chakraborty, D.; Ramakrishnan, U.; Panor, J.; Mishra, C.; Sinha, A. (2007). Phylogenetic relationships and morphometric affinities of the Arunachal macaque *Macaca munzala* a newly described primate from Arunachal Pradesh, North-Eastern India.*Molecular Phylogenetics and Evolution*. 44: 838-849.

112. Chakraborty, D.; Sinha, A.; Ramakrishnan, U. (2014). Mixed fortunes: ancinet expansion and recent decline in population size of a subtrapical montane Primate, the Arunachal Macaque munzala. *PlosOne.* 9.

113. Chakraborty, R.; De, J.K. (1995). Structure and Pattern of Cuticular Scales on Mid Dorsal Guard Hairs of Marbled Cat, *Felis marmorata charltoni* Gray (Mammalia: Carnivores: Felidae). *Records of the Zoological Survey of India*. 95: 1-2.

114. Chakraborty, R.; Nahmo, L.T.; Dutta, P.K.; Srivastava, T.; Mazumdar, K; Dorji, D. (2014). Status, abundance, and habitat associations of the red panda (*Ailurus fulgens*)in Pagchen Valley, Arunachal Pradesh, India.*Mammalia.* 79(1): 25-32.

115. Chakraborty, S. (1977). A melanistic example of woolly flying squirrel, *Eupetaurus cinereus* Thomas (Rodentia - Sciuridae).*Journal of the Bombay Natural History Society*. 74(2): 346-347.

116. Chakraborty, S. (1977). *Lepus arabicus* Ehrenberg from Jammu and Kashmir - an addition to the mammalian fauna of India.*Journal of the Bombay Natural History Society*. 74(2): 345-346.

117. Chakraborty, S. (1979). The Rusty-spotted Cat *Felis rubiginosa* I. Geoffroy in Jammu and Kashmir.*Journal of the Bombay Natural History Society*. 75: 478-479.

118. Chakraborty, S. (1982). Studies on the *Sciuropterus baberi* Blyth (Rodentia: Sciuridae). *Proc. Zool. Soc. Calcutta*. 32: 57-63.

119. Chakraborty, S.; Basu, V.; Sen, P.; Nandy, H. (2008). Report on the status of wild dog *Cuon alpinus* (Pallas) in Neora Valley National Park, district, Darjeeling, West Bengal. *Society for Environment, Nature and Sustainable Ecosystems (SENSE), Kolkata*. 28p.

120. Chakraborty, S.; De, J.K. (2002). Structure of Mid-Dorsal Guard Hairs of Hunting Leopard, *Acinonyx jubatus venaticus* (Griffith)and Lesser Panda, *Ailurus fulgens* F. Cuvier (Mammalia: Carnivora). *Records of the Zoological Survey of India*. 100: 1-2.

121. Chakraborty, S.; Dey, P.; Tripathi, S.; Jana, S.; Dey, A. (2008). Report on the status of clouded leopard *Neofelis nebulosa* (Griffth)and Hodgson's flying squirrel *Petaurista magnificus* (Hodgson)in Neora Valley National Park, Darjeeling, West Bengal (Survey period 2006-07). *Project funded by Department of Forest Department of West Bengal, Kolkata, Environment and Wildlife Society (NEWS).* 52p.

122. Chakraborty, S.; Sen, A.K. (1991). Mammals of the Mehao wildlife Sanctuary (Dibang Valley District, Arunachal Pradesh)with remarks on their Status.*Records of the Zoological Survey of India*. 88: 03-04.

123. Chakraborty, T. (1999). Himalayan heritage: the endangered Red Panda. *Himalayan Paryavaran.* 6: 129-132.

124. Chanchani, P. (2007). Patterns of habitat use and food selection among wild and domestic ungulates in the Sikkim Trans-Himalaya. *M.Sc. Dissertation submitted to Saurashtra University, Gujarat.* 97p.

125. Chanchani, P. (2008). Sighting of manual in Tso Lhamo North Sikkim. Cat News. 42: 18-19.

126. Chanchani, P.; Rawat, G.S.; Goyal, S.P. (2010). Unveiling a wildlife heaven: status and distribution of four Trans-Himalayan ungulates in Sikkim, India. *Oryx.* 44: 366-375.

127. Chandola, S. (2012). An assessment of human wildlife interaction in the Indus valley, Ladakh, Trans-Himalaya. *Ph.D. thesis submitted to Saurashtra University, Rajkot*.

128. Chandola, S.; Rawat, G.S.; Naithani, H.B. (2006). On the occurrence of a little known macaque in Uttaranchal. *The Indian Forester*. 132: 885-887.

129. Chandra, T.; Bhatt, D. (2012). Stripe-breasted pied woodpecker: first breeding record from Garhwal Himalaya. *Tigerpaper*. 39(3): 32.

130. Chandrasekhar, M.; Srivastava, T.; Kumar, V.; Kumar, A.; Umapathy, G. (2016). Non-invasive assessment of fecal progestagens and pregnancy detection in Himalayan musk deer (*Moschus chrysogaster*). *Theriogenology*. 85(2): 216.

131. Charoo, S.A. (2013). Asiatic black bear (*Ursus thibetanus*)abundance, habitat occupancy and conflicts with humans in and around Dachigam National Park, Kashmir. *Ph.D. thesis submitted to Saurashtra University, Rajkot.*

132. Charoo, S.A.; Sharma, L.K.; Sathyakumar, S. (2009). Asiatic black bear - human conflicts around Dachigam National Park, Kashmir. *Wildlife Institute of India, Dehradun.*

133. Charoo, S.A.; Sharma, L.K.; Sathyakumar, S. (2010). Distribution and relative abundance of Kashmir Red deer or Hangul (*Cervus elaphus hanglu*)at Dachigam National Park, Kashmir, India. *Galemys : Boletin informativo de la Sociedad Espanola Para la conservacion y estudio de los mamiferos*. 22: 171-184.

134. Charoo, S.A.; Sharma, L.K.; Sathyakumar, S.; Naqash, R.Y. (2010). First record of Small Indian Civet *Viverricula indica* in the Kashmir Himalaya, India. *Small Carnivore Conservation*. 43: 42-43.

135. Charoo, S.A.; Sharma, L.K.; Sathyakumar, S. (2011). Asiatic black bear - human interactions around Dachigam National Park, Kashmir, India. *Ursus*. 22(2): 106-113.

136. Chatterjee, K.; Majhi, A. (1975). Chromosomes of the Himalayan flying squirrel *Petaurista magnificus*. *Mammalia.* 39(3): 447-450.

137. Chauhan, A.; Pirta, R.S. (2010). Public opinion regarding human-monkey conflict in Shimla, Himachal Pradesh. *Journal of Human Ecology.* 30(2): 105-109.

138. Chauhan, D.S. (2008). Status and ecology of leopard (*Panthera pardus*)in relation to prey abundance, land use patterns and conflicts with human in Garhwal Himalayas. *Ph.D. thesis submitted to Forest Research Institute, Dehradun.*

139. Chauhan, N.P.S. (2003). Human casualties and livestock depredation by black and brown bear in the Indian Himalayas. *Ursus*. 14: 84-87.

140. Chauhan, N.P.S.; Barwal, K.S.; Kumar, D. (2009). Human wild pig conflict in selected states in India and mitigation strategies. *Acta Silvatica et Lignaria Hungarica*. 5: 189-197.

141. Chauhan, N.P.S.; Kumar, D.; Sharma, L.K. (2010). Comparative study of man-leopard conflict and socio-economic impacts on rural community in Mandi and Hamirpur districts, Himachal Pradesh. *Final Report submitted to Wildlife Institute of India, Dehradun.*

142. Chauhan, N.P.S.; Lalthanpuia. (2008). Status and distribution of Malayan Sun Bear (*Helarctos malayanus*)in North-Eastern states, India. *The Indian Forester*. 134: 1339-1348.

143. Chauhan, N.P.S.; Mohanta, R. (2011). Ecology of brown bear (*Ursus arctos*)with special reference to assessment of man brown bear conflicts in Kugti Wildlife Sanctuary, Himachal Pradesh, India. *Final report submitted to Wildlife Institute of India, Dehradun.*

144. Chetry, D.; Chetry, R.; Ghosh, K.; Chetry, D. (2007). Primate survey in Dri river valley in Debang Wildlife Sanctuary, Arunachal Pradesh, India. *Tigerpaper.* 34(4): 24-27.

145. Choudhury, A. (1990). Overlapping distribution of capped langur *Trachypithecus pileata* and Phayre's leaf monkey *T. phayrei*. *Journal of the Bombay Natural History Society*. 87(1): 8.

146. Choudhury, A. (1995). Status of wild elephants in Dibang valley of Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 92(3): 417.

147. Choudhury, A. (1997). Small carnivores (Mustelids, viverrrids, herpestids and one ailurid)in Arunachal Pradesh, India. *Small Carnivore Conservation*. 17: 7-9.

148. Choudhury, A. (1998). Status of the wild water buffalo *Bubalus arnee* in Lohit district, Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 96(1): 130-132.

149. Choudhury, A. (1998). Wild water buffalo *Bubalus bubalis arnee* in Dibang valley district of Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 94(1): 110-112.

150. Choudhury, A. (2001). An overview of the status and conservation of the red panda *Ailurus fulgens* in India. *Oryx*. 35: 250-259.

151. Choudhury, A. (2002). A comment on the review of Primates of North-east India.*Journal of the Bombay Natural History Society*. 99(2): 290-292.

152. Choudhury, A. (2002). Possible occurrence of Tibet red deer *Cervus elaphus wallichi* in Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 99(2): 286-288.

153. Choudhury, A. (2003). Status of serow (*Capricornis sumatraensis*)in Assam. *Tigerpaper.*

154. Choudhury, A. (2003). The changeable Hawk eagle in Northeast India and Bhutan. *Tigerpaper.* 31(3): 6-8.

155. Choudhury, A. (2003). The Mammals of Arunachal Pradesh. *Daya Books*.

156. Choudhury, A. (2010). Mammals and Birds in Dihang-Dibang Biosphere Reserve. *Tigerpaper*. 37(4): 1-4.

157. Choudhury, A. (2014). On the Occurrence of Dark-Coloured Indian or Red Muntjac *Muntiacus muntjak* Zimmermann in Sikkim-Darjeeling Areas with a Recent Sighting from West Sikkim, India. *Journal of the Bombay Natural History Society*. 111(1): 43-44.

158. Choudhury, A. (2015). The mammals of North-East India. *Published by Gibbon books, Guwahati, Assam and the Rhino Foundation for Nature in NE India, Assam*. 431p.

159. Choudhury, A. (2015). The Tibetan Wolf *Canis lupus chanco* Gray (Mammalia: Carnivora: Canidae)in Northeastern India with a recent sighting from northern Sikkim, India. *Journal of Threatened Taxa*. 7(8): 7475-7476.

160. Choudhury, A.K.; Punam; Sharma, P.K.; Chandel, S. (2007). Study on the physiography and biodiversity of Churdhar Wildlife Sanctuary of Himachal Himalayas, India. *Tigerpaper*. 34(4): 27-32.

161. Choudhury, A.R. (2013). A histomorphological study on the tongue of musk deer (*Moschus moschiferus*). *Indian Journal of Veterinary Anatomy*. 25(2).

162. Choudhury, A.U. (1999). Conservation of small cornivores (mustelids, viverrids, herpestids, and one ailuridin north Bengal, India. *Small Carnivore Conservation*. 20: 15-17.

163. Choudhury, S.; Gopi, G.V.; Mazumdar, K.; Samal, K. (2010). Conflict identification and prioritization in proposed Tsangyang Gyatso Biosphere Reserve, Eastern Himalaya, India. *Journal of the Bombay Natural History Society*. 107(3): 189.

164. Chundawat, R.S. (1992). Ecological studies of snow leopard and its associated prey species in Hemis Altitude National Park, Ladakh (J and K). *University of Rajasthan*. 167p.

165. Chundawat, R.S.; Qureshi, Q. (1999). Planning of Wildlife conservation in Leh and Kargil districts of Ladakh, Jammu and Kashmir. *Report submitted to the Wildlife Institute of India, Dehradun.*

166. Chundawat, R.S.; Rawat, G.S. (1994). Food habits of snow leopard in Ladakh. International Snow Leopard Trust and Northewest Plateau Institute of Biology. *Seattle: International Snow Leopard Trust.* 127-132 pp.

167. Chutia, P. (2010). Studies on hunting and the conservation of wildlife species in Arunachal Pradesh. *Sibcoltejo*. 5: 56-67.

168. Dadda, T.; Hussain, S.A. (2006). Relative abundance of lesser known carnivores in disturbed and undisturbed forsts of Pakke Tiger Reserve, Arunachal Pradesh, India. *The Indian Forester.* 132: 61-72.

169. Dalgliesh, G. (1917). Notes and observations on mammals collected and observed in teh Darjeeling district, India. *Journal of the Bombay Natural History Society*. 17(1): 122-127.

170. Dang, H.K. (1959). Himalayan Shikar. *Cheetal*. 2(1): 16-18.

171. Dang, H.K. (1960). Thar up a Chimney and a Burrhel Pastorale. *Cheetal.* 3(1): 1960.

172. Dang, H.K. (1961). Our Less Known Species - The Himalayan Thar (or Tahr). *Cheetal.* 4(1): 1961.

173. Dang, H.K. (1964). The Himalayan Wildlife Research Project. *Cheetal*.

174. Dang, H.K. (1967). Himalayan Notes. *Cheetal*. 10(1): 68-71.

175. Dang, H.K. (1967). The Snow Leopard and its Prey. *Cheetal*. 10(1): 72-84.

176. Dang, H.K. (1969). Himalayan Notes. *Cheetal*. 12(1): 135-137.

177. Dang, H.K. (1969). Wild Life in the Himalayas - Threatened from Kashmir to Assam. *Cheetal*. 12(1): 138-142.

178. Daniel, M. (1987). A short note on a new found group of Tahr. *Journal of the Bombay Natural History Society.* 84(3): 673-674.

179. Dar, T.A.; Habib, B.; Khan, J.A. (2012). Group size and habitat use and overlap analysis of four sympatric ungulate species in Shivalik ecosystem, Uttarakhand, India. *Mammalia*. 76(1): 31-41.

180. Dar, T.A.; Habib, B.; Khan, J.A.; Kushwaha, S.P.S.; Mendiratta, N. (2008). Population structure, habitat use and conservation of ungulates in Mosaic landscapes of Garhwal Himalayas, Uttarakhand. *International Journal of Ecology and Environmental Sciences*. 34: 83-89.

181. Das, N.; Chattopadhyay, K.K. (2013). Change in Climate - A threat to Eastern Himalayan Biodiversity. *Journal of Today's Biological Sciences: Research and Review*. 2(2): 89-107.

182. Das, P.K. (1990). Type-specimens of *Murina syclotis* dobson, 1872 (Chiroptera: Vespertilionidae)and their current repositories. *Records of the Zoological Survey of India*. 86(3-4): 431-435.

183. Das, S.M. (1980). Observations on a remarkable association between rhensus monkey (*Macaca mulatta villosa*)and the Himalayan langur (*Presbytis entellus schistaceus*)in the Kumaun Himalayas, India. *Journal of the Bombay Natural History Society*. 77(3): 496-497.

184. Das, T. (2010). A note book on biodiversity of Neora Valley National park. *Department of Forests, Government of West Bengal.* 212 pp.

185. Dasgupta, S.; Choudhury, P.; Bhattacharjee, B. (2014). Activity pattern of the orphaned Asiatic black bear Ursus thibetanus (Mammalia: Carnivora: Ursidae)cubs during rehabilitation processes. *Journal of Threatened Taxa.* 6: 6371-6375.

186. Datta, A. (1999). Pangolin sighting in Western Arunachal pradesh. *Journal of the Bombay Natural History Society*. 96(2): 310.

187. Datta, A. (1999). Small carivores in two protected areas of Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 96(3): 339-404.

188. Datta, A.; Goyal, S.P. (2008). Responses of diurnal tree squirrel to selective logging in Western Arunachal Pradesh. *Current Science*. 95: 895-902.

189. Datta, A.; Naniwadekar, R.; Anand, M.O. (2008). Occurrence and Conservation status of small carnivores in two protected areas in Arunachal Pradesh, North-east India. *Small Carnivore Conservation.* 39: 1-10.

190. Datta, A.; Pansa, J.; Madhusudan, M.D.; Mishra, C. (2003). Discovery of the leaf deer *Muntiacus putaoensis* in Arunachal Pradesh: An addition to the large mammals of India. *Current Science.* 84(3): 454-458.

191. De, J.K.; Chakraborty, R. (2006). Identification of Dorsal Guard Hairs of Four Indian Species of Bear (Mammalia: Carnivora: Ursidae). *Records of the Zoological Survey of India.* 106(Part-3): 19-26.

192. De, J.K.; Mandal, A.K.; Ghosh, M.K. (2006). Mammalia. Fauna of Arunachal Pradesh, *State Fauna Series, 13 (Part-I)(Published by the Director, Zool. Surv. Indi, Kolkata).* 21-68 pp.

193. Dey, P. (2009). Neora Valley National Park: Mountain retreat of secretive cats. *Environ*. 10(1): 8-15.

194. Dobson, G.E. (1872). Notes on some bats collected by Captain W.G. Murrary, in NOrth-Western Himalaya, with description of new species. *Proceedings of the Asiatic Society of Bengal.* 208-210 pp.

195. Dobson, G.E. (1873). Description of a new species of Vespertilio from northwestern Himalaya. *Journal of the Asiatic Society of Bengal*. 42(2): 205-206.

196. Dodsworth, P.T.L. (1913). Notes on some mammals found in Simla districts, the Simla hill states, and Kalka and Adjacent country. *Journal of the Bombay Natural History Society.* 22(3): 726-748.

197. Dollo, M.; Gopi, S.; Teegalapalli, K.; Mazumdar, K. (2010). Conservation of orange-bellied Himalayan squirrel *Dremomys lokriah* using a traditional knowledge system: a case study from Arunachal Pradesh. *Oryx*. 44: 573-576.

198. Dorjee, D.; Chakraborty, R.; Dutta, P.K. (2014). A note on the high elevation distribution record of Red Panda *Ailurus fulgens* (Mammalia: Carnivora: Ailuridae)in Tawang District, Arunachal Pradesh, India. *Journal of Threatened Taxa*. 6(9): 6290-6292.

199. Elwes, H.J. (1924). Notes on some mammals of Sikkim. *Journal of the Bombay Natural History Society*. 23: 143-144.

200. Farooq, M.; Rashid, H.; Muslim, M. (2012). Seasonal Habitat selection and spatial distribution of Kashmir Stage (*Cervus elaphus hanglu*)in Dachigam National Park, India. *International Journal of Remote Sensing and Geoscience*. 2(2): 16-22 pp.

201. Flousek, J. (2012). Contribution to the birds and mammals of Ladakh (N India). *Oecologia Montana.* 20(1-2): 27-32 pp.

202. Fooden, J. (2003). Tail length in enigmatic Northeast Indian macaques and probable relatives. *Journal of the Bombay Natural History Society*. 100(2): 285-292.

203. Forest, J.; Wikramanayake, E.; Shrestha, R.; Areendran, G.; Gyeltshen, K.; Maheshwari, A.; Mazumdar, S.; Naidoo, R.; Thapa, G.J.; Thapa, K. (2012). Conservation and climate change: Assessing the vulnerability of snow leopard habitat to tree-line shift in the Himalaya. *Biological Conservation*. 150: 129-135.

204. Fox, J.L. (1989). A review of the status and ecology of the snow leopard. *Panthera uncia*. *Seattle, International Snow Leopard Trust*. 40p.

205. Fox, J.L.; Chundawat, R.S. (1988). Observations of snow leopard stalking, killing and feeding behaviour. *Mammalia.* 52: 137-140.

206. Fox, J.L.; Chundawat, R.S. (1995). Wolves in the Trans Himalayan region of India; the continued survival of a low-density population. Ecology and Conservation of Wolves in a changing world. 95-103 pp.

207. Fox, J.L.; Nurbu, C. (1990). Hemis, a national park for snow leopard in India's Trans Himalaya. *International Pedigree Book of Snow Leopards*. 6: 71-84.

208. Fox, J.L.; Nurbu, C.; Chundawat, R.S. (1991). The mountain ungulates of Ladakh, India. *Biological Conservation.* 58: 167-190.

209. Fox, J.L.; Sinha, S.P.; Chundawat, R.S.; Das, P.K. (1986). A survey of Snow leopard and associated species in the Himalaya of North-Western India. *Project Completion Report. Wildlife Institute of India, Dehradun. U.S. Fish and Wildlife Service. International Snow Leopard Trust.* 50p.

210. Fox, J.L.; Sinha, S.P.; Chundawat, R.S.; Das, P.K. (1988). A field survey of snow leopard presence and habitat use in North Western India. *Journal of the Bombay Natural History Society.* P. 99-111.

211. Fox, J.L.; Sinha, S.P.; Chundawat, R.S.; Das, P.K. (1991). Status of the snow leopard Panthera uncia in Northwest India. *Biological Conservation*. 55: 283-298.

212. Fry, T.B. (1923). A collection of mammals made by H. Stevens in the Darjeeling District. *Journal of the Bombay Natural History Society*. 29(1): 90-92.

213. Ganguli-Lachungpa, U. (1997). Tibetan Gazelle *Procapra picticaudata* in Sikkim, India. *Journal of the Bombay Natural History Society*. 94(3): 557.

214. Ganguli-Lachungpa, U. (1998). On the occurrence of the tiger *Panthera tigris* in Sikkim. *Journal of the Bombay Natural History Society*. 95(1): 109-110.

215. Ganguli-Lachungpa, U. (1999). First confirmed record; Discovery of Takin *Budorcas taxicolor* in Sikkim. *Cheetal.* 38(2): 61-63.

216. Ganguli-Lachungpa, U. (2000). Himalayan tahr in Khangchendzonga National Park, Sikkim. *Interim Report for Shri Kailash Sankhla First National Fellowship Award.*

217. Ganguli-Lachungpa, U. (2000). Takin *Budorcas taxicolor* at Menla Reserve Forest (3,050 m)East Sikkim - Westward range extension and observation of unusual behaviour. *Journal of the Bombay Natural History Society*. 97(2): 272-274.

218. Ganguli-Lachungpa, U. (2002). Himalayan Marmot *Marmota bobak* (Muller)resighted after eight years at Kyongnosla alpine sanctuary, East Sikkim. *Journal of the Bombay Natural History Society.* 99(2): 288-289.

219. Gaston, A.J.; Garson, P.J. (1993). A re-appraisal of the Great Himalayan National Park, Kullu district, Himachal Pradesh, India. *Report to HPDFFC, International Trust for Nature Conservation, WWF-India, Oriental Bird Club*. 10p.

220. Gaston, A.J.; Garson, P.J.; Hunter, M.L. (1983). The status and conservation of forest wildlife in Himachal Pradesh, Western Himalayas. *Journal of the Bombay Natural History Society*. 27: 291-314.

221. Gaston, A.J.; Hunter, M.L.; Garson, P.J. (1981). The wildlife of Himachal Pradesh, Western Himalayas: Report of the Himachal Wildlife Project. *School of Forest Resources, University of Maine).* 159p.

222. Gee, E.P. (1961). Some notes on the golden cat *Felis temmincki* Vigors and Horsfield. *Journal of the Bombay Natural History Society*. 58(2): 508-511.

223. Gee, E.P. (1965). Report on the status of the Kashmir Stag - October 1965. *Journal of the Bombay Natural History Society*. 62(3): 379-393.

224. Gergan, S.S. (1959). Our Lesser Known Species - The Tibetan Antelope (*Panthelops Hodgsoni*). *Cheetal.* 2(2): 72-73.

225. Gergan, S.S. (1959). Wild Life of the Ladakh District. *Cheetal.* 2(2): 38-41.

226. Ghose, D.; Dutta, P.K. (2010). Status and distribution of Red Panda *Ailurus fulgens fulgens* in India. *Red Panda: Biology and Conservation of the First panda*. 357p.

227. Ghose, D.; Molur, S.; Leus, K. (2007). Report of the Red panda pre-PHVA meeting 17-19 Feb, 2007. *Sikkim, WWF-India.*

228. Ghose, P.S.; Sharma, B.; Chakraborty, R.; Legshey, K. (2011). Status of red panda in Sikkim: a case tudy in east Sikkim. Biodiversity of Sikkim - exploring and conserving a global hotspot. *Information and Public Relations Department, Department of Sikkim*. P. 363-378.

229. Ghose, P.S.; Sharma, B.K.; Theengh, L.T.; Shreshtha, P.; Pintso, T. (2012). Records of spotted lingsang *Prionodon pardicolor* from Barsey Rhododendron Sanctuary, Sikkim India. *Small Carnivore Conservation*. 47: 67-68.

230. Ghose, P.S.; Shreshtha, P.; Theengh, L.T.; Pintso, T.; Sharma, B.K. (2014). Records of small carnivores in Barsey Rhododendron Sanctuary, Sikkim, India. *Small Carnivore Conservation*. 51: 42-45.

231. Ghose, R.K. (1976). A new record of the Shrew, *Suncus murinus griffithi* (Horsfield)from Darjeeling district, West Bengal. *Journal of Zoological Society of India*. 26: 151-152.

232. Ghose, R.K. (1981). Taxonomic review of Hodgson's giant flying squirrel, *Petaurista magnificus* (Hodgson)(Sciuridae - Rodentia)with description of a new subspecies from Darjeeling district, West Bengal, India. *Journal of the Bombay Natural History Society*. 78(1): 93-102.

233. Ghose, R.K. (1983). A note on the status of the flying squirrel of Darjeeling and Sikkim. *Journal of the Bombay Natural History Society*. 80(2): 411.

234. Ghose, R.K. (1984). Record of the fulvous fruit bat, Rousettus leschenaulti (Desmarest, 1820)from Sikkim, with notes on its interesting feeding habit and status. *Journal of the Bombay Natural History Society*. 81(1): 178-179.

235. Ghose, R.K. (1985). Ecological observation on the Neora Valley, Darjeeling District, West Bengal. *Journal of the Bengal Natural History Society (New Series).* 3(2): 84-98.

236. Ghose, R.K. (1990). Deterioration of the habitat of the Moupin pika, *Ochotona thibetana* Sikimaria Thomas, in Sikkim, India. *Records of the Zoological Survey of India*. 87(4): 329.

237. Ghose, R.K.; Bhattacharya, T.P. (1995). New distributional record of *Petaurista fulvinus* Wroughton, 1911 (Mammalia: Sciuridae), with comments on its taxonomic status. *Journal of the Bombay Natural History Society.* 92(2): 254-255.

238. Ghose, R.K.; Ghosal, D.K. (1969). Further observation on the Darjeelign White-bellied Rat, *Rattus niviventer monticola* Ghose. Labdev. *Journal of Science and Technology*. 7-8(2): 173.

239. Ghose, R.K.; Roy, S.G. (1972). Morphometric variation in the Sikkim vole, *Pitymys sikkimensis* (Hodgson)from Darjeeling district, West Bengal, India. *Journal of the Zoological Society of India.* 24: 29-37.

240. Ghosh, S. (1980). Observation on carnivorous habit of an Irrawaddy squirrel, *Callosciurus pygerythrus* (Geoffroy). *Journal of the Bombay Natural History Society*. 77(2): 316-317.

241. Gibson-Hill, C.A. (1951). Notes on the clouded leopard (*Neofelis nubulosa*)Griffth. *Journal of the Bombay Natural History Society*. 49(3): 543-546.

242. Gopi, G.V.; Lyngdoh, S.; Muthamizh, K.; Selvan, K.M. (2010). Conserving the endangered Asiatic wild dog *Cuon alpinus* in Western Arunachal pradesh: fostering better coexistence for conservation. *Final technical report submitted to Rufford Small Grant program*. 54p.

243. Goyal, S.P. (2007). Status and ecology in leopard in Pauri Garhwal. Phase II: Ranging patterns and reproductive biology of leopard (*Panthera pardus*)in Pauri Garhwal Himalayas. *Wildlife Institute of India, Dehradun.*

244. Green, M.J.B. (1978). Himalayan musk deer (*Moschus moschifeus moschiferus*). *In: Threatened Deer (Proceedings of a working meeting of the Deer Specialist Group of theSurvival Services Commission*. *Int. Union Conserv. Nat. and Natural Resources, Morgs, Switzerland)*. P. 56-64.

245. Green, M.J.B. (1980). Himalayan Musk Deer, India - World Wildlife Fund Project No. 1328. *Cheetal*. 22(2-3): 63-64.

246. Green, M.J.B. (1985). Aspects of the ecology of the Himalayan musk deer. *University of Cambridge.* 280 pp.

247. Green, M.J.B. (1986). The distribution, status and conservation of the Himalayan Musk deer *Moschus chrysogaster*. *Biological Conservation*. 35: 347-375.

248. Green, M.J.B. (1987). Diet composition and quality in Himalayan Musk deer based on fecal analysis. *Journal of Wildlife Management*. P. 880-892.

249. Green, M.J.B. (1987). Ecological separation in Himalayan ungulates. *Journal of Zoology*. 1: 693-719.

250. Green, M.J.B. (1987). Some ecological aspects of a Himalayan population of musk deer. In: Biology and Management of the Cervidae. *Edited by C.M. Wemmer. Washington, D. C.: Smithsonian Institution Press.* 307-319.

251. Groves, C.P. (1976). The taxonomy of Moschus (Mammalia: Artiodactyla)with particular reference to the Indian region. *Journal of the Bombay Natural History Society*. 72: 662-676.

252. Guha, S.; Goyal, S.P.; Kashyap, V. (2007). Molecular phylogeny of musk deer: a genomic view with mitochondrial 16S rRNA and cytochrome b gene. *Molecular Phylogenetics and Evolution*. 42: 585-597.

253. Gupta, P.; Jha, A.K. (2015). Study of feeding pattern and total feeding time of Captive Red Pandas (*Ailurus fulgens fulgens*)at Padmaja Naidu Himalayan Zoological Park, Darjeeling. *Zoo's Print. 30*(3): 11-13.

254. Habib, B.; Dar, T.A.; Khan, J.A.; Kushwaha, S.P.S. (2010). Evaluation of habitat suitability models for four sympatric ungulate species in Pathri Rao Watershed adopting geo-statistical modelling. *Current Science*. 99: 500-506.

255. Habib, B.; Gopi, G.V.; Noor, A.; Mir, Z.R. (2014). Ecology of leopard *Panthera pardus* in relation to prey abundance and land use pattern in Kashmir Valley. *Project Completion Report submitted to Department of Science and Technology, Govt. of India, Wildlife Institute of India.*

256. Habib, B.; Nazir, I.; Fazili, M.F.; Bhat, B.A. (2015). Human-wildlife conflict-causes, consequences and mitigation measures with special reference to Kashmir. *The Journal of Zoology Studies*. 2(1): 26-30.

257. Habib, B.; Shrotriya, S.; Jhala, Y.V. (2013). Ecology and Conservation of Himalayan Wolf. *Wildlife Institute of India-Technical Report No. TR-2013/01,*46 pp.

258. Haimoff, E.H. (1985). Some observations on the singing behaviour of the Hoolock gibbon (*Hylobates hoolock*).*Journal of the Bombay Natural History Society*. 82(1): 1-12.

259. Hassan, U. (2012). Study of interaction between hangul deer and livestock at Dachigam National Park Kashmir. *Ph.D. thesis submitted to University of Kashmir, Srinagar.*

260. Hazarika, A.A. (2007). Study on tiger population distribution in some reserved forest areas of Arunachal Pradesh. *Tigerpaper.* 34(3): 5-8.

261. Hennelly, L. (2015). Chasing Shanku: Wolf Research in the High Himalaya. *International Wolf. 20*15: 12-13.

262. Hennelly, L.; Habib, B.; Lyngdoh, S. (2015). Himalayan wolf and feral dog displaying mating behaviour in Spiti Valley, India, and Potential Conservation threats from sympatric feral dogs. *Canid Biology and Conservation*. 18(7): 27-30.

263. Hoffmann, R.S. (1985). A review of the genus *Soriculus* (Mammalia - Insectivora). *Journal of the Bombay Natural History Society.* 82(3): 459-481.

264. Holloway, C.W. (1970). The Hangul in Dachigam. A Census. *Oryx*. 10(6): 373-382.

265. Holmes, J. (1970). A note on Himalayan Tahr. *Journal of the Bombay Natural History Society*. 67: 103-105.

266. Hussain, A. (2009). Interaction between *Equus kiang* and livestock in Hanley Valley of Changthang Wildlife Sanctuary, Leh, Ladakh. *M.Sc. thesis/dissertation submitted to Saurasthara University, Gujarat.*

267. Hussain, A.; Qureshi, Q.; Rawat, G.S. (2010). Tibetan wild ass (*Eqqus kiang*)-Livestock interactions in the Changthang Wildlife Sanctuary, Ladakh, India. *Galemys : Boletin informativo de la Sociedad Espanola Para la conservacion y estudio de los mamiferos*. 22(1): 395-405.

268. Hussain, S.A.; Gupta, S.K.; de Silva, P.K. (2011). Biology and ecology of Asian small-clawed otter *Aonyx cinereus* (Illiger, 1815)a review. *IUCN otter specialist otter group bulletin.* 28(2): 63-75.

269. Ilyas, O. (2008). Conservation Status and Habitat Use of Musk Deer in Govind Pashu Vihar Wildlife Sanctuary and National Park, Uttarkashi, India. *International Journal of Ecology and Environmental Sciences*. 34(2): 67-74.

270. Ilyas, O. (2015). Status, habitat use and conservation of Alpine musk deer (*Moschus chrysogaster*)in Uttarakhand Himalayas, India. *Journal of Applied Animal Research*. 43(1): 83-91.

271. Ilyas, O.; Khan, J.A. (2003). Food habits of barking deer (*Muntiacus muntjak*)and goral (*Naemorhedus goral*)in Binsar Wildlife Sanctuary, India. *Mammalia*. 67(4): 521-532.

272. Iqbal, S.; Qureshi, Q.; Sathyakumar, S.; Inayat Ullah, M. (2005). Predator prey relationship with special reference to Hangul (*Cervus elaphus hanglu*)in Dachigam National Park. *Final Report of the Department of Wildlife Protection, Jammu and Kashmir Government, Srinagar and Wildlife Institute of India, Dehardun*.

273. Jackson, R.; Ahlborn, G. (1984). Preliminary habitat suitability model for the snow leopard *Panthera uncia* in West Nepal. *Journal of the Bombay Natural History Society*. 4: 43-52.

274. Jackson, R.; Mallon, D.; McCarthy, T.; Chundawat, R.S.; Habib, B. (2009). *Panthera uncia*. *IN: IUCN 2009, IUCN Red list of threatened species, Switzerland*.

275. Jackson, R.; Mishra, C.; McCarthy, T.; Ale, S.B. (2010). Snow leopards: conflict and conservation. *The Biology and Conservation of Wild Felids*. P. 417-430.

276. Jackson, R.; Roe, J.D.; Wangchuk, R.; Hunter, D.O. (2006). Estimating snow leopard population abundance using photography and capture-recapture techniques. *Wildlife Society Bulletin.* 34(3): 772-781.

277. Jackson, R.; Wangchuk, R. (2001). Linking snow leopard conservation and people-wildlife conflict resolution: grassroots measures to protect the endangered snow leopard from herder retribution. *Endangered Species Update*. 18(4): 138-141.

278. Jackson, R.; Wangchuk, R. (2004). A community-based approach to mitigating livestock depredation by snow leopards. *Human dimensions of Wildlife* 9(4): 1-16.

279. Jackson, R.; Wangchuk, R.; Dadul, J. (2003). Local people's attitudes toward wildlife conservation in the Hemis National Park with special reference to the conservation of large predators. *Field Series Document. 7.*

280. Jackson, R.; Wangchuk, R.; Hillard, D. (2002). Grassroots measures to protect the endangered snow leopard from herder retribution: lesson learned from predator proofing corrals in Ladakh. *International Snow leopard Trust, Seattle, Washington, USA*. P. 104-117.

281. Jain, M.S. (1980). Observations on birth of a musk deer fawn. *Journal of the Bombay Natural History Society.* 77(3): 497-498.

282. Jamdar, N. (1985). The reflected glow from the eyes of the large red flying sqirrel (*Petaurista petaurista*). *Journal of the Bombay Natural History Society*. 82(2): 397.

283. James, J.; Ramakrishnan, U.; Datta, A. (2008). Molecular evidence for the occurrence of the leaf deer *Muntiacus putaoensis* in Arunachal Pradesh, North-East India. *Conservation genetics*. 9: 927-931.

284. Janecka, J.E.; Jackson, R.; Yuquang, Z.; Diqiang, L.; Munkhtsog, B.; Buckley-Beason, V.; Murphy, W.J. (2008). Population monitoring of snow leopards using non-invasive collection of scat samples: a pilot study. *Animal Conservation*. 11(5): 401-411.

285. Jha, A. (1999). Status of the Weasel family in Sikkim. *Tigerpaper.*26(1):1-4.

286. Jha, A. (2000). A preliminary status survey of cats in Sikkim. *Tigerpaper.*27: 12-14.

287. Jha, A.; Avasthe, R.K. (2004). Mammals of Sikkim. *Sikkim: WWF-India-Department of Science and Technology*. 9: 307-315.

288. Jha, A.; Jha, V. (2013). Feral fauna of Sikkim: a preliminary survey. *Tigerpaper*. 40(4):

289. Jha, A.K. (2010). Release and reintroduction of captive-bred Red Pandas into Singalila National Park, Darjeeling, India. *In: Red Panda: Biology and Conservation of the First Panda*. 435 pp.

290. Johnsingh, A.J.T. (1991). Japanese serow: lessons for Himalayan serow conservation. *WII Newsletter*. 6: 20-22.

291. Johnsingh, A.J.T. (2003). Bear conservation in India. *Journal of the Bombay Natural History Society.* 100(2-3): 190-201.

292. Johnsingh, A.J.T.; Ramesh, K.; David, A.; Rajapandian, K.; Mohan, D. (2006). Enabling tigers to survive in Haryana and Himachal pradesh, Northern India. *Journal of the Bombay Natural History Society*. 103: 251-253.

293. Joshi, R.; Kumar, L.; Dhyani, D.; Dimri, R. (2006). Martes flavigula: in search of conservation. *Tigerpaper*. 33(4): 20-23.

294. Kait, R.; Kumar, S.; Sahi, D.N. (2012). Morphological and anatomical difference in hairs of some wild mammals of District Jammu. *Tigerpaper*. 39(4): 17-24.

295. Kait, R.; Sahi, D.N. (2007). Small Indian Civets (Viverracula indica)facing danger in Jammu district. *Tigerpaper*. 34(1): 4-6.

296. Kakati, K. (2004). Impact of forest fragmentation on the hoolock gibbon (Hylobates hoolock)in Assam India. *Ph.D. thesis submitted to University ofCambridge*

297. Kala, C.P.; Singh, S.K.; Rawat, G.S. (2002). Effects of sheep and goat grazing on the species diversity in the alpine meadows of Western Himalaya. *The Environmentalist*. 22: 183-289.

298. Kandari, O.P. (1982). Nanda Devi - India's Highest Himalayan National Park: The Problem of Resource Use and Conservation. *Cheetal.* Vol. 24: (1-2): 29-37.

299. Kandari, O.P. (1984). Valley of Flowers National Park (India). *Cheetal*. Vol. 26 (No. 2): 16-23.

300. Kandel, K.; Huettmann, F.; Fuwal, M.K.; Regmi, G.R.; Nijman, V.; Nekaris, K.A.I.; Lama, S.T.; Thapa, A.; Sharma, H.P.; Subedi, T.R. (2015). Rapid multi-nation distribution assessment of a charismatic conservation species using open access ensemble model GIS predictions: Red panda (*Ailurus fulgens*)in the Hindu-Kush Himalaya region. *Biological Conservation*. 181: 150-161.

301. Kandpal, V. (2011). Threatened Biodiversity Impact Assessment and Economic evaluation of traded, threatened species with particular reference to Trans-boundary tracts of Nanda Devi Biosphere Reserve, Uttarakhand. *Ph.D. thesis, FRI University, Dehradun*.

302. Kandpal, V.; Sathyakumar, S. (2010). Distribution and relative abundance of mountain ungulates in Pindari valley, Nanda Devi Biosphere Reserve, Uttarakhand, India. *Galemys.* 22(1): 277-294.

303. Kaur, B.J. (2013). Bear Conservation needs artistic approach - 21st International Conference on Bear Research and Management. *NeBio Journal.* Vol. 4(3): 2013, 53-57.

304. Kaushik, M.; Banerjee, K.; Naha, D.; Jhala, Y.V.; Sathyakumar, S.; Qureshi, Q. (2015). Human Carnivore Negative Interactions. *Report number: Management of Human - Wildlife Interactions and Invasive Alien Species in India Report Number (TR-2015/004), Affiliation: Wildlife Institute of India.*

305. Khajuria, H. (1959). Field observations on the habits of the Himalayan striped squirrel and the Sikkim vole in Darjeeling district, West Bengal. *In: Proceedings of the First All-India Congress of Zoology.* 959 (21): 245-246.

306. Khajuria, H.; Ghose, R.K. (1970). On a collection of small mammals from Darjeeling district, West Bengal. *Journal of the Bengal Natural History Society*. 136 (1): 15-36.

307. Khaling, S.; Kaul, R.; Saha, G.K. (1999). A community based approach to mitigating livestock depredation by snow leopards. *Human Dimensions of Wildlife*. 49 (10-11): 53-55.

308. Khatiwara, S.; Srivastava, T. (2014). Red Panda *Ailurus Fulgens* and other small cornivores in Kyongnosla alpine Sanctuary, East Sikkim, India. *Small Carnivore Conservation.* 50: 35-38.

309. Khursheed, A. (2007). Kashmir Stag-The Final Journey. *Hornbill*. 28-31 pp.

310. Kinloch, A.A. (1892). Large game hunting in Tibet - The Himalayas, Northern and Central India. *Thacker, Spink and Co. Bombay.*

311. Kittur, S.; Sathyakumar, S.; Rawat, G.S. (2004). Livestock interactions at Kedarnath Wildlife Sanctuary, Western Himalaya. *Wildlife Institute of India, Dehradun.*

312. Kittur, S.; Sathyakumar, S.; Rawat, G.S. (2006). Himalayan Tahr - livestock interaction in Kedarnath Wildlife Sanctuary, Uttaranchal. *Final report. Dehradun: Institutional Cooperation Programme between Wildlife Institute of India and University of Tromso, Norway.*

313. Kittur, S.; Sathyakumar, S.; Rawat, G.S. (2009). Assessment of spatial and habitat use overlap between Himalayan Tahr and livestock in Kedarnath Wildlife Sanctuary, India. *European Journal of Wildlife Research*. 56: 195-204.

314. Kohli, M.; Sankaran, M.; Suryawanshi, K.R.; Mishra, C. (2014). A penny saved is a penny earned: lean season foraging strategy of an alpine ungulate. *Animal Behaviour.* 92: 93-100.

315. Kotia, A.; Angmo, K.; Bharti, R.; Adhikari, B.S.; Rawat, G.S. (2014). A record of the little known Stoat *Mustela erminea ferghanae* from Ladakh, India. *Small Carnivore Conservation.* 44: 42-43.

316. Krishna, M.; Ray, P.C.; Sarma, K.; Kumar, A. (2013). Observations on Particolored flying squirrel *Hylopetes alboniger* (Hodgson 1836)in northeast India. *Zoo's Print.* 28: 18-20.

317. Kukreti, M.; Bhatt, D. (2014). Status and nature of human-wildlife conflict in Shivalik hills, Himalayas : a case study from Lansdowne forest division, Uttarakhand, India. *Tigerpaper.* 41(1): 27-31.

318. Kumar, A.; Paliwal, R.; Valley, S. (2015). Feral dogs of Spiti Valley, Himachal Pradesh: An emerging threat for wildlife and human life. *Current Science*. 108(10): 1799.

319. Kumar, D. (2012). Study of leopard menace, food habits and habitat parameters in Mandi district, Himachal Pradesh. *Ph.D. thesis submitted to Saurashtra University, Gujarat*. 278p.

320. Kumar, P.; Pirta, R.S.; Gadgil, M.; Sahoo, S.K. (1989). Population survey and conservation of Macaques and Langurs in Himachal Pradesh. *In: The Behaviour (Patel, B.H. ed.). Sir P.P. Institute of Science. Bhavnagar.* 185-191 pp.

321. Kumar, P.; Pradhan, U.; Chettri, V.; Jha, A.K. (2014). Hematological and Biochemical values of Red Panda (*Ailurus fulgens fulgens*)at Padmaja Naidu Himalayan Zoological Park, Darjeeling. *Zoo's Print*. 29(8): 26-27.

322. Kumar, R.S.; Gama, N.; Raghunath, R.; Sinha, A.; Mishra, C. (2008). In search of the Munzala: distribution and conservation status of the newly-discovered Arunachal Macaque Macaca munzala. *Oryx*. 42: 360-366.

323. Kumar, R.S.; Mishra, C.; Sinha, A. (2007). Foraging ecology and time activity budget of the Arunachal Macaque *Macaca munzala* - a preliminary study. *Current Science*. 93: 532-539.

324. Kumar, R.S.; Mishra, C.; Sinha, A. (2005). Discovery of the Tibetan macaque *Macaca thibetana* in Arunachal Pradesh, India. *Current Science*. 88: 1387-1388.

325. Kumar, S.; Sahi, D.N. (2009). Mammalian diversity and management plan for Jasrota Wildlife Sanctuary. *Tigerpaper*. 36(1): 18-22.

326. Kurt, F. (1978). Kashmir deer (*Cervus elaphus hanglu*)in Dachigam. *In: Threatened deer, Morges: IUCN.* 87-108 pp.

327. Kurt, F. (1979). Study plan for IUCN/WWF project no. 1103 (22-4): Hangul, India: ecological study to identify conservation needs. *Final Report. IUCN/WWF*. 24p.

328. Kushwaha, S.P.S.; Khan, A.; Habib, B.; Qadri, A.; Singh, A. (2004). Evaluation of sambar and Muntjac habitats using geostatistical modelling. *Current Science*. 86: 1390-1400.

329. Lal, J.P. (1976). Occurrence of the Little Indian Field Mouse, *Mus booduga* (Gray)in Jammu and Kashmir. *Newsletter of Zoological Survey of India*. 2: 153-154.

330. Lal, J.P. (1982). Andersen's Rufous horseshoe bat, *Rhinolophus rouxi sinicus* Andersen (Chiroptera - Rhinolophidae)from Arunachal Pradesh, India. *Journal of the Bombay Natural History Society.* 79(2): 402.

331. Lamba, B.S. (1987). Status Survey of Fauna: Nanda Devi National Park (Mammals and Birds). *Records of the Zoological Survey of India. Ocassional Paper no*. 103. 50 pp.

332. Lamba, B.S.; Tak, P.C. (1984). Mammals of Garhwal region. *Cheetal*. 26(1): 45-48.

333. Lindsay, H.M. (1927). Kangra and Chamba, Bombay Natural History Society's Mammal Survey of India. Report No. 44: *Journal of the Bombay Natural History Society*. 31: 597-607.

334. Lindsay, H.M. (1929). Scientific results from the Mammals Survey. No. 48. Indian Shrews. *Journal of the Bombay Natural History Society*. 33: 326-340.

335. Littledale, H. (1924). Camping in Chamba. *Journal of the Bombay Natural History Society.* 11: 482-505.

336. Lovari, S.; Apollonio, M. (1994). On the rutting behaviour of the Himalayan goral *Nemorhaedus goral* (Hardwicke, 1825*). Journal of Ethology*. 12(1): 25-34.

337. Lovari, S.; Mishra, C. (2016). Living on the Edge: Depletion of Wild Prey and Survival of the Snow Leopard. *In: Snow Leopards, Elsevier, Editors: T. McCarthy and D. Mallon*. 69-73 pp.

338. Ludlow, F. (1959). The shou or ''Sikkim Stag''. *Journal of the Bombay Natural History Society.* 56(3): 626-627.

339. Lydekker, R. (1877). Notes on the mammalian fauna of the Wardwan and Chenab Valleys. *Journal of the Asiatic Society of Bengal*. 46: 283-288.

340. Lydekker, R. (1924). The game animals of India, Burma, Malaya, Tibet. *Rowland Ward, London.*

341. Lyngdoh, S.; Gopi, G.V.; Selvan, K.M. (2014). Effect of interactions among ethnic communities, livestock and wild dogs (*Cuon alpinus*)in Arunachal Pradesh, India. *European Journal of Wildlife Research*. 60: 771-780.

342. Lyngdoh, S.; Selvan, K.M.; Gopi, G.V.; Habib, B. (2011). First photographic evidences of two cats from Pakke Tiger Reserve, Western Arunchal Pradesh. *Current Science*. 101: 1284-1286.

343. Lyngdoh, S.; Shrotriya, S.; Goyal, S.P.; Clements, H.; Hayward M.W.; Habib, B. (2014). Prey Preferences of the Snow Leopard (*Panthera uncia*): Regional Diet Specificity Holds Global Significance for Conservation. *PlosOne*. 9(2).

344. Mahajan, K.K.; Mukherjee, R.N. (1974). Checklist of mammals of Himachal Pradesh. *Hippocampus.* 5: 40-47.

345. Maheshwaran, G.; Kumar, A. (2008). Trapping success and inventory of small mammals in Jaldapara Wildlife Sancutary, India. *Tigerpaper*. 35(1): 22-28.

346. Maheshwari, A.; Ghose, P.S. (2012). Snow leopard surveys in Sikkim. *WWF-India, New Delhi.*

347. Maheshwari, A.; Meibom, S.V. (2016). Monitoring illegal trade in snow leopard (2003-2012). *IN: McCarthy, Tom and Mallon, D. (eds.)Snow Leopards. Academic Press, Elsevier.* 644p.

348. Maheshwari, A.; Midha, N.; Cherukupalli, A. (2014). Participatory Rural Appraisal and Compensation Intervention: Challenges and Protocols while managing Large Carnivore Human Conflict. *Human Dimensions of Wildlife* 19(1): 62-71.

349. Maheshwari, A.; Midha, N.; Paliwal, A.; Sharma, B.K.; Ghose, P.S.; Shreshtha, P.; Paranjpe, S. (2013). A preliminary Overview of the Subspecies of Red Fox and Tibetan Sand Fox in the Himalaya, India. *Journal of the Bombay Natural History Society*. 110(3): 193-196.

350. Maheshwari, A.; Sharma, D.; Sathyakumar, S. (2013). Snow leopard (*Panthera uncia*)Surveys in the Western Himalayas, India. *Journal of the Ecology and the Natural Environment.* 5(10): 303-309.

351. Maheshwari, A.; Takpa, J.; Kujur, S.; Shawl, T. (2010). An investigation of large carnivore-human conflicts in Kargil and Drass area of Jammu and Kashmir, India. *Report submitted to Ruffort Small Grant, UK.*

352. Mallick, J.K. (2007). Endemic mammals of West Bengal. *In. West Bengal*. Vol. 49 No. 10-11, 53-55.

353. Mallick, J.K. (2010). Neora Valley - A new short-listed World Heritage site. *Tigerpaper*. 37(3): 12-16.

354. Mallick, J.K. (2010). Status of Red Panda *Ailurus fulgens* in Neora Valley National Park, Darjeelign District, West Bengal, India. *Small Carnivore Conservation*. 43(30): 36.

355. Mallick, J.K. (2012). Mammals of Kalimpong Hills, Darjeeling District, West Bengal, India. *Journal of Threatened Taxa*. 4(12): 3103-3136.

356. Mallick, J.K. (2013). Himalayan Yellow-throated Marten (Martes flavigula)in West Bengal, India. *Taprobanica.* 5(1): 89-93.

357. Mallick, J.K. (2015). Natural History, Distribution and Status of Himalayan Yellow Throated Marten (*Martes flavigula*)in Northern West Bengal, India. *In: (Gupta, V.K. and Verma, A.K. eds.)Animal Diversity Natural History and Conservation Vol. 4, Edition: 1 Chapter: 20, Daya Publishing House.* 363-394 pp.

358. Mandal, A.K. (1969). Taxonomic notes on the Szechwan burrowing shrew *Anourosorex squamipes* Milne- Edwards from India. *Journal of the Bombay Natural History Society*. 66(3): 608-612.

359. Mandal, A.K. (1985). Report on the occurrence of the brown spiny mouse, *Mus platythrix* Bennett, 1832 (Rodentia - Muridae)in West Bengal, India. *Journal of the Bombay Natural History Society*. 82(3): 643-644.

360. Mandal, A.K. (2000). First record of occurrence of albino crestless Himalayan porcupine *Hystrix brachyra* Linn, 1758 (Rodentia - Hystricidae)in India. *Journal of the Bombay Natural History Society*. 97(2): 274-275.

361. Manjrekar, N. (1989). Feeding ecology of the Himalayan Black bear (*Selenactors thibetanus* Cuvier)in Dachigam National Park, Kashmir. *M.Sc. Thesis/Dissertation submitted to Saurashtra University, Gujarat*. 55p.

362. Manjrekar, N. (1997). Feeding ecology of ibex (*Capra ibex sibirica*)in Pin Valley National Park, Himachal Pradesh. *Ph.D. Thesis, Saurashtra University, Rajkot, India.*

363. Mathur, P.K.; Kumar, H.; Lehmkuhl, J.F.; Tripathi, A.; Sawarkar, V.B.; De, R. (2011). Mammal indicator species for protected areas and managed forests in a landscape conservation area of Northern India. *Biodiversity and Conservation*. 20: 1-17.

364. Mathur, V.B.; Chundawat, R.S.; Qureshi, Q. (2002). Conserving biodiversity in the Indian Trans-Himalaya: new initiative of field conservation in Ladakh. *Report, Wildlife Institute of India.*

365. Matthews, W.H. (1934). Records of some clouded leopards (*Neofelis nebulosa*)in the Darjeeling district. *Journal of the Bombay Natural History Society*. 47-53 pp.

366. Medhi, R.; Chetry, D.; Bhattacharjee, P.C. (2004). Slow loris and its conservation in Northeast India. *Tigerpaper*. 31(4): 1-6.

367. Meheshwari, A.; Sharma, D.; Banerjee, S. (2010). First sight record of Asiatic ibex from Kugti Wildlife Sanctuary. *Journal of the Bombay Natural History Society*. 106(1): 94.

368. Mehra, B.S.; Mathur, P.K. (2001). Livestock grazing in the Great Himalayan National Park Conservation Area - a landscape level assessment, Himalaya. *Journal of the Association for Nepal and Himalayan Studies.* 21: 14.

369. Mehra, B.S.; Mathur, P.K. (2003). Livestock grazing in the Great Himalayan National Park Conservation Area - a landscape level assessment. *Himalayan Research Bulletin*. 21: 89-96.

370. Mendiratta, U.; Kumar, A.; Mishra, C.; Sinha, A. (2009). Winter ecology of the Arunachal macaque *Macaca munzala* in Pangchen valley, Western Arunachal Pradesh, North-Eastern India. *American Journal of Primatology*. 71: 939-947.

371. Menon, V. (1996). Impact of trade on Himalayan biodiversity. *IN: Changing perspectives of biodiversity status in the Himalaya. New Delhi. British High Commission, British Council Division.*

372. Miller, G.S. (1897). Description of a new vole from Kashmir. *Proc. Biol. Soc. Wash*. 11: 141 pp.

373. Miller, G.S. (1911). Two new shrews from Kashmir. *Proc. Biol. Soc. Wash*. 24: 241-242.

374. Mir, Z.R.; Noor, A.; Habib, B.; Veeraswami, G.G. (2015). Seasonal population density and winter survival strategies of endangered Kashmir gray Langur (*Semnopithecus ajax*)in Dachigam National Park, Kashmir, India. *SpringerPlus*. 4(1): 1.

375. Mishra, B.K.; Badola, R.; Bhardwaj, A.K. (2003). Biodiversity conservation in Great Himalayan Conservation Landscapes and other protected areas of Himachal Pradesh - planning for sustainable livelihood. *Wildlife Institute of India, Dehradun.*

376. Mishra, B.K.; Maniktala, R. (2011). Socio-economic evaluation of human-wildlife conflict management: a case study from Uttarakhand, India. *The Indian Forester*. 137(10): 1165-1170.

377. Mishra, C. (1993). Habitat use by goral (*Nemorhaedus goral*)in Majathal Harsang Wildlife Sanctuary, Himachal Pradesh, India. *M.Sc. thesis/dissertation submitted to Saurashtra University, Gujarat*. 55p.

378. Mishra, C. (1997). Livestock depredation by large carnivores in the Indian trans-Himalaya : conflict perceptions and conservation prospects. *Environmental Conservation*. 24: 338-343.

379. Mishra, C. (2000). Socio-economic transition and wildlife conservation in the Indian Trans-Himalaya. *Journal of the Bombay Natural History Society*. 97(1): 25-32.

380. Mishra, C. (2001). High altitude survival: conflicts between pastoralism and wildlife in the Trans-Himalaya. *Wageningen University, Wageningen, The Netherlands*. 131p.

381. Mishra, C.; Allen, P.; McCarthy, T.; Madhusudan, M.D.; Bayarjargal, A.; Prins, H.H. (2003). The role of incentive programs in conserving the snow leopard. *Conservation Biology.* 17: 1512-1520.

382. Mishra, C.; Bhatnagar, Y.V.; Suryawanshi, K.R. (2016). Species Richness and Size Distribution of Large Herbivores in the Himalaya. *In: The Ecology of Large Herbivores in South and Southeast Asia, Ecological Studies 225, Chapter: 3, Publisher: Springer, Editors: F.S. Ahrestani, M. Sankaran*. 89-97 pp.

383. Mishra, C.; Datta, A.; Madhusudan, M.D. (2004). The high altitude wildlife of Western Arunachal Pradesh - a survey report. *CERC Technical report no. 8. Nature Conservation Foundation, International Snow Leopard Trust and Wildlife Conservation Society, Mysore, India.*

384. Mishra, C.; Johnsingh, A.J.T. (1996). On habitat selection by the goral *Nemorhaedus goral* Bedfordi (Bovidae, Artiodactyla). *Journal of Zoology*. 240: 573-580.

385. Mishra, C.; Madhusudan, M.D.; Datta, A. (2006). Mammals of the high altitudes of Western Arunachal Pradesh, Eastern Himalaya: an assessment of threats and conservation needs. *Oryx.* 40: 29-35.

386. Mishra, C.; Prins, H.H.; Van Wieren, S.E. (2003). Diversity, risk mediation, and change in a Trans-Himalayan agropastoral system. *Human Ecology*. 31: 595-609.

387. Mishra, C.; Redpath, S.R.; Suryawanshi, K.R. (2016). Livestock Predation by Snow Leopards: Conflicts and the Search for Solutions. *In: Snow Leopards, Elsevier, Editors: T. McCarthy and D. Mallon.* 59-67 pp.

388. Mishra, C.; Sinha, A. (2008). A voucher specimen for *Macaca munzala*: interspecific affinities, evolution and conservation of a newly discovered primate. *International Journal of Primatology.* 29: 743-756.

389. Mishra, C.; Suryawanshi, K.R. (2015). Conflicts over snow leopard conservation and livestock production.*IN: Redpath, S., Young, J., Gutierrez, R. Wood, K. (eds.)Conservation conflicts. Cambridge University press*. P. 15-18.

390. Mishra, C.; Van Wieren, S.E.; Ketner, P.; Heitkonig, I.; Prins, H.H. (2004). Competition between domestic livestock and wild bharal *Pseudois nayaur* in the Indian Trans-Himalaya. *Journal of Applied ecology*. 41: 344-354.

391. Mishra, C.; Wieren, S.E.; Heitkonig, I.; Prins, H.H. (2002). A theoretical analysis of competitive exclusion in a Trans-himalayan large-herbivore assemblage. *Animal Conservation.* 5: 251-258.

392. Mitra, S. (2003). Gorals (*Nemorhaedus goral* hodgsoni)in Mahananda wildlife Sanctuary, West Bengal, India. *Zoo's Print.* 19(9): 1199-1201.

393. Mohanta, R.; Chauhan, N.P.S. (2014). Anthropogenic threats and its conservation on Himalayan brown bear (*Ursus arctos*)habitat in Kugti wildlife sanctuary, Himachal Pradesh, India. *Asian Journal of Conservation Biology*. 3(2): 175-180.

394. Mohanta, R.; Chauhan, N.P.S. (2014). Study on diurnal Activity Pattern of Himalayan Brown Bear (*Ursua arctos*)in Kugti Wildlife Sanctuary, Himachal Pradesh, India. *Journal of Wildlife Research*. 2(4): 39-44.

395. Molur, S.; Nameer, P.O.; Walker, S. (1998). Report of the Workshop ''Conservation assessment and management plan for mammals of India''. *BCPP - Endangered species project - Zoo outreach Organization, Conservation Breeding Specialist Group, Coimbatore, India.* 176p.

396. Mondal, K.K. (2003). A checklist of mammals of Sikkim. *Zoological Survey of India, Kolkata.*

397. Mudappa, D. (2013). Herpestids, viverrids and mustelids. *In: Johnsingh, A.J.T. and Manjarekar, N. (eds.)Mammals of South Asia. Universities Press* 1: 471-498.

398. Mukerji, R.; Mahajan, K.K. (1983). On the occurrence of the Himalayan Mouse Hare in Spiti Valley of H.P. India. *Cheetal.* 25(1): 20-21.

399. Mukesh; Kumar, V.P.; Sharma, L.K.; Shukla, M.; Sathyakumar, S. (2015). Pragmatic Perspective on Conservation Genetics and Demographic History of the Last Surviving Population of Kashmir Red Deer (*Cervus elaphus hanglu*)in India. *PlosOne*. 10(2).

400. Mukesh; Sharma, L.K.; Charoo, S.A.; Sathyakumar, S. (2015). Conflict Bear Translocation: Investigating Population Genetics and Fate of Bear Translocation in Dachigam National Park, Jammu and Kashmir, India. *PlosOne*. 10(8).

401. Mukesh; Sharma, L.K.; Kumar, V.; Charoo, S.A.; Agarwal, N.M.; Goyal, S.P.; Sathyakumar, S. (2013). Loss of genetic diversityand inbreeding in Kashmir red deer (*Cervus elaphus hanglu*)of Dachigam National Park, Jammu and Kashmir, India. *BMC Research Notes*. 6(1): 326.

402. Mukesh; Sharma, L.K.; Charoo, S.A.; Sathyakumar, S. (2013). An improved and reliable molecular sexing technique for Asiatic black bears, Ursus thibetanus. *Conservation Genetics Resources*. 5: 1079-1082.

403. Mukesh; Sharma, L.K.; Charoo, S.A.; Sathyakumar, S. (2015). Species identification and molecular sexing from faeces of Kashmir stag (Cervus elaphus hanglu). *Conservation Genetics Resources*. 7(3).

404. Mukherjee, R.; Ghosh, D.K.; Saha, S.S. (1980). Wild encounters on the Darjeeling Himalays. *Cheetal.* 21(2-3): 33-35.

405. Mukherjee, R.; Saha, S.S.; Ghosh, R.K. (1982). Further Wild encounters in Darjeeling Himalaya. *Cheetal.* 23(4): 35-37.

406. Mukherjee, S. (2001). Predation by leopard Panthera pardus in Majhatal Harsang Wildlife Sanctuary, Western Himalaya*. Journal of the Bombay Natural History Society*. 98(2): 267-268.

407. Mukhopadhyay, A. (1996). Biodiversity of animal life of Neora valley National Park: Mammals and other vertebrates (Part II). *Darjeeling: Department of Zoology, University of North Bengal.*

408. Murmu, A.; Chaudhuri, S.; Mazumer, P.C.; Talukder, B. (2004). Status of Assamese Macaque, Macaca assamensis in Darjeeling district, West Bengal. *Records of the Zoological Survey of India.* 103(1-2): 33-41.

409. Namgail, T. (2004). Interactions between argali and livestock, Gya-Miru Wildlife Sanctuary, Ladakh, India. *Final Report. International Snow Leopard Trust, Seattle, WA, USA*. 20p.

410. Namgail, T. (2006). Trans-Himalayan large herbivores: Status, Conservation and niche relationships. *New York: Wildlife Conservation Society, Bronx Zoo*.

411. Namgail, T. (2006). Winter habitat partitioning between Asiatic ibex and blue sheep in Ladakh, Northern India. *Journal of Mountain Ecology*. 8: 7-13.

412. Namgail, T. (2009). Geography of mammalian herbivores in the Indian Trans-Himalaya: patterns and processes. *Ph.D. thesis, Wageningen University, The Netherlands*.

413. Namgail, T. (2009). Mountain ungulates of the Trans-Himalayan region of Ladakh, India. *International Journal of Wilderness*. 15:35-40.

414. Namgail, T. (2014). Winter Habitat partitioning between Asiatic Ibex and blue sheep in Ladakh, Northern India. *Journal of Mountain Ecology*. 8.

415. Namgail, T.; Bagchi, S.; Bhatnagar, Y.V.; Wangehuk, R. (2005). Occurrence of the Tibetan sand fox *Vulpes ferrilata* Hodgson in Ladakh: a new record for the Indian subcontinent. *Journal of the Bombay Natural History Society*. 102(2): 217.

416. Namgail, T.; Bagchi, S.; Mishra, C.; Bhatnagar, Y.V. (2008). Distributional correlates of the Tibetan gazelle *Procapra picticaudata* in Ladakh, Northern India : towards a recovery programme. *Oryx.* 42: 107-112.

417. Namgail, T.; Bhatnagar, Y.V. (2010). Multiple use of Trans-Himalayan ranglelands: Reconciling Human livelihoods with wildlife conservation. *IN:Wild rangelands: conserving wildlife while maintaining livestock in Semi-arid ecosystems*. 291.

418. Namgail, T.; Fox, J.L.; Bhatnagar, Y.V. (2004). Habitat segregation between sympatric Tibetan Argali *Ovis ammon hodgsoni* and blue sheep *Pseudois nayaur* in the Indian Trans-Himalaya. *Journal of Zoology*. 262: 57-63.

419. Namgail, T.; Fox, J.L.; Bhatnagar, Y.V. (2007). Carnivore-Caused Livestock Mortality in Trans-Himalaya. *Environmental Management* 39(4): 490-506.

420. Namgail, T.; Fox, J.L.; Bhatnagar, Y.V. (2007). Habitat shift and time budget of the Tibetan argali: the influence of livestock grazing. *Ecological Research*. 22: 25-31.

421. Namgail, T.; Fox, J.L.; Bhatnagar, Y.V. (2009). Status and distribution of the Near Threatened Tibetan argali in Ladakh, India: effect of a hunting bon. *Oryx*. 43(02): 288-291.

422. Namgail, T.; Mishra, C.; De Jong, C.B.; Van Wieren, S.E.; Prins, H.H. (2009). Effects of herbivore species richness on the niche dynamics and distribution of the blue sheep in the Trans-Himalaya. *Diversity and Distribution*. 15: 940-947.

423. Namgail, T.; Van Wieren, S.E.; Mishra, C.; Prins, H.H. (2010). Multi-spatial distribution of the endangered Ladakh Urial and blue sheep in the arid Trans-Himalayan mountains. *Journal of Arid environments*. 74: 1162-1169.

424. Namgail, T.; Van Wieren, S.E.; Prins, H.H. (2010). Pashmina producting and socioeconomic changes in the Indian Changthang: Implications for natural resource management. *Natural resources forum*. 34(3): 222-230.

425. Namgail, T.; Van Wieren, S.E.; Prins, H.H. (2013). Distributional congruence of mammalian herbivores in the Trans-Himalayan Mountains. *Current Zoology*. 599(1): 116-124 2013.

426. Naqash, R.Y. (2013). Densities and Population Sizes of Large Mammals in Kishtwar High Altitude National Park, Jammu and Kashmir, India. *Indian Forester*. 139(10): 872-878.

427. Narang, M.L. (2001). Occurrence of small Indian Civet Viverricula indica, family Viverriedae in the mid-hills of Himachal Pradesh. *Journal of the Bombay Natural History Society.* 98(1): 97.

428. Nath, A. (1982). Some observation on wildlife in the Upper Suru/Northern Zanskar/Markha Valley of Ladakh. *Cheetal.* 23(3): 20-29.

429. Nath, R. (1978). Gamugul Siya-Behi Sanctuary, Himachal Pradesh. *Cheetal*. 20(1): 41-43.

430. Nath, S. (1985). On the extension of range of the Vespertilionid bat *Pipistrellus paterculus* (Thomas)to Poonch valley (Jammu and Kashmir State). *Journal of the Bombay Natural History Society*. 82(2): 396.

431. Nath, S. (1987). On a collection of long-eared bats of the genera *Otonycteris peters* and *Plecotus geoffroy* (Family - Vespertilionidae)from Kashmir valley.*Journal of the Bombay Natural History Society*. 84(2): 425-426.

432. Negi, R.K.; Banyal, H.S. (2015). Status, Diversity and Ecology of Mammals of Trans-Himalayan Rakchham-Chhitkul Wildlife Sanctuary in Baspa (Sangla)Valley, District Kinnaur, Himachal Pradesh, India. *Journal of Biological Sciences*. 10(4): 6-12.

433. Negi, S.S. (1992). Himalayan wildlife, habitat and conservation. *Indus Publishing*. 207p.

434. Network, S.L. (2014). Snow leopard survival strategy. *Seattle, Washington, USA*. 1-145 pp.

435. Noor, A.; Habib, B.; Kumar, S. (2010). Effects of plot size and shape on the encounter rate of ungulate faecal pellet groups and abundance estimate precision. *Current Science*. 99(6): 800-804

436. Onial, J.N. (1958). Wild Life in the Sub-Himalayan Tracts. *Cheetal*. 1(1): 22-25.

437. Osborne, B.C.; Mallon, D.R.; Fraser, S.J.R. (1983). Ladakh, threatened stronghold of rare himalayan mammals. *Oryx*. 17(04): 182-189.

438. Oshida, T.; Shafique, C.M.; Barkati, S.; Yasuda, M.; Hussein, N.A.; Endo, H.; Yanagawa, H.; Masuda, R. (2004). Phylogenetic position of the small Kashmir flying squirrel, *Hylopetes fimbriatus* (*Eoglaucomys fimbriatus*), in the subfamily Pteromyinae. *CanadianJournal of Zoology*. 82(8): 1336-1342.

439. Osmaston, B.B. (1951). The large red flying squirrel-*Pteromys inornatus* Geoffroy. *Journal of the Bombay Natural History Society*. 49(1): 114-116.

440. Oza, G.M. (1977). Habitat and food of the Kashmir deer or Hangul. *Environment and Conservation*. 4(2): 149-15.

441. Oza, G.M. (1980). Potentials and problems of hill areas in relation to conservation of wildlife in India. *Environmental Conservation*. 7(03): 193-200.

442. Oza, G.M. (1983). Conservation status of the Kashmir Deer or Hangul. *Environmental Conservation.* 10(01): 66-66.

443. Oza, G.M. (1988). The Himalayan Musk Deer: Encashed for Extinction. *The Environmentalist.* 8(4): 301-304.

444. Pandey, S. (1992). Estimation of density of Ibex *Capra ibex* Linn in Pin valley National Park, Himachal Pradesh. *Journal of the Bombay Natural History Society*. 89(3): 361-363.

445. Pendharkar, A. (1993). Habitat use, group structure and activity pattern of goral (*Nemorhaedus goral*)in Simbalbara Sanctuary, Himachal Pradesh and Darpur Reserved Forest (Haryana)India. *M.Sc. thesis/dissertation submitted to Saurashtra University, Gujarat*. 50p.

446. Pendharkar, A.; Goyal, S.P. (1995). Group size and composition of the gray goral in Simbalbara sanctuary and Darpur reserved forest, India. *Journal of Mammalogy*. 76(3): 906-911.

447. Pfister, O. (2004). Birds and mammals of Ladakh. *Oxford University Press*. 392p.

448. Pirta, R.S.; Gadgil, M.; Kharshikar, A.V. (1997). Management of the Rhesus monkey *Macaca mulatta* and Hanuman Langur *Presbytis entellus* in Himachal Pradesh, India. *Biological Conservation*. 79: 97-106.

449. Pocock, R.I. (1908). Notes upon some species and geographical races of Serows (*Capricornis*)and Gorals (*Naemorhaedus*), based upon specimens exhibited in the Society's Garden. *Proc. Zool. Soc. Lond.* 173-202 pp.

450. Pocock, R.I. (1930). The Panthers and Ounces of Asia. Part 2. *Journal of the Bombay Natural History Society.* 34: 307-336.

451. Pocock, R.I. (1932). The Black and Brown Bears of Europe and Asia. *Journal of the Bombay Natural History Society*. 36: 101-138.

452. Pocock, R.I. (1933). The civet cats of Asia. Part 2. *Journal of the Bombay Natural History Society.* 36: 629-656.

453. Pocock, R.I. (1934). The Palm Civets or "Toddy Cats" of the genera *Paradoxurus* and *Paguma*inhabiting British India. Part. 2. *Journal of the Bombay Natural History Society*. 37: 172-192.

454. Pocock, R.I. (1939). The fauna of British India, Mammalia, I. *Taylor and Francis, London.*

455. Pocock, R.I. (1941). The fauna of British India, Mammalia, 2. *Taylor and Francis, London.*

456. Pradhan, S. (1998). Research study on the biological studies of the Red Panda, *Ailurus fulgens*, in the Singalila National Park, Darjeeling and its adjoining areas.*Final Report. Darjeeling: PG Department of Zoology, Darjeeling Government College* 3(3): 51-57.

457. Pradhan, S. (1998). Studies on some aspects of the Ecology of the Red Panda, *Ailurus fulgens* (Cuvier, 1825)in the Singhalila National Park, Darjeeling, India. *Ph.D. thesis North Bengal University, India.*

458. Pradhan, S. (1999). Observations of the Red Panda (*Ailurus fulgens*)in the Singhalila National Park, Darjeeling, India. *Small Carnivore Conservation*. 21: 6-8.

459. Pradhan, S. (2012). Conservation and management strategy plan for Red Panda, *Ailurus fulgens* in the Darjeeling Himalayas. *Report submitted to the Ruford Small Grants Foundation, UK.*

460. Pradhan, S.; Khaling, S.; Pradhan, R. (2014). Tourism in the Red Panda habitats of Singhalila and Neora Valley National Parks, Darjeeling Himalayas - An assessment for appropriate interventions. *Report of the Rufford Small Grant Project No*. 12615-2. 16 pp.

461. Pradhan, S.; Saha, G.K.; Khan, J.A. (2001). Ecology of the red panda *Ailurus fulgens* in the Singhalila National Park, Darjeeling India. *Biological Conservation.* 98: 11-18.

462. Pradhan, S.; Saha, G.K.; Khan, J.A. (2001). Food habits of the red panda, *Ailurus fulgens* in the Singhalila National Park, Darjeeling, India. *Journal of the Bombay Natural History Society.* 98(2): 224-230.

463. Prasad, S.N.; Chundawat, R.S.; Hunter, D.O.; Panwar, H.S.; Rawat, G.S. (1991). Remote sensing snow leopard habitat in the Trans-Himalaya of India using spatial models and satellite imagery preliminary results. *Proceedings of the International symposium on Advanced Technology in Natural Resources Management, November 12-15, 1990, Washington D.C*. 519-523 pp.

464. Prater, S.H. (1980). The book of Indian Animals. *Bombay Natural History Society, Bombay*.

465. Pratihar, S.; Chakraborty, S.; Chakraborty, R. (1995). Observations on the Malayan Giant Squirrel, *Ratufa bicolor gigantea* (Rodentia: Sciuridae)in the forests of North Bengal. *Rodent Newsletter*. 19(4): 2-4.

466. Qureshi, Q.; Shah, N.V.; Wadoo, A.R.; Naqash, R.Y.; Bacha, M.S.; Kitchloo, N.A.; Shah, J.N.; Suhail, I.; Iqbal, S.; Ahmad, K.; Lone, I.A.; Mansoor, R.A.; Zargar, R.A.; Hussain, S.A.; Babu, M.M.; Parsa, M.A.; Latoo, A.R.; Dewan, I. (2009). Status and distribution of Hangul (*Cervus elaphus hanglu* Wagner)in Kashmir, India. *Journal of the Bombay Natural History Society*. 106: 63-71.

467. Raghavan, B. (2003). Interaction between livestock and Ladakh Urial (*Ovis orientalis vignei*)in the Chipskianchan-Potorche area of Western Ladakh. *M.Sc. Thesis/dissertation submitted to Saurashtra University, Gujarat.*

468. Rajagopal, A.S. (1965). A note on the breeding habits of the Whitebellied rat *Rattus niviventer mentosus* Thomas. *Journal of the Bombay Natural History Society*. 62(3): 546-547.

469. Ramesh, K.; Sathyakumar, S. (1997). Conservation status, distribution and relative abundance of ungulates in Great Himalayan National Park. *FREE-GHNP Project, Interim Project.Wildlife Institute of India, Dehradun*. 49p.

470. Rana, B.S. (1997). Distinguishing kills of two large mammalian predators in Spiti valley, Himachal Pradesh. *Journal of the Bombay Natural History Society.* 94(3): 553.

471. Ranade, R.V. (1989). A note on the Pygmy shrew *Suncus etruscus*. *Journal of the Bombay Natural History Society*. 86(2): 239-239.

472. Ranjitsinh, M.K. (1981). Himalayan fauna. *IN:The Himalaya: Aspects of Change*. *Oxford University Press, New Delhi*. 64-76 pp.

473. Ranjitsinh, M.K.; Seth, C.M.; Ahmad, R.; Bhatnagar, Y.V.; Kyarong, S.S. (2005). Goats on the border: a rapid assessment of the Pir Panjal Markhor in Jammu and Kashmir :Distribution, status and threats. *Report by the Wildlife Trust of India, New Delhi, India*. 51p.

474. Rathore, B.C. (2008). Ecology of brown bear (*Ursus arctos*)with special reference to assessment of Human brown bear conflicts in Kugti Wildlife Sanctuary, Himachal Pradesh and mitigation strategies. *Ph.D. Thesis submitted to Saurashtra University*. 216p.

475. Rathore, B.C.; Chauhan, N.P.S. (2014). The food habits of the Himalayan Brown Bear *Ursus arctos* (Mammalia: Carnivora: Ursidae)in Kugti Wildlife Sanctuary, Himachal Pradesh, India. *Journal of the Threatened Taxa.* 6(14): 6649-6658.

476. Rattan, S.K. (2011). Managing human-macaque conflict in Himachal, India. *Cambridge Studies in Biological and Evolutionary Anthropology*. 1(60): 283-292.

477. Rawat, G.S. (1994). A preliminary habitat suitability index model for himalayan musk deer. *IN:High Altitudes of the Himalaya*. 209-219 pp.

478. Rawat, G.S. (2007). Pastoral practices, wild mammals and conservation status of alpine meadows in Western Himalaya. *Journal of the Bombay Natural History Society*. 104: 5-11.

479. Rawat, G.S.; Fox, J.L.; Sathyakumar, S.; Adhikari, B.S.; Sankar, K.; Johnsingh, A.J.T.; Uniyal, S.K.; Awasthi, A.; Upadhyay, A.K. (2006). Rangeland production ecology and habitat use by Wildlife and livestock in Tso Kar Basin, Eastern Ladakh. *Wildlife Institute of India and the University of Tromso, Norway, Institutional Cooperative Program between the Natural Resource Ecology and Management. Final Project Report. WII-UiTo Institutional Cooperative Program in Natural Resource Ecology and Management in the Himalaya, Submitted to NORAD.*

480. Rawat, G.S.; Sankar, K.; Upadhyay, K.A. (2011). Habitat ecology and Conservation status of wild ungulats in Northern Parts of Changthang Wildlife Sanctuary, Ladakh. *Final Report Submitted to Wildlife Institute of India.*

481. Rawat, G.S.; Sathyakumar, S. (1998). Status of Mammals, Birds and their habitats in the Panchchuli region, Kumaun Himalaya. *IN: Report on Scientific and Ecological Research, Panchchuli Multidimentional Expedition 1998. Corps of Engineers* P. 13-35.

482. Rawat, G.S.; Sathyakumar, S. (2002). Conservation issues in the Himalayan region of India. *IN: Sathyakumar, S.and Bhatnagar, Y.V. (eds). Envis Bulletin: Wildlife and Protected Areas. Mountain Ungulates*. 1(1): 50-56.

483. Rice, C.G. (1987). Dermal shields of Himalayan tahr (*Hemitragus jemlahicus*). *Journal of the Bombay Natural History Society*. 84(3): 671-673.

484. Richardson, J.W. St. (1895). Field notes with the Chitral Relief Force. *Journal of the Bombay Natural History Society*. 10: 63-67.

485. Roberts, T.J. (1966). A note on the Urial *Ovis orientalis* Gmelin. *Journal of the Bombay Natural History Society*. 63(3): 743-746.

486. Roka, B.; Jha, A.K. (2014). Census of Red Panda (*Ailurus fulgens*)at Singhalila National Park and its surrounding area, Darjeeling, West Bengal, India. *Zoo's Print*. 29(4): 11-14.

487. Roka, B.; Jha, A.K.; Rai, U. (2015). Breeding Behaviour of Red Panda (*Ailurus fulgens fulgens*)in Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal. *Zoo's Print.* 30(1): 10-13.

488. Roonwal, M.L. (1979). Field observation on distribution and tail carriage in the Central Himalayan Langur, Presbytis entellus schistaceous (Primates). *Proceeding of Indian National Science Academy.* 45 Part B (1): 43-55.

489. Roy, P.S.; Ravan, S.A.; Rajadnya, K.K.; Das, A.J.; Singh, S. (1995). Habitat suitability analysis of *Nemorhaedus goral* - a remote sensing and geographic information system approach. *Current Science.* 69(8): 685-691.

490. Saberwal, V.K. (1989). Distribution and movement pattern of the Himalayan black bear (*Selanactos thibetanus* Cuvier)in Dachigam National Park, Kashmir. *M.Sc. thesis/Dissertation submitted to Saurashtra University, Gujarat*. 80P.

491. Saberwal, V.K. (1996). Pastoral Politics: Gaddi grazing, degradation, and biodiversity conservation in Himachal Pradesh, India. *Conservation Biology*. 10(3): 741-749.

492. Sah, A. (1976). The Nanda Devi Sanctuary. *Cheetal*. 18(1-2): 1976, 7-10.

493. Saha, S.S.; Singhal, N. (1996). Mammalian specimens of Bengal Natural History Museum, Darjeeling. *Department of Forest (Wildlife Wing), Government of West Bengal, Darjeeling, India.*

494. Sahoo, S.K.; Mohnot, S.M. (2004). A survey of crop damage by Rhesus monkeys and Hanuman langur in Himachal Pradesh, India. *Tigerpaper*. 31(4): 1-6.

495. Saikia, U.; Sharma, R.M.; Mattu, V.K. (2004). New records of bats from Himachal Pradesh with some ecological notes. *Indian Forester*. 130(10): 1204-1208.

496. Saikia, U.; Sharma, R.M.; Sharma, D.K. (2006). Record of Fulvous Leaf-Nosed Bat *Hipposideros fulvus* Gray, 1838 from Jammu and Kashmir, India. *Zoo's Print*. 21(3): 2197.

497. Saikia, U.; Thakur, M.L.; Bawri, M.; Bhattacharjee, P.C. (2011). An inventory of the chiropteran fauna of Himachal Pradesh, northwestern India with some ecological observation. *Journal of Threatened Taxa*. 3(4): 1637-1655.

498. Sambyal, P.; Kumar, S.; Sahi, D.N. (2009). Translocation of Urban Rhesus monkeys of Mubarak Mandi Jammu to forest areas of Nagrot. *Tigerpaper*. 36(2): 11-13.

499. Saraswat, R.; Sinha, A.; Radhakrishna, S. (2015). A god becomes a pest? Human -rhesus macaque interactions in Himachal Pradesh, Northern India. *European Journal of Wildlife Research.* 61(3): 435-443.

500. Saren, P.C.; Basu, D. (2013). A note of Himalayan goral *Nemorhaedus goral* (Hardwicke 1825)at Darjeeling district, West Bengal, India. *Records of the Zoological Survey of India.* 113 (Part 2): 197-198.

501. Sathyakumar, S. (1991). Behaviour of captive Himalayan Musk Deer. *Zoo's Print*. 6(3): 1-3.

502. Sathyakumar, S. (1991). Reintroducing captive Himalayan musk deer. *Zoo's Print*. 6(7): 5-7.

503. S athyakumar, S. (1992). The Musk Deer. *Sanctuary Asia*. 12(5): 52-57.

504. Sathyakumar, S. (1993). Status of Mammals in Nanda Devi National Park. *IN: Scientific and Ecological Expedition to Nanda Devi, Corps of Engineers, Indian Army - a report*. P. 5-15.

505. Sathyakumar, S. (1994). Habitat ecology of major unguales in Kedarnath Musk deer Sanctuary, Western Himalaya. *Ph.D. thesis sumitted to Saurashtra University, Rajkot*.

506. S athyakumar, S. (1999). Mustelids and viverrids of the northewestern and western Himalayas. *ENVIS Bulletin: wildlife and protected areas. Mustelids, viverrids and herpestids of India. Wildlife Institute of India, Dehra Dun, India.* 39-42 pp.

507. S athyakumar, S. (1999). Status and management of the Himalayan brown bear in India. *IN: Servheen, C., Herrero, S., Peyton, B. (Comp). Bears: status survey and conservation action plan. IUCN/SSC Bear and Polar Bear Specialist Groups, IUCN, Gland, Switzerland, Cambridge, UK*. P. 125-128.

508. Sathyakumar, S. (2001). Musk deer. *IN: The new encyclopaedia of mammals. Oxford University press, Oxford.* P. 502-503.

509. Sathyakumar, S. (2001). Status and management of Asiatic Black bear and Himalayan brown bear in India. *Ursus.* 12: 21-30.

510. Sathyakumar, S. (2002). Field survey for Brown bear - human conflicts in Zanskar and Suru Valleys, Ladakh. *Collaborative Trans-Himalayan Field Research Project Report. Wildlife Institute of India, Dehradun*.

511. Sathyakumar, S. (2002). Species of the Greater Himalaya. *IN: Sathyakumar, S. and Bhatnagar, Y.V. (Eds.)Envis Bulletin: Wildlife and Protected Areas. Mountain ungulates*. 1(1): 1-6.

512. Sathyakumar, S. (2004). Conservation status of mammals and birds in Nanda Devi National Park - an assessment of changes over two decades. *IN: Biodiversity Monitoring Expedition Nanda Devi 2003. A report to the Ministry of Environment and Forests, Govt. of India. Uttaranchal State Forest Department, Dehradun.* 14p.

513. Sathyakumar, S. (2006). Martens, Weasels and Civets of North-Western and Western Himalaya. *The Indian Forester*. 132: 132-139.

514. Sathyakumar, S. (2006). Status and distribution of Himalayan brown bear (*Ursus actos isabellinus*)in India; An assessment of changes over ten years.*The Indian Forester*. 132: 89-96.

515. Sathyakumar, S. (2006). The status of Asiatic Black bears in India. IN: Understanding Asian bears to secure their future. *Japan Bear Network, Ibaraki, Japan*. P. 12-19.

516. Sathyakumar, S. (2006). The status of brown bears in India. *IN: Understanding Asian bears to secure their future. Japan Bear Network, Ibaraki, Japan.* P. 7-11.

517. Sathyakumar, S. (2008). Survey for Himalayan Tahr (*Hemitragus jemlahicus*)in Jammu and Kashmir. *Final Report submitted to State Forest Research Institute, Jammu. Wildlife Institute of India, Dehradun*. 21 pp.

518. Sathyakumar, S.; Bashir, T. (2013). Wildlife of the Himalaya: Conservation issues and the Way forward. *IN: Arora, S., Negi, B.S., Bhan, S., Bali, J.S. and Bharti, V.K. (eds.)Mountain people and their environment. Soil Conservation Society of India, New Delhi*. P. 322-343.

519. Sathyakumar, S.; Bashir, T.; Bhattacharya, T.; Poudyal, K. (2011). Assessing mammal distribution and abundance in intricate eastern Himalayan habitats of Khangchendonga Sikkim, India. *Mammalia*. 75: 257-268.

520. Sathyakumar, S.; Bashir, T.; Bhattacharya, T.; Poudyal, K. (2011). Mammals of Khangchendzonga Biosphere Reserve - Sikkim, India. *IN: Arrawatia, M.L. and Tambe, S. (Eds.)Biodiversity of Sikkim - exploring and conserving global hotspot, Government of Sikkim.*

521. Sathyakumar, S.; Bhatnagar, Y.V. (2002). Envis Bulletin: Wildlife and Protected Areas - Mountain ungulates. *Wildlife Institute of India, Dehradun*. 1(1): 130p.

522. Sathyakumar, S.; Bhattacharya, T.; Bashir, T.; Poudyal, K. (2013). Developing Spatial Database on the Mammal Distributions and Monitoring Programme for large Carnivores, Prey populations and their Habitats in Khangchendzonga Biosphere Researve. *Final Report Wildlife Institute of India, Dehradun.* 153 pp.

523. Sathyakumar, S.; Choudhury, A. (2007). Distribution and status of Asiatic black bear (*Ursus thibetanus*)in India. *Journal of the Bombay Natural History Society*. 104p.

524. Sathyakumar, S.; Johnsingh, A.J.T.; Rawat, G.S. (1994). Habitat Ecology of ungulates in Kedarnath Wildlife Sanctuary, Western Himalaya. *Project Report. Wildlife Institute of India, Dehradun.*

525. Sathyakumar, S.; Johnsingh, A.J.T. (2012). Himalayan tahr.*In: Johnsingh, A.J.T. and Manjarekar, N. (eds.)Mammals of South Asia. Universities Press Hyderabad*. 385-406.

526. Sathyakumar, S.; Johnsingh, A.J.T.; Rawat, G.S. (2015). Himalayan musk deer. *In: Johnsingh, A.J.T. and Manjarekar, N. (eds.)Mammals of South Asia. Universities Press Hyderabad.* 159-175 pp.

527. Sathyakumar, S.; Malik, P.K. (2006). Release of captive Himalayan musk deer in Kedarnath Wildlife Sanctuary, Western Himalaya. *Wildlife Institute of India, Dehradun*.

528. Sathyakumar, S.; Prasad, S.N.; Walker, S. (1993). Status of captive Himalayan Forest Musk deer (*Moschus chrysogaster*)in India. *International Zoo Yearbook Zoological Society of India.* 32: 32-38.

529. Sathyakumar, S.; Qureshi, Q. (2002). Modeling distribution pattern for brown bear in Zanskar and Suru valleys, Ladakh. *Collaborative Trans-Himalayan Field Research Project report. Wildlife Institute of India, Dehradun*.

530. Sathyakumar, S.; Rawat, G.S.; Johnsingh, A.J.T. (2009). Himalayan tahr. *In: Mammals of South Asia. Oxford University Press, England.*

531. Sathyakumar, S.; Vishanath, S. (2003). Observations on food habits of Asiatic black bear (*Ursus thibetanus*)in Kedarnath Wildlife Sanctuary, India - Preliminary evidence on the role of black bears in enhancing seed germination and germination*. Ursus.* 14: 95-104.

532. Sati, J.P.; Sinha, N.K. (2004). Mammalia. Arun Kumar, Gupta, S.K. and Padmanaban, P. 2004. Some Selected fauna of Gobind Pashu Vihar.*Conservation Area Series, (Published by the Director, Zool. Surv. India, Kolkata).* 90 pp.

533. Sati, J.P.; Tak, P.C. (2010). Mammalia. Fauna of Uttarakhand. *State Fauna Series, 18 (Part I), Zool. Surv. Indi, Kolkata.* 27-76 pp.

534. Schaller, G.B. (1969). Food habits of the Himalayan black bear (*Selenarctos thibetanus*)in the Dachigam Sanctuary, Kashmir. *Journal of the Bombay Natural History Society*. 66(1): 156-159.

535. Schaller, G.B. (1969). Observations on the hangul or Kashmir stag (*Cervus elaphus hanglu* Wagner). *Journal of the Bombay Natural History Society*. 66(1): 1-7.

536. Schaller, G.B. (1973). Observations on Himalayan Tahr (*Hemitragus jemlahicus*). *Journal of the Bombay Natural History Society*. 70: 1-24.

537. Schaller, G.B. (1977). Mountain monarchs : wild sheep and goats of the Himalaya. *University of Chicago Press.*

538. Schaller, G.B.; Mirza, Z.B. (1971). On the behavior of Kashmir markhor (*Capra falconeri cashmiriensis*). *Mammalia*. 35(4): 584-566.

539. Scully, J. (1887). On the Mammals and birds collected by Captain CE Yates, CSI of the Afghan Boundary Commission. *Journal of the Asiatic Society of Bengal*. 56: 68-69.

540. Searight, E.E.G.L. (1926). The breeding seasons of the Goral (*Nemorhaedus goral*)and Himalayan Tahr (*Hemitragus jemlahicus*). *Journal of the Bombay Natural History Society*. 31: 812.

541. Sen, N.N. (1959). The present status of the Indian lynx*. Journal of the Bombay Natural History Society*. 56(2): 317.

542. Shah, G.M.; Jan, U.; Bhat, B.A.; Ahangar, F.A. (2009). Diets of Hangul Deer Cervus elaphus hanglu (Cetartiodactyla: Cervidae)in Dachigam National Park, Kashmir, India. *Journal of Threatened Taxa*. 1(7): 398-400.

543. Shah, G.M.; Jan, U.; Bhat, B.A.; Ahangar, F.A. (2011). Causes of decline of critically endangered hangul deer in Dachigam National Park, Kashmir (India): A review. *International Journal of Biodiversity and Conservation.* 3(14): 735-738.

544. Shah, G.M.; Jan, U.; Bhat, B.A.; Ahmad, F.; Ahmad, J. (2009). Food habits of the Leopard Panthera pardus in Dachigam National Park, Kashmir, India. *Journal of Threatened Taxa*. 1(3): 184-185.

545. Shah, K.B. (1986). Notes on the strage behaviour of a snow leopard (*Panthera uncia*). *Journal of the Bombay Natural History Society*. 83(2): 419-420.

546. Shah, N. (1996). Status and distribution of Kiang (*Equus kiang kiang*)in Changthang Plateau, Ladakh, India. *Report M.S. Univ. of Baroda and Gujarat Nature Conservation Society, Baroda, Gujarat*.

547. Shah, N.V. (1994). Status survey of southern Kiang (*Eqqus kiang polyodon*)in Sikkim. *Unpublished report, Maharaja Sayajirao University, Baroda, India.*

548. Shah, T.A.; Ahuja, V.P.; Anandam, M.; Srinivasulu, A. (2013). Additional sighting records of the Yellow-throated Marten (*Martes flavigula* Boddaert, 1785)from Chamba district, Himachal Pradesh, India. *Zoo's Print.* 28(10): 18-21.

549. Sharma, B.D. (1987). Extinction, Conservation and Management of wildlife in Himachal Pradesh. Ecology and Environment. *Today and Tomorrow Printers and Publishers, New Delhi*.

550. Sharma, B.D. (1994). High altitude wildlife of India. *Oxford and IBH Publishing Company. India*. 291 pp.

551. Sharma, B.D.; Sharma, T. (1976). Some mammals records for Jammu Province (J and K State). *Indian Poult. Rev.* 8: 15-17.

552. Sharma, B.D.; Sharma, T. (1981). Some Ecological Aspects of Wildlife Extinction in the Himalayas. *Cheetal.* 22(3).

553. Sharma, D.T.; Tak, P.C.; Saikia, U. (2008). Mammalia. Fauna of Pin Valley National Park.*Conservation Area Series, 34: 1-147 (Published by the Director, Zool. Surv. India. Kolkata).* 147 pp.

554. Sharma, D.; Wangchuk, T.; Rawat, G.S.; Johnsingh, A.J.T. (2015). Takin, *Budorcas taxicolor*. *In: Johnsingh, A.J.T. and Manjarekar, N. (eds.)Mammals of South Asia. Universities Press Hyderabad*. 376-384 pp.

555. Sharma, G.; Kamalakannan, M.; Dam, D.; Hussain, A. (2014). Status and Conservation of Mammalian Diversity in Indian Himalaya. *Biological Forum - Research Trend*. 6(2): 273

556. Sharma, G.; Kamalakannan, M.; Venkataraman, K. (2013). A checklist of mammals of India with their distribution and conservation status. *Zoological Survey of India, Kolkata. ZSI E-publication*. 121 pp.

557. Sharma, I.; Saikia, U. (2013). Mammalia. *Faunal Diversity of Pangi Valley, Chamba District, (Hmachal Pradesh), Himalayan Ecosystem Series*. 3: 107-120.

558. Sharma, L.K. (2013). Ranging patterns of Asiatic Black bear (*Ursus thibetanus*)with reference to Food availability in Dachigam National Park, Kashmir. *Ph.D. thesis Saurashtra University, Rajkot, Gujarat.*

559. Sharma, L.K.; Charoo, S.A.; Sathyakumar, S. (2010). Habitat use and food habits of Kashmir red deer or hangul (*Cervus elaphus hanglu*)at Dachigam National Park, Kashmir, india. *Galemys : Boletin informativo de la Sociedad Espanola Para la conservacion y estudio de los mamiferos*. 22: 309-329.

560. Sharma, L.K.; Charoo, S.A.; Sathyakumar, S. (2010). Investigations on the Ecology and Behaviour of Asiatic Black bear using satellite Telemetry: A case study from the Dachigam National Park, Kashmir. *IN: Sivakumar, K. and Habib, B. (eds.)Telemetry in Wildlife Science. Envis Bulletin : Wildlife and Proected Areas. Wildlife Institute of India, Dehradun.* 13(1): 86-94.

561. Sharma, R.K.; Bhatnagar, Y.V.; Mishra, C. (2015). Does livestock benefit or harm snow leopards? *Biological Conservation*. 190: 8-13.

562. Sharma, S.; Dutta, T. (2005). Sighting of Lynx (*Lynx lynx isabellinus*)in Hemis National Park, Ladakh. *Zoo's Print.* 20(4): 14.

563. Sharma, T.; Ganguli-Lachungpa, U. (2003). Status, distribution and management of mountain ungulates in Sikkim. *In: Sathyakumar, S. and Bhatnagar, Y.V. (Eds.)ENVIS BULLETIN: Wildlife and Protected Areas. Mountain Ungulates. Vol. 1 No. 1: 38-49 ENVIS Bulletin: Wildlife and Protected Areas*. 38-49 pp.

564. Shawl, T.; Takpa, J.; Namgail, T. (2011). Distribution and Encounter Rates of Large Herbivores in Chang Chenmo and Daulat Beg Oldi, Ladakh, Jammu and Kashmir, India. *Our Nature*. 9(1): 55-60.

565. Shawl, T.; Tashi, P.; Panchaksharam, Y. (2008). Field Guide Mammals of Ladakh. *WWF-India*. 114 pp.

566. Shebbeare, E.O. (1933). The episode of the Darjeeling Bison. *Journal of the Bengal Natural History Society.* 8(2): 65-67.

567. Shrestha, R.; Wegge, R. (2006). Determining the composition of herbivore diets in the Trans-himalayan rangelands: a comparison of fields methods. *Rangeland Ecology and Management.* 59: 412-518.

568. Shrotriya, S.; Reshamwala, H.S.; Mahar, N.; Habib, B.; Suhail, I.; Takpa, J. (2015). Distribution and Population Estimation of Ungulates in Changthang Region, Ladakh, Jammu and Kashmir (p. 15)India. *Technical Report - Wildlife Institute of India and Department of Wildlife Protection, Govt. of J and K.* P. 15.

569. Sidhu, A.K.; Sharma, I.; Saikia, U.; Saini, K. (2013). Pangi Valley: An Overview. *Zoological Survey of India, Kolkata*. P. 1.

570. Singh, K.G. (1958). Eastern limit of the Himalayan Ibex *Capra ibex sibirica* Pallas. *Journal of the Bombay Natural History Society*. 55(2): 341-342.

571. Singh, N.J. (2008). Animal-habitat relationships in high altitude rangelands. *Ph.D. Thesis. University of Tromso, Norway.*

572. Singh, N.J. (2014). Other wild goats and sheep. *In: Johnsingh, A.J.T. and Manjarekar, N. (eds.)Mammals of South Asia. Universities Press Hyderabad*. 463-483 pp.

573. Singh, N.J.; Bonenfant, C.; Yoccoz, N.G.; Cote, S. (2010). Sexual segregation in Eurasian wild sheep. *Behavioral Ecology*. 21(2): 410-418.

574. Singh, N.J.; Yoccoz, N.G.; Bhatnagar, Y.V.; Fox, J.L. (2009). Using habitat suitability models to sample rare species in high-altitude ecosystems: A case study with Tibetan argali. *Biodiversity and Conservation*. 18(11): 2893-2908.

575. Singh, N.J.; Yoccoz, N.G.; Lecomte, N.; Cote, S.; Fox, J.L. (2010). Scale and selection of habitat and resources: Tibetan argali (*Ovis ammon hodgsoni*)in high-altitude rangelands. *Canadian Journal of Zoology*. 88: 436-447.

576. Singh, P. (1995). Occurrence of bharal *Psudois nayaur* (Hodgson)in Thingbu Circle of Tawang district of Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 92(1): 115.

577. Singh, V.; Banyal, H.S. (2012). Diversity and ecology of Mammals in Kalatop-Khajjiar wildlife sanctuary, district Chamba (Himachal Pradesh,) India. *International Journal of Sci. Nat.* 3(1): 125-128.

578. Singh, V.; Thakur, M.L. (2012). Rhesus macaque and associated problems in Himachal Pradesh, India. *Taprobanica*. 4(2): 112-116.

579. Sinha, A.; Datta, A.; Madhusudan, M.D.; Mishra, C. (2005). *Macaca munzala*: a new spcies from Western Arunachal Pradesh, NorthEastern India. *International Journal of Primatology.* 26: 977-989.

580. Sinha, A.; Kumar, R.S.; Gama, N.; Madhusudan, M.D.; Mishra, C. (2006). Distribution and conservation status of the Arunachal Macaque *Macaca munzala* in Western Arunachal Pradesh, Northeastern India. *Primate Conservation*. P. 145-148.

581. Sinha, D.; Chakraborty, N.; Gama, R.S.; Kumar, M.D.; Madhusudan, U.; Mendiratta, U.; Ramakrishnan, U.; Mishra, C. (2013). The Arunachal Macaque*. In: Johnsingh, A.J.T. and Manjarekar, N. (eds.)Mammals of South Asia. Universities Press Hyderabad*. 198-210 pp.

582. Sinha, Y.P. (1990). Occurrence of the pipistrelle bat, *Pipistrellus peguensis* in Darjeeling, West Bengal, India. *Geobios*.

583. Sinha, Y.P. (1999). Contribution to the knowledge of Bats of North East Hills India.*Zoological Survey of India, Occ. Paper No*. 174. i-iv, 1-52 pp.

584. Sivasubramaniam, K.; Selvarani, K. (2012). Wolves in Trans-Himalayas: 165 years of taxonomic confusion. *Current Science*. 103(8): 885.

585. Smith, A.T. (2008). Conservation of endangered lagomorphs. *In: Lagomorph Biology, Springer Berlin Heidelberg*. 297-315 pp.

586. Soud, R.; Gogoi, L.; Dutta, P.K. (2010). Record of Spotted linsang *Prionodon pardicolor* (Family: Viverridae)(Hodgson 1842)from Western Arunachal Pradesh, India. *NeBioJournal.* 1(4): 2010.

587. Spillett, J.J.A. (1966). Report on wild life surveys in north India and southern Nepal. January-June 1966. *Journal of the Bombay Natural History Society*. 63(3): 492-628.

588. Srivastava, T.; Dutta, P.K. (2010). Western Arunachal Pradesh offering prime home to the endangered red panda. *Current Science*. 99(2): 155 pp.

589. St-Louis, A.; Cote, S. (2009). *Equus kiang* (Perissodactyla: Equidae). *Mammalian Species*. (835): 1-11.

590. St-Louis, A.; Cote, S. (2011). Foraging behaviour at multiple temporal scales in a wild alpine equid. *Oecologia.* 169(1): 167-176.

591. St-Louis, A.; Cote, S. (2014). Resource selection in a high-altitude rangeland equid, the kiang (*Equus kiang*): influence of forage abundance and qualityat multiple spatial scales. *Canadian Journal of Zoology*. 92(3): 239-249.

592. Stockley, C. (1928). Big game shooting in the Indian empire. *Constable and co. London*.

593. Stoliczka, F. (1865). Note on *Lagomys curzoniae*, Hodgson. *Journal of the Asiatic Society of Bengal.* 34(4): 108.

594. Stracey, P.D. (1959). Review of Progress Report of Game Department of Himachal Pradesh, 1958-59. *Cheetal.* 2(2): 17-20.

595. Subba, J.R. (2002). Biodiversity of the Sikkim Himalayas. *Sukhim Yakthung Mundhum Saplopa*. 21pp.

596. Sudhan, N.A.; Suri, S.; Sarma, K.; Azmi, S.; Kumar, P. (2008). Anatomical study on the kidney of musk deer (*Moschus moschiferus*). *Indian Journal of Animal Sciences*. 78(7): 725.

597. Sugiyama, Y. (1976). Characteristics of the Ecology of Himalayan Langurs. Journal of *Human Evolution*. 5: 249-277.

598. Sunar, D.; Chakraborty, R.; Sharma, B.K.; Ghose, P.S.; Bhutia, P.T.; Pradhan, S. (2012). Status and distribution of Asiatic Black Bear and the status of Human-bear conflict at Senchal Wildlife Sanctuary, Darjeeling, and West Bengal, India. *In: Technical Report. WWF-India, Khangchendzonga Landscape Programme, Darjeeling and Sikkim and West Bengal Forest Department, Wildlife Division 1, Government of West Bengal, India*. 48.

599. Sur, C.M. (1957). Wild dogs in the Darjeeling District. *Indian Forester*. 83(7): 469-471 pp.

600. Suryawanshi, K.R. (2008). Overwintering strategies and demographic response of Bharal (*Pseudois nayaur*)to livestock grazing and removal in Kibber Wildlife Sanctuary. *National Centre for Biological Sciences.*

601. Suryawanshi, K.R.; Bhatia, S.; Bhatnagar, Y.V.; Redpath, S.; Mishra, C. (2014). Multiscale factors affecting human attitudes towards snow leopards and wolves. *Conservation Biology*. 28: 1657-1666.

602. Suryawanshi, K.R.; Bhatnagar, Y.V.; Mishra, C. (2010). Why should a grazer browse. Livestock impact on winter resource use by bharal Psudois nayaur. *Oecologia*. 162: 453-462.

603. Suryawanshi, K.R.; Bhatnagar, Y.V.; Mishra, C. (2012). Standardizing the double observer survey method for estimating mountain ungulate prey of the endangered snow leopard. *Oecologia*. 169: 581-590.

604. Suryawanshi, K.R.; Bhatnagar, Y.V.; Redpath, S.; Mishra, C. (2013). People, predators and perceptions: patterns of livestock depredation by snow leopards and wolves. *Journal of Applied Ecology*. 50: 550-560.

605. Tak, P.C. (1985). Status and distribution of Mammals in Nanda Devi National Park. *Cheetal*. 28(1): 52-56.

606. Tak, P.C. (1993). Faunal diversity and its conservation in Garhwal Himalayas. *Cheetal*. 32(3): 43-49.

607. Tak, P.C. (1997). Mammalia. Fauna of Nanda Devi Biosphere Reserve: A World Heritage Site. *Conservation Area Series 9 (Published by the Director, Zool Surv. India, Kolkata.* 151-162 pp.

608. Thapa, J. (2008). Communities of small mammals and small carnivores in the Teesta River Basin, Sikkim Himalaya, India. *Ph. D. Thesis. Salim Ali Centre for Ornithology and Natural History, Coimbatore and Bharathiar University, Coimbatore*.

609. Thomas, O. (1888). On *Eupetaurus*, a new form of Flying Squirrel from Kashmir. *Journal of the Asiatic Society of Bengal*. 57: 256-260.

610. Thomas, O. (1893). Description of a new species of *Sminthus* from Kashmir. *Ann. Mag. Nat. Hist*. 6(11): 184-186 pp.

611. Thomas, O. (1916). Scientific results from the mammal survey. No.3. A. on Muridae from Darjiling and the Chin hills. *Journal of the Bombay Natural History Society*. 24: 404-415.

612. Thomas, O. (1916). Scientific results from the mammal survey. No.14. A. A new bat of the genus *Murina* from Darjiling. *Journal of the Bombay Natural History Society*. 24: 639-640.

613. Thomas, O. (1922). On some new forms of *Ochotona*. *Ann. Mag. Nat. Hist*. (9)9: 187-193.

614. Thomas, O. (1926). A new *Myolis* from Ladak. *Ann. Mag. Nat. Hist.* 9(17): 609-610.

615. Tickell, S.R. (1843). Notes on a curious species of Tiger or Jaguar, killed near the snowy range, north of Darjeeling. *Journal of the Asiatic Society of Bengal.* 12(141): 814-816.

616. True, F.W. (1894). Notes on the mammals of Baltistan and the Vale of Kashmir, presented to the National Museum by Dr. W. L. Abbott. *Prac. U.S. Natn. Mus*. 17: 1-16.

617. Uniyal, V.P. (2004). Bharal - the most sighted ungulate of Nanda Devi National Park. *Tigerpaper*. 31: 21-24.

618. Uniyal, V.P.; Ramesh, K. (2004). Wildlife survey in Gangotri National Park. *Wildlife Institute of India and Uttaranchal Forest Department.*

619. Varma, S.; Kyarong, S.S. (2012). Status of human-wild-dog conflict in Sagalee region of Arunachal Pradesh. *Tigerpaper*. 39(4): 14-17.

620. Velho, N.; Datta, A.; Ishvaran, K. (2009). Effect of rodents on seed fate of five hornbill tree species in a tropical forest in North-East India. *Journal of Tropical Ecology*. 25: 507-514.

621. Verma, A.K.; Singh, G. (2002). Status of the Indian pangolin in Jammu Shiwalik India. *Tigerpaper*. 30(2): 19-20.

622. Vinod, T.R. (1999). The ecology and conservation of ungulates in Great Himalayan National Park, Western Himalaya. *Ph.D. thesis submitted to Saurashtra University, Gujarat.*

623. Vinod, T.R.; Goyal, S.P.; Sathyakumar, S. (1997). Ecology of ungulates, bears and pheasants in Great Himalayan National park. *FREE-GHNP Project, Interim report. Wildlife Institute of India, Dehradun.*

624. Vinod, T.R.; Sathyakumar, S. (1999). Ecology and conservation of mountain ungulates in Great Himalayan National Park, Western Himalaya. - An Ecological study of the conservation of biodiversity and biotic pressure in the Great Himalayan National Park Conservation Area - an ecodevelopment approach. *FREEP-GHNP*.

625. Vinod, T.R.; Sathyakumar, S. (1999). Monitoring mammals in Great Himalayan National Park, Himachal Pradesh. *IN: WII. An Ecological study of the Conservation of Biodiversity and biotic pressures in the Great Himalayan National Park, Conservation Area - an ecodevelopment approach.Forestry Research Education and Extension Project - Great Himalayan National Park (FREEP-GHNP),Final project report, Wildlife Institute of India, Dehradun - vol. 6*. 6p.

626. Virkar, P.S.; Uniyal, V.; Banerjee, A. (2012). Baseline information of floral and faunal diversity for long term Ecological monitoring of Dhanolti Eco-Park Mussorrie Forest Division, Uttarakhand. *Indian Forester*. 138: 513-517.

627. Vyas, P.; Sengupta, K. (2014). Human leopard conflict in North Bengal, India. *Tigerpaper.* 41(1): 1-5.

628. Wada, K. (1983). Ecological adaptation in rhesus monkeys at the Kumaon Himalaya. *Journal of the Bombay Natural History Society*. 80(3): 469-498.

629. Wada, K. (1984). Rhesus monkey distribution in the lower Himalayas and secondary forest succession. *Journal of the Bombay Natural History Society.* 81(2): 355-363.

630. Ward, A.E. (1905). Notes on small mammals in Kashmir and adjacent districts. *Journal of the Bombay Natural History Society.* 16: 358-360.

631. Ward, A.E. (1921). Big game shooting of Kashmir and adjacent Hill procinces. *Journal of the Bombay Natural History Society.* 18: 45-49.

632. Ward, A.E. (1923). Game animals of Kashmir and adjacent hill provinces. *Journal of the Bombay Natural History Society.* 28(2): 334-342.

633. Wegge, P. (1976). Himalayan shikar reserch : a surveys and management proposal. *IAO, Field document 5, Kathmandu, Nepal.*

634. Wrenicke, C.J.T. (1943). Occurrence of Himalayan tahr (*Hemitragus jemlahicus*)in Sikkim. *Journal of the Bombay Natural History Society*. 44: 114-117.

635. Wroughton, R.C. (1916). Bombay Natural History Society's Mammal Survey of India, Burma and Ceylon. Report No. 23. Sikkim and Bengal Terai. *Journal of the Bombay Natural History Society.* 24(4): 468-493.

636. Wroughton, R.C. (1916). Bombay Natural History Society's Mammal Survey of India, Burma and Ceylon. Report No. 26. Darjiling District. *Journal of the Bombay Natural History Society*. 24(4): 773-782.

637. Wroughton, R.C. (1917). Bombay Natural History Society's Mammal Survey of India, Burma and Ceylon. Report No. 27. Bhutan Duars. *Journal of the Bombay Natural History Society.* 25(1): 63-71.

638. Wroughton, R.C. (1917). Bombay Natural History Society's Mammal Survey of India, Burma and Ceylon. Report No. 28. Kalimpong (Darjiling). *Journal of the Bombay Natural History Society.* 25(2): 274-278.

639. Yin, U.T. (1954). Habits of the Asiatic black bear (*Selenarctos thibetanus thibetanus* G. Cuvier). *Journal of the Bombay Natural History Society*. 52(3): 586-587.

Author Index
Mammals

03

Birds of the Indian Himalayan Region

Bibliography on the Birds of the Indian Himalayan Region

Sohini Chaudhuri, Bhavya Iyer, Kamalika Bhattacharya, Tapajit Bhattacharya, Krishnamurthy Ramesh, Pratap Singh and Sambandam Sathyakumar

Introduction

The Indian Himalayan Region (IHR) is bestowed with very rich and diverse avian assemblage. Of the 1313+ bird species found in India (Parveen et al. 2016), around 900 are found in the Himalaya. Roughly 450 of these breed in the IHR. As far as regional endemism is concerned, there are 11 endemic birds in the western Himalaya. These species include the cheer pheasant (*Catreus wallichii*) and the western tragopan (*Tragopan melanocephalus*). The western Himalayan region has also been designated by Birdlife International as an Endemic Bird Area (EBA No., 128), and contains 27 Important Bird Areas (IBAs) (Islam and Rahmani, 2004). The eastern Himalayan region, also an EBA, is one of the most diverse regions in the world in terms of bird diversity (Stattersfield et al., 1998). The eastern Himalayan region has the presence of 22 restricted-range bird species, 19 of which being endemic just to this region (Stattersfield et al., 1998; Jathar and Rahmani, 2006). Examples include that of the chestnut-breasted partridge (*Arborophila mandellii*), rusty-throated wren babbler (*Spelaeornis badeigularis*), white-throated tit (*Aegithalos niveogularis*), and orange bullfinch (*Pyrrhula aurantiaca*) (Stattersfield, 1998). In terms of globally threatened bird species in Asia, this region represents one of their largest concentrations (Acharya and Vijayan, 2010).

The scientific literature on birds of South Asia is available dating back to 17th Century. A huge compilation of the available literature on birds of South Asia is now available in the web in the form of “Bibliography of South Asian Ornithology - compiled by AasheeshPittie” (Pittie 2011). However, information on ornithological studies in Indian Himalayan Region was not available on a single platform. This article comprises the information on available scientific literature on avifauna of Indian Himalayan Region, particularly the trend of research with time and the knowledge gap.

Methods

The database of “Bibliography of South Asian Ornithology - compiled by Aasheesh Pittie” (Pittie 2011) was searched using the search terms “Himalaya” and name of the six Himalayan States such as “Jammu and Kashmir”, “Himachal Pradesh”, “Uttarakhand”, “Sikkim”, “Arunachal Pradesh” and “West Bengal”. Other database and journals, such as Conservation Science, Tigerpaper, Cheetal, The Journal of Threatened Taxa, The Journal of the Bombay natural History Society, etc., were also searched from relevant literature. All the information was entered in a MS Excel spreadsheet and arranged alphabetically to remove any duplication. All the analyses were carried out in MS Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gap.

Results and Discussion

The bibliography on avifauna of Indian Himalayan Region includes 1567 unique entries covering a period of almost two centuries, starting from 1833 to 2016. We categorized the articles in three distinct ways: A) The first category was based on parts of six Himalayan States (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, West Bengal – Darjeeling and Jalpaiguri district – and Arunachal Pradesh) where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1830 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the broad subjects (ecology and behaviour, geography, taxonomy, evolution, conservation and climate change impact) on which the research was carried out.

Geographical Distribution of Publications:

Publications have been classified according to the region or state where most of the research work was carried out. A majority of publications were based in the state of Jammu and Kashmir (252 publications) – mostly in the Ladakh region. This is followed by Uttarakhand (194), then Himachal Pradesh (193) and Arunachal Pradesh (157) (Table 3.1). Other publications could not be classified region-wise as they dealt with a large number of states, or the entire country, or no state was specified.

Table 3.1 State wise distribution of publications

States	Number of Publications
Jammu and Kashmir	252
Himachal Pradesh	193
Uttarakhand	194
Sikkim	73
West Bengal	10
Arunachal Pradesh	164
Others	681

Temporal Pattern of Publications:

Publications date from 1834 to 2016. Publications from the 19th century and early 20th century, were mostly descriptions of existing and new species, along with taxonomy, feeding and breeding habits, etc. Later this widens to include geographical range, ecology, and more recently, conservation. The most number of publications was in the 1991-2000 decade, with 314 publications, shortly followed by the following decade, 2001-2010, with 299 publications (Fig. 3.1). The 2011-2016 decade is not being considered in analysis as the decade is not yet complete, though it is projected to surpass the previous decades in terms of number of publications.

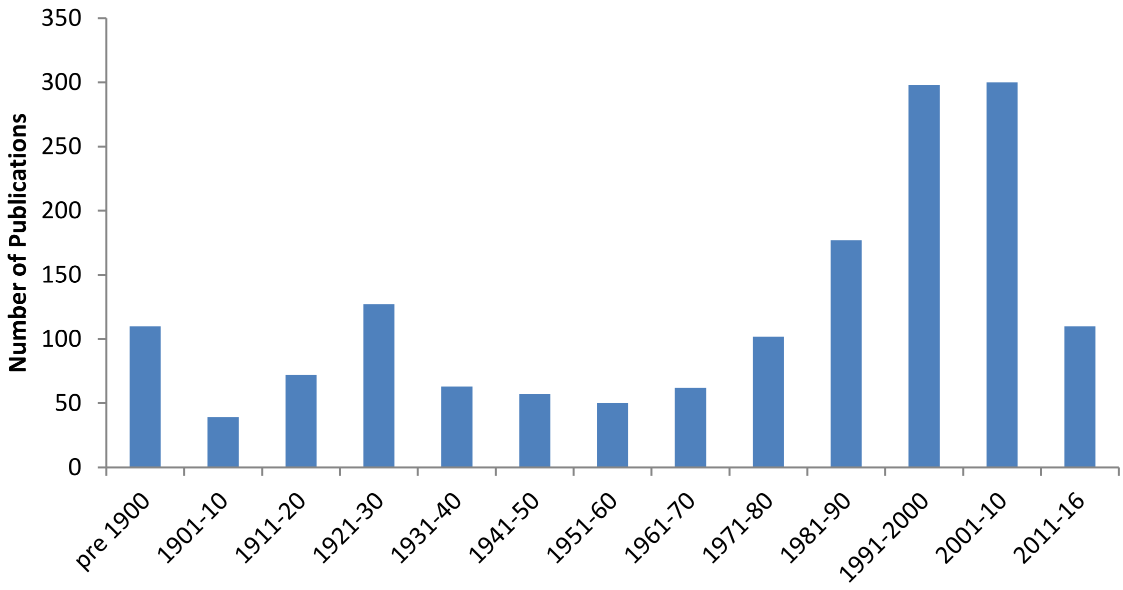


Figure 3.1 Temporal pattern of publications on avifauna of Indian Himalayan Region

Publication by subject

Publication were categorised according to broad topics, which were further sub-divided. A majority of publications which had a specific topic dealt with ecology and behaviour, followed by distribution, then taxonomy. Ecology publications mostly focused on breeding ecology (185 papers), or general biology, with some on breeding and foraging ecology (37 each). Publications dealing with bird behaviour were similarly mostly focused on breeding behaviour (141 papers) (Fig. 3.2). Very few papers were on evolution (8), and only 3 on climate change. With climate change and its effects on birds becoming increasingly relevant, and with the status of birds as an indicator of climate change, this topic is projected to become a focus of research in the future. Publication on conservation (174 papers) were mostly on pheasants, and a majority of those were on habitat conservation, as well as reintroduction.

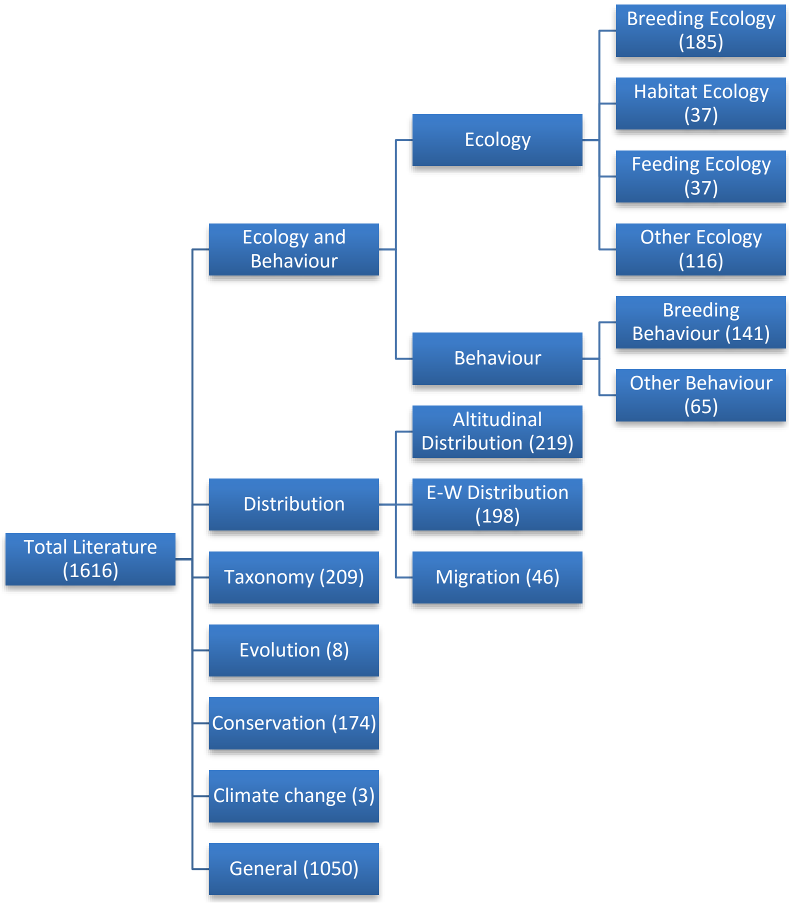


Figure 3.2 Number of publications on birds of the Indian Himalayan Region in different subject categories

Research Gaps and Future Priorities

The focus of bird research in the IHR the past has been on been mostly nesting and breeding ecology, distribution and migration patterns, habitat use, descriptions of species, and conservation of the more vulnerable species (pheasant, black-necked storks, etc) (Table 3.2). Research on East-West distribution and Altitudinal migration due to climate change, multi-species group dynamics, speciation, molecular phylogeny, and habitat conservation will fill up gaps in current knowledge. We feel that future priorities of research will be effects of climate change on distribution, ecology, behaviour, and climate change-caused adaptation and diversification or extinction of species

Table 3.2 The key past and future research priorities based on the current assessment

<table>
<tr><th>Subject Area</th><th>Key past research priorities</th><th>Research Gap and future priorities</th></tr>
<tr><td rowspan="4">Ecology and Behaviour</td><td>Distribution</td><td>East-West Distribution</td></tr>
<tr><td>Nesting and breeding behaviour</td><td>Feeding Habits</td></tr>
<tr><td>Migration pattern</td><td>Behaviour</td></tr>
<tr><td>Range and habitat use</td><td>Multi-species group dynamics</td></tr>
<tr><td rowspan="3">Taxonomy</td><td>Descriptions of species</td><td>Sub-species identification</td></tr>
<tr><td></td><td>Splitting of species into sub-species or separate species across E-W range</td></tr>
<tr><td></td><td>Molecular Phylogeny</td></tr>
<tr><td rowspan="2">Evolution</td><td>Adaptive radiation</td><td>Evolution and diversification of other bird groups</td></tr>
<tr><td>Evolution of ecological differences in Old-World leaf warblers</td><td></td></tr>
<tr><td rowspan="2">Conservation</td><td>Pheasant conservation</td><td>Habitat conservation</td></tr>
<tr><td>Reintroduction</td><td>Large-scale conservation</td></tr>
<tr><td rowspan="3">Climate change</td><td>Pliocene climate-change causing diversification</td><td>Further proof of range-shifts in birds due to change in climate</td></tr>
<tr><td>Increase in plains-birds in hilly regions</td><td>Effect of anthropogenic climate change on distribution, ecology, behaviour of species</td></tr>
<tr><td></td><td>Adaptation, diversification or extinction of species due to climate change</td></tr>
</table>

References

Acharya, B.K. and Vijayan, L., 2010. Status and distribution of endemic and threatened birds of the Eastern Himalaya in Sikkim, India. Journal of Threatened Taxa, 2(2), pp.685-689.

Jathar, G.A. and Rahmani, A.R., 2006. Endemic birds of India. Buceros, 2(2), p.49.

Pittie, A., 2016. Bibliography of South Asian Ornithology. URL: http://www.southasianornith.in. (Accessed on 17/08/2016)

Praveen, J, Jayapal, R and Pittie, A. A checklist of the birds of India. Indian BIRDS VOL. 11 NOS. 5 & 6

Stattersfield, A.J., Crosby, M.J., Long, A.J. and Wege, D.C., 1998. Global directory of endemic bird areas. BirdLife International, Cambridge, United Kingdom.

Zafar-ul-Islam, M. and Rahmani, A.R., 2004. Important Bird Areas in India: priority sites for conservation. Bombay Natural History Society, India.

Bibliography

Birds of the Indian Himalayan Region

0001. Abass, Md. (2001). Birds of Ladakh - a checklist. *Zoos' Print.* 16(8): 15-17.

0002. Abass, Md. (2005). A new bird in Ladakh. The Demoiselle Crane (Anthropoides virgo). Panda. 2004 (December): 5.

0003. Abdulali, H. (1962). Book review: The birds of Sikkim (448pp, 9 half-tone, 17 colour plates and 41 line drawings)by Salim Ali - Oxford University Press 1962. *Loris.* IX(4): 274-276.

0004. Abdulali, H. (1964). Notes on Indian Birds 1 - *Ceyx erithacus rufidorsus* Strickland in the Sikkim Terai, Eastern Himalayas: an addition to the Indian avifauna. *Journal of Bombay Natural History Society.* 61(2): 439-440.

0005. Abdulali, H. (1975). On the nesting habits of the Small minivet (*Pericrocotus cinnamomeus*). *Journal of Bombay Natural History Society.* 72(1): 200-201.

0006. Abdulali, H.; Savage, C.D.W. (1970). Status of wildfowl species in the vale of Kashmir. Proceedings of the Meeting on conservation of wildfowl resources. P. 192-193.

0007. Abdulali, H.; Sethna, N. (1981). On the validity of Irena puella sikkimensis Whistler and Kinnear and I. p. andamanica Abdulali. *Journal of Bombay Natural History Society.* 78(2): 381-382.

0008. Abhinav, C. (2014). Snapshot sightings: Common Ringed Plower from Pong Lake, Himachal Pradesh. *Indian Birds.* 9(1): 28.

0009. Abhinav, C.; Dhadwal, D.S. (2014). European Golden Plover *Pluvialis apricaria* at Pong Lake, Himachal Pradesh, India. *Indian Birds.* 9(5-6): 149-151.

0010. Abrol, D.P. (1995). Seasonal activity, population dynamics and behaviour of Bee Eater birds (Coraciformes Meropidae)attacking Honeybees.*Pavo.* 32(1-2): 153-159.

0011. Acharya, B.K.; Vijayan, L. (2007). Range extension of Rusty-bellied Shortwing *Brachypteryx hyperythra* in Sikkim, India. *Birding Asia.* 7: 50-51.

0012. Acharya, B.K.; Vijayan, L. (2010). Status and distribution of endemic and threatened birds of the Eastern Himalaya in Sikkim, India. *Journal of Threatened Taxa.* 2(2): 685-689.

0013. Acharya, M.N. (1933). A short note of the red-billed chough *Pyrrhocorax pyrrhocorax* Linn. *Journal of the Asiatic Society of Bengal.* 27(1): 119-121.

0014. Adams, A.L. (1859). The birds of Cashmere and Ladakh. *Proceedings of the Zoological Society of London.* 395: 169-190.

0015. Adams, A.L. (1867). Wandering of a naturalist in India: The Western Himalayas and Cashmere. i-xi, 333p.

0016. Ahanger, F.A. (2008). Studies on avian diversity and breeding of Mallard *Anas platyrhynchos* in the wetlands of Kashmir. *University of Kashmir*.

0017. Ahanger, F.A.; Shah, G.M.; Jan, U.; Wani, J.A. (2008). Factors affecting nest and hatching success of Mallard in Hokersar wetland, Kashmir. *Berkut*. 17(1-2): 38-40.

0018. Ahanger, F.A.; Shah, G.M.; Jan, U. (2013). Recovery of breeding Mallards *Anas platyrhynchos* in Kashmir, India. *Indian Birds.* 8(2): 37-38.

0019. Ahmad, K. (1999). Birds in Dachigam National Park. *Newsletter for Birdwatchers.* 39(2): 22-24.

0020. Ahmed, A. (1997). Birding on treks around Nainital. *Newsletter for Birdwatchers.* 37(3): 41-42.

0021. Ahmed, A. (1997). Live bird trade in northern India. P. 1-104.

0022. Ahmed, A. (1998). Birding on treks around Nainital. *My Forest.* 34(1): 745-747.

0023. Ahmed, A. (1999). Survey of the Maenam Wildlife Sanctuary, Sikkim, India. *Oriental Bird Club Bulletin.* 30: 12.

0024. Ahmed, A. (1999). Wildlife studies in north-east India-V, Sikkim. *Mor.* (August): 3.

0025. Ahmed, A.; Musavi, A.H. (1997). Status and distribution of Kalij in Ranikhet region of Kumaon Himalayas, India. *The Wildlifer*. 3(1-2): 23.

0026. Ahmed, M.F.; Talukdar, B.K.; Dey, A. (2002). Birding in Sessa Orchid Sanctuary, Arunachal Pradesh, India. *Oriental Bird Club Bulletin.* 35: 71.

0027. Aitken, W.M. (1981). Nanda Devi Sanctuary. *TheWildlifer*. 1(4): 37-41.

0028. Aiyadurai, A. (2007). Pheasant hunting: a cultural practice in Arunachal Pradesh, Northeast India. *WPA News.* 79: 6-7.

0029. Aiyadurai, A. (2012). Bird hunting in Mishmi Hills of Arunachal Pradesh, North Eastern India. *Indian Birds.* 7(5): 134-137.

0030. Akhtar, A.; Prakash, V.; Javed, S. (1994). The Western Tragopan: Bird of the Himalaya. *Sanctuary Asia.* 14(2): 44-49.

0031. Akhtar, S.A. (1990). Altitudinal range extension of the Brahminy Myna *Sturnus pagodarum* in Chushul, Ladakh. *Journal of Bombay Natural History Society.* 87(1): 147.

0032. Akhtar, S.A. (1992). Agonostic behaviour of the Blacknecked Crane in Chushul Ladakh, India. *Newsletter for Birdwatchers.* 32(7-8): 18-19.

0033. Akhtar, S.A.; Rao, P.; Tiwari, J.K.; Javed, S. (1992). Spotted Munia *Lonchura punctulata* (Linn.)from Dachigam National Park, Jammu and Kashmir. *Journal of Bombay Natural History Society.* 89(1): 129.

0034. Alexander, H.G. (1950). Some notes on the genus *Phylloscopus* in kashmir. *Journal of Bombay Natural History Society.* 49(1): 9-13.

0035. Alexander, H.G. (1951). Some notes on birds in Lahul. *Journal of Bombay Natural History Society.* 49(4): 608-613.

0036. Alexander, H.G. (1974). Seventy years of Birdwatching. T and AD Poyser. 264p.

0037. Ali, R. (1968). The brown dipper (*Cinclus pallassi*)as a host of a cuckoo (*Cuculus* sp.). *Journal of Bombay Natural History Society.* 64(3): 561.

0038. Ali, S. (1949). Indian hill birds. *Oxford University Press.* 188p.

0039. Ali, S. (1956). Brood-parasitism and himalayan cuckoos. *Indian Forester.* 82: 679-.

0040. Ali, S. (1956). Western limites of two east Himalayan birds. *Journal of Bombay Natural History Society.* 53(3): 468.

0041. Ali, S. (1960). A picture book of Sikkim birds. *Gangtok, Govt. of Sikkim*. 4 pr. II., pp.1-26.

0042. Ali, S. (1962). The birds of Sikkim. New Delhi, *Oxford University Press.* xxx, 414p.

0043. Ali, S. (1964). A tip to birdwatchers. *Newsletter for Birdwatchers.* 4(4): 9.

0044. Ali, S. (1964). Recaptures of birds ringed under the BNHS/WHO bird study project in India and Pakistan. *Newsletter for Birdwatchers.* 4(5): 1-2.

0045. Ali, S. (1974). The chronological time sense in birds. *Newsletter for Birdwatchers.* 14(7): 1-3.

0046. Ali, S. (1977). Another crack at the Mountain quail. *Newsletter for Birdwatchers.* 17(5): 1-2.

0047. Ali, S. (1977). Field guide to the birds of the Eastern Himalayas. *Oxford University Press.* xvi, 265p.

0048. Ali, S. (1979). Indian Hill birds. *Oxford University Press.* lvi, 188p.

0049. Ali, S. (1981). The Himalaya in Indian Ornithology. *IN: The Himalaya: Aspects of Change*. P. 16-31.

0050. Ali, S. (1989). The birds of Sikkim. i-xxxiii, 1-414.

0051. Ali, S. (2007). Ornithology for mountaineers. A bird's eye view. *The Collected essays and shorter writing of Salim Ali, II.* P. 375-383.

0052. Ali, S. (2007). Sequence of movie film, Ladakh June 1976. A bird's eye view. *The Collected essays and shorter writings of Salim Ali. II*. P. 375-383.

0053. Ali, S.; Daniel, J.C.; Inayatullah, M.; Naryan, G.; Akhtar, A.; Rosalind, L.; D'Cunha, E. (1986). Blacknecked Crane (Grus nigricollis)in Ladakh. *First Annual Report*. 35p.

0054. Ali, S.M. (1981). Ecological reconnaissance in Eastern Himalaya. *Tigerpaper.* 8(2): 1-3.

0055. Ali, S.; Ripley, S.D. (1948). The birds of the Mishmi hills. *Journal of Bombay Natural History Society.* 48(1): 1-37.

0056. Ali, S.; Ripley, S.D. (1969). Handbook of the birds of India and Pakistan together with those of Nepal, Sikkim, Bhutan and Ceylon. *Stone Curlews to Owls*. 3: i-xvi, 1-325, 11.

0057. Ali, S.; Ripley, S.D. (1973). Handbook of the Birds of India and Pakistan together with those of Bangladesh, Nepal, Sikkim, Bhutan and Sri Lanka. Robins to Wagtails. *Oxford University Press.* xvi, 306p.

0058. Ali, S.; Ripley, S.D. (1979). Namdapha Wildlife Sanctuary - an appeal for its preservation. *Hornbill.* 1970 (April-June): 5.

0059. Ali, S.; Ripley, S.D. (1981). Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Ceylon. *Oxford University Press.* xvi, 327p.

0060. Ali, S.; Ripley, S.D. (2001). Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Ceylon (sic). 3: 2 pr. 11., pp. i-xvii, 1-137, 11., 211.

0061. Allen, S.; Catsis, M. (2007). On the trail of the Bugun Liocichla *Liocichla Bugunorum* in north-east India. *Birding Asia.* 7: 75-80.

0062. Alstrom, P.; Olsson, U. (1988). Gynandromorphism in the Pink-browed Rosefinch *Carpodacus rhodochrous*. *Bulletin of the British Ornithologists' Club.* 108(1): 12.

0063. Alstrom, P.; Olsson, U. (1992). On the taxonomic status of *Phylloscopus affinis* and Phylloscopus subaffinis. *Bulletin of the British Ornithologists' Club.* 112(2): 111-125.

0064. Alstrom, P.; Olsson, U. (1999). The Golden-spectacled Warbler: a complex of sibling species, including a previously undescribed species. *IBIS.* 141: 545-568.

0065. Alstrom, P.; Rasmussen, P.C.; Olsson, U.; Sunberg, P. (2008). Species delimitation based on multiple criteria: the Spotted Bush Warbler *Bradypterus thoracicus* complex (Aves: Megaluridae). *Zoological Journal of the Linnean Society.* 154: 291-307.

0066. Ambedkar, V.C. (1960). The occurrence of the White-necked stork *Ciconia episcopa* (Boddaert)in the Kashmir valley. *Journal of Bombay Natural History Society.* 56(3): 633.

0067. Ambedkar, V.C.; Daniel, J.C. (1991). A study of the migration of the Common Teal *Anas crecca crecca* Linnaeus based on ring recoveries in India and U.S.S.R. *Journal of Bombay Natural History Society.* 87(3): 405-420.

0068. Ambedkar, V.C.; Daniel, J.C. (2003). A study of the migration of the Common Teal *Anas crecca crecca* Linn. Based on ring recoveries in India and USSR.Petronia. *Petronia Fifty Years of Post-independence Ornithology in India*. P. 24-45.

0069. Anderson, A. (1872). Notes on the raptorial birds of India. *Proceedings of the Zoological Society of London.* P. 675-690.

0070. Anderson, A. (1872). Notes on the raptorial birds of India Part II. *Proceedings of the Zoological Society of London.* P. 68-81.

0071. Anderson, A. (1873). Additional notes on the raptorial birds of North-Western India. *Proceedings of the Zoological Society of London.* P. 619-623.

0072. Anderson, A. (1875). On little or unknown himalayan zoology with notes on the birds. *Stray Feathers.* 3(5): 350-358.

0073. Anderson, J.C. (1889). Sporting samples round about Simla. *Journal of Bombay Natural History Society.* 4(1): 56-66.

0074. Anon. (1886). Catalogue of birds as yet in the collection of the Bombay Natural History Society. *Journal of Bombay Natural History Society.* 1(1): 15-23.

0075. Anon. (1929). Northern Indian partridge (Francolinus f. asiae)in the Kumaon hills. *Journal of the Darjeeling Natural History Society.* 4: 70-71.

0076. Anon. (1950). The snow goose (*Anser hypterboreus* Pallas)in Kashmir - an addition to the avifauna of India. *Journal of Bombay Natural History Society.* 492): 311-312.

0077. Anon. (1986). White-winged Wood duck - Project 406. *World Wildlife Fund- India Quarterly.* 7(2): 17.

0078. Anon. (1990). Status and ecology of the Lesser and Bengal Floricans with reports on Jerdon's Courser and Mountain Quail. Final Report. P. 1-11.

0079. Anon. (1993). World Wide Fund for Nature-India; *Asian Wetland Bureau, 1993. Directory of Indian Wetlands.* P. i-xvii, 1-263.

0080. Anon. (2004). An ecological study on mammals, birds, Herpetofauna and butterflies in Teesta River basin, Sikkim. Annual Report 2003-2004. *Salim Ali Centre for Ornithology and Natural History*. P. 24-27.

0081. Appleford, W.G. (1912). The himalayan snow cock (*Tetrogallus himalayensis*). *Journal of Bombay Natural History Society.* 21(3): 1084-1085.

0082. Athreya, R. (1999). A faunal survey of Namdapha Tiger Reserve, Arunachal Pradesh India. *Oriental Bird Club Bulletin.* 29: 12.

0083. Athreya, R. (2005). Eaglenest Wildlife Sanctuary, Arunachal Pradesh, India. *Birding Asia.* 4: 47-51.

0084. Athreya, R. (2005). Horned Lark *Eremophila alpestris* in Arunachal Pradesh. *Indian Birds.* 1(4): 83.

0085. Athreya, R. (2006). A new species of Liocichla (Aves: Timaliidae)from Eaglenest Wildlife Sanctuary, Arunachal Pradesh, India. *Indian Birds.* 2(4): 82-94.

0086. Athreya, R. (2006). New species of Liocichla discovered in Arunachal Pradesh. *Mistnet.* 7(2): 11-12.

0087. Athreya, V.C. (1996). Birds of Namdapha Tiger Reserve, Arunachal Pradesh, India. *Newsletter for Birdwatchers.* 36(4): 72-74.

0088. Atkinson, E.T.D. (1974). Fauna of the Himalayas containing species of Kumaon, Garhwal, Nepal and Tibet. *Cosme Pub*. 266p.

0089. Atkore, V.M.; Dadda, T. (2006). Sighting of Green-billed *Malkoha Phaenicophaeustristis* alng Alaknanda River, Uttaranchal, India. *Indian Birds.* 2(5): 139-140.

0090. Atkore, V.M.; Dasgupta, S. (2007). Himalayan Griffon *Gyps himalayensis* feeding on chir pine *Pinus roxburghii* needles. *Indian Birds.* 2(6): 172.

0091. Awati, M.P. (1984). Urgent need to preserve endangered species. *World Wildlife Fund- India Quarterly.* 5(3): 19.

0092. Awati, M.P. (1994). the Cranes of Sangti. *Hornbill.* 1994(3): 2-9.

0093. Bachketi, N.D. (1981). Valley of flowers. *The Wildlifer*. 1(4): 42-45.

0094. Backer, E.C.S. (1913). On a small collection of birds from the Mishmi hills, N.E. frontier of India. *Journal of Bombay Natural History Society.* 9: 251-254.

0095. Bailey, F.M. (1925). Predatory habits of the Magpie. *Journal of Bombay Natural History Society.* 30(4): 914.

0096. Bajpai, N.K. (1974). Pleasant parakeets. *Newsletter for Birdwatchers.* 14(2): 8.

0097. Baker, E.C.S. (1893). List of bird's eggs of North Cachar : a catalogue of the Passeriformes, Coraciiformes and the order Psittacii of the sub-class Ciconiiformes. *Journal of Bombay Natural History Society.* 8(2): 162-211.

0098. Baker, E.C.S. (1898). Indian ducks and their allies Part V. *Journal of Bombay Natural History Society.* 12(1): 1-31.

0099. Baker, E.C.S. (1898). Indian ducks and their allies - part III. *Journal of Bombay Natural History Society.* 11(3): 347-367.

0100. Baker, E.C.S. (1899). Indian ducks and their allies - Part VII. *Journal of Bombay Natural History Society.* 12(3): 437-464.

0101. Baker, E.C.S. (1899). Indian ducks and their allies Part VIII. *Journal of Bombay Natural History Society.* 12(4): 593-620.

0102. Baker, E.C.S. (1906). The oology of Indian parasitic cuckoos. *Journal of Bombay Natural History Society.* 17(1): 72-84.

0103. Baker, E.C.S. (1906). The oology of Indian parasitic cuckoos Part Ii. *Journal of Bombay Natural History Society.* 17(2): 351-374.

0104. Baker, E.C.S. (1913). Zoological results of the Abor Expedition (1911-1912)XIX Birds. *Records of the Indian Museum.* 8: 259-288.

0105. Baker, E.C.S. (1919). Further notes on some Dicruridae *Journal of Bombay Natural History Society.* 26: 41-45.

0106. Baker, E.C.S. (1920). Birds of Indian empire : handlist of the "Birds of India". *Journal of Bombay Natural History Society.* 27(2): 228-247.

0107. Baker, E.C.S. (1921). Hand list of the "Birds of India" Part III. *Journal of Bombay Natural History Society.* 27(4): 692-744.

0108. Baker, E.C.S. (1921). Hand-list of the "Birds of India" Part IV. *Journal of Bombay Natural History Society.* 28(1): 85-106.

0109. Baker, E.C.S. (1921). Handlist of the "birds of India" Part II. *Journal of Bombay Natural History Society.* 27(3): 448-491.

0110. Baker, E.C.S. (1924). The fauna of British India, including Ceylon and Burma - II. *London, Taylor and Francis.* i-xxiii, 561p.

0111. Baker, E.C.S. (1926). The fauna of British India, including Ceylon and Burma - Birds III. *Journal of Bombay Natural History Society.* i-xx, 489p.

0112. Baker, E.C.S. (1927). The fauna of British India, including Ceylon and Burma - Birds Iv. *London, Taylor and Francis.* i-xxiv, 471p.

0113. Baker, E.C.S. (1932). On the eggs of *Phylloscopus griseolus*. *IBIS.* 2(2): 393-394.

0114. Baker, E.C.S. (1932). The nidification of birds of the Indian empire (Corvidae cinclidae). *Taylor and Francis, London*. 470p.

0115. Baker, E.C.S. (1933). The nidification of birds of the Indian empire (Turdidae- Sturnidae). *Taylor and Francis, London*. 564p.

0116. Baker, E.C.S. (1934). The nidification of birds of the Indian empire (Ploceidae-Asionidae). *Taylor and Francis, London*. 568p.

0117. Baker, E.C.S. (1943). Information wanted red cuckoos Part II. *Journal of the Bengal Natural History Society.* 17(3): 92-95.

0118. Bakhsh, J. (1997). Kestrels at Ranikhet. *Newsletter for Birdwatchers.* 36(6): 115.

0119. Banerjee, A. (2003). Bird land. Business Today. 12(8): 126-129.

0120. Bangs, O. (1926). The chinese form of Grandala. *Journal of Bombay Natural History Society.* 9: 77-78.

0121. Bannerjee, A.K. (1993). Few common birds of Chopta and Duggalbitta (District Chamoli, U.P.). *Cheetal.* 32(3-4): 15-21.

0122. Barman, R. (1996). Birds of D'ering Memorial Wildlife Sanctuary, Arunachal Pradesh. *Newsletter for Birdwatchers.* 36(3): 47-49.

0123. Barman, S. (1993). Avifauna of Udhampur (Jammu and Kashmir)District. *IN:Bird Conservation: Strategies for the Nineties and Beyond.* P.92-97.

0124. Barnes, H.E. (1890). Nesting in Western India. *Journal of Bombay Natural History Society.* 5(1): 1-19.

0125. Barua, M. (1999). Occurrence of the Greyheaded Lapwing *Vanellus cinereus* Blyth in Arunachal Pradesh. *Newsletter for Birdwatchers.* 39(1): 13.

0126. Barve, S.; Dhondt, A.A. (2015). A Yellow-browed Tit *Sylviparus modestus* nest from Kedarnath Wildlife Sanctuary, Uttarakhand, India. *Indian Birds.* 10(3-4): 110-111.

0127. Bashir, S. (2000). Status, distribution and ecology of the Western Tragopan *Tragopan melanocephalus* in the western Himalayas. *Mor.* 2 (February): 7.

0128. Bashir, S. (2000). Western Tragopan (*Tragopan melanocephalus*)studies in Chamba Himachal Pradesh. *Mor.* 2 (August): 2-3.

0129. Bashir, S. (2000). Western Tragopan studies in Chamba, Himachal Pradesh. *WPA News.* 63: 6-7.

0130. Bashir, T.; Bhattacharya, T.; Poudyal, K.; Sathyakumar, S. (2012). Observation on the nests of Scaly-breasted Wren-babbler *Pnoepyga albiventer*: does nesting near trails affect breeding success? *Indian Birds.* 7(5): 148-149.

0131. Basil-Edwardes, S. (1920). On the occurrence of the large brown thrush (*Zoothera monticola*)in Simla. *Journal of Bombay Natural History Society.* 27(2): 401-402.

0132. Basil-Edwardes, S. (1921). Behaviour or the White cheeked bulbul (*Molpastes leucogenys*)when its young is in danger and the parental instinct of love for the offspring displayed by the Dark Grey Bush Chat (*Oreicola ferrea*). *Journal of Bombay Natural History Society.* 28(1): 280-281.

0133. Basil-Edwardes, S. (1923). Nidification of the Himalayan tree creeper *Certhis himalayana*. *Journal of Bombay Natural History Society.* 29(2): 557-559.

0134. Basil-Edwardes, S. (1926). Notes on the birds uncommon in or unrecorded from the Simla hills. *Journal of Bombay Natural History Society.* 31(1): 224-226.

0135. Bassapannavar, C.H. (1979). A garden on top of the World. *Hornbill.* 32(July-Sep): 23-28.

0136. Bates, R.S.P. (1923). Notes on Hugh Whistlers "A contribution to the ornithology of Cashmere in Vol. 28(4). *Journal of Bombay Natural History Society.* 29(3): 798-802.

0137. Bates, R.S.P. (1924). Birds nesting with a camera in India part 2. *Journal of Bombay Natural History Society.* 30(1): 97-105.

0138. Bates, R.S.P. (1924). Birds nesting with a camera in India Part I. *Journal of Bombay Natural History Society.* 29(4): 947-957.

0139. Bates, R.S.P. (1925). Birds nesting with a camera in India part 4. *Journal of Bombay Natural History Society.* 30(3): 600-609.

0140. Bates, R.S.P. (1925). Birds nesting with a camera in India part 5. *Journal of Bombay Natural History Society.* 30(4): 793-804.

0141. Bates, R.S.P. (1929). A reed bed in the dal lake, Kashmir. *Journal of Bombay Natural History Society.* 33(3): 656-666.

0142. Bates, R.S.P. (1931). Bird life in India. *Bombay Natural History Society*. 187p.

0143. Bates, R.S.P. (1936). On the birds of the Kishenganga valley, Kashmir. *Journal of Bombay Natural History Society.* 38(3): 520-539.

0144. Bates, R.S.P. (1938). Rose finches and other birds of the Wardwan valley. *Journal of Bombay Natural History Society.* 38(2): 183-190.

0145. Bates, R.S.P. (1942). A month in the Kazinag range. *Journal of Bombay Natural History Society.* 43(1): 60-72.

0146. Bates, R.S.P. (1949). Astanmarg. *Journal of Bombay Natural History Society.* 48(1): 38-46.

0147. Bates, R.S.P. (1949). The Merbal glen and some birds of the Pir Panjal. *Journal of Bombay Natural History Society.* 48(3): 399-411.

0148. Bates, R.S.P.; Lowther, E.H.N. (1952). Breeding birds in Kashmir. *Oxford University Press.* i.xxiii, 367p.

0149. Beaman, M. (1985). Expedition - Ladakh, India. *British Birds.* 78(7): 325-326.

0150. Beaman, M. (1994). Palearctic birds: A checklist of the birds of Europe, North Africa and Asia north of the foothills of the Himalayas 11., P. 1-168+2.

0151. Beaven, R.C. (1868). Sundry notes on Indian raptors. *Proceedings of the Zoological Society of London.* 390-402.

0152. Beebe, C.W. (1910). Catalogue of the pheasants, peafowl, junglefowl and spur fowl in the Indian museum. *Records of the Indian Museum.* 5: 263-275.

0153. Beebe, C.W. (1912). New blood pheasants. *Zoologica.* 1: 189-193.

0154. Benniff, A.H. (1928). Extraordinary pugnacity of the Rustycheeked Scimitar Babbler *Pomatorhinus erythrogenys*. *Journal of Bombay Natural History Society.* 32(3): 599-600.

0155. Bensch, S.; Price, T.; Kohn, J. (1997). Isolation and characterization of microsatellite loci in a Phylloscopus warbler. *Mol. Ecol.* 6: 91-92.

0156. Benstead, P. (2002). Conservation Fund: Consumption of wild galliformes by human populations residing close to important wildlife areas in the Western Himalaya: a survey. *Oriental Bird Club Bulletin.* 35: 11.

0157. Benstead, P. (2002). Conservation Fund: Survey and status of Himalayan Quail in India. *Oriental Bird Club Bulletin.* 35: 9-10.

0158. Beresford, de la P. (1944). The winter foods of birds in Kashmir. *Journal of Bombay Natural History Society.* 45(1): 86-88.

0159. Berriff, A.H. (1927). Mating of the jungle crows *Corvus coronoides intermedius*. *Journal of Bombay Natural History Society.* 32(1): 217.

0160. Betterton, F.A. (1948). The altitudinal limit of the pheasant tailed Jacana (*Hydrophasianus chirurgus* (Scopoli)*Journal of Bombay Natural History Society.* 47(2): 384.

0161. Betts, F.N. (1956). Notes on birds of the Subansiri area, Assam. *Journal of Bombay Natural History Society.* 53(3): 397-414.

0162. Bhargav, V.K.; Uniyal, V.P.; Kittur, S.; Sivakumar, K. (2007). Bird records from Simbalbara Wildlife Sanctuary, Himachal Pradesh. *Indian Forester.* 133(10): 1411-1418.

0163. Bhargava, R. (1996). Trapping hill birds - a vanishing art. *Newsletter for Birdwatchers.* 35(6): 102-104.

0164. Bhatnagar, A.K. (1983). Lake Sanctuary. *Sanctuary Asia.* 3(3): 235.

0165. Bhatnagar, R.K.; Mishra, P. (1971). Revised synopsis of birds of Dehradun and Adjacent hills - Pt 1 (Podicipediformes to Charadriiformes). *Cheetal.* 14(2): 41-58.

0166. Bhatnagar, R.K.; Mishra, P. (1972). Indian endemic bird species in Dehradun and adjacent hills. *Cheetal.* 15(3): 34-42.

0167. Bhatnagar, R.K.; Mishra, P. (1972). Revised synopsis of birds in Dehradun and adjacent hills - pt. II (Columbiformes to Piciformes). *Cheetal.* 14(4): 40-53.

0168. Bhatnagar, R.K.; Mishra, P. (1975). Revised synopsis of birds of Dehradun and adjacent hills Pt. III (Passeriformes). *Cheetal.* 16(2): 22-26.

0169. Bhattacharji, C. (1993). Tsomoriri, Oasis in a cold desert. *World Wildlife Fund- India Quarterly.* 4(4): 20-22.

0170. Bhattacharya, T.; Sathyakumar, S. (2007). An ornithological survey of Chenab Valley, Chamoli district, Uttaranchal, including notes on pheasants. *Indian Birds.* 3(4): 138-145.

0171. Bhattacharya, T.; Sathyakumar, S.; Rawat, G.S. (2007). Impact of anthropogenic pressures on abundance and distribution of Galliformes at Bedini-Ali, Nanda Devi Biosphere Reserve, Uttarakhand. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 155-162.

0172. Birand, A.; Pawar, S. (2004). An ornithological survey in north-east India. *Forktail.* 20: 15-24.

0173. Bird Life International (2003). Saving Asia's threatened birds: A guide for government and civil society. P. i-x, 1-246.

0174. Bishop, M.A. (1993). The Black-necked Crane winter count 1991-1992. *Journal of Ecological Society.* 6: 55-64.

0175. Bisht, M.S.; Kathait, B.S.; dobriyal, A.K. (2002). Status and distribution of Cheer Pheasant (*Catreus wallichii*)in Garhwal Himalaya, Uttaranchal. *Proceedings of national Symposium on Galliformes.* P. 6-10.

0176. Bisht, M.S.; Phurailatpam, S.; Kathait, B.S. (2006). Nesting ecology and breeding success of Cheer Pheasant *Catreus wallichii* in Garhwal Himalaya, India. *Journal of Bombay Natural History Society.* 102(3): 287-289.

0177. Bisht, M.S.; Phurailatpam, S.; Kathait, B.S.; Dobriyal, A.K.; Chandola-Saklani, A.; Kaul, R. (2008). Survey of the threatened Cheer Pheasant *Catreus wallichii* in Garhwal Himalaya. *Journal of Bombay Natural History Society.* 104(2): 134-139.

0178. Biswas, B. (1950). The himalayan races of the nutcracker *Nucifraga caryocatactes* (Linn). *Journal of the Zoological Society of London.* 2(1): 26.

0179. Biswas, B. (1951). Revision of Indian Birds. *American Museum Novitates.* 1500:1-12.

0180. Biswas, B. (1958). Taxonomic status of the blood pheasants of Nepal and Sikkim. *Journal of the Zoological Society of India.* 10(1): 100-101.

0181. Biswas, B. (1959). On the validity of *Harpactes erythrocephalus* hodgsoni (Gould). *Journal of Bombay Natural History Society.* 56(2): 335-338.

0182. Biswas, B. (1960). A new name for the Himalayan red-winged Babbler, Pteruthius. *Bulletin of the British Ornithologists Club.* 80(6): 106.

0183. Biswas, B. (1960). On the parakeet *Psittacula intermedia* (Rothschild)(Aves: Psittacidae). *Journal of Bombay Natural History Society.* 56(3): 558-562.

0184. Biswas, B. (1964). Comments on Ripley's " A synopsis of the Birds of India and Pakistan''. *Journal of Bombay Natural History Society.* 60(3): 679-687.

0185. Biswas, B. (1979). Field guide to the birds of the Eastern Himalaya. By Salim Ali.pp.xvi, 263(11.8X18 cm)with 37 coloured plates, Delhi, 1977, *Oxford University Press. Journal of Bombay Natural History Society.* 75(3): 915-916.

0186. Bland, B. (1999). Reviews: A Photographic Guide to the Birds of the Himalayas by Bikram Grewal and Offo (sic)Pfister. 1998. New Holland. 144 pages and Numerous colour photographs. Softback, BP 9.99. *Birding World.* 12(5): 214.

0187. Blanford, W.T. (1871). Account of a visit to the Eastern and northern frontier of independent Sikkim with notes on the zoology of the alpine an sub-alpine regions, Part I. *Journal of the Asiatic Society of Bengal.* 40(2): 367-420.

0188. Blanford, W.T. (1871). Account of a visit to the Eastern and Northern frontiers of independent Sikkim; with notes on the zoology of the alpine an sub-alpine regions. *Proceedings of the Asiatic Society of Bengal.* P. 226-228.

0189. Blanford, W.T. (1871). Account of a visit to the Eastern and Northern frontiers of independent Sikkim; with notes on the zoology of the alpine an sub-alpine regions Part I. *Proceedings of the Asiatic Society of Bengal.* P. 167-170.

0190. Blanford, W.T. (1871). Description of a new Himalayan Finch, *Procarduelis rubescens*. *Proceedings of the Zoological Society of London.* P. 693-695.

0191. Blanford, W.T. (1871). Notes on a collection of birds from Sikkim. *Proceedings of the Asiatic Society of Bengal.* P. 215-216.

0192. Blanford, W.T. (1872). Notes on the collection of birds from Sikkim. *Journal of the Asiatic Society of Bengal.* 41(2): 152-170.

0193. Blanford, W.T. (1877). Notes on some birds in Mr. Mandeli's collection from Sikkim, Bhutan and Tibet. *Stray Feathers.* 5-6: 482-487.

0194. Blanford, W.T. (1878). Description of *Ruticilla schisticeps*, Hodgs. *Journal of the Asiatic Society of Bengal.* 47(2): 1-2.

0195. Blyth, E. (1842). Notes on various Indian and Malayan birds, with descriptions of some presumed new species. *Journal of the Asiatic Society of Bengal.* 11(1): 160-195.

0196. Blyth, E. (1845). Notices and description of various new or little known species of birds. *Journal of the Asiatic Society of Bengal.* 14(1): 173-212.

0197. Blyth, E. (1846). Drafts for a fauna indica (Comprising the animals of the Himalaya mountains, those of the valley of the Indus of the Provinces of Assam, Sylhet Tipperah, Arracan and of Ceylon with occasional notices of species from the Neighbouring countries no. 1 the Columbidae or Pigeons and Doves. *Journal of the Asiatic Society of Bengal.* 14(2); 845-878.

0198. Blyth, E. (1846). Notices and descriptions of various new or little known species of birds. *Journal of the Asiatic Society of Bengal.* 15(1): 1-54.

0199. Blyth, E. (1849). A supplemental note to the catalogue of the birds in the Asiatic Society's museum. *Journal of the Asiatic Society of Bengal.* 18(2): 800-821.

0200. Blyth, E. (1861). Notes on some birds collected by Dr. Jerdon in Sikkim. *Proceedings of the Zoological Society of London.* P. 199-202.

0201. Blyth, E. (1863). Note on the genus Pyrrhula. *IBIS.* 5(4): 440-442.

0202. Blyth, E. (1870). Notes relating chiefly to the birds of India. *IBIS.* 12(2): 157-176.

0203. Bomford, T. (1908). A hoopoe incident *Journal of Bombay Natural History Society.* 18(4): 904-905.

0204. Bonpo, C.R.; Kuriakose, J. (2014). Yunnan Nuthatch *Sitta yunnanensis* from Walong, Arunachal Pradesh: A new species for South Asia. *Indian Birds.* 9(4): 105-106.

0205. Borse, M. (2013). Snapshot sightings, Long-tailed Duck from Pangong Tso, Ladakh. *Indian Birds.* 8(5): 140.

0206. Boyd, J.E.M. (1921). Abnormal egg of the Monal (*Lophophous refulgens*)*Journal of Bombay Natural History Society.* 27(4): 953-954.

0207. Briggs, F.S. (1931). Birds observed in the neighbourhood of Ranikhet. *Journal of Bombay Natural History Society.* 34(4): 1072-1079.

0208. Briggs, F.S. (1932). The migration of the paradise flycatcher (*Tchitrea paradisi*). *Journal of Bombay Natural History Society.* 35(3): 675-680.

0209. Brooks, W.E. (1869). Notes on birds observed near Nynee Tal and Almorah from April to June 1868. *IBIS.* 11(1): 154-170.

0210. Brooks, W.E. (1872). Notes on the ornithology of Cashmir. *Journal of the Asiatic Society of Bengal.* 41(2): 73-86.

0211. Brooks, W.E. (1872). On a new species of Phylloscopus *IBIS.* 14(1): 22-23.

0212. Brooks, W.E. (1873). On an undescribed species of Lophophanes. *Journal of the Asiatic Society of Bengal.* 42(2): 57.

0213. Brooks, W.E. (1873). On two undescribed Cashmir birds. *Journal of the Asiatic Society of Bengal.* 41(2): 327-329.

0214. Brooks, W.E. (1874). Some ornithological notes and corrections. Journal of Asiatic Society of Bengal. 43(2): 139-253.

0215. Brooks, W.E. (1875). Notes upon a collection of birds made between Mussoori and Gangotri in May 1874. *Stray Feathers.* 3(1-3): 224-257.

0216. Brooks, W.E. (1880). Ornithological observations in Sikkim, the Punjab and Sind. *Stray Feathers.* 8(6): 464-489.

0217. Buchanan, K. (1903). Nesting notes from Kashmir. *Journal of Bombay Natural History Society.* 15(1): 131-133.

0218. Buckton, S.; Morris, P. (1989). India and Nepal: Dec. 1989 - June 1990. *A Comprehensive trip report, giving details of the birds seen and the sites, including how to get there, accomodation and food, and ID., Hints*. P. 1-109.

0219. Bulger, G.E. (1868). List of birds obtained in Sikkim, eastern Himalayas, between March and July 1867. *IBIS.* 11(2): 154-170.

0220. Bulsara, F.F.C. (1979). A birdwatcher at large - Ladakh June-July 1976. *Hornbill.* 1979(April-June): 5.

0221. Buner, F.; Dhiman, S.; Walker, T.; Dhadwal, D.S. (2015). Pioneering bird ringing-capacity building in Sairopa, Great Himalayan National Park, Himachal Pradesh, India. *Birding Asia.* 23(June): 102-107.

0222. Burns, P.F. (1988). Separation in the hand of Whitebrowed Blue Flycatcher *Muscicapa superciliaris* and Slaty Blue Flycatcher *Muscicapa leucomelanura*. *Journal of Bombay Natural History Society.* 84(3): 684-685.

0223. Cama, P. (2008). Forest walks in Kumaon. *Indian Birds.* 3(6): 222-227.

0224. Capper W. (1904). The himalayan nutcracker (*Nucifraga hemispila*). *Journal of Bombay Natural History Society.* 16(1): 158.

0225. Cariappa, K.C. (2007). Hoopoes in the grassy plains near Tso Kar, Ladakh. *Newsletter for Birdwatchers.* 46(6): 95-96.

0226. Chacko, R.T. (1993). Human interference in the habitats of cranes in Bhutan and Ladakh. *Bird conservation: strategies for the nineties and beyond*. P. 273-274.

0227. Chacko, R.T. (1994). Human interference in the habitat of Cranes in Bhutan and Ladakh. *Newsletter for Birdwatchers.* 33(6): 106-108.

0228. Chacko, R.T. (1997). Tibetan Partridges breeding in Ladakh, India. *WPA News.* 52(February): 28-29.

0229. Chacko, R.T. (1998). Conservation Fund in Action: Breeding Black-necked Cranes in Changtang, Ladakh, 1997. *Oriental Bird Club Bulletin.* 27: 10-11.

0230. Chacko, R.T. (1999). Tibetan partridge breeding in Ladakh - India. *Mor.* 1(August): 5.

0231. Chandan, P.; Chatterjee, A.; Gautam, P. (2004). Indian Army and green governance conservation of Black-necked Crane in Ladakh. *Green Governance*. 2004(3): 14-15.

0232. Chandan, P.; Chatterjee, A.; Gautam, P.; Seth, C.M.; Takpa, J.; Haq, S.U; Tashi, P.; Vidya, S. (2005). Black-necked Crane-Status, breeding productivity and conservation in Ladakh, India 2000-2004: 1-64.

0233. Chandan, P.; Gautam, P.; Chatterjee, A. (2006). Nesting sites and breeding success of Black-necked Crane *Grus nigricollis* in Ladakh, India. *IN: Waterbirds around the World*. P. 311-314.

0234. Chandola-Saklani, A. (2006). The Himalayan game birds. *IN: Indian through its Birds*. P.107-120.

0235. Chandole, A. (1981). News from Gopeshwar. *Newsletter for Birdwatchers.* 21(5): 15-16.

0236. Chandra, T.; Bhatt, D. (2012). Stripe-breasted pied woodpecker: first breeding record from Garhwal Himalaya. *Tigerpaper.* 39(3): 32.

0237.Chathoth, N. (2006). Face to face with "Grandala" - a Himalayan experience. *Indian Birds.* 2(1): 23.

0238. Chatterjea, N.N. (2003). A trek to Pindari Glacier. *Samsad News*. 21(5): 1-4.

0239. Chatterjea, N.N.; Ghosh, S. (2004). Of Kapkote, Ramgarh and Mukteshwar. *Samsad News.* 22(11-12)1-4.

0240. Chatterjee, A.K. (1986). An introduction to Namdapha tiger reserve, Arunachal pradesh. *Tigerpaper.* 13(3): 22-27.

0241. Chatterjee, S. (1998). Tryst with a Satyr. *Samsad News*. 16(6): 1-2.

0242. Chaudhari, A.N.; Seam, J.C. (1966). Hill birds a growing menace to temperate fruit in Simla hills. *Himachal Hort*. 7: 13-.

0243. Chaudhuri, C. (2003). Trekking inside the Great Himalayan National Park - a report. *Samsad News*. 21(8): 1-3.

0244. Chaudhuri, C. (2004). Driving through Lahaul-Spiti. *Samsad News*. 22(7-8): 1-2.

0245. Chauhan, B.S. (1991). Wildlife management in Himachal Pradesh. *Indian Forester.* 17: 896-900.

0246. Chauhan, B.S.; Sharma, V. (1991). Status of Western Tragopan in Himachal Pradesh, India. *WPA News.* 34: 25-28.

0247. Chettri, N. (2000). Impact of habitat distribances on bird and butterfly communities along Yukson-Dzongri trekking trail in Khanchendzonga Biosphere Reserve. *University of North Bengal*.

0248. Chettri, N.; Deb, D.C.; Sharma, E.; Jackson, R. (2005). The relationship between bird communities and habitat. A study along a trekking corridor in the Sikkim Himalaya. *Mountain Research and Development*. 25(3): 235-243.

0249. Chettri, N.; Sharma, E.; Deb, D.C. (2001). Bird community structure along a trekking corridor of Sikkim Himalaya: A Conservation perspective. *Biological Conservation.* 102: 1-16.

0250. Cheung, N. (2008). Overseas birding: Kashmir - an accidental birdwatching trip. *Suara Enggang*. 16(4): 20-25.

0251. Choudhury, A. (1990). Bird observations from Namdapha National Park and adjacent areas. *Arunachal Forest News*. 8(1-2): 38-43.

0252. Choudhury, A. (1992). Some birds in D'Ering Sanctuary. *Arunachal Forest News*. 10(1-2): 39-42.

0253. Choudhury, A. (1994). A new crane-migration route discovered. *Asian Wetland News*. 7(1): 18.

0254. Choudhury, A. (1994). On a possible sight record of the Little Gull *Larus minutus* Pallas in Arunachal Pradesh. *Journal of Bombay Natural History Society.* 90(2): 290.

0255. Choudhury, A. (1995). Discovery of a new Crane-migration route and the first midwinter waterfowl census in Arunachal Pradesh. *Newsletter for Birdwatchers.* 34(6): 135-137.

0256. Choudhury, A. (1995). White-winged Wood Duck in Mehao and Pakhui Sanctuaries, Arunachal Pradesh. *IWRB Threatened Waterfowl Research Group Newsletter*. 7: 12.

0257. Choudhury, A. (1996). On the trail of Blyth's Tragopan *WPA News.* 51: 14-16.

0258. Choudhury, A. (1996). Survey of White-winged Duck and Bengal Florican in North-East India. *Oriental Bird Club Bulletin.* 32: 10.

0259. Choudhury, A. (1996). Trekking through Kamlang. *Sanctuary Asia.* 16(5): 44-49.

0260. Choudhury, A. (1996). Winter waterfowl count in Namdapha National Park. *Oriental Bird Club Bulletin.* 23: 29-30.

0261. Choudhury, A. (1997). The Barheaded Goose in North-east India and Bhutan. *Journal of Ecological Society.* 10: 17-19.

0262. Choudhury, A. (1998). Some new elevation records of birds from Mehao Wildlife Sanctuary, Arunachal Pradesh, India. *Forktail.* 14(August): 71.

0263. Choudhury, A. (1998). The Bengal Florican *Eupodotis bengalensis* Gmelin 1789 in Dibang Valley District of Arunachal Pradesh. *Journal of Bombay Natural History Society.* 95(2): 342.

0264. Choudhury, A. (2000). The Black-necked Crane in Arunachal Pradesh. *Twilight*. 2(2-3): 31-32.

0265. Choudhury, A. (2001). The birds of Eaglenest and Sessa Orchid Sanctuaries, Arunachal Pradesh, India. *Oriental Bird Club Bulletin.* 34: 19-20.

0266. Choudhury, A. (2002). Status and conservation of cranes in northeast India. Birds of Wetlands and Grasslands. *Proceedings of the Salim Ali Centenary Seminar on Conservation Avifauna of Wetlands and Grasslands (February 12-15, 1996)Mumbai, India.* P. 41-44.

0267. Choudhury, A. (2002). Tawang - mystical mountains. *Sanctuary Asia.* XXII (4): 30-35.

0268. Choudhury, A. (2003). Birds of Eaglenest Wildlife Sanctuary and Sessa Orchid Sanctuary, Arunachal Pradesh, India. *Forktail.* 19: 1-13.

0269. Choudhury, A. (2003). Mrs. Hume's Pheasant in the Indian IBA. *Mistnet.* 4(2): 7.

0270. Choudhury, A. (2003). The changeable Hawk Eagle in Northeast India and Bhutan. *Tigerpaper.* 31(3): 6-8.

0271. Choudhury, A. (2006). A pocket guide to the birds of Arunachal Pradesh. *Gibbon Pocket Guides*. P. 1-109.

0272. Choudhury, A. (2007). Tawny Fish-Owl *Ketupa flavipes* in Arunachal Pradesh. *Indian Birds.* 3(4): 160.

0273. Choudhury, A. (2008). Survey of mammals and birds in Dihang-Dibang Biosphere Reserve, Arunachal Pradesh. 70.

0274. Choudhury, A. (2010). New easterly locations of Impeyan Monal *Lophophorus impejanus* from Arunachal Pradesh. *Indian Birds.* 5(6): 183-184.

0275. Choudhury, A. (2010). The Chapories of the Lohit River-Arunachal's IBA under threat. *Mistnet.* 11(4): 13-14.

0276. Choudhury, A. (2011). Tourism pressure on high elevation IBAs-it is time for some regulation. *Mistnet.* 12(1): 11-12.

0277. Choudhury, A. (2013). First record of the Dark-rumped or Khasi Hills Swift *Apus acuticauda* in Arunachal Pradesh.*Newsletter and Journal of the Rhino Founation for Nature in NE India*. 9: 65-68.

0278. Choudhury, A. (2014). Chaglagam-Denning-Walong: Aruanchal's wild east. *Mistnet.* 14(4): 9-10.

0279. Choudhury, A. (2015). Kane-a lesser known IBA of Arunachal Pradesh. *Mistnet.* 16(1): 2-3.

0280. Choudhury, A. (2016). Saker Falcon *Falco cherrug* in northern Sikkim, India. *Indian Birds.* 11(1): 19.

0281. Choudhury, A.; Chandiramani, S.S.; Naik, R. N. (1999). White-winged wood duck rediscovered in Namdapha. *Tigerpaper.* 26(2): 27-28.

0282. Chundawat, R.S. (1992). In the high mountains of Ladakh. *Sanctuary Asia.* 12(5): 14-23.

0283. Clark, W.S.; Schmitt, N.J. (1993). Field identification of the Rufous-bellied Eagle *Hieraaetus kienerii*. *Forktail.* 8: 7-9.

0284. Cock; Marshall, C.H.T. (1873). Notes on a collection of eggs made in and about Murree. *Stray Feathers.* 1(5): 348-358.

0285. Coldstream, J. (1911). Woodcock in Kulu. *Journal of Bombay Natural History Society.* 21(1): 268-269.

0286. Collar, N.J. (2009). New bird descriptions without proper voucher specimens': Further to Kannan. *Journal of Bombay Natural History Society.* 105(2): 222-223.

0287. Comber, E. (1905). A rare Indian game bird, the mountain quail (*Ophrysia superciliosa*, Gray). *Journal of Bombay Natural History Society.* 1692): 361-362.

0288. Cordeaux, W.W. (1888). Notes on the birds of Cashmere and the Dras district. *IBIS.* 6(22): 218-226.

0289. Cordeaux, W.W. (1894). List of birds observed in Dras and Suru. *IBIS.* 6(23): 367-374.

0290. Covell, G. (1936). Habits of the Plaintive cuckoo (*Cacomantis merulinus* Scop). *Journal of Bombay Natural History Society.* 38(3): 623.

0291. Cox, J. (1999). Stray feathers from a trans-Himalayan trek in Autumn. *Danphe*. 8(1): 7.

0292. Crosby, M. (1996). Threatened birds in the eastern Himalayas. *Oriental Bird Club Bulletin.* 23: 21-23.

0293. Cruickshank, A. (1913). Common cuckoo (*Cuculus canorus*)laying in the rest of the Plumbeous redstart (*Rhyacornis fulginosus*). *Journal of Bombay Natural History Society.* 22(3): 615.

0294. D'Souza, E. (2000). Memoirs from Sikkim. *Hornbill.* 2000 (January-March): 28-29.

0295. Dalvi, S. (2013). Elliot's Laughingthrush *Trochalopteron elliotii* and Black headed Greenfinch *Chloris ambigus* from Anini, Arunachal Pradesh, India. *Indian Birds.* 8(5): 130.

0296. Damle, S.; Inskipp, T. (2014). Sighting of Northern Weatear Oenanthe oenanthe from the Nubra Valley, Ladakh, Jammu and Kashmir, and a review of previous records from the Indian Subcontinent. *Indian Birds.* 9(5-6): 139-141.

0297. Dang, H. (1962). A natural sanctuary in the Himalaya: Nanda Devi and the Rishiganga Basin. *Journal of Bombay Natural History Society.* 58(3): 707-714.

0298. Dang, H. (1963). A natural Sanctuary in the Himalaya; Nanda Devi and the Rishiganga Basin. *Cheetal.* 5(2): 38-44.

0299. Dang, H. (1964). A natural sanctuary in the Himalaya: Nanda Devi and the Rishiganga Basin. *Cheetal.* 7(1): 34-40.

0300. Daniel, J.C. (1957). White-capped Redstart (*Phoenicurus leucocephalus*)nesting at Changu, North Sikkim. *Journal of Bengal Natural History Society*. 29(1-2): 57-58.

0301. Das, S.M.; Malhotra, Y.R.; Duda, P.L. (1964). The Palaearctic elements in the fauna of Kashmir region. *Kashmir Scientist*. 1: 100-111.

0302. Dasgupta, P. (1998). A report on a visit to Kumaon hills. *Samsad News*. 16(12): 1-2.

0303. Datta, A. (2000). Pheasant abundance in selectively logged and unlogged forests of western Arunachal Pradesh, northeast India. *Journal of Bombay Natural History Society.* 97(2): 177-183.

0304. Datta, A. (2001). An ecological study of sympatric hornbills and fruiting patterns in a tropical forest in Arunachal Pradesh. M.Sc. dissertation. *Saurashtra University*. 265 pp.

0305. Datta, A. (2003). Foraging patterns of sympatric hornbills during the nonbreeding season in Arunachal Pradesh, northeast India. *Biotropica*. 35(2): 208-218.

0306. Datta, A. (2004). An overview of hornbills: Biology, distribution and conservation in Arunachal Pradesh. *Arunachal Forest News*. 20: 40-64.

0307. Datta, A. (2004). Pakke Tiger Reserve (IBA site)Hornbill haven in Arunachal Pradesh. *Mistnet.* 4(3-4): 16-17.

0308. Datta, A. (2004). Sighting of the Oriental Bay-Owl *Phodilus badius saturatus* in Pakhui Wildlife Sanctuary, Western Arunachal Pradesh. *Journal of Bombay Natural History Society.* 101(1): 156.

0309. Datta, A. (2005). Fading fauna, forgotten people. *Down to Earth*. 2005: 46-49.

0310. Datta, A. (2005). High on hornbills.*Wildlife Conservation. 2005 (May-June*): 44-49.

0311. Datta, A. (2007). Threatened forests, forgotten people. *IN:Making Conservation Work: securing biodiversity in this new century*. P. 165-209.

0312.Datta, A. (2009). Obervation on Rufous-necked Aceros nipalensis and Austen's Brown *Anorrhinnus austeni* Hornbills in Arunachal Pradesh: natural History, conservation status, and threats. *Indian Birds.* 5(4): 108-117.

0313. Datta, A.; Rawat, G.S. (2004). Nest-site selection and nesting success of three hornbill species in Arunachal Pradesh, North-east India: *Buceros bicornis*, *Aceros undulatus* and *Anthracoceros albirostris*. *Bird Conservation International* 14: 249-262.

0314. Datta, A.; Rawat, G.S. (2008). Dispersal modes and spatial patterns of tree species in a tropical forest in Arunachal Pradesh, Northeast India. *Tropical Conservation Science*. 1(3): 163-185.

0315. Datta, A.; Singh, P.; Athreya, R.; Karthikeyan, S. (1999). Birds of Pakhui Wildlife Sanctuary in western Arunachal Pradesh, North East India. *Newsletter for Birdwatchers.* 38(6): 91-96.

0316. Datta, S.B.; Devasar, N. (2012). Birding in the Doon Valley: Dehradun, Mussoorie, Asan, Rajaji National Park, Dhanaulti and nearby areas. *Winterline Publishing Pvt. Ltd. Uttarakhand, India*.

0317. Davidson, J. (1898). A short trip to Kashmir. *IBIS.* 4: 1-42.

0318. Davis, D. (1946). Occurrence of the White-bellied or snow pigeon (*Columba leuconota leuconota*)at a low level in the Kumaon Himalaya. *Journal of Bombay Natural History Society.* 46(1): 184-185.

0319. De, D. (1995). On the trail of the Great Indian Hornbill.*Discover India*. 8(8): 41-44.

0320. DeCandido, R.; Gurung, S.; Subedi, T.; Allen, D. (2013). The East-west migration of Steppe Eagle *Aquila nipalensis* and other raptors in Nepal and India. *Indian Birds.* 19: 18-25.

0321. Deignan, H.G. (1950). The races of the collared Scops owl *Otus bakkamoena pennant*. *The Auk*. 67(2): 189-201.

0322. Deignan, H.G. (1952). The nomenclature of certain Bulbuls (Pycnonotus): a reconsideration. *The auk*. 69(4): 463-465.

0323. Deignan, H.G. (1954). On the nomenclature of the the Himalayan Goldcrests. *Bulletin of the British Ornithologists Club.* 74(9): 103-104.

0324. Deignan, H.G. (1956). Final word on the nomenclature of the himalayan goldcrests. *Bulletin of the British Ornitholgists Club*. 76(6): 106.

0325. Delacour, J. (1953). Comment on the Geographical variation of the Monal *Lophophorus impeyanus* Latham. *Bulletin of the British Ornithologists Club.* 73(2): 26.

0326. Delany, S.; Garbutt, D.; Williams, C.; Sulston, C,; Norton, J,; Denby, C, (2014). The Southamption University Ladakh Expeditions 1976-1982, Full details of nine species previously unrecorded in India and four second records. *Indian Birds.* 9(1): 1-13.

0327. Den, B.; Jan, W. (2004). Birds of Kangra. P. 1-176.

0328. Den, B.; Jan, W. (2004). Eurasian Linnet (*Carduelis cannabina*), Chaffinch (*Fringilla coelebs*), Brambling (*Fringilla montifringilla*)in Kangra, Himachal Pradesh. *Journal of Bombay Natural History Society.* 101(2): 325-326.

0329. Den, B.; Jan, W. (2004). Migration of Steppe Eagles *Aquila nipalensis* and other raptors along the Himalayas past Dharamsala, India, in Autumn 2001 and spring 2002. *Forktail.* 20: 9-13.

0330. Den, B.; Jan, W. (2004). Pong wetland. Himachal's new wetland of international importance. *Mistnet.* 5(3-4): 4-7.

0331. Denby, C.A.; Phillipps, A.P. (1976). An account of the Ornithology of the Upper Indus valley in Ladakh (N.W. Himalaya). *University of Southampton Ladakh Expedition Report.* P. 29-63.

0332. Denzau, H.; Newmann, G. (1983). Nature impression of Dal Lake. *Sanctuary Asia.* 3(3): 230-239.

0333. Deshwal, A.; James, D.A.; Kannan, R. (2014). A study of Crossbils (*Loxia curvirostra*)in the Himalaya: An appeal for information. *Indian Birds.* 9(1): 27.

0334. DeSouza, Q. (2015). A report of Brambling Fringilla Montifringilla from Mandala Road, Arunachal Pradesh. *Indian Birds.* 10(5): 136-137.

0335. Dewar, D. (1915). Birds of the Indian hills. *London, John Lane Company*. 263p.

0336. Dewar, D. (1923). Himalayan and kashmiri birds : being a key to the birds commonly seen in summer in the Himalayas and Kashmir. *Journal of Bombay Natural History Society.* 200p.

0337. Dewar, D. (1929). Birds of an Indian village. i-viii, 146p.

0338. Dewar, D. (1936). The game birds, pigeons and waterfowl of India. *Freeman Press*. 121p., 63p.

0339. Dewar, D. (1987). A warbler of distinction. *IN: Birds of the Indian Hills.* P. 145-150.

0340. Dewar, D. (1987). The common birds of the Eastern Himalayas. *IN: Birds of the Indian Hills.* P. 105-126.

0341. Dewar, D. (1987). The common birds of the Western Himalayas. *IN: Birds of the Indian Hills*. P. 29-104.

0342. Dewar, D. (1987). The habitat of Himalayan birds. *IN: Birds of the Indian Hills*. P. 13-28.

0343. Dewar, D. (1987). The nest of the Grey-winged Ouzel. *IN: Birds of the Indian Hills*. P. 164-173.

0344. Dewar, D. (1987). The Pekin - Robin. *IN: Birds of the Indian Hills*. P. 133-137.

0345. Dey, K. (1997). Birdwatching around Pelling, Sikkim. *Samsad News*. 15(6): 1.

0346. Dhadwal, D.S. (2011). Wild wings: Pong and its birds. P. I-VIII, 1-149.

0347. Dhadwal, D.S. (2013). Whooper Swan *Cygnus cygnus* in Pong Dam, Himachal Pradesh, India. *Indian Birds.* 8(4): 95.

0348. Dhadwal, D.S. (2014). Avifauna of Pong Lake (HP, India). P. i-vi, 1-210.

0349. Dhanze, J.R. (1973). A brief observation regarding the migration of Hoopoes, *Upupa epops* (Linn)in Himachal pradesh. *Newsletter for Birdwatchers.* 13(10): 7-8.

0350. Dhanze, J.R. (1974). Comments on the flight of the monal pheasant. *Newsletter for Birdwatchers.* 14(3): 8.

0351. Dhar, P. (1999). Ladakh: the Himalayan desert. *Environ*. 7(2): 54-59.

0352. Dhumal, S. (2003). On foot in the Himalayan valleys. *Hornbill.* (July-September): 26-28.

0353. Dickinson, E.c. (1966). Notes on some birds seen in Kashmir. *Journal of Bombay Natural History Society.* 63(1): 203-204.

0354. Diksit, V.K. (1984). Adaptive feeding mechanism in kingfishers of Western Himalayas. *IN: High Altitude entomology and Wildlife Ecology*. P. 229-233.

0355. Dilawar, M.E.; Sharma, V. (2014). Observations on the feeding habits of the Yellow-breasted Greenfinch *Carduelis spinoides* in Himachal Pradesh, India. *Indian Birds.* 9(4): 107-108.

0356. Dimri, N.K. (2014). Vultures on the ebb. *Hornbill.* 2014 (January): 14-18.

0357. Dodsworth, P.T.L. (1910). Intelligence displayed by shortbilled minivets (*Pericrocotus brevirostris*)when their nests are in danger. *Journal of Bombay Natural History Society.* 20(2): 516-517.

0358. Dodsworth, P.T.L. (1910). Notes relating to the distribution, habits and nidification of Certhia himalayana, Vigors (The Himalayan tree creeper)in and around Simla and the adjacent ranges. *Journal of Bombay Natural History Society.* 20(2): 463-467.

0359. Dodsworth, P.T.L. (1910). The himalayan greenfinch. *Journal of Bombay Natural History Society.* 20(2): 517.

0360. Dodsworth, P.T.L. (1911). Notes on the nidification of *Microcichla scouleri* the little forktail. *Journal of Bombay Natural History Society.* 21(1): 257-261.

0361. Dodsworth, P.T.L. (1911). Notes relating to the habits and nidification of the blackheaded Sibia *Lioptila capistrata* (Vigors). *Journal of Bombay Natural History Society.* 21(1): 249-255.

0362. Dodsworth, P.T.L. (1911). Occurrence of *Hemilophus pulverulentus*,(Temm)the great Slaty woodspecker in the neighbourhood of Simla, N.W. Himalayas. *Journal of Bombay Natural History Society.* 21(1): 263.

0363. Dodsworth, P.T.L. (1912). A Kite's larder. *Journal of Bombay Natural History Society.* 21(4): 1332-1333.

0364. Dodsworth, P.T.L. (1912). Abnormal type of eggs of the little forktail (*Microcichla scouleri*, vigors). *Journal of Bombay Natural History Society.* 21(4): 1327-1328.

0365. Dodsworth, P.T.L. (1912). Extension of the habitat of the common kingfisher (*Alcedo ispida*). *Journal of Bombay Natural History Society.* 21(2): 661.

0366. Dodsworth, P.T.L. (1912). Extension of the habitat of the Brahminy kite. *Journal of Bombay Natural History Society.* 21(2): 665-666.

0367. Dodsworth, P.T.L. (1912). Habits, food and nesting of the Great Himalayan Barbet (*Megalaema marshallorum*). *Journal of Bombay Natural History Society.* 21(2): 681-684.

0368. Dodsworth, P.T.L. (1912). Insects in the nest of the common swift (*Cypselus affinis*). *Journal of Bombay Natural History Society.* 21(3): 1091.

0369. Dodsworth, P.T.L. (1912). Nesting of the Western blue rock thrush (*Petrophila cyanus*)in the neighbourhood of Simla N.W. Himalayas. *Journal of Bombay Natural History Society.* 21(4): 1328-1329.

0370. Dodsworth, P.T.L. (1912). Occurrence of the common peafowl (*Pavo cristatus*, Linn)in the neighbourhood of Simla, N.W. Himalayas. *Journal of Bombay Natural History Society.* 21(3): 1082-1083.

0371. Dodsworth, P.T.L. (1912). Question whether *Gyps fulvus* Gmelin, the Griffon, occurs in the Himalayan districts of the Punjab. *Journal of Bombay Natural History Society.* 21(4): 1331-1332.

0372. Dodsworth, P.T.L. (1912). The Crag Martin (*Ptyonoprogne rupestris*). *Journal of Bombay Natural History Society.* 21(2): 660-661.

0373. Dodsworth, P.T.L. (1913). Notes on the vultures found in the neighbourhood of Simla and adjacent ranges of the Himalayas. *Journal of Bombay Natural History Society. IBIS.*

0374. Dodsworth, P.T.L. (1913). Occurrence of the Emerald Dove *Calcophaps indica* (Linn)(Sic)in the Simla district. *Journal of Bombay Natural History Society.* 22(2): 398.

0375. Dodsworth, P.T.L. (1913). Occurrence of the Red-tailed Chat (*Saxicola chrysopygia*, De Filippi)in the Vicinity of Simla. *Journal of Bombay Natural History Society.* 22(1): 196.

0376. Dodsworth, P.T.L. (1913). Some further notes on the nesting and plumage of the Shahin Falcon (*Falco peregrinator*)Vel The Black cap Falcon (*Falco atriceps*). *Journal of Bombay Natural History Society.* 22(3): 629-630.

0377. Dodsworth, P.T.L. (1913). Some notes on the nesting and plumage of the Shahin Falcon(Falco peregrinator), Vel The Black-cap Falcon (*Falco atriceps*). *Journal of Bombay Natural History Society.* 22(1): 197-198.

0378. Dodsworth, P.T.L. (1913). The Himalayan wood-owl (*Syrnium nivicola* Hodgs). *Journal of Bombay Natural History Society.* 22(3): 626-629.

0379. Dodsworth, P.T.L. (1914). Nesting of *Anthus similis* Jerdon (The brown rock Pipit). *Journal of Bombay Natural History Society.* 22(4): 798-800.

0380. Dodsworth, P.T.L. (1914). Nesting of Hodson's Hawk eagle (*Spizaetus nepalensis*, Hodgs). *Journal of Bombay Natural History Society.* 22(4): 800.

0381. Dodsworth, P.T.L. (1914). Occurrence of the white-browed Bush-robin (*Ianthia indica*, Vieill)(sic)in the North-West Himalayas. *Journal of Bombay Natural History Society.* 22(4): 795-796.

0382. Dodsworth, P.T.L. (1914). Plumage of nestlings of (i)The Kokla green pigeon *Sphenocercus sphenurus* Vigors)and (ii)the Bearded vulture or Lammergeyer (*Gypaetus barbatus* Linn)*Journal of Bombay Natural History Society.* 22(4): 800-801.

0383. Donald, C.H. (1899). Occurrence of the Nepal pheasant in kashmir. *Journal of Bombay Natural History Society.* 12(3): 577.

0384. Donald, C.H. (1905). Eagles as barometers. *Journal of Bombay Natural History Society.* 16(3): 517-518.

0385. Donald, C.H. (1908). The bearded vulture or Lammergeyer (*Gypaetus barbatus*). *Journal of Bombay Natural History Society.* 18(4): 913-914.

0386. Donald, C.H. (1917). The height at which birds are able to fly. *Journal of Bombay Natural History Society.* 24(2): 302.

0387. Donald, C.H. (1923). Flight of migrating birds. *Journal of Bombay Natural History Society.* 29(1): 146-149.

0388. Donald, C.H. (1924). Migration of eagles. *Journal of Bombay Natural History Society.* 29(4): 1054-1055.

0389. Donald, C.H. (1948). My experience with pheasant breeding in Dharmsala cantonment. *Journal of Bombay Natural History Society.* 47(4): 753-757.

0390. Donald, C.H. (1952). Bird migration across the Himalayas. *Journal of Bombay Natural History Society.* 51(1): 269-271.

0391. Dubey, K.S. (2001). Lakes of Ladakh. At the rainbow's end. *Sanctuary Asia.* XXI (6): 28-33.

0392. Dudgeon, G.C. (1904). Albinism in a shrike. *Journal of Bombay Natural History Society.* 16(1): 179.

0393. Dutta, B. B.; Ghosh, S.; Basu-Roy, S.; Datta, B. K.; Sett, A.K.; Sakthivel, R.; Bhattacharyya, T.P. (2006). *Aves Fauna of Sikkim (Part-1). Vertebrates*. 9. P. 47-158.

0394. Dymond, N. (2003). Observation of White-cheeked Tits *Aegithalos leucogenys* in Himachal Pradesh, India and a review of the specie's status in the Indian Himalayas. *Oriental Bird Club Bulletin.* 38: 69-70.

0395. Eaton, J.A.; Rheindt, F.E. (2009). Long-billed Plover *Charadrius placidus* nesting in its Himalayan wintering range: first breeding record for the Indian Subcontinent. *Forktail.* 25: 152-153.

0396. Edelaar, P. (2007). Rediscovery of a second kind of crossbill for the Himalayan region, and the hypothesis that ecological opportunity drives crossbill diversification *IBIS.* 150(2): 405-408.

0397. Elwes, H.J. (1898). A note on the zoological division of Sikkim. *Journal of Bombay Natural History Society.* 11(4): 694-695.

0398. Fazili, M.F.; Shah, G.M.; Jan, U.; Ahanger, F.A. (2011). On some breeding parameters of Little Bittern at Haigam wetland, Kashmir (India), Berkut. *Berkut*. 19(1-2): 74-80.

0399.Fazili, M.F.; Shah, G.M.; Jan, U.; Bhat, B.A. (2009). Some aspects of the nesting biology of Little Grebe *Tachybaptus ruficollis* at Wular Lake, Kashmir. *Indian Birds.* 4(4): 127-129.

0400. Fenton, L.L. (1906). Food of the Himalayan nutcracker (*Nucifraga hemispila*). *Journal of Bombay Natural History Society.* 17(1): 229.

0401. Fenton, L.L. (1910). Breeding of the Masked Wagtail (*Motacilla personata*)in Kashmir. *Journal of Bombay Natural History Society.* 19(4): 992.

0402. Fernandes, M.; Den, B.; Jan, W. (2013). Some interesting breeding records for Pong Dam Wildlife Sanctuary, Himachal Pradesh, India. *Forktail.* 29: 141-143.

0403. Field, F. (1922). Notes on the nesting of the Himalayan Tree Creeper (*Certhia himalayana*). *Journal of Bombay Natural History Society.* 28(4): 1138-1139.

0404. Field, F. (1925). Occurrence of the Nepal Kalij pheasants (*G. leucomelanus*)at Mussorrie. *Journal of Bombay Natural History Society.* 30(4): 917.

0405. Fily, M.; Perennou, C. (1990). Red Kite *Milvus milvus* in Ladakh. *Journal of Bombay Natural History Society.* 87(2): 291.

0406. Finn, F. (1901). List of the birds in the Indian museum Part I.Families Corvidae, Paradiseidae, Ptilonorhynchidae and Crateropodidae Part I. i-xvi, 115p.

0407. Fleming, R.L. (1947). A new race of Koklas pheasant. *Fieldiana Zoology*. 31(11): 93-96.

0408. Fleming, R.L. (1968). The birds of Mussoorie, U.P. India - a distribtutional and ecological study. *Dissertation abstracts*. 28B): 4346-4347.

0409. Fleming, R.L. (1977). List of Mussorrie birds. *Newsletter for Birdwatchers.* 17(11): 14.

0410. Fleming, R.L., Jr. (1979). Birding in the Himalayas. *World Wildlife Fund- India Quarterly.* 31: 1-3, 5.

0411. Fleming, R.L., Jr. (1983). An East-West Aquila eagle migration in the Himalayas. *Journal of Bombay Natural History Society.* 80(1): 58-62.

0412. Fleming, R.L., Sr.; Fleming, R.L., Jr. (1970). Asian sap drinkers of the Himalayas. Journal of Bengal Natural History Society. 36(1): 54-57.

0413. Fleming, R.L., Sr.; Fleming, R.L., Jr.; Bangdel, L.S. (1976). Birds of Nepal with reference to Kashmir and Sikkim. 349p.

0414. Francis M.C. (2005). Birds of Ladakh. *Indian Birds.* 1(5): 109-112.

0415. Fraser, S. (1977). University of Southampton Himalayan expedition. *University of Southampton.* 141pp.

0416. Friedmann, H. (1955). The honey guides. *Unites States National Museum Bulletin*. 208(1-7_: 1-292.

0417. Frome, N.F. (1945). A note on birds of the Simla foothills. *Journal of Bombay Natural History Society.* 45(3): 421.

0418. Frome, N.F. (1946). Birds noted in the Mahasu-Karkanda Baghi area of the Simla Hills. *Journal of Bombay Natural History Society.* 46(2): 308-316.

0419. Fulton, H. (1911). The spotted wing (*Psaroglossa spiloptera*. *Journal of Bombay Natural History Society.* 20(3): 851-852.

0420. Fulton, H. (1914). The snow pigeon (*Columba leuconota*)at a low elevation. *Journal of Bombay Natural History Society.* 23(1): 159.

0421. Futehally, S. (1970). Birds on a Kashmir holiday. *Newsletter for Birdwatchers.* 10(6): 1-3.

0422. Futehally, S. (1977). Birding in Sikkim. *Newsletter for Birdwatchers.* 17(7): 5-6.

0423. Futehally, S. (2000). Birding in Kumaon. *Newsletter for Birdwatchers.* 39(6): 97-99.

0424. Futehally, Z. (2006). India through its birds. P. i-ii, 1-214.

0425. Futehally, Z. (2006). Recoveries from the Newsletter for Birdwatchers (1963)9. *Indian Birds.* 1(6): 146-148.

0426. Gammie, J. (1875). On the breeding of *Aceros nipalensis*. *Stray Feathers.* 3(1-3): 209-211.

0427. Gammie, J. (1894). Birds : the Gazetteer of Sikkim. P. 191-197.

0428. Gammie, J.A. (1877). Occasional notes from Sikkim. *Stray Feathers.* 5(5-6): 380-387.

0429. Gammie, J.A. (1880). Occasional notes from Sikkim - no.2. *Stray Feathers.* 8(6): 464-489.

0430. Ganguli-Lachungpa, U. (1964). Baybacked shrikes. *Newsletter for Birdwatchers.* 4(5): 11-12.

0431. Ganguli-Lachungpa, U. (1964). Some notes on the nest behaviour of the Baybacked shrike at Kasauli, Simla Hills. *Newsletter for Birdwatchers.* 4(3): 2-4.

0432. Ganguli-Lachungpa, U. (1966). Three weeks of birdwatching in Ranikhet in Autumn. *Newsletter for Birdwatchers.* 6(2): 3-6.

0433. Ganguli-Lachungpa, U. (1967). Birds of Simla in Autumn. *Newsletter for Birdwatchers.* 7(3): 4-6.

0434. Ganguli-Lachungpa, U. (1990). Blackwinged Kite *Elanus caeruleus vociferus* (Latham)at 3650 m in Sikkim. *Journal of Bombay Natural History Society.* 87(1): 142.

0435. Ganguli-Lachungpa, U. (1990). Brahminy Duck *Tadorna ferruginea* (Pallas)breeding in Sikkim. *Journal of Bombay Natural History Society.* 87(2): 290.

0436. Ganguli-Lachungpa, U. (1990). Osprey *Pandion haliaetus* in Sikkim. *Journal of Bombay Natural History Society.* 87(2): 291.

0437. Ganguli-Lachungpa, U. (1992). Occurrence of Blacknecked Grebe *Podiceps nigricollis* Brehm, Little Grebe *P. ruficollis* (Pallas)and Goosander *Mergus merganser* Linn. in West Sikkim. *Journal of Bombay Natural History Society.* 88(2): 280.

0438. Ganguli-Lachungpa, U. (1998). Attempted breeding of the Blacknecked Crane *Grus nigricollis* Przevalski in North Sikkim. *Journal of Bombay Natural History Society.* 95(2): 341.

0439. Ganguli-Lachungpa, U. (1998). Conservation fund in action: Bird survey of the lowland forest of Sikkim, India. *Oriental Bird Club Bulletin.* 28: 6.

0440. Ganguli-Lachungpa, U. (1998). Western Greyheaded Thrush *Turdus rubrocanusrubrocanus* G.R. Grey in Sikkim. *Journal of Bombay Natural History Society.* 95(3): 508.

0441. Ganguli-Lachungpa, U. (1999). Amidst wildlife in Sikkim. *Hornbill.* 1999 (July-September): 4-8.

0442. Ganguli-Lachungpa, U. (2002). Avifauna of trans-Himalayan and alpine grasslands in Sikkim, India Birds of Wetlands and Grasslands. *Proceedings of the Salim Ali Centenary Seminar on Conservation Avifauna of Wetlands and Grasslands (February 12-15, 1996) Mumbai, India*. P. 196-207.

0443. Ganguli-Lachungpa, U. (2002). Eurasian Eagle-Owl Bubo *Bubo tibetanus* Bianchi at 2,100m in north Sikkim. *Journal of Bombay Natural History Society.* 99(2): 305-306.

0444. Ganguli-Lachungpa, U. (2007). Important Bird Areas of Sikkim: Priority areas for conservation. *Mistnet.* 8 (3): 6-7.

0445. Ganguli-Lachungpa, U.; Bhutia, N.T. (2007). Status, distribution and management of Galliformes in Sikkim *Envis Bulletin: wildlife and Protected Areas.* 10(1): 127-130.

0446. Ganguli-Lachungpa, U.; Islam, Z.U.; Rahmani, A.R. (2007). Important Bird Areas of Sikkim: Priority sites for conservation. P. i-v, 1-139.

0447. Ganguli-Lachungpa, U.; Luckson, S. (1998). Sighting of Hodgson's Frogmouth *Batrachostomus hodgsoni hodgsoni* (G.R.Gray)from Sikkim. *Journal of Bombay Natural History Society.* 95(3): 505.

0448. Ganguli-Lachungpa, U.; Sharma, B.L. (2003). Common Coot *Fulica atra* from Kyongnosla in East Sikkim. *Journal of Bombay Natural History Society.* 100(1): 121.

0449. Garson, P.J. (1982). Conservation of wildlife in Himachal forests. *World Wildlife Fund- India quarterly.* 3(3): 1-4.

0450. Garson, P.J. (1982). Forest Wildlife threatened in the Himalayas. *Hornbill.* 1982(2): 5-8.

0451. Garson, P.J. (1982). The wildlife of Himachal's forests. *Wildlife* 1982. P. 304-307.

0452. Garson, P.J. (1983). The cheer pheasant *Catreus wallichii* in Himachal pradesh, Western Himalayas. *World Pheasant Association Journal.* 8: 29-39.

0453. Garson, P.J. (1985). Intensive field studies: a new era for WPA in the Himalayas. *WPA News.* 10: 18-20.

0454. Garson, P.J. (1985). New research project on the Cheer pheasant in India. *Oriental Bird Club Bulletin.* 2: 14-16.

0455. Garson, P.J. (1986). Cheer: the continuing saga in Pakistan and India. *WPA News.* 12: 15-16.

0456. Garson, P.J. (1986). Uttar Pradesh Cheer Pheasant project: off to a flying start. *WPA News.* 13: 9-12.

0457. Garson, P.J. (1994). New World Bank project in the Great Himalayan and the mountains of Central Asia. *WPA News.* 46: 20-22.

0458. Garson, P.J. (1994). World Bank Project in the Great Himalayan National Park. *WPA India News.* 1(3-4): 16-17.

0459. Garson, P.J.; Young, L.; Kaul, R. (1992). Ecology and conservation of the Cheer Pheasant *Catreus wallichii*: studies in the wild and the progress of a reintroduction project. *Biological Conservation.* 59: 25-35.

0460. Garson, P.J.; Young, L.; Kaul, R.; Iqbal, M. (1987). Studying Cheer Pheasants in India. *Oriental Bird Club Bulletin.* 5(Spring): 18-19.

0461. Gaston, A.J. (1980). Census techniques for Himalayan pheasants including notes on individual species. *World Pheasant Association Journal.* 5: 40-53.

0462. Gaston, A.J. (1980). Roosting behaviour of flocks of the Crested Black tit (*Parus melanolophus*). *Journal of Bombay Natural History Society.* 76(3): 517-518.

0463. Gaston, A.J. (1980). The Himalayas: Summary of current knowledge on the status of pheasants. *Proceedings of the First International Symposium on Pheasants in Asia, Kathmandu.* P. 33-35.

0464. Gaston, A.J. (1981). Siskin (*Carduelis spinus*)in Solang Nalla, Himachal Pradesh. *Journal of Bombay Natural History Society.* 78(2): 386-387.

0465. Gaston, A.J. (1982). A National park for Kishtwar. *Hornbill.* 1982(4): 10-14.

0466. Gaston, A.J. (1986). Records wanted from Western Himalayas. *Oriental Bird Club Bulletin.* 4: 23.

0467. Gaston, A.J.; Garson, P.J. (1992). Re-appraisal of the Great Himalayan National Park, Himachal Pradesh India. *Oriental Bird Club Bulletin.* 16: 8-9.

0468. Gaston, A.J.; Garson, P.J.; Hunter, M.L. (1981). Present distribution and status of pheasants in Himachal Pradesh, Western Himalayas. *World Pheasant Association Journal.* 6: 10-30.

0469. Gaston, A.J.; Garson, P.J.; Hunter, M.L. (1982). Present distribution and status of pheasant in Himachal Pradesh, Western Himalayas. *World Pheasant Association India: Second International Symposium, Srinagar, India*. 12p.

0470. Gaston, A.J.; Garson, P.J.; Hunter, M.L. (1983). The status and conservation of forest wildlife in Himachal Pradesh, Western Himalayas. *Biological Conservation.* 27(4): 291-314.

0471. Gaston, A.J.; Garson, P.J.; Pandey, S. (1994). Birds recorded in the Great Himalayan National Park, Himachal Pradesh, India. *Forktail.* 9: 45-57.

0472. Gaston, A.J.; Hunter, M.L.; Garson, P.J. (1981). Himachal Wildlife Project - Second Interim report, March-Mary 1980. *Annual Report of the Norfolk Wildlife Park Pheasant Trust.* 1980: 28-33.

0473. Gaston, A.J.; Hunter, M.L.; Garson, P.J. (1981). The wildlife of Himachal Pradesh, Western Himalayas. *Report of hte Himachal Wildlife Project, Technical notes No. 82*. 159p.

0474. Gaston, A.J.; Islam, K.; Crawford, J.A. (1983). The current status of the Western Tragopan *Tragopan melanocephalus*. *World Pheasant Association Journal.* 8: 40-49.

0475. Gaston, A.J.; Pandey, S. (1988). Sighting of Rednecked Grebes (Podiceps grisegena)on the Pong Dam Lake, Himachal Pradesh. *Journal of Bombay Natural History Society.* 84(3): 676-677.

0476. Gaston, A.J.; Singh, J. (1980). The status of the Cheer pheasant *Catreus wallichii* in the Chail Wildlife Sanctuary, Himachal Pradesh. *World Pheasant Association Journal.* 5: 68-73.

0477. Gaston, T. (1982). Up to the snow. *World Pheasant Association India: Second International Symposium, Srinagar, India*. 3p.

0478. Gaston, T. (1991). The sublime pinnacle. *World Wildlife Fund- India Quarterly.* 2(4): 5-6.

0479. Gaston, T. (1995). Mountain birds in Himachal Pradesh. *Oriental Bird Club Bulletin.* 22: 32-35.

0480. Gaston, T. (1997). Mountain birds of Himachal Pradesh. *WPA News.* 52 (February): 16-20.

0481. Gaunlett, F.M. (1973). Notes on some Kashmir birds. *Journal of Bombay Natural History Society.* 69(3): 591-615.

0482. Gautam, A. (1995). Western Horned Tragopan - Sarahan Pheasantry. *WPA India News.* 2(2): 6-7.

0483. George, J. (1961). Time of first morning call of the Himalayan whistling thrush. *Newsletter for Birdwatchers.* 1(4): 2.

0484. George, J. (1962). Orangeflanked Bush robin *Erighacus cyanurus* (Pallas)in Dehradun. *Journal of Bombay Natural History Society.* 59(1): 290-291.

0485. George, J. (1962). Sunbirds 'flycatching'. *Newsletter for Birdwatchers.* 2(4): 9-10.

0486. George, J. (1965). Grey tit roosting in a bamboo stump. *Newsletter for Birdwatchers.* 5(5): 8.

0487. George, P.V. (1967). The occurrence of the Fulvousbreasted woodpecker *Dendrocops macei* (Vieillot)in Sikkim. *Journal of Bombay Natural History Society.* 64(3): 559-560.

0488. Ghorpade, K. (1976). Birds notes on an entomological expedition to the Pindari glacier, Kumaon Himalaya. *Newsletter for Birdwatchers.* 16(1): 2-9.

0489. Ghorpade, K. (1986). Birds notes on an entomological expedition to the Pindari glacier, Kumaon Himalaya. *Bird Call*. 1986: 4.

0490. Ghose, D. (1998). A trip to Talle Valley Wildlife Sanctuary. *Samsad News*. 16(1): 1-2.

0491. Ghose, D. (2000). A glimpse of Talle Valley, Arunachal Pradesh. *Mor.* 2 (February): 8.

0492. Ghosh, A.K. (1987). Qualitative analysis of faunal resources of the proposed Namdapha Biosphere Reserve, Arunchal pradesh. 129p.

0493. Ghosh, M.; Price, T.D. (2001). Assessment of variation in ecology of breeding Leaf-warblers (Family: Phylloscopidae)(sic)across the Himalayas. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 85-87.

0494. Ghosh, M.; Singh, P.; Mohan, D. (2011). Seasonal variation in foraging ecology of three species of overwintering Leaf Warblers (Genus *Phylloscopus*)in the Himalayan foothills. *Journal of Ornithology*. 152(4): 869-877.

0495. Ghosh, S. (1997). Birds of Panggong-Tso. *Samsad News*. 15(12): 1.

0496. Ghosh, S. (1997). Record of Chir Pheasant, *Catreus wallichi* above 4545 metres in the Western Himalayas. *Journal of Bombay Natural History Society.* 94(3): 566.

0497. Ghosh, S. (1998). Birds enroute of Zanskar. *Samsad News*. 16(6): 3-4.

0498. Ghosh, S. (1998). Record of Siberian Blue Chat (*Erythacus cyane*)from pauri Garhwal, Uttar Pradesh, in the Western Himalayas. *Journal of Bombay Natural History Society.* 95(1): 117-118.

0499. Ghosh, S. (2005). Of birds and botanizing. *Indian Birds.* 1(1): 7-8.

0500. Ghosh, S.; Chatterjea, N.N. (2007). Halduparao, Kanda and Lohachaur. *Indian Birds.* 3(3): 100-102.

0501. Ghosh, S.; Chatterjea, N.N. (2007). Of birds and places. *Indian Birds.* 2(6): 57-159.

0502. Ghosh, S.; Mookherjee, K. (2002). Birdwatchers in Kinnaur. *Samsad News*. 20(10-11): 1-2.

0503. Ghosh-Harihar, M. (2013). Distribution and abundance of foliage arthropods across elevational gradients in the east and West Himalayas. *Ecological Research*. 28(1): 125-130.

0504. Ghosh-Harihar, M. (2014). Phylogenetic and ecomorphological structure of assemblages of breeding leaf warblers (Phylloscopidae)along Himalayan elevational gradient. Journal of Biogeography. 41(6): 1193-1203.

0505. Ghosh-Harihar, M.; Price, T.D. (2014). A test for community saturation along the Himalayan bird diversity gradient, based on within species geographical variation. *Journal of Animal Ecology*. 83(3): 628-638.

0506. Gill, E.H. (1921). Nidification of Himalayan longbilled vulture (*Gyps tenuirostris*). *Journal of Bombay Natural History Society.* 27(4): 951-952.

0507. Glennie, E.A. (1944). Note on the nesting of the Himalayan swiftlet (*Collocalia fuciphaga*). *Journal of Bombay Natural History Society.* 44(4): 593-597.

0508. Gode, N. (2013). Birding in Lohit Valley, Arunachal Pradesh. *Indian Birds.* 8(5): 126-127.

0509. Godwin-Austen, H.H. (1868). Notes on the Pangong lake district of Ladakh from Journal made in 1863. *Journal of the Asiatic Society of Bengal.* 37(2): 84-117.

0510. Godwin-Austen, H.H. (1875). Description of a supposed new Actinura from the Dafla hills. *Annals and Magazine of Natural History*. 16(95): 339-340.

0511. Gogoi, L.; Wange, P.; Dutta, P.K.; Soud, R. (2009). High-altitude records of the House Crow *Corvus splendens* in Western Arunachal Pradesh, India. *Journal of Bombay Natural History Society.* 105(3): 339.

0512. Gole, P. (1977). A birdwatchers at large - Ladakh June-July 1976. *Hornbill.* P. 21-27.

0513. Gole, P. (1978). A buzzard nest in Ladakh. *Journal of Bombay Natural History Society.* 75(1): 213-214.

0514. Gole, P. (1981). Black-necked cranes in Ladakh. *IN:Crane Research Around the World*. P. 197-203.

0515. Gole, P. (1985). Black-necked crane: an elusive high plains nester. *Animal Kingdom*. 88: 39-45.

0516. Gole, P. (1987). Future of Black-necked crane in the Indian Sub-continet. *Proceedings of the 1983 International Crane Workshop*. P. 51-54.

0517. Gole, P. (1990). Wintering Blacknecked Cranes in India. *Journal of Ecological Society.* 3: 45-47.

0518. Gole, P. (1992). Habitat considerations for Black-necked Cranes in Ladakh. *Proceedings 1987 International Crane Workshop.1-10 May 1987, Qiqihar, Heilongjiang Province, People's Republic of China*. P. 319-325.

0519. Gole, P. (1993). On the trail of wintering Blacknecked Cranes in India. *Journal of Ecological Society.* 6: 7-22.

0520. Gole, P. (1995). A people's sanctuary for the Black-necked Cranes. *International Crane Foundation Bugle*. 21(2): 2-3.

0521. Gole, P. (1995). A peoples' sanctuary for Blacknecked Crane. *Newsletter for Birdwatchers.* 34(6): 132-133.

0522. Gole, P. (1996). Environment and Ornithology in India. i-x, 1-262.

0523. Gole, P. (2000). A gentle throb. *Newsletter for Birdwatchers.* 39(6): 84.

0524. Goodwin, D. (1953). Taxonomic notes on the Himalayan Alpine accentors. *Bulletin of the British Ornithologists Club.* 73(3): 28-31.

0525. Gould, J. (1838). A monograph of Trogonidae or family of Trogons. London. i-vii, 39 1l, 36pll.

0526. Gould, J. (1838). Icones avium or figues and description of new and interesting species of birds from various parts of the globe.

0527. Gould, J. (1849). Description of a new species of Nutcracker. *Proceedings of the Zoological Society of London.* 23p.

0528. Gould, J. (1851). On a new species of the genus Montrifringilla. *Proceedings of the Zoological Society of London.* 1851: 114-115.

0529. Gould, J. (1853). Description of a new species of Tetraogallus. *Proceedings of the Zoological Society of London.* 21: 47.

0530. Gould, J. (1858). Description of two new species of the family Hirundinidae. *Proceedings of the Zoological Society of London*. P. 355-356.

0531. Gould, J. (1859). On two new species of Cinclus. *Proceedings of the Zoological Society of London.* P. 493-494.

0532. Gould, J. (1866). Description of four new species of birds from Eastern Asia. *Proceedings of the Zoological Society of London.* P. 663-665.

0533. Gould, J. (1868). On four new species of birds. *Proceedings of the Zoological Society of London.* P. 218-221.

0534. Gould, J. (1883). The birds of Asia. 85Il., 83pll (1850-1883).

0535. Goyal, S. (2006). Hokersar: avian paradise. *Sanctuary Asia.* 26(4): 48-51.

0536. Gray, J.E. (1835). Illustrations of Indian Zoology; *Chiefly selected from the collection of Major General Hardwicke II. London, Treuttel, Wurtz, Jun. and Richter*. 102p.

0537. Green, A.J. (1993). The Status and Conservation of the Marbled Teal Marmaronetta angustirostris. P. 231-107.

0538. Green, M.J.B. (1987). The birds of the Kedarnath Sanctuary, Chamoli district, Uttar Pradesh. *Journal of Bombay Natural History Society.* 83(3):603-617.

0539. Greenway, J.C. (1943). Oriental forms of Pigmy woodpeckers. *The auk*. 60(4): 564-574.

0540. Grewal, B. (2009). In search of the Bugun Liocichla and other parables from Eaglenest: 28 February-8 March, 2009. *Indian Birds.* 5(3): 65-69.

0541. Grewal, B. (2009). The magical monals of Mishmi-a week's birding in eastern Arunachal: 18-25 November 2007. *Indian Birds.* 5(3): 62-64.

0542. Grewal, B.; Pfister, O. (1998). A photographic guide to birds of the Himalayas. P. 1-114.

0543. Grewal, B.; Sen, S. (2007). The pheasants of Pangot. *Sanctuary Asia.* 27(3): 66-67.

0544. Grewal, B.; Sen, S. (2008). Southeastern Himachal. *Sanctuary Asia.* 28(3): 64-65.

0545. Grimmett, R.; Inskipp, T. (2003). Birds of northern India. P. 1-304.

0546. Gross, S.; Price, T.D. (2000). Determinants of the northern and southern range limits of a warbler. *Journal of Biogeography*. 27: 868-878.

0547. Gruisen, J.V. (1985). The Dachigam National Park. *The India Magazine*. 595): 20.

0548. Gupta, A.P. (1982). A useful book for birdwatching in Kashmir. *Newsletter for Birdwatchers.* 22(11-12): 12.

0549. Gupta, K.K. (1990). Captive breeding of Monal Pheasant at Sarahan Pheasantry. *Zoos' Print.* 5(11): 14-15.

0550. Gupta, K.K. (1993). World's first captive breeding of the Western Tragopan. *WPA India News.* 1(2): 9-11.

0551. Gupta, P.D. (2013). Birdsongs from the land of dawn-lit mountains. *Cheetal.* 50(2): 99-103.

0552. Gupta, R. (2002). Enthralling birds of Kashmir. *Newsletter for Birdwatchers.* 42(5): 96.

0553. Gupta, R. (2011). Birds of Baramulla. P. 1-148.

0554. Gupta, R.C.; Midha, M. (1994). Observations on the behaviour of Large Grey Babbler, *Turdoides malcolmi* (Sykes). *Cheetal.* 33(2): 42-51.

0555. Gurney, J.H. (1877). Note on Buteo desertorum and *Buteo plumipes*. *Stray Feathers.* 5(2): 65-69.

0556. Gurney, J.H. (1880). On Accipiter gularis and *Accipiter virgatus*. *Stray Feathers.* 8(6): 443-444.

0557. Hackney, M.J. (1952). Unusual behaviour of the Whitecapped Redstart (*Chaimarrornis leucocephalus* Vigors). *Journal of Bombay Natural History Society.* 50(3): 655-656.

0558. Hargitt, E. (1881). Notes on woodpeckers I. On the piculets of the old world. *IBIS.* 4(5): 222-239.

0559. Harington, H.H. (1914). Major, H. H. Harington exhibited and described examples of a new subspecies of Trochalopterum from the North Cachar hills. *Bulletin of the British Ornithologists Club.* 33(cxciv): 92-93.

0560. Harrison, J.; Harrison, J. (1969). Some wild shot duck hybrids from the Indian subcontinent. *Journal of Bombay Natural History Society.* 65(3): 670-676.

0561. Harrison, J.M; Harrison, J.G. (1969). Comments on a wild shot Pintail Teal hybrid. *Bulletin of the British Ornithologists Club.* 89(4): 100.

0562. Harrison, M. (1994). Pheasant shooting in the western Himalayas. *WPA News.* 45: 6-9.

0563. Harrison, M. (1995). The Black Partridge. *WPA News.* 48: 30-32.

0564. Harrison, M. (1997). Himalayan or Karakoram? *WPA News.* 52(February): 21-25.

0565. Harrison, M. (1998). A natural cheer Pheasant stronghold. *WPA News.* 56 (May): 24-26.

0566. Harrop, A. (1988). Seasonal status of Mongolian Finch in Ladakh. *Oriental Bird Club Bulletin.* 8 (Spring): 31-32.

0567. Hartert, E. (1918). *Garrulus bispecularis* and its allies with list of all forms of Garrulus. *Novitates Zoologicae*. 25: 430-433.

0568. Harvey, B. (2004). Book review: Birds of Kangra. *Sanctuary Asia.* XXIV (5): 80.

0569. Hellmayr, C.E. (1929). Birds of the James Simpson - Roosevelts Asiatic expedition. *Field museum of Natural History Zoological Series*. 17(3): 27-144.

0570. Hewitt, W.A. (1942). Extension of range of Rufous-necked Scimitar Babbler (*Pomatorhinus ruficollis* Hodgs.). *Journal of Bombay Natural History Society.* 43(2): 257.

0571. Hilaluddin; Kaul, R. (2002). Search for Himalayan Quail. *Mor.* P. 10-11.

0572. Hilaluddin; Kaul, R. (2007). Galliformes hunting in India, the bigger picture. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 163-168.

0573. Hingston, R.W.G. (1920). A naturalist in Himalaya. *Journal of Bombay Natural History Society.* i-xii,300p.

0574. Hingston, R.W.G. (1921). A list of the birds of Dharamsala. *Journal of Bombay Natural History Society.* 27(3): 448-491.

0575. Hingston, R.W.G. (1930). Birds of a himalayan torrent. A study in Behaviour. *Journal of Bombay Natural History Society.* 34(3): 811-815.

0576. Hodgson, B.H. (1833). Description of the *Buceros homrai* of the Himalayas: (with remarks on the skeleton of the Homrai Buceros"by Dr. M.J.Bramley. *Asiatic Researches*. 18(2): 169-188.

0577. Hodgson, B.H. (1835). Description of Bearded vulture of the Himalaya. *Journal of Asiatic Society of Bengal*. 4: 454-458.

0578. Hodgson, B.H. (1848). On the Buzzards of the Himalaya and of Tibet. *The Calcutta Journal of Natural History*. 8(29): 94-97.

0579. Hodgson, B.H. (1858). On the geographical distribution of the Mammalia and birds of the Himalaya. *Proceedings of the Zoological Society of London.* 341: 220-224.

0580. Holmes, P.R. (1979). Oxford Ornithological expedition to Kashmir. *Report* 17. 63p.

0581. Holmes, P.R. (1986). The avifauna of the Suru rivery valley Ladakh. *Forktail.* 2: 21-41.

0582. Holmes, P.R.; Hatchwell, B.J. (1991). Notes on the ecology of the Little Bittern *Ixobrychus minutus* at Haigam Rakh, Kashmir, India. *Forktail.* 6 (April): 25-33.

0583. Holmes, P.R.; Parr, A.J. (1989). A checklist of the birds of Haigam Rakh, Kashmir. *Journal of Bombay Natural History Society.* 85(3): 465-473.

0584. Hooker, J.D. (1854). Himalayan Journals - Notes of a naturalist in Bengal, the Sikkim and Nepal Himalayas, the Khasia mountains. *Himalayan birds*.

0585. Hopkings, D. (2004). Birding in Kausani, Almora district, Uttaranchal. *Newsletter for Ornithologists*. 1(5): 80.

0586. Hruby, J. (2015). Colonel John Biddulph 1840-1921. *Birding Asia.* 23 (June): 112-117.

0587. Hudson, C. (1930). List of the some birds of the seven hills of Nainital U.P. *Journal of Bombay Natural History Society.* 34(3): 821-827.

0588. Hume, A.O. (1869). My scrap book: or rough notes on Indian oology and ornithology.

0589. Hume, A.O. (1873). Contributions to Indian Ornithology No. 1 Cashmere Ladakh, Yarkand. 152p.

0590. Hume, A.O. (1874). *Lophophorus sclateri*. *Stray Feathers.* 2(6): 488-489.

0591. Hume, A.O. (1877). A first list of the birds of North-Eastern Cachar. *Stray Feathers.* 5(1): 1-47.

0592. Hume, A.O. (1877). *Corvus macrorhynchos* of Wagler. *Stray Feathers.* 5-6: 461-469.

0593. Hume, A.O. (1877). Our Indian Certhiinae. *Stray Feathers.* 5(2): 73-79.

0594. Hume, A.O. (1880). The game birds of India no. 2- Addeda et corringenda edited by A.O. Hume. *Stray Feathers.* 9(1-3): 198-209.

0595. Hume, A.O. (1889). The nests and eggs of Indian Birds. i-x, 11., 1-397p.

0596. Hunter, M.L.; Malcolm, L. (1989). Himalayan Birds face uphill while singing. *The Auk*. 106(4): 728-729.

0597. Husain, K.Z. (1959). Is *Psittacula intermedia* (Rothschild)a valid species. *Bulletin of the British Ornithologists Club.* 79(6): 89-92.

0598. Hussain, M.S. (2001). Aspects of Ecology and Conservation of Kalij *Lophura leucomelana* and Koklass *Pucrasia macrolopha* in the Kumaon Himalaya, India. *Tropical Ecology*. 42: 59-68.

0599. Hussain, S.A. (1979). Orange-rumped Honeyguide Indicator Xanthonotus in the Garhwal Himalayas. *Journal of Bombay Natural History Society.* 75(2): 487-488.

0600. Hussain, S.A. (1986). Status of black-necked crane in Ladakh - 1983 : problems and prospects. *Journal of Bombay Natural History Society.* 82(3): 449-458.

0601. Hussain, S.A. (1989). Bird Migration Project. i-v, 1-62.

0602. Hussain, S.A.; Singh R.K.; Badola, R. (2008). An ecological survey of the Trans Himalayan wetlands of the proposed Changthang Biosphere Reserve, India, for conservation planning. *Biosphere Conservation*. 9(1): 53-63.

0603. Hussain, S.A.; Waltner, R.C. (1976). Occurrence of the Purple Cochoa cochoa purpurea Hodgson near Mussorrie, U.P. *Journal of Bombay Natural History Society.* 72(2): 552.

0604. Hussain, S.M.; Khan, J.A.; Ahmed, A.; Kaul, R. (1997). Status and conservation of galliformes in the Kumaon Himalaya, Uttar Pradesh, India. *International Journal of Ecology and Environmental Sciences*. 23: 409-417.

0605. Hutton, A.F. (1987). Mass courtship display by Great pied Hornbill Buceros bicornis. *Journal of Bombay Natural History Society.* 83: 209-210.

0606. Hutton, T. (1837). Journal of a trip to the Burenda pass in 1836. *Journal of the Asiatic Society of Bengal.* 6(Part II): 901-938.

0607. Hutton, T. (1838). Notice of the himalayan vulture eagle. *Journal of the Asiatic Society of Bengal.* 7(Part 1): 20-25.

0608. Hutton, T. (1873). Notes on the parroquets of India. *Stray Feathers.* 1(5): 331-345.

0609. ICBP. (1992). Putting biodiversity on the map: priority areas for global conservation. i-vi, 1-90.

0610. Ilyas, O. (1999). Sighting of Cheer Pheasant Catreus wallichii at Binsar Wildlife Sanctuary Almora, U.P. *Mor.* 1 (August): 5.

0611. Ilyas, O. (2005). Birds of middle altitude oak forest, Kumaon Himalayas. *Newsletter for Birdwatchers.* 45(5): 73-77.

0612. Ilyas, O.; Ansari, M. (2001). Bird community structure of the Karanprayag region of Chamoli Garhwal, Uttarakhand. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 232.

0613. Ilyas, O.; Khan, J.A. (2001). Birds of Binsar. *Newsletter for Birdwatchers.* 41(5): 61-64.

0614. Inglis, C.M. (1904). The himalayan nutcracker (*Nucifraga hemispila*). *Journal of Bombay Natural History Society.* 16(1): 158-159.

0615. Inglis, C.M. (1925). Distribution of the Himalayan Impeyan pheasant or monal (*Lophophorus impejanus*). *Journal of Bombay Natural History Society.* 30(2): 478-479.

0616. Inglis, C.M. (1926). Game birds of Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal Part I Bengal Green pigeon (*Crocopus phoenicoptera phoenicoptera*)*. Journal of Darjeeling Natural History Society*. 1: 1-3.

0617. Inglis, C.M. (1926). Game birds of Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal, part 2 Ashy-headed green pigeon (*Crocopus phoenicoptera phoenicoptera*). *Journal of Darjeeling Natural History Society*. 1: 1-3.

0618. Inglis, C.M. (1926). Game birds of Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal, part 3 Large orange breasted green pigeon (*Treron bisincta domvillii*). *Journal of Darjeeling Natural History Society*. 1: 47-48.

0619. Inglis, C.M. (1926). Game birds of Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal, part 4. Thick billed green pigeon (*Treron curvirostra nipalensis*). *Journal of Darjeeling Natural History Society*. 1: 64-66.

0620. Inglis, C.M. (1927). Game birds of Sikkim including the Darjeeling district and of the Jalpiguri district, Bengal part 8 - Northern Gree imperial pigeon (*Muscadivora aenea sulvatica*). *Journal of Darjeeling Natural History Society*. 2: 61.

0621. Inglis, C.M. (1927). Game birds of Sikkim including the Darjeeling district and of the Jalpiguri district, Bengal part 6 - Wedge-tailed green Pigeon (*Sphenocervus sphenurus*). *Journal of the Darjeeling Natural History Society.* 2: 21-24.

0622. Inglis, C.M. (1927). Game birds of Sikkim including the Darjeeling district and of the Jalpiguri district, Bengal part 7 - Hodgson's imperial Pigeon (*Ducula badia insignis*). *Journal of the Darjeeling Natural History Society.* 2: 42-44.

0623. Inglis, C.M. (1927). Game birds of Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal part 5. Pin tailed green pigeon (*Sphenocercus apicauda*). *Journal of the Darjeeling Natural History Society.* 2:

0624. Inglis, C.M. (1928). Game birds of Sikkim including the Darjeeling district and of the Jalpaiguri district, Bengal. *Journal of Darjeeling Natural History Society.*3: 83-85.

0625. Inglis, C.M. (1928). Game birds of Sikkim including Darjeeling district and of the Jalpaiguri district Bengal Part 9 Bronze-winged or Emerald Dove (*Chalcophaps indica*). *Journal of the Darjeeling Natural History Society.* 3(1).

0626. Inglis, C.M. (1928). Game birds of Sikkim including Darjeeling district and of the Jalpaiguri district Bengal Part 11 Blue hill pigeon (*Columba rupestris turkestanica*). *Journal of the Darjeeling Natural History Society.* 3(3): 49.

0627. Inglis, C.M. (1928). Game birds of Sikkim including the Darjeeling district and of the Jalpaiguri district Bengal Part 10. Indian Blue rock pigeon (*Columba livia intermedia*). *Journal of the Darjeeling Natural History Society.* 3(2): 25.

0628. Inglis, C.M. (1929). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 12. White bellied snow pigeon (*Columba leuconata*). Journal of Darjeeling Natural History Society. 3(4): 73.

0629. Inglis, C.M. (1929). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 16. Purple wood pigeon (*Alsocomus puniceus*). Journal of Darjeeling Natural History museum. 4: 74-77.

0630. Inglis, C.M. (1929). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 14. Eastern wood pigeon or Cushat (*Palumbus p. casiotis*). *Journal of the Darjeeling Natural History Society.* 4(2): 26.

0631. Inglis, C.M. (1929). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 13. Tibetan snow pigeon (*Columba gradaria*). *Journal of the Darjeeling Natural History Society.* 4: 1-3.

0632. Inglis, C.M. (1930). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 15 Ashy wood pigeon (*Columba pulchricollis*). *Journal of the Darjeeling Natural History Society.* 4(3): 50.

0633. Inglis, C.M. (1930). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 17. Rufous turtle dove (*Streptopelia o orientalis*). *Journal of the Darjeeling Natural History Society.* 5: 1-3.

0634. Inglis, C.M. (1930). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 18. Northern Rufous turtle Dove (*Streptopelia o. ferrago*). *Journal of the Darjeeling Natural History Society.* 5: 21-22.

0635. Inglis, C.M. (1930). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal part 19. Indian Rufous turtle Dove (*Streptopelia o. meena*). *Journal of the Darjeeling Natural History Society.* 5: 49-52.

0636. Inglis, C.M. (1930). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal part 20 Indian ring dove (*Streptopelia d. decaocto*)Sikkim Red turtle dove (*Oenapopelia tranquebarica murmensis*). *Journal of the Darjeeling Natural History Society.* 5: 87-90.

0637. Inglis, C.M. (1931). Game birds of Sikkim including the Darjeeling district and of the Jalpaiguri district - Part 21. Bar-tailed Cuckoo dove (*Macropygia unchall tusalia*). *Journal of the Darjeeling Natural History Society.* 6: 1-7.

0638. Inglis, C.M. (1931). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 22. Common peafowl (*Pavo cristatus*). *Journal of the Darjeeling Natural History Society.* 6: 41-45.

0639. Inglis, C.M. (1931). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 23. Bhutan Peaock Pheasant (*Polyplectron bicalcaratum bakeri*). *Journal of the Darjeeling Natural History Society.* 6: 83-87.

0640. Inglis, C.M. (1931). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 24. Common red jungle fowl (*Gallus bankiva murghi*). *Journal of the Darjeeling Natural History Society.* 6: 128-136.

0641. Inglis, C.M. (1932). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal - Part 26 Impeyan pheasant or monal (*Lophophorus impejanus*). *Journal of the Darjeeling Natural History Society.* 7(2): 36-44.

0642. Inglis, C.M. (1932). Game birds of the Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal Part 25. Black-backed Kalij phesant (*Gennaeus melanotus*). *Journal of the Darjeeling Natural History Society.* 7(1): 1-6.

0643. Inglis, C.M. (1933). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 27. Crimson-horned pheasant or Tragopan (*Tragopan satyra*). *Journal of the Darjeeling Natural History Society.* 7(3): 81-88.

0644. Inglis, C.M. (1933). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 28 Blood pheasant (*Ithagenus cruentus*). *Journal of the Darjeeling Natural History Society.* 7(4): 117-125.

0645. Inglis, C.M. (1933). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal. *Journal of the Darjeeling Natural History Society.* 7(1):1-6.

0646. Inglis, C.M. (1933). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal - Part 30 Common or grey quail (*Coturnix coturnix*). *Journal of the Darjeeling Natural History Society.* 8(2): 49-65.

0647. Inglis, C.M. (1933). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal. *Journal of the Darjeeling Natural History Society.* 8: 36-37.

0648. Inglis, C.M. (1934). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 31. Black-breasted or Rain quail (*Cortunix coromandelica*). *Journal of the Darjeeling Natural History Society.* 8(3): 89-97.

0649. Inglis, C.M. (1934). Game birds of Sikkim, including the Darjeeling district and of the Jalpaiguri district, Bengal. *Journal of the Darjeeling Natural History Society.* 8(4): 125-135.

0650. Inglis, C.M. (1934). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 33 Red-breasted Hill Partridge (*Arborophila mandelli*). *Journal of the Darjeeling Natural History Society.* 9(1): 1-3.

0651. Inglis, C.M. (1935). Game birds of Sikkim, including the Darjeeling district and of the Jaipaiguri distict, Bengal Part 34. Assam black partridge (Francolinus f. Melanonotus). *Journal of the Darjeeling Natural History Society.* 9(3): 87-92.

0652. Inglis, C.M. (1938). The Sunbirds and spiderhunters of our area. *Journal of the Darjeeling Natural History Society.* 12(4): 121-135.

0653. Inglis, C.M. (1940). The bazas of the Darjeeling district, Sikkim and the duars. *Journal of the Darjeeling Natural History Society.* 14: 83-88, 127-129.

0654. Inglis, C.M. (1942). The Indian paradise flycatcher (*Tchitrea paradisi paradisi* Linn). *Journal of Bombay Natural History Society.* 17(2): 50-52.

0655. Inglis, C.M. (1947). On a list of birds of Darjeeling and neighbourhood. Journal of Bengal Natural History Society. 21(4): 104-116.

0656. Inglis, C.M. (1948). Game birds of Sikkim Including the Darjeeling district and of the Jalpaiguri distict. *Journal of Bengal Natural History Society*. 33(1): 29-32.

0657. Inskipp, T. (2006). More on the distribution of the White-winged Tern *Chlidonias leucopterus*. *Indian Birds.* 1(6): 143-144.

0658. Iqbal, S.M. (1993). Patterns of habitat use by White-crested Kalij. *WPA India News.* 1(1): 12.

0659. Irby, L.H. (1861). Notes on birds observed in Oudh and Kumaon. *IBIS.* 3: 217-251.

0660. Ishar, M.S. (1995). Birds of Muradpur, District Rajouri, Jammu and Kashmir. *Newsletter for Birdwatchers.* 35(3): 56-57.

0661. Ishtiaq, F.; Jhunjhunwala, S.; Zafar-ul-Islam, M.; Rahmani, A.R. (2002). Conservation of Indian Galliformes through the Important Bird Areas approach. Galliformes 2000. *Proceedings of the 2nd International Galliformes Symposium. Kathmandu and Royal chitwan national Park, Nepal*. P. 17-25.

0662. Islam, Z.U.; Rahmani, A.R. (2004). Important Bird Areas in India. Priority sites for conservation. P. i-xviii, 1-1133.

0663. Jackson, P. (1963). Birds in Ladakh in winter. *Newsletter for Birdwatchers.* 3(3): 3-4.

0664. Jackson, P. (2000). An historic observation of the Pheasant-tailed Jacana. *Newsletter for Birdwatchers.* 39(6): 88-89.

0665. Jaganathan, T.V. (1974). Comments on the flight of monal pheasant. *Newsletter for Birdwatchers.* 14(5): 5-7.

0666. Jamdar, N. (1984). Aggressive oriole. *Hornbill.* 1984(4): 6.

0667. Jamdar, N. (1986). Notes on Orange Parrotbill (*Paradoxornis nipalensis*)Blackfaced flycatcher - Warbler (*Abroscopus schisticeps*)and Purple Cochoa (*Cochoa purpurea*)from Garhwal Himalayas. *Journal of Bombay Natural History Society.* 83(2): 444-446.

0668. Jamdar, N. (1987). Occurrence of Pied Crested Cuckoo (*Clamator jacobinus*)in Suru Valley, Ladakh. *Journal of Bombay Natural History Society.* 84(1): 208-209.

0669. Jamdar, N. (1988). An interesting feeding behaviour of the Whitecheeked Nuthatch (*Sitta leucopsis*). *Journal of Bombay Natural History Society.* 84(2): 443.

0670. Jamdar, N. (1988). Further notes on Garhwal Birds: Greyfaced Leaf Warbler (*Phylloscopus maculipennis*). *Journal of Bombay Natural History Society.* 84(3): 685-686.

0671. Jamdar, N. (1988). On the Singing posture of the Strongfooted Bush Warbler (*Cettia fortipes*). *Journal of Bombay Natural History Society.* 85(1): 194.

0672. Jamdar, N.; Price, T. (1990). Simla Black Tit *Parus rufonuchalis* and Rufousbellied Crested Tit *Parus rubidiventris* breeding sympatrically in Kashmir. *Journal of Bombay Natural History Society.* 87(2): 302-303.

0673. James, A.H. (1988). Geographic variation in the Buzzard *Buteo japonicus* (L.)group (Aves Accipitridae). *Beaufortia.* 38(1): 57-74.

0674. Jamwal, K. S. (1991). Wetland Kashmir. *Sanctuary Asia.* 11(2): 26-33.

0675. Jamwal, K.K.S. (1994). Kashmir's high altitude lakes. *Sanctuary Asia.* 14(5): 30-33.

0676. Jandrotia, J.S.; Katoch, S.S.; Kaul, R. (2002). Surveys of pheasants in Chamba district of Himachal Pradesh, India. Galliformes 2000. *Proceedings of the 2nd International Galliformes Symposium. Kathmandu and Royal Chitwan National Park, Nepal 24th September - 1st October, 2000*. P. 75-78.

0677. Jandrotia, J.S.; Sharma, V.; Katoch, S.S. (1995). A pheasant survey in the Ravi catchment of Chamba district, Himachal Pradesh, India. *Annual Review of the World Pheasant Association. 1994/95*. 67-74.

0678. Jardine, W.; Selby, P.J. (1843). Illustrations of Ornithology.

0679. Javed, S. (1992). Birds of Limber Valley Forest (Jammu and Kashmir). *Newsletter for Birdwatchers.* 32(5-6): 13-15.

0680. Javed, S. (1992). Occurrence of Fire-capped Tit in Dudwa National Park. *Newsletter for Birdwatchers.* 32(5-6): 18-19.

0681. Javed, S. (1993). Some observations on breeding of Eastern Skylark. *Newsletter for Birdwatchers.* 33(2): 38.

0682. Javed, S. (2001). Eye in the sky. *Sanctuary Asia.* XXI(1): 36-40.

0683. Javed, S.; Shafiq, T. (1997). Birding around Ardee Estate, Ranikhet. *The Wildlifer*. 3(1-2): 8-11.

0684. Javed, S.; Takekawa, J.Y.; Douglas, D.C.; Rahmani, A.R.; Choudhury, B.C.; Landfried, S.L.; Sharma, S. (2001). Documenting trans-Himalayan migration using satellite telemetry: *A report on Capture, Deployment and Tracking of Bar-headed Goose (Anser indicus)from India* 44.

0685. Jayapal, R.; Sivakumar, K.; Sathyakumar, S.; Mathur, V.B. (2007). Biogeographical analysis of Galliformes distribution in India and pheasants in the Himalayan protected areas. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 83-94.

0686. Jerdon, T.C. (1863). The birds of India being a natural history of all the birds known to inhabit continental India: with description of species, genera, families, tribes and orders and a brief notice of such families as are not found in India, making it a manual of Ornithology specially adapted for India Part I. 439p.

0687. Jerdon, T.C. (1864). The birds of India. i-iv, 2ll, 441-876, i-xxxii.

0688. Jerdon, T.C. (1871). Supplementary notes to ''The birds of India''. *IBIS.* 13(3): 335-356.

0689. Jerdon, T.C. (1970). Notes on some new species of birds from the North-Eastern frontier of India. *Proceedings of the Asiatic Society of Bengal.* P. 59-61.

0690. Jha, A.; Jha, V. (2003). Chronometric aptitude of a few birds in Sikkim. *Tigerpaper.* 30(4): 1-2.

0691. Jha, S. (2014). Sighting of White-throated vittata morph of Pied Wheatear Oenanhe pleschanka from Tabo, Spiti Valley, Himachal Pradesh. *Indian Birds.* 9(2): 54.

0692. Jha, S. (2016). Golden-crested Myna at Namdapha, Arunachal Pradesh. *Indian Birds.* 11(1): 28A.

0693. Jhunjhunwala, S.; Rahmani, A.R.; Ishtiaq, F.; Islam, Z.U. (2002). The Important Bird Areas Programme in India. *Buceros*. 6(2): 1-49.

0694. Johansson, U.S.; Alstrom, P.; Olsson, P.E.; Lundberg, P.; Price, T.D. (2007). Build up of the Himalayan avifauna through immigration: a biogeographical analysis of the Phylloscopus and Seicercus warblers. *Evolution*. 61: 324-333.

0695. Johnsgard, P.A. (1986). The Pheasants of the World. *Oxford University Press.* xvi, 300p.

0696. Johnsingh, A.J.T. (1985). Understand, assist, protect and conserve, flora and fauna of Arunachal Pradesh. *The India Magazine*. 5(2): 64.

0697. Jones, A.E. (1915). Nesting of the hobby (*Falco subbuteo* Linn)near Simla, N.W. Himalayas with some general remarks on the genus Falco and allied species. *Journal of Bombay Natural History Society.* 23(3): 579-581.

0698. Jones, A.E. (1916). A further note on the breeding of the Hobby (*Falco subbuteo*)near Simla N.W. Himalayas. *Journal of Bombay Natural History Society.* 24(2): 359.

0699. Jones, A.E. (1919). A list of birds found in the Simla hills, 1908-1918. *Journal of Bombay Natural History Society.* 26(2): 601-620.

0700. Jones, A.E. (1923). Nightjars of the Simla hills. *Journal of Bombay Natural History Society.* 29(1): 281-287.

0701. Jones, A.E. (1931). The nesting of the Besra Sparrow Hawk (*Accipiter virgatus affinis*)at Simla. *Journal of Bombay Natural History Society.* 35(1): 208-209.

0702. Jones, A.E. (1938). Nesting of the booted eagle (*Hieraetus pennatus* Gmelin)in the Simla hills. *Journal of Bombay Natural History Society.* 40(3): 568.

0703. Jones, A.E. (1943). On the occurrence of the Green breasted pitta (*Pitta cucullata* Hartl.)at Simla. *Journal of Bombay Natural History Society.* 43(4): 658.

0704. Jones, A.E. (1943). Unusual occurrence of the Dabchick (*Podiceps ruficollis*)(Vroeg)at Simla. *Journal of Bombay Natural History Society.* 43(4): 661.

0705. Jones, A.E. (1944). The occurrence of the Rufous-bellied crested tit (*Lophophanes rubidiventris*)in the Simla hills. *Journal of Bombay Natural History Society.* 44(3): 474-475.

0706. Jones, A.E. (1947). The birds of the Simla and adjacent hills, Part I. *Journal of Bombay Natural History Society.* 47(1): 117-125.

0707. Jones, A.E. (1948). The birds of the Simla and adjacent hills Part II. *Journal of Bombay Natural History Society.* 47(2): 219-249.

0708. Jones, A.E. (1948). The birds of the Simla and adjacent hills Part III. *Journal of Bombay Natural History Society.* 4793): 409-432.

0709. Jones, H. (1936). A cuckoo (*C. canorus* Linn)incident. *Journal of Bombay Natural History Society.* 39(1): 175-177.

0710. Joshi, K.; Bhatt, D. (2011). Birds of three different forest habitats in Nainital district (Western Himalaya), Uttarakhand, India. *Indian Birds.* 7(2): 33-37.

0711. Julka, J.M. (1983). Common Mynah *Acridotheres tristis* feeding on the Manure Earthworm *Eisenia foctida* during snowfall. *Newsletter for Birdwatchers.* 23(7-8): 16-17.

0712. Kalita, B. (2015). Snapshot sightings: Altai Accentor near Sela Pass, Arunachal Pradesh. *Indian Birds.* 10(3-4): 112A.

0713. Kalita, B.; Bhuyan, R. (2015). Snapshot sightings: Long-eared Owl from Mishmi Hills, Arunachal Pradesh. India. *Indian Birds.* 10(2): 56A.

0714. Kalsi, R.S. (1998). Density index and habitat associations of the cheer pheasant *Catreus wallichi*. Report of summer 1998 fieldwork. *Tragopan*. 10: 16-17.

0715. Kalsi, R.S. (1999). Density index and habitat associations of the Cheer Pheasant in Himachal Pradesh, India. *Oriental Bird Club Bulletin.* 30: 13.

0716. Kalsi, R.S. (1999). Status and habitat of the Cheer Pheasant in Himachal Pradesh. *Mor.* 1 (August): 2-3.

0717. Kalsi, R.S.; Kaul, R. (1997). Density index and habitat associations of the Cheer Pheasant *Catreus wallichi* in Himachal Pradesh, India. *The Wildlifer*. 3(1-2): 24.

0718.Kandari, O.P. (1982). Nanda Devi- India's highest Himalayan National Park. *Cheetal.* 24(1): 29-36.

0719. Kandari, O.P. (1984). Valley of Flowers National Park (India), an exploratory survey of Habitat, recreational use and resource ecology. *Cheetal.* 26(2): 16-23.

0720. Kannan, R. (2007). New Bird descriptions without proper voucher specimens: reflections after the Bugun Liocichla case. *Journal of Bombay Natural History Society.* 104(1): 12-18.

0721. Kasambe, R.; Dudhe, N. (2015). Birding in Pawalgargh Conservation Reserve. *Buceros.* 20(1): 6-9.

0722. Kasambe, R.; Joshi, A.; Meppayur, S. (2010). Bill deformities in House Crows Corvus splendens, Large-billed Crow *C. macrorhynchos* and Yellow-billed Blue Magpie *Urocissa flavirostris* in India. *Newsletter for Birdwatchers.* 49(5): 73-77.

0723. Katoch, S.S.; Jandrotia, J.S. (1997). An encounter with pheasants in Riyalli forests. *WPA News.* 53 (May): 25-28.

0724. Katoch, S.S.; Jandrotia, J.S.; Seth, M.K. (1997). Distribution of Western Tragopan in Chamba District of Himachal Pradesh, India. *Annual Review of the World Pheasant Association.* 1996/97: 33-39.

0725. Katti, M. (1989). Bird communities of lower pine forests of Dachigam National Park. M. Sc. Dissertation, Saurashtra University, Gujarat.

0726. Katti, M.; Price, T. (1996). Effects of climate on Palaearctic warblers over-wintering in India. *Journal of Bombay Natural History Society.* 93: 411-427.

0727. Katti, M.; Price, T. (1999). Annual variation in fat storage by a migrant warbler over-wintering in the Indian tropics. *Journal of Animal Ecology*. 68: 815-823.

0728. Katti, M.; Price, T.D. (2003). Latitudinal trends in body size among over-wintering leaf warblers, genus *Phylloscopus*. *Ecography*. 26: 69-79.

0729. Katti, M.; Singh, P.; Manjrekar, N.; Sharma, D.; Mukherjee, S. (1992). An ornithological survey in eastern Arunachal Pradesh, India. *Forktail.* 7(June): 75-89.

0730. Kaul, R. (1989). Ecology of Cheer Pheasant *Catreus wallichii* in Kumaun Himalaya. *University of Kashmir*.

0731. Kaul, R. (1989). Uttar Pradesh Cheer Pheasant project. *WPA News.* 26: 15-19.

0732. Kaul, R. (1990). Functions of winter flocking in the Cheer Pheasant. *IN:Pheasants in Asia*. 1989: 183-185.

0733. Kaul, R. (1990). Identification of plants in the diet of adult Cheer Pheasant. *IN:Pheasants in Asia*. 1989: 220.

0734. Kaul, R. (1990). Invertebrate abundance, monsoon commencement and hatching time in the Cheer Pheasant. *IN:Pheasants in Asia*. 1989: 218-219.

0735. Kaul, R. (1993). Habitat utilisation by Cheer Pheasant. *WPA India News.* 1(2): 12-13.

0736. Kaul, R. (1994). The Mishmi Hills. *Tragopan*. 1 (June): 6-7.

0737. Kaul, R. (1995). Finding pheasants in Arunachal Pradesh. *WPA India News.* 2(1): 4-6.

0738. Kaul, R. (1995). Forest fires and pheasants. *WPA India News.* 2(2): 11-13.

0739. Kaul, R. (1995). The Mishmi Hills. *Zoos' Print.* 10(10): 33.

0740. Kaul, R. (2000). A visit to D'Ering Sanctuary, Arunachal Pradesh. *Mor.* 3 (August): 3.

0741. Kaul, R. (2000). Cheer days in Kumaon. *Mor.* 2 (February): 4.

0742. Kaul, R. (2007). Conservation of Gallifomes in the Indian Himalaya. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 95-100.

0743. Kaul, R.; Ahmed, A. (1993). Pheasant surveys in Arunachal Pradesh, India in February-march 1991. *IN:Pheasants in Asia. 1992*: 50-54.

0744. Kaul, R.; Hilaluddin; Jandrotia, J.S. (2003). Animal extraction in the Western Himalaya: A preliminary note. *Mor.* 7-8: 9.

0745. Kaul, R.; Hilaluddin; Jandrotia, J.S. (2004). Hunting of large mammals and pheasants in the Western Himalayas. *Birding Asia.* 1: 9-10.

0746. Kaul, R.; Hilaluddin; Jandrotia, J.S.; McGowan, P.J.K. (2004). Hunting of large mammals and pheasants in the Indian western Himalaya. *Oryx*. 38(4): 1-6.

0747. Kaul, R.; Jandrotia, J.S. (2001). Pheasant survey in Chamba, Himachal Pradesh. *Mor.* 4(February): 2-3.

0748. Kaul, R.; Jandrotia, J.S. (2001). Wildlife surveys of some areas in the Chamba District of Himachal Pradesh, India. *Oriental Bird Club Bulletin.* 34: 18.

0749. Kaul, R.; Qadri, S. (1989). Western Tragopan surveys in the Limber Valley, Kashmir, India. *WPA News.* 26: 12-14.

0750. Kaul, R.; Raza, R.; Kalsi, R.S. (1995). Pheasant surveys in Arunachal Pradesh. *Annual Review of the World Pheasant Association.* 1993/94: 28-34.

0751. Kaul, R.; Srivastava, A.K. (2007). Status, Distribution and conservation of Galliformes in Jammu and Kashmir. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 115-116.

0752. Kaul, R.; Srivastava, A.K. (2009). Status, distribution and conservation of Galliformes in Jammu and Kashmir. *Mor.* 10: 4-5.

0753. Kaul, S.C. (1939). Birds of Kashmir. *Srinagar, Normal Press*. 103p.

0754. Kazmierczak, K.; Singh, R. (1998). Kashmir and Ladakh. *IN:A Birdwatchers' Guide to India*. P. 103-117.

0755. Kazmierczak, K.; Singh, R. (1998). North Bengal and Sikkim. *IN:A Birdwatchers' Guide to India*. P. 118-139.

0756. Kazmierczak, K.; Singh, R. (1998). North India. *IN:A Birdwatchers' Guide to India*. P. 82-102.

0757. Kazmierczak, K.; Singh, R. (1998). Northeast India. *IN:A Birdwatchers' Guide to India*. P. 140-167.

0758. Kazmierczak, K.; Singh, R. (2001). A Birdwatchers' Guide to India. P. i-xii, 1-337.

0759. Kelly, C.; Price, T. (2004). Comparative methods based on species mean values. *Mathematical Biosciences*. 187: 135-154.

0760. Kelsey, M. (2013). Rock Sparrow *Petronia petronia*, A first record for Ladakh. *Indian Birds.* 8(5): 136-137.

0761. Kennedy, J.D.; Weir, J.T.; Hooper, D.M.; Tietze, D.T.; Martens, J.; Price, T.D. (2012). Ecological limits on diversification of the Himalayan core Corvoidea. *Evolution*. 66: 2599-2613.

0762. Khacher, K.S.L. (1956). A Contribution to the ornithology of Garhwal. *Journal of Bombay Natural History Society.* 53(3): 315-329.

0763. Khacher, K.S.L. (1961). Some birds around Badrinath. *Newsletter for Birdwatchers.* 1(11): 1-4.

0764. Khacher, K.S.L. (1961). Some birds around Badrinath. *Newsletter for Birdwatchers.* 1(9): 4-6.

0765. Khacher, K.S.L. (1961). The Honeyguide. *Newsletter for Birdwatchers.* 11(13): 7-8.

0766. Khacher, K.S.L. (1962). Bird watching in the Himalayas. *Newsletter for Birdwatchers.* 2(12): 6-9.

0767. Khacher, K.S.L. (1963). Birds of the Himalayan cultivation. *Newsletter for Birdwatchers.* 3(11): 2-5.

0768. Khacher, K.S.L. (1964). The Grandala, Grandala coelicolor Hodgson. *Newsletter for Birdwatchers.* 4(5): 4-6.

0769. Khacher, K.S.L. (1966). Birds of the Ghadwal (Garhwal)and S.W. Tibet. The peacock. 3(4): 153-158.

0770. Khacher, K.S.L. (1967). A climb up the Rohtang Pass. *Newsletter for Birdwatchers.* 7(8): 4-6.

0771. Khacher, K.S.L. (1967). Diary from Manali, Himachal Pradesh. *Newsletter for Birdwatchers.* 7(1): 3-4.

0772. Khacher, K.S.L. (1970). The hills. *Newsletter for Birdwatchers.* 10(2): 1-5.

0773. Khacher, K.S.L. (1974). A conversation through the newsletter continued. *Newsletter for Birdwatchers.* 14(12): 4-6.

0774. Khacher, K.S.L. (1976). Westernmost record of the Great Slaty woodpecker *Mulleripicus pulverulentus* in Himachal Pradesh. *Journal of Bombay Natural History Society.* 73(1): 216.

0775. Khacher, K.S.L. (1976). Westernmost record of the Scarlet Finch *Haematospiza sipahi*. *Journal of Bombay Natural History Society.* 72(3): 859-860.

0776. Khacher, K.S.L. (1977). Common Teal *Anas crecca* migrating across the Himalayas. *Journal of Bombay Natural History Society.* 73(2): 391.

0777. Khacher, K.S.L. (1978). A brief note on the Gradala, *Grandala coelicolor* Hods. *Journal of Bombay Natural History Society.* 75(1): 221.

0778. Khacher, K.S.L. (1978). Bird migration across the himalayas. *Journal of Bombay Natural History Society.* 75(1): 212-213.

0779. Khacher, K.S.L. (1978). The Black-necked or Tibetan Crane. *World Wildlife Fund- India Quarterly.* 24: 14-15,20.

0780. Khacher, K.S.L. (1979). The Nanda Devi Sanctuary - 1977. *Journal of Bombay Natural History Society.* 75(3): 868-887.

0781. Khacher, K.S.L. (1981). Conservation need of Blacknecked Cranes of Bhutan, Arunachal Pradesh and Ladakh. *IN:Crane Research Around the World*. P. 204-211.

0782. Khacher, K.S.L. (1983). Nanda Devi- goddess desecrated. *Sanctuary Asia.* 3(1): 38-49.

0783. Khacher, K.S.L. (1985). Arm Chair birdwatching continued (from page 12 vol. xxv no.7-8). *Newsletter for Birdwatchers.* 25(9-10): 7.

0784. Khacher, K.S.L. (1985). Armchair birdwatching. *Newsletter for Birdwatchers.* 25(7-8): 9-12.

0785. Khacher, K.S.L. (1987). Duck migration across the Himalaya - Tufted Duck *Aythya fuligula* at 13,700 on Rohtang Pass, Himachal pradesh. *Journal of Bombay Natural History Society.* 83: 199-200.

0786. Khacher, K.S.L. (1993). From Lavkumar Khacher in Himachal Pradesh. *Newsletter for Birdwatchers.* 33(1): 8.

0787. Khacher, K.S.L. (1994). Ashy Minivet *Pericrocotus divaricatus* (Raffles)in Himachal Pradesh, INdia. *Journal of Bombay Natural History Society.* 91(2): 321.

0788. Khacher, K.S.L. (1994). Garganey *Anas querquedula* Linn. recovered above 3950 m in the Western Himalaya. *Journal of Bombay Natural History Society.* 91(2): 309-310.

0789. Khacher, K.S.L. (1995). Rosy Pelicans *Pelecanus onocrotalus* Linn., in the Himalaya. *Journal of Bombay Natural History Society.* 91(3): 452.

0790. Khacher, K.S.L. (1997). Improving the NL; bird spotting in J and K; Indian Darter. *Newsletter for Birdwatchers.* 37 (1): 13-14.

0791. Khacher, K.S.L. (1997). Mimicry by Grey Drongo *Dicrurus leucophaeus*. *Journal of Bombay Natural History Society.* 94(3): 569.

0792. Khacher, K.S.L. (2006). Bugun Liocichla. *Indian Birds.* 2(5): 144.

0793. Khacher, K.S.L. (2006). The Himalaya and Himalayan birds. *IN:Indian Through its Birds.* P. 98-106.

0794. Khacher, K.S.L. (2007). Magies feeding on slugs! *Hornbill.* 2006(October)35.

0795. Khacher, K.S.L. (2008). A flight down memory lane-the Yellow-rumped Honeyguide. *Indian Birds.* 4(2): 75.

0796. Khacher, K.S.L. (2009). A flight down memory lane: Procrastination! *Indian Birds.* 4(5): 170-171.

0797. Khacher, K.S.L.; Chaturvedi, N. (1981). The ''Balling'' of the crows. *Journal of Bombay Natural History Society.* 78(3): 606.

0798. Khadilkar, M. (2013). Snapshot sightings, Red-necked Grebe from Leh, Ladakh. *Indian Birds.* 8(6): 165.

0799. Khajuria, H.; Sharma, T.R. (1984). On habits of some high altitude birds of Indian Western Himalayas. *IN:High Altitude entomology and Wildlife Ecology : proceedings.* P. 281-290.

0800. Khan, J.A.; Hussain, M.S.; Ahmed, A.; Kaul, R. (1997). An Assessment of current status of pheasant community of the Kumaon Himalayas. UP, India. *The Wildlifer*. 33(1-2): 25.

0801. Khan, J.A.; Kaul, R. (1995). Forest fires in the Kumaon Himalayas. A Preliminary Report. *The Wildlifer*. 1(1): 1-4.

0802. Khan, J.A.; Khan, A.; Sultana, A.; Ilyas, O.; Hussain, S. (1997). Biodiversity conservation in Kumaon Himalayas. *The Wildlifer*. 3(1-2): 17-22.

0803. Khan, J.A.; Sultana, A. (1998). Conservation Fund in Action: Bird communities of the oak forests of Kumaon Himalayas. India. *Oriental Bird Club Bulletin.* 27: 10.

0804. Khan, N.; Islam, Z.U. (2007). One Percent biogeographical population estimates for waterbirds in India. *Mistnet.* 8(4): 4-22.

0805. Khan, S.A.; Rao, R. J. ; Wani, K.A. (2012). Studies on bird diversity of Overa-Aru Wildlife Sanctuary of Jammu and Kashmir, India. *Journal of Threatened Taxa.* 4(13): 3228-3232.

0806. Khan, S.; Javed, S.; Kaul, R.; McGowan, P. (2002). Measuring the population of the western tragopan *Tragopan melanocephalus* using two methods in the forests of Himachal Pradesh, India. Galliformes 2000. *Proceedings of the 2nd International Galliformes Symposium. Kathmandu and Royal Chitwan National Park, Nepal 24th September - 1st October, 2000*. P. 224-231.

0807. King, B. (1972). Notes from Kashmir. *Newsletter for Birdwatchers.* 12(9): 13-14.

0808. King, B.; Donahue, J.P. (2003). Rediscovery of Rusty-throated or Mishmi Wren-Warbler in Arunachal Pradesh. *Mistnet.* 6(3): 18.

0809. King, B.; Donahue, J.P. (2006). The rediscovery and song of the Rusty-throated Wren Babbler *Spelaeornis badeigularis*. *Forktail.* 22: 113-115.

0810. King, B.; Geale, J.; Chatterjee, S. (2008). Recent observations of the East Himalayan subspecies of Blyth's Tragopan *Tragopan blythii* molesworthi *Birding Asia.* 10: 96-97.

0811. King, B.; Robson, C. (2008). The taxonomic status of the three subspecies of Greater Rufous-headed Parrotbill *Paradoxornis ruficeps*. *Forktail.* 24: 120-122.

0812. Kinnear, N.B. (1915). The white-browed bush robin (*Ianthia indica*)in the N.W. Himalayas - a correction. *Journal of Bombay Natural History Society.* 23(3): 578.

0813. Kinnear, N.B. (1939). On three new races of Himalayan and Tibetan birds. *IBIS.* 3(4): 750-753.

0814. Kittur, S.; Kumar, R.S.; Pandav, B. (2004). Observations of Himalayan Monal nesting in the Kedarnath Wildlife Sanctuary, Western Himalaya, India. *Tragopan*. 20-21: 26-28.

0815. Kloss, C.B. (1917). *Myiophoneus temmincki*. *Journal of Bombay Natural History Society.* 13: 418.

0816. Kloss, C.B. (1928). The Rufous -breasted blue flycatcher *Cyornis hyperthra* at high levels. *Journal of Bombay Natural History Society.* 32(4): 796-797.

0817. Koelz, W. (1937). Notes on the birds of Spiti, A himalayan province of the Punjab. *IBIS.* 1(1): 86-104.

0818. Koelz, W. (1939). Additions to the avifaunal list of Lahul. *IBIS.* 3(2): 354-356.

0819. Koelz, W. (1939). New birds from Asia, chiefly from India. *Proceedings of the Biological Society of Washington.* 52: 61-82.

0820. Koelz, W. (1939). Three new subspecies of birds. *Proceedings of the Biological Society of Washington*. 52: 121-122.

0821. Koelz, W. (1940). Notes on the birds of Zanskar and Purig with appendices, giving new records for Ladakh, Rupshu and Kulu. *Papers of the Michigan academy of Science, arts and letters*. 25: 297-322.

0822. Koelz, W. (1950). New subspecies of birds from Southwestern Asia. *American Museum Novitates.* 1452: 1-10.

0823. Kolvankar, S.G. (2013). The swallow family of nandadevi base camp. *Hornbill.* 2013 (July-September): 22.

0824. Kothari, A. (2015). Getting high on birds, the Himal Kalasutra Bird Festival. *Mistnet.* 15(4): 14-15.

0825. Kothari, A.; Pathak, N. (2004). Can communities protect Important Bird Areas? *IN:Important Bird Areas in India: priority sites for conservation*. P. 80-85.

0826. Koul, S.C. (1930). Vernacular names for Kashmir birds. *Journal of Bombay Natural History Society.* 34(2): 571-573.

0827. Koul, S.C. (1934). The dawn carol of birds. *Journal of Bombay Natural History Society.* 37(3): 736-737.

0828. Krishna, C.M.; Sarma, K.; Roy, P.C.; Kumar, A. (2012). Birding around the Mehao Wildlife Sanctuary, an IBA, in Arunachal Pradesh. *Mistnet.* 13(1): 6-8.

0829. Krishna, M.B. (1990). Sighting of Rednecked Grebes. *Newsletter for Birdwatchers.* 29 (11-12): 9.

0830. Kulkarni, J. (1984). A Trip to Dachigam and Hygam Sanctuaries in Kashmir. *Hornbill.* 1984(4): 7-12.

0831. Kumar, A. (2011). Occurrence of two critically endangered species of *Gyps* vultures in D'Ering Memorial Wildlife Sanctuary and Adjacent Areas, Arunachal Pradesh, India. *Berkut*. 19(1-2): 102-107.

0832. Kumar, A. (2014). Tawang district, Arunachal Pradesh, India. *Birding Asia.* 22: 76-82.

0833. Kumar, A.; Krishna, C.M.; Sarma, K. (2001). Impact of logging and fragmentation on population abundance of Wreathed Horbill Aceros undulatus and Great Pied Hornbill *Buceros becornis* and their conservation in lowland tropical forests of Eastern Arunachal Pradesh, northeast India. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 278.

0834. Kumar, A.; Paliwal, R.; Saikia, U. (2014). Avifauna of Kalatop - Khajjiar Wildlife Sanctuary and Adjacent areas, Himachal Pradesh, India. *Bird Populations*. 13: 36-48.

0835. Kumar, R.S. (1997). Winter habitat use by Himalayan Monal *Lophophorus impejanus* in Kedarnath Wildlife Sanctuary, Western Himalaya. *M.Sc. Dissertation. Saurashtra University, Gujarat*

0836. Kumar, R.S. (1998). Interesting field observations on the Himalayan Monal. *WPA News.* 57 (November): 41-43.

0837. Kumar, R.S. (1998). Over wintering of Hen Harrier Circus cyaneus Linnaeus in Kedarnath Wildlife Sanctuary, Western Himalaya. *Newsletter for Birdwatchers.* 37(6): 108.

0838. Kumar, R.S. (1999). Occurrence of a probable new pheasant taxon in Arunachal Pradesh, India. *Tragopan*. 9: 11-12.

0839. Kumar, R.S. (2000). A new monal taxon from Arunachal Pradesh. *Mistnet.* 2000(October-December): 2.

0840. Kumar, R.S. (2000). In search of a new Monal. *Hornbill.* 2000 (April-June): 26-28.

0841. Kumar, R.S. (2000). Water acquisition strategy adopted by Goldfinch (*Carduelis carduelis*). *Journal of Bombay Natural History Society.* 97(1): 147.

0842. Kumar, R.S. (2002). Presence of Blyth's Tragopan *Tragopan blythii* in Eagle Nest Wildlife Sanctuary, Arunachal Pradesh, India. *Tragopan*. 17: 16-17.

0843. Kumar, R.S. (2003). Record of Blyth's Tragopan *Tragopan blythii* from the Dafla Hills, western Arunachal Pradesh, India. *Tragopan.* 19 (October): 20-22.

0844. Kumar, R.S. (2004). Common Starling *Sturnus vulgaris* in Arunachal Pradesh India. *Journal of Bombay Natural History Society.* 101(2): 320.

0845. Kumar, R.S. (2004). In search of a mountain peacock - a trek into the mountains of Arunachal Pradesh. *Sanctuary Asia.* XXIV(2): 24-31.

0846. Kumar, R.S.; Rawat, G.S.; Sathyakumar, S. (2007). Winter ecology of Impeyan Monal *Lophophorus impejanus* (Latham)in Kedarnath Wildlife Sanctuary, India. *Journal of Bombay Natural History Society.* 103(1): 49-56.

0847. Kumar, R.S.; Singh, P. (1998). Occurrence of a probable new pheasant taxon in Arunachal Pradesh, India. *Tragopan.* 9: 11-12.

0848. Kumar, R.S.; Singh, P. (1999). A new pheasant taxon of the genus *Lophophorus* discovered in Arunachal Pradesh, India. *Tragopan*. 10: 6-8.

0849. Kumar, R.S.; Singh, P. (1999). A study on pheasants and distribution in Arunachal Pradesh, Eastern Himalayas, India. *Wildlife Institute of India, Dehradun*

0850. Kumar, R.S.; Singh, P. (1999). Discovery of a new monal from Arunachal Pradesh. *Oriental Bird Club Bulletin.* 30: 35-38.

0851. Kumar, R.S.; Singh, P. (2000). More news on the new Monal discovered form Arunachal Pradesh. *Mor.* 3 (August): 4-5.

0852. Kumar, R.S.; Singh, P. (2000). More news on the new monal discovered from Arunachal Pradesh. *Oriental Bird Club Bulletin.* 32: 63-65.

0853. Kumar, R.S.; Singh, P. (2000). More news on the new taxon of monal discovered from Arunachal Pradesh. *WPA News.* 63: 4-5.

0854. Kumar, R.S.; Singh, P. (2002). Distribution of monal pheasants in Arunachal Pradesh, India, with information on the discovery of a possible new monal taxon. Galliformes 2000. *Proceedings of the 2nd International Galliformes Symposium. Kathmandu and Royal Chitwan National Park, Nepal 24th September - 1st October, 2000. King Mahendra Trust for Nature Conservation; World Pheasant Association-International; Bird Conservation Nepal. Nepal*. P. 138-144.

0855. Kumar, R.S.; Singh, P. (2003). Presence of Blyth's Tragopan *Tragopan Blythii* in Eagle Nest Wildlife Sanctuary, Arunachal Pradesh, India. *Mor.* 7 -8: 42-57.

0856. Kumar, R.S.; Singh, P. (2004). A new subspecies of Sclater's Monal *Lophophorus sclateri* from western Arunachal Pradesh, India. *Bulletin of the British Ornithologists' Club.* 1241: 16-28.

0857. Kumar, R.S.; Singh, P. (2005). Status and distribution of pheasants in western Arunachal Pradesh, Eastern Himalaya, India. Paper presented in Seminar on Wildlife conservation, Research and Management, WII, Dehradun. P. 28-34.

0858. Kumar, S.; Bisht, M.S.; Bhandari, S.; Kukreti, M. (2014). Social behaviour of the White Crested Kalij Pheasant *Lophura Leucomelanos hamiltonii* (Gray)in Garhwali Himalaya, India. *Cheetal.* 51(1-2): 20-28.

0859. Laiolo, P. (2003). Diversity and structure of the bird community overwintering in the Himalayan sub-alpine zone: is conservation compatible with tourism? *Biological Conservation.* 115: 251-262.

0860. Lakshminarasimha, R.; Bose, S.; Dhiman, S.P.; Gulaati, A.; Nigam, P.; Ramesh, K. (2001). Breeding history of Western Tragopan *Tragopan melanocephalus* in Sarahan Pheasantry, Himachal Pradesh. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 67-69.

0861. Lamba, B.S. (1975). A description of one day old chick of Chukor partridge, *Alectoris chukar*. *Cheetal.* 16(4): 52.

0862. Lamba, B.S. (1975). An abnormally long beak observed in a captive Chukor Partridge *Alectoris chukar chukar*. *Cheetal.* 16(4): 53.

0863. Lamba, B.S. (1978). Recent threat to wildlife by man in the Western Himalaya. *Memoirs of the School of Entomology*. 6: 61-66.

0864. Lamba, B.S. (1987). Status survey of Fauna: Nanda Devi National Park (Mammals and birds). *Records of Zoological Survey of India*. 103: 1-50.

0865. Lamba, B.S.; Garg, G.K. (1977). Altitudinal migration of Rufous-bellied Woodpecker, *Hypopicus hyperthrus* (Vigors). *Newsletter of the Zoological Survey of India.* 3(5): 297-298.

0866. Lamba, B.S.; Narang, M.L. (1977). Occurrence of Brown Shrike Lanius cristatus cristatus Linn. near Dehradun U.P. *Journal of Bombay Natural History Society.* 74(1): 174.

0867. Lamba, B.S.; Narang, M.L.; Tyagi, A.K.; Tak, P.C.; Kumar, G.; Bacha, M.S. (1982). Pheasant census survey of Kashmir valley - a report. *Pheasant in Asia 1982: Proceedings of the Second International Pheasant Symposium held in Srinagar, Kashmir, September 1982*. P. 52-57.

0868. Lambourne, M. (1992). Birds of the world. Over 400 of John Gould's classic bird illustrations. 1-304.

0869. Lamprey, H.F. (1954). Birds seen above the tree line in Tehri Garhwal in the Central Himalaya. *Journal of Bombay Natural History Society.* 52(2-3): 610-615.

0870. LaPersonne, V.S. (1928). A collecting trip to Ladakh Part 1. *Journal of Bombay Natural History Society.* 32(3): 505-517.

0871. LaPersonne, V.S. (1928). A collecting trip to Ladakh Part II. *Journal of Bombay Natural History Society.* 32(4): 650-659.

0872. Law, S.C. (1935). Some observations on the bird list of Sikkim. *Journal of the Darjeeling Natural History Society.* 9(3): 92-93.

0873. Law, S.C. (1956). Himalayan bird life. *Journal of Bengal Natural History Society*. 28: 98.

0874. Liou, L.; Price, M.B.; Perrins, C. (1993). Fluctuating environments and clutch size evolution in great tits. *American Naturalist.* 141: 507-516.

0875. Lister, M.D. (1954). A contribution to the ornithology of the Darjeeling area. *Journal of Bombay Natural History Society.* 52(1): 20-68.

0876. Littledale, H. (1898). Camping in Chamba. *Journal of Bombay Natural History Society.* 11(3): 482-505.

0877. Lobo, P. (2004). Sighting of Black-necked Crane *Grus nigricollis* in west Sikkim. *Newsletter for Ornithologists*. 1(3): 47.

0878. Lobo, P. (2006). Black-necked Crane Grus nigricollis. *Mistnet.* 6(4): 20.

0879. Lokaranjan, R. (1971). Delightful distractions. *Newsletter for Birdwatchers.* 11(11): 1-2.

0880. Loke, W.T. (1945). Notes on the behaviour of nesting paddy birds (*Ardeola grayii*)in Kashmir. *Journal of Bombay Natural History Society.* 45(4): 608-609.

0881. Loke, W.T. (1945). Strange death of a young cuckoo (*Cuculus canorus*). *Journal of Bombay Natural History Society.* 45(3): 347-352.

0882. Loke, W.T. (1947). A bird photographer in Kashmir. *Journal of Bombay Natural History Society.* 46(3): 431-436.

0883. Loke, W.T. (1952). Common Cuckoo (*Cuculus canorus*)parasitising Plumbeous Redstart (*Rhyacornis f. fuliginosa*). *Journal of Bombay Natural History Society.* 50(3): 658.

0884. Loke, W.T. (1952). Kashmir revisited. *Journal of Bombay Natural History Society.* 51(1): 121-127.

0885. Lowndes, D. (1930). Notes on some birds seen in Lahul and Kulu. *Journal of Bombay Natural History Society.* 34(2): 569-570.

0886. Ludlow, F. (1920). Notes on the nidification of certain birds in Ladakh. *Journal of Bombay Natural History Society.* 2791): 141-146.

0887. Ludlow, F. (1934). Catching of Chikor (*Alectoris graeca chukar* Gray)in Kashmir. *Journal of Bombay Natural History Society.* 37(1): 222.

0888. Ludlow, F. (1940). The longtailed duck (*Clangula hyemalis*)in Kashmir. *Journal of Bombay Natural History Society.* 41(3): 666.

0889. Ludlow, F. (1945). The whooper swan (*Cygnus cygnus*). *Journal of Bombay Natural History Society.* 45(3): 421.

0890. Ludlow, F.; Kinnear, N.B. (1937). The birds of Bhutan and adjacent territories of sikkim and Tibet. *IBIS.* 1(1): 1-46.

0891. Ludlow, F.; Kinnear, N.B. (1937). The birds of Bhutan and adjacent territories of Sikkim and Tibet - part 2. *IBIS.* 1(2): 249-293.

0892. Ludlow, F.; Kinnear, N.B. (1937). The birds of Bhutan and adjacent territories of Sikkim and Tibet Part III. *IBIS.* 1(3): 467-504.

0893. MacDonald, D.W.; Henderson, D.G. (1977). Aspects of the behaviour and ecology of mixed species bird flocks in Kashmir. *IBIS.* 119(4): 481-493.

0894. Mackintosh, L.J. (1915). Birds of Darjeeling and India. *Journal of Bombay Natural History Society.* i-lxviii, 233p.

0895. Maclaren, P.I.R. (1947). Short bird notes from S.E.Sikkim. *Journal of Bombay Natural History Society.* 22(2): 46-55.

0896. Maclaren, P.I.R. (1948). Notes from Darjeeling and Sikkim. *Journal of Bengal Natural History Society*. 22(4): 112-120.

0897. Madge, S.C. (1985). First Indian record of Chaffinch (*Fringilla coelebs*). *Journal of Bombay Natural History Society.* 81(3): 704-703.

0898. Magrath, H.A.F. (1910). Shrikes larders. *Journal of Bombay Natural History Society.* 20(1): 227-228.

0899. Magrath, H.A.F. (1912). Birds notes by the way in kashmir. *Journal of Bombay Natural History Society.* 21(2): 545-552.

0900. Magrath, H.A.F. (1912). More birds notes by the way in Kashmir. *Journal of Bombay Natural History Society.* 21(4): 1304-1314.

0901. Magrath, H.A.F. (1912). The himalayan greenfinch (*Hypacanthis spinoides*. *Journal of Bombay Natural History Society.* 21(4): 1329.

0902. Magrath, H.A.F. (1912). The paradise flycatcher (*Terpsiphone paradisi*). *Journal of Bombay Natural History Society.* 21(2): 660-661.

0903. Magrath, H.A.F. (1912). The Pintail Duck (*Dafila acuta*)shot in September. *Journal of Bombay Natural History Society.* 21(2): 658.

0904. Magrath, H.A.F. (1921). Kashmir Bird notes. *Journal of Bombay Natural History Society.* 28(1): 276-279.

0905. Mahabal, A. (1992). Natural distribution of some bird species in Chamba District, Himachal Pradesh. *Newsletter for Birdwatchers.* 32(5-6): 16.

0906. Mahabal, A. (1993). Avifauna of Chamba District (Himachal Pradesh)with emphasis on their altitudinal distribution. *Pavo.* 30(1-2): 17-25.

0907. Mahabal, A. (1997). Bird survey in Siwalik Himalaya of Himachal Pradesh. *Pavo.* 34(1-2): 7-16.

0908. Mahabal, A. (2000). Birds of Talra Wildlife Sanctuary in lower western Himalaya, H. P., with notes on their status and altitudinal movements. *Zoos' Print.* 15(10): 334-338.

0909. Mahabal, A.; Mukherjee, R. (1991). Birds of Mandi District (Himachal Pradesh). *Newsletter for Birdwatchers.* 31(1-2): 8-9.

0910. Mahabal, A.; Sharma, T.R. (1992). Distribution patterns of birds of Kangra Valley (Himachal Pradesh). *Himalayan Journal of Environment and Zoology*. 6(2): 85-96.

0911. Mahabal, A.; Sharma, T.R. (1993). Birds in Naina Devi Wildlife Sanctuary in Siwalik Himalayas. *Newsletter for Birdwatchers.* 33(3): 43-44.

0912. Mahabal, A.; Tak, P.C. (2002). Status and review of the Western Tragopan *Tragopan melanocephalus* (J. E. Gray)in India. *Zoological Survey of India*.19 plates.

0913. Mahajan, K.K.; Mukherjee, R. (1974). Brief note on some observation at Lahul and spiti, H.P. *Newsletter for Birdwatchers.* 14(12): 3-4.

0914. Maheswaran, G. (2001). Status and conservation of threatened birds of Arunachal Pradesh. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 255-256.

0915. Maheswaran, G. (2007). Records of White-bellied Heron *Ardea insignis* in Namdapha Tiger Reserve, Arunachal Pradesh, India. *Birding Asia.* 7: 48-49.

0916. Maheswaran, G. (2012). Record of White-tailed Eagle *Haliaeetus albicilla* at Namdapha Tiger Reserve, Arunachal Pradesh, India. *Birding Asia.* 18: 85.

0917. Maheswaran, G. (2013). Bird Records form Tawang district, Arunachal Pradesh, India. *Journal of Bombay Natural History Society.* 110(1): 35-49.

0918. Maheswaran, G. (2014). Noa-Dehing's White- bellied Herons. *Sanctuary Asia.* 34(4): 60-63.

0919. Maheswaran, G. (2014). Update on the nesting White-bellied Heron *Ardea insignis* in Namdapha Tiger Reserve, Arunachal Pradesh, India. *Birding Asia.* 22: 8.

0920. Malhotra, Y.R.; Deskyong, N.; Pathania, P.S. (1996). Relationship between dive and post-dive pause while foraging in two diving ducks of lake Mansar. *Journal of Bombay Natural History Society.* 93(1): 8-12.

0921. Malhotra, Y.R.; Deskyong, N.; Pathania, P.S. (1997). Survey Status of waterbird population in Lake Mansar. *Pavo.* 34(1-2): 1-6.

0922. Malhotra, Y.R.; Pathania, P.S. (1981). The chukar partridge in Leh (Ladakh). *Tigerpaper.* 8(3): 20-22.

0923. Mallon, D.P. (1987). The winter birds of Ladhak. *Forktail.* 2 (December): 27-41.

0924. Malviya, M.; Lakshminarasimha, R.; Bose, S.; Dhiman, S.P.; Nigam, P.; Ramesh, K. (2011). Stocking for the future: genetic and demographic correlates of Western Tragopan *Tragopan melanocephalus* in captivity. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 176-178.

0925. Malviya, M.; Lakshminarasimha, R.; Bose, S.; Dhiman, S.; Nigam, P.; Ramesh, K. (2012). Stocking for the future: genetic and demographic correlates of Western Tragopan *Tragopan melanocephalus* in captivity. *Journal of Bombay Natural History Society.* 108(3): 206-212.

0926. Mandelli, L. (1873). New birds from Sikkim. *Stray Feathers.* 1(5): 415-416.

0927. Mandelli, L. (1880). Letters to the editor "I see that Mr. Blanford in his remarks on your list of birds of India. *Stray Feathers.* 8(6): 503.

0928. Mandros, J.J. (1981). Dachigam. a tale of 10 villages.*TheWildlifer*. 1(2): 52-55.

0929. Manel, S.; Buckton, S.T.; Ormerod, S.J. (2000). Testing large-scale hypotheses using surveys: the effects of land use on the habitats, invertebrates and birds of Himalayan rivers. *Journal of Applied Ecology*. 37: 756-770.

0930. Mangalik, A. (1969). A trip to Sikkim. *Newsletter for Birdwatchers.* 9(10): 3-4.

0931. Manjeshwar, N. (1984). The Valley of Flowers. *Sanctuary Asia.* 4(4): 354.

0932. Manjrekar, N.; Mehta, P. (1999). Pond Heron in Pin Valley National Park, Spiti, Himachal Pradesh. *Journal of Bombay Natural History Society.* 96(2): 313-314.

0933. Marchetti, K. (1993). Dark habitats and bright birds illustrate the role of the environment in species divergence. *Nature*. 362: 149-152.

0934. Marchetti, K.; Price, T. (1997). The adaptive significance of colour pattern variation in leaf warblers. *Oikos*. 79: 410-412.

0935. Marchetti, K.; Price, T.D.; Richman, A.D. (1996). Association of ecology and migration distance with wing morphology in the genus *Phylloscopus*. *J. Avian Biol*. 26: 177-181.

0936. Marien, D. (1951). Notes on some pheasants from Southwestern Asia with remarks on Molt. *American Museum Novitates.* 1518: 1-25.

0937. Marshall, C.H.T. (1884). Notes on the birds of Chamba in the N.W. Himalayas. *IBIS.* 26(4): 404-425.

0938. Marshall, G.F.L. (1879). On a new pheasant from the north-west Himalayas. *IBIS.* 21: 461-464.

0939. Marshall, G.F.L. (1880). The koklass pheasants of the himalayas. *Stray Feathers.* 8(6): 450-456.

0940. Martens, J.; Sun, Y.-H.; Packert, M. (2008). Intraspecific differentiation of Sino-Himalayan Bush-dwelling *Phylloscopus* warblers, with description of two new taxa (*P. fuscatus, P. fuligiventer, P. affinis, P. armandii, P. subaffinis*). *Vertebrate Zoology*. 58(2): 233-265.

0941. Martens, J.; Tietze, D.T.; Eck, S.; Veith, M. (2004). Radiation and species limits in the Asian Pallas's warbler complex (*Phylloscopus proregulus* s.1.) *Journla of Ornithologie*. 145: 206-222.

0942. Masli, A.A.; Shah, G.M.; Jan, U. (2001). Species composition and diversity of avifauna of Marhome wetland in Jammu and Kashmir. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 301.

0943. Mathews, W.H. (1933). Some notes on birds in Sikkim. *Journal of the Darjeeling Natural History Society.* 7(4|): 141-151.

0944. Mathews, W.H. (1957). Field notes on the Black browed Treepie (*Crypsirina frontalis*). *Journal of Bengal Natural History Society*. 29(1-2): 56.

0945. Matthews, W.H. (1918). Bird's nesting in the Bhillung valley, Tehri garhwal. *Journal of Bombay Natural History Society.* 2593): 495-497.

0946. Mayr, E. (1947). On the correct name of the Tibetan Shrike usually called *Lanius tephronotus*. *Journal of Bombay Natural History Society.* 47(1): 125-127.

0947. Mazumdar, K.; Maheswari, A.; Dutta, P.K.; Borah, P.J.; Wange, P. (2011). High altitude wetlands of western Arunachal Pradesh: new breeding ground for Ruddy Shelduck (*Tadorna ferruginea*). *Zoos' Print.* 26(8): 9-10.

0948. McClure, H.E.; Leelavit, P. (1972). Birds banded in Asia during the MAPS program by locality from 1963 through 1971. *US Army Research and Development Group*. 478p.

0949. McGowan, P. (1987). Bara Bangahal 1985 into the unknown. *Hornbill.* 4: 8-13.

0950. McGowan, P. (2007). Priorities for future research and monitoring *Envis Bulletin: wildlife and Protected Areas.* 10(1): 207-209.

0951. McGowan, P.J.K.; Panchen, A.L. (1994). Plumage variation and geographical distribution in the Kalij and Silver Pheasant. *Bulletin of the British Ornithologists Club.* 114(2): 113-123.

0952. Mehta, A. (1977). Hoopoes in high Himalayas. *Newsletter for Birdwatchers.* 17(11): 13.

0953. Mehta, H.S.; Paliwal, R.; Thakur, M.L. (2003). Birds of Balh Valley. *Newsletter for Birdwatchers.* 43(4): 56-57.

0954. Mehta, K.L. (1975). The pheasants of Himachal Pradesh. *Annual Report Pheasant Trust Norfolk Wildlife Park*. P. 21-22.

0955. Meinertzhagen, R. (1927). Ladakh with special reference to its natural history. *Geographical journal*. 70:129-163.

0956. Meinertzhagen, R. (1927). Systematic results of birds collected at high altitudes in Ladakh and Sikkim Part 1. *IBIS.* 12(3): 363-422.

0957. Meinertzhagen, R. (1927). Systematic results of birds collected at high altitudes in Ladakh and Sikkim (Part II). *IBIS.* 12(4): 571-633.

0958. Meinertzhagen, R. (1928). Some biological problems connected with the Himalaya. *IBIS.* 4(3): 480-533.

0959. Meinertzhagen, R. (1952). A new bird for India - *Montifringilla davidiana potanini* (Sushkin). *Journal of Bombay Natural History Society.* 51(1): 273-274.

0960. Meinertzhagen, R. (1952). On geographical variation in the Monal pheasant Lophophorus impejanus Latham. *Bulletin of the British Ornithologists Club.* 72(2): 85.

0961. Menon, A.K. (1978). Indian Cliff swallows. *Newsletter for Birdwatchers.* 18(6): 12-13.

0962. Menon, M.; Vagholikar, N. (2004). IBAs in northeast India: Threats to habitats and opportunities for conservation. *IN:Important Bird Areas in India: priority sites for conservation.* P. 76-79.

0963. Miller, J.R.B. (2009). The pheasant sings once more: pheasant conservation in the Great Himalayan National Park. *Sanctuary Asia.* 29(1): 46-49.

0964. Miller, J.R.B. (2010). Survey of Western Tragopan, Koklass Pheasant, and Himalayan Monal populations in the Great Himalayan National Park, Himachal Pradesh, India. *Indian Birds.* 6(3): 60-65.

0965. Mills, J.D. (1944). An ornithologists trip to Sikkim. *Journal of Bengal Natural History Society*. 19: 57-70.

0966. Milner, C.E. (1947). Bird notes on the Dal Lake, Kashmir. *Journal of Bombay Natural History Society.* 46(3): 550-551.

0967. Mishra, C. (1997). Pheasants and other birds of Majhatal Harsang Wildlife Sanctuary, Himachal Pradesh, India. *Forktail.* 12(August): 1-6.

0968. Mishra, C. (2000). Aseasonal flocking in the Horned Lark Eremophila alpestris in India. *Forktail.* 16: 171-172.

0969. Mishra, C.; Datta, A. (2007). A new bird species from eastern Himalayan Arunachal Pradesh-India's Biological frontier. *Current Science.* 92(9): 1205-1206.

0970. Mishra, C.; Datta, A.; Madhusudan, M.D. (2004). The high altitude wildlife of western Arunachal Pradesh: a survey report. 61. *Nature Conservation Foundation ; International Snow Leopard Trust; Wildlife Conservation Society (India Program).*

0971. Mishra, C.; Humbert-Droz, B. (1998). Avifaunal survey of Tsomoriri Lake and adjoining Nuro Sumdo wetland in Ladakh, Indian trans-Himalaya. *Forktail.* 14(August): 65-67.

0972. Mistry, N.M. (1966). Birdwatching in Mussorrie. *Newsletter for Birdwatchers.* 6(7): 3-4.

0973. Mistry, N.M. (1967). Birdwatching on a Simla Kulu trek. *Newsletter for Birdwatchers.* 7(9): 2-4.

0974. Mistry, N.M. (1968). Birdwatching in Darjeeling and Sikkim. *Newsletter for Birdwatchers.* 8(7): 2-4.

0975. Mistry, N.M. (1969). Birdwatching on a trek to Pindari glacier. *Newsletter for Birdwatchers.* 9(8): 1-2.

0976. Mitchell, F.J. (1911). Little bustard (*Otis tetrax*)in Kashmir. *Journal of Bombay Natural History Society.* 20(4): 1154.

0977. Mitchell, F.J. (1915). Cotton Teal (*Nettopus coromandelianus*)in Kashmir. *Journal of Bombay Natural History Society.* 23(3): 584.

0978. Mitra, A.; Jha, A.K. (2015). Difference in foraging patterns between male and female Temminck's Tragopan (*Tragopan temminckii*)at Padmaja Naidu Himalayan Zoological Park, Darjeeling. *Zoos' Print.* 30(1): 8-9.

0979. Mitra, R.; Pal, D.C.; Basuroy, A. (2006). Food-sharing among passerines at Lava, eastern Himalaya. *Indian Birds.* 2(5): 139.

0980. Mize, D.; Taba, R.; Sarma, H.N. (2011). Species diversity and conservation status of birds in Arunachal Pradesh, India. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 169-170.

0981. Mohan, D. (1969). Birdwatching at Harsil. *Newsletter for Birdwatchers.* 9(8): 6.

0982. Mohan, D. (1990). Shortwings and Grosbeaks in Mandakini Valley. *Newsletter for Birdwatchers.* 30(7-8: 8.

0983. Mohan, D. (1992). Birds of Mussorrie. *Newsletter for Birdwatchers.* 32(3-4): 4-5.

0984. Mohan, D. (1997). Birds of New Forest, Dehra Dun, India. *Forktail.* 12(August): 19-30.

0985. Mohan, D.; Kumar, R.S. (2010). Breeding birds of Kothri Valley, eastern Garhwal Himalayan Foothills, India. *Forktail.* 26 (August): 75-81.

0986. Mohan, D.; Price, T.D. (2001). Altitudinal distribution of breeding birds in Eaglenest Sanctuary landscape, Arunachal Pradesh, India. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 135-138.

0987. Mondal, H.S.; Maheswaran, G. (2014). First nesting record of White-bellied Heron *Ardea insignis* in Namdapha tiger Reserve, Arunachal Pradesh, India. *Birding Asia.* 21: 13-17.

0988. Moore, F. (1854). Notice of all the known species of the Genus *Accentor*, with the description of an uncharacterized species from Nepal. *Proceedings of the Zoological Society of London.* 116-120.

0989. Moore, F.Y. (1859). Notice of a rare Asiatic Pigeon. *Proceedings of the Zoological Society of London.* 409: 400-401.

0990. Mukherjee, A.K. (1963). The extinct, rare and threatened game of the Himalayas and the Siwalik ranges. *Journal of Bengal Natural History Society*. 31(1): 36-67.

0991. Mukherjee, R. (1979). Whitebreasted Munias *Newsletter for Birdwatchers.* 19(1): 11.

0992. Mukherjee, R. (1983). Notes on the breeding of Western yellow-Eyed Babbler *Chrysomma sinense hypocolium* (Franklin)in Jammu disrict. *Newsletter for Birdwatchers.* 23(5-6): 9-10.

0993. Mukherjee, R. (1983). Whitebreasted waterhens in Jammu and Kashmir and Black Kalij (Sic)in Himalayan forest. *Newsletter for Birdwatchers.* 23(11-12): 12-13.

0994. Mukherjee, R.; Chandra, M. (1984). Birds of Sili forest Solan, H.P. *Newsletter for Birdwatchers.* 24(5-6): 14-15.

0995. Mukherjee, R.; Chandra, M. (1985). The Golden Oriole of Kinnqur district. *Newsletter for Birdwatchers.* 24(11-12): 6.

0996. Mukherjee, R.; Ghosal, D.K.; Saha, S.S. (1979). Wild encounters on the Darjeeling Himalayas. *Cheetal.* 21(2-3): 33-35.

0997. Mukherjee, R.N. (1971). The monal pheasant. *Newsletter for Birdwatchers.* 11(8): 13-14.

0998. Mukherjee, R.N. (1973). An interesting observation on Sirkeer Cuckoo. *Newsletter for Birdwatchers.* 13(6): 9.

0999. Mukherjee, R.N.; Chandra, M. (1973). A Heron colony in Himachal pradesh. *Newsletter for Birdwatchers.* 13(4): 9.

1000. Mukherjee, R.N.; Mahajan, K.K. (1978). Gamugul Siya-Behi Sanctuary, Himachal pradesh. *Cheetal.* 20(1): 41-43.

1001. Mukherjee, R.; Saha, S.S.; Ghosh, R.K. (1982). Further wild encounters in Darjeeling Himalayas. *Cheetal.* 23(4): 35-37.

1002. Mukhopadhyay, S.K.; Mukhopadhyay, D. (1998). Emerald Mouling. *Sanctuary Asia.* 18(3): 34-37.

1003. Myers, S.; Singh, A.P. (2006). Kedarnath Musk Deer Reserve, Uttaranchal, India. *Birding Asia.* 5: 60-68.

1004. Naithani, A.; Bhatt, D. (2010). A checklist of birds of Pauri district, Uttarakhand, India. *Indian Birds.* 6(6): 153-157.

1005. Naithani, A.; Bhatt, D. (2011). Bird community structure along altitudinal gradient in natural and urbanized habitats in Pauri district (Garhwal Himalaya)of Uttarakhand state, India. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 146-148.

1006. Namgail, T. (2005). Winter birds of the Gya-Miru Wildlife Sanctuary, Ladakh, Jammu and Kashmir, India. *Indian Birds.* 1(2): 26-28.

1007. Namgail, T.; Mudappa, D.; Raman, T.R.S. (2009). Waterbird numbers at high altitude lakes in eastern Ladakh, India. *Wildfowl.* 59: 135-142.

1008. Namgail, T.; Yom-tov, Y. (2009). Elevational range and timing of breeding in the birds of Lakadh: the effects of body mass, status and diet. *Journal of Ornithology*. 150: 505-510.

1009. Naniwadekar, R.; Mishra, C.; Isvaran, K.; Madhusudan, M.D.; Datta, A. (2014). Looking beyond parks: the conservation value of unprotected areas for hornbills in Arunachal Pradesh, Eastern Himalaya. *Oryx*. 49: 303-311.

1010. Naniwadekar, R.; Shukla, U.; Isvaran, K.; Datta, A. (2015). Reduced hornbill abundance associated with low seed arrival and altered recruitment in a hunted and logged tropical forest. *Plos One 103):e0120062.doi:10.1371/journal.pone.0120062. [1-17].*

1011. Naniwadekar, R.; Viswanathan, A.; Kumar, R.S.; Dalvi, S. (2013). First record of Tristram's Bunting *Emberiza tristrami* from India. *Indian Birds.* 8(5): 134-135.

1012. Naoroji, R. (1995). Conservation issues of some raptor species in the Himalayan foothills with emphasis on Mountain Hawk-Eagle and Lesser Greyheaded Fishing Eagle. *Avian Conservation in India*. P. 32-34.

1013. Naoroji, R. (2003). Observations on the biology of the Mountain Hawk Eagle. *Petronia Fifty Years of Post-independence Ornithology in India*. P. 46-52.

1014. Naoroji, R.; D'Silva, C. (1998). Sighting of Red Kite *Milvus milvus* at Ranikhet. *Journal of Bombay Natural History Society.* 95(2): 339-340.

1015. Naoroji, R.; Forsman, D. (2001). First breeding record of the Upland Buzzard *Buteo hemilasius* for the Indian subcontinent in Changthang, Ladakh, and Identification characters of Upland Buzzard and Long-legged Buzzard *Buteo rufinus*. *Forktail.* 17: 105-108.

1016. Naoroji, R.; Punjabi, H. (2008). Loke Wan Tho's birds with extracts from his diaries and from a compnay of birds. *Bombay Natural History Society; Oxford University Press, Bombay; Oxford*.

1017. Naoroji, R.; Sangha, H.S. (2006). Arunachal Pradesh, India: an ornithological diary from December 2005. *Indian Birds.* 2(5): 120-131.

1018. Naoroji, R.; Sangha, H.S. (2011). Threats to habitat and wildlife in Changthang and Rupshu areas of Ladakh, a case study at Hanle. *Indian Birds.* 7(1): 2-6.

1019. Narang, M.L. (1989). Birds of Sangla Valley. *Newsletter for Birdwatchers.* 39(5-6): 8.

1020. Narang, M.L. (1989). Occurrence of the Western Horned Pheasant *Tragopan melanocephalus* east of the river Sutlej in Himachal Pradesh. *Ann. Biol*. 5: 153-154.

1021. Narang, M.L. (1993). Occurrence of Western and SatyrTragopan. *Newsletter for Birdwatchers.* 33(3): 54-55.

1022. Narang, M.L. (1993). Searches for Western Tragopans in Himachal Pradesh, India in 1987-89*. IN: Pheasants in Asia*. 1992: 55-57.

1023. Narang, M.L. (1994). Some notes on the habits and habitats of White-capped Redstart *Chaimarrornis leucocephalus* (Vigors). *Journal of Bombay Natural History Society.* 90(3): 515-517.

1024. Narang, M.L.; Rana, R.S. (1999). Black Bulbuls association with *Melia azedarach*. *Newsletter for Birdwatchers.* 38(6): 104.

1025. Narang, M.L.; Rana, R.S.; Prabhakar, M. (2000). Avian species involved in pollination and seed dispersal of some forestry species in Himachal Pradesh. *Journal of Bombay Natural History Society.* 97 (2): 215-222.

1026. Narang, M.L.; Singh, A.P. (1996). Birds of Nauni campus of University of Horticulture and Forestry, Solan, Himachal Pradesh. *Newsletter for Birdwatchers.* 35(6): 106-108.

1027. Narayan, G.; Akhtar, A.; Rosalind, L.; D'Cunha, E. (1987). Blacknecked Crane (*Grus nigricollis*)in Ladhak -1986. *Journal of Bombay Natural History Society.* 86 (Centenary): 180-195.

1028. Narendra. (1980). Birdwatching in Kashmir. *Newsletter for Birdwatchers.* 20(5): 6-7.

1029. Naresh, B.V. (1996). Bird spotting in and around Poonch (Jammu and Kashmir). *Newsletter for Birdwatchers.* 36(5): 87-89.

1030. Narwade, S.; Kalra, M.; Jagdish, R.; Varier, D.; Satpute, S.; Khan, N.; Talukdar, G.; Mathur, V.B.; Vasudevan, K.; Pundir, D.S.; Chavan, V.; Sood, R. (2011). Literature based species occurrence data of birds of northeast India. *ZooKeys*. 150: 407-417.

1031. Narwade, S.S.; Jathar, G.A.; Rahmani, A.R. (2006). Bibliography of the birds of north India. *Buceros.* 11(1): 1-144.

1032. Navarro, S.J.A. (1964). A visit to the land of the forktails, redstarts and dippers. *Newsletter for Birdwatchers.* 4(1): 3-5.

1033. Navarro, S.J.A. (1968). Birdwatching in Dalhousie with comments. *Newsletter for Birdwatchers.* 8(4): 1-4.

1034. Nayar, R.C. (1987). Bird sightings on a trek to Gomukh. *Newsletter for Birdwatchers.* 27(9-10): 6-8.

1035. Nazir, J. (2000). Cheer in Majathal. *Mor.* 2 (February): 6.

1036. Nedou, H. (1972). The houbara bustard Chlamydotis undulata (Jacquin)in Kashmir. *Journal of Bombay Natural History Society.* 69(2): 420.

1037. Negi, I.S. (1992). Is Mountain Quail extinct? *Cheetal.* 31(1-2): 15-18.

1038.Neve, E.F. (1912). Beyond the Pir panjal life among the valley and mountains of Kashmir. London T.F. Unwin. University of Tronto, 446p..

1039. Newsome, J. (1972). Common birds in the Kashmir valley. *Newsletter for Birdwatchers.* 12(3): 1-5.

1040. Newsome, J. (1979). Birding in Almora. *Newsletter for Birdwatchers.* 19(7): 10.

1041. Newsome, J. (1982). Unidentified babbler of Almora. *Newsletter for Birdwatchers.* 22(9-10): 16-17.

1042. Newton, P.N. (2002). Bird records from the Siang River valley, Arunachal Pradesh, India. *Forktail.* 19: 156-157.

1043. Noor, Z.R.M.; Khan, M.A.R.; Kamal, A.; Habib, K.; Ahmad, K.; Shah, J.N. (2013). Diurnal activity pattern and foraging behaviour of common kingfisher (*Alcedo atthis*)in Dal lake, Srinagar, Jammu and Kashmir. *Journal of Interdisciplinary and Multidisciplinary Research.* 2(2): 17-23.

1044. Noor, Z.R.M.; Khan, M.A.R.; Kamal, A.; Habib, B.; Ahmad, K.; Shah, J.N. (2014). Species diversity and density of some common birds in relation to human disturbance along the bank of Dal lake Srinagar, Jammu and Kashmir, NorthWestern India. *Podoces*. 9(2): 47-53.

1045. Nurbu, C. (1987). Notes on the Black-necked Crane in Ladakh. *Proceedings of the 1983 International Crane Workshop*. P. 55-56.

1046. Nurse, C.G. (1903). The enemies of butterflies. *Journal of Bombay Natural History Society.* 15(2): 349-350.

1047. Oliver, D.G. (1919). Spot bill duck in Kashmir. *Journal of Bombay Natural History Society.* 26(2): 675.

1048. Osborn, W. (1904). The black and yellow Grosbeak (*Hesperiphona icterioides*). *Journal of Bombay Natural History Society.* 15(4): 716.

1049. Osborn, W. (1904). The himalayan nutcracker (*Nucifraga hemispila*)and other walnut eating birds. *Journal of Bombay Natural History Society.* 15(4): 712-715.

1050. Osborn, W. (1908). Note on the bearded vulture (*Gypaetus barbatus*)or Lammergeyer. *Journal of Bombay Natural History Society.* 18(2): 500-501.

1051. Osman, S.M. (1981). The Peregrine Falcon migration and navigation. *Cheetal.* 23(2): 21-28.

1052. Osmaston, A.E. (1916). A note on the nidification of the green shrike tit (*Pteruthius xanthochloris*). *Journal of Bombay Natural History Society.* 24(2): 369.

1053. Osmaston, A.E. (1916). Curious habits of wood pecker in the kumaon hills. *Journal of Bombay Natural History Society.* 24(2): 363-366.

1054. Osmaston, A.E. (1921). Note on the nidification and habits of some birds in British Garhwal. *Journal of Bombay Natural History Society.* 2891): 140-160.

1055. Osmaston, B.B. (1894). Notes on the nidification of certain birds, the nests of which have not been previously recorded from India. *Journal of Bombay Natural History Society.* 9(2): 190-192.

1056. Osmaston, B.B. (1898). Birds' nesting in the Tons Valley. Part II. *Journal of Bombay Natural History Society.* 11(3): 468-473.

1057. Osmaston, B.b. (1901). Birds nesting in the tons valley. *Journal of Bombay Natural History Society.* 13(3): 542.

1058. Osmaston, B.B. (1903). Notes on the nidification of some birds the nests and eggs of which have not been previously described. *Journal of Bombay Natural History Society.* 14(4): 815-817.

1059. Osmaston, B.B. (1903). The chestnut headed short wing (*Oligura castaneicoronata*). *Journal of Bombay Natural History Society.* 14(4): 819-820.

1060. Osmaston, B.B. (1903). The himalayan nutcraker (*Nucifraga hemispila*). *Journal of Bombay Natural History Society.* 14(4): 818-819.

1061. Osmaston, B.B. (1911). The himalayan greenfinch (*Hypacanthus spinoides*). *Journal of Bombay Natural History Society.* 20(3): 852-853.

1062. Osmaston, B.B. (1916). Nidification of the Green shrike tit (*Pteruthius xanthochloris*). *Journal of Bombay Natural History Society.* 24(3): 593.

1063. Osmaston, B.B. (1916). The pied Crested Cuckoo (*Coccystes jacobinus*). *Journal of Bombay Natural History Society.* 24(4): 582-822.

1064. Osmaston, B.B. (1918). Further notes birds nesting in the Tons valley. *Journal of Bombay Natural History Society.* 25(3): 493-495.

1065. Osmaston, B.B. (1923). Bird life in Gulmarg. *Journal of Bombay Natural History Society.* 29(2): 493-502.

1066. Osmaston, B.B. (1925). Birds notes in Kashmir in winter. *Journal of Bombay Natural History Society.* 30(2): 473-476.

1067. Osmaston, B.B. (1925). Breeding of the Eastern whitespotted Bluethroat *Cyanosylvia cyanecula abbotti*. *Journal of Bombay Natural History Society.* 30(2): 477.

1068. Osmaston, B.B. (1925). The birds of Ladakh. *IBIS.* 1(3): 663-719.

1069. Osmaston, B.B. (1926). Birds nesting in the Dras and Suru valley. *Journal of Bombay Natural History Society.* 31(1): 186-196.

1070. Osmaston, B.B. (1926). Birds nesting with a camera - a correction. *Journal of Bombay Natural History Society.* 31(1): 224.

1071. Osmaston, B.B. (1926). The birds of Ladakh. *IBIS.* 2: 446-448.

1072. Osmaston, B.B. (1926). The rock horned owl in Kashmir. *Journal of Bombay Natural History Society.* 31(2): 523-524.

1073. Osmaston, B.B. (1927). Notes on the birds of Kashmir part 1. *Journal of Bombay Natural History Society.* 31(4): 975-999.

1074. Osmaston, B.B. (1927). The birds of Kashmir part II. *Journal of Bombay Natural History Society.* 32(1): 134-153.

1075. Osmaston, B.B. (1930). A tour in further Kashmir. *Journal of Bombay Natural History Society.* 34(1): 108-134.

1076. Osmaston, B.B. (1932). On the eggs of *Phylloscopus griseolusIBIS.* 2(3): 563-564.

1077. Osmaston, B.B. (1935). Birds of Dehradun and adjacent hills. *Indian Military Academy Journal (June)*. 1-52.

1078. Osmaston, B.B. (1938). Forest birds of the Himalayas and sub-montane tract. *Empire forestry Journal.* 17: 221-235.

1079. Osmaston, B.B. (1999). Wild Life and adventures in Indian forests. From diaries of B. B. Osmaston C. I. E. 1968-1961. *Imperial Forest Service 19888-1923*. P. i-xvi, 1-290.

1080. Osmaston, B.B.; Sale, J.B. (1989). Wildlife of Dehra Dun and adjacent hills. Natraj publishers, Dehradun.104p.

1081. Outlaw, D.C.; Voelker, G. (2006). Systemtics of Ficedula flycatchers (Muscicapidae): A molecular reassessment of a taxonomic enigma. *Molecular Phylogenetics and Evolution*. 41: 118-126.

1082. Outlaw, D.C.; Voelker, G. (2008). Pliocene climatic change in insular Southeast Asia an an engine of diversification in Ficedula flycatchers. *Journal of Biogeography*. 35: 739-752.

1083. Oza, G.M. (1979). Kashmir birds in Peril. *Proceedings of the Indian Science Congress*. 66(4B): 90-91.

1084. Oza, G.M. (1985). Human impact on Kashmir Himalayan bird populations. *Environmentalist*. 5: 293-296.

1085. Padmanabhan, S. (2004). The land of the Black-necked Crane. *Sanctuary Asia.* XXIV (4): 50-53.

1086. Pande, B.C. (1980). Birdwatching in Nainital. *Newsletter for Birdwatchers.* 20(4): 17.

1087. Pande, B.C. (1981). Decrease in bird population of Nainital. *Newsletter for Birdwatchers.* 21(6): 13.

1088. Pande, S.A.; Deshpande, P.; Mahabal, A.S.; Sharma, R.M. (2013). Distribution of the Steppe Eagle in the Indian Subcontinent, Review of records from 1882 to 2013 AD. *Raptors Conservation*. 27: 180-190.

1089. Pande, S.A.; Yosef, R.; Mahabal, A.S. (2009). Distribution of the Peregrine Falcon (*Falco peregrinus babylonicus*, *F.P. calidus* and *F.P. Peregrinator*)in India with some notes on the nesting habits of the Shaheen Falcon (*F. P. peregrinator*)Peregrine Falcon populations-status and perspectives in the 21st century. P. 493-520.

1090. Pandey, S. (1989). Some observations on the birds of Pin Valley National park. *Newsletter for Birdwatchers.* 29(1): 9.

1091. Pandey, S. (1989). The birds of Pong Dam Lake Bird Sanctuary. *Tigerpaper.* 16(2): 20-26.

1092. Pandey, S. (1989). The Pong Dam Lake Bird Sanctuary, Himachal Pradesh. *Newsletter for Birdwatchers.* 29(7-8): 3-4.

1093. Pandey, S. (1993). Changes in waterbird diversity due to the construction of Pong Dam Reservoir, Himachal Pradesh, India. *Biological Conservation.* 66: 125-130.

1094. Pandey, S. (1993). Pheasant surveys and the conservation of protected areas in the Upper Beas Valley, Himachal Pradesh, India. *IN: Pheasants in Asia*. 1992: 58-61.

1095. Pandey, S. (1993). Pheasant surveys and their conservation in protected areas (PAs)in Upper Beas Valley, Himachal Pradesh. *WPA India News.* 1(1): 12-13.

1096. Pandey, S. (1995). A preliminary estimate of numbers of Western Tragopans in Daranghati Sanctuary, Himachal Pradesh. *Annual Review of the World Pheasant Association. 1996/94*: 49-56.

1097. Pandey, S. (2013). The Pong Dam lake: birding paradise. *Sanctuary Asia.* 33(1): 42-43.

1098. Pandey, S.; Tandon, V. (2007). Status, distribution and management of pheasants in Himachal Pradesh. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 117-119.

1099. Pandey, S.; Wells, M.P. (1997). Ecodevelopment planning at India's Great Himalayan national Park for biodiversity conservation and participatory rural development. *Biodiversity and Conservation*. 6: 1277-1292.

1100. Pandit, A.K. (1982). Feeding ecology of breeding birds in the five wetlands of Kashmir. *Indian Journal of Ecology.* 9: 181-190.

1101. Pandit, A.K. (1988). Threats of Kashmir wetlands and their wildlife resources. *Environmental Conservation.* 15(3): 266-268.

1102. Pandit, A.K. (1989). Status of waterfowl in Kashmir, India. *Wader Study Group Bulletin.* 57:19.

1103. Paranjype, V. (1987). Tehri.*Sanctuary Asia.* 7(4): 314-325.

1104. Parr, A.J.; Holmes, P.R. (1989). Seasonal status of finches of the genus *Rhodopechys* in Ladakh. *Oriental Bird Club Bulletin.* 9(June): 36-37.

1105. Parsons, R.E. (1937). Intergradation of the races of the spot - billed duck Anas poecilorhyncha (Forster). *Journal of Bombay Natural History Society.* 39(3): 638-639.

1106. Pasha, M.K.S.; Deshpande, V. (2002). Can fibreglass save the hornbill? *Sanctuary Asia.* 22(1): 60-61.

1107. Pawar, U.R. (2013). The menace of stray dongs and livestock. *Hornbill.* 2013 (October): 21.

1108. Paynter, R.A. (1963). Taxonomic notes on some himalayan paridae. *Journal of Bombay Natural History Society.* 59(3): 951-546.

1109. Pazo, P.O. (1982). Pheasants of Sikkim. *IN:Pheasant in Asia 1982: Proceedings of the Second International Pheasant Symposium held in Srinagar, Kashmir, September 1982.* P. 84-86.

1110. Pazo, P.O. (1982). Status of pheasants of Sikkim Himalayas. *IN: Pheasants in Asia. 1982*: 84-86.

1111. Pelzeln, A.V. (1868). On the species of birds collected by Dr. Stoliczka in Thibet and the Himalayas. *IBIS.* 10(3): 302-321.

1112. Perennou, C.; Mundkur, T.; Scott, D.A.; Follestad, A.; Kvenild, L. (1994). Species accounts. *The Asian Waterfowl Census 1987-91 Distribution and Status of Asian Waterfowl.* P. 29-299.

1113. Perreau, G.A. (1914). Birds in and about the station (Bakloh, Punjab)*Bird notes*. 5(8): 259-264.

1114. Peterson, A.T.; Papes, M. (2007). Potential geographic distribution of the Bugun Liocichla *Liocichla Bugunorum*, a poorly-known species from north-eastern India. *Indian Birds.* 2(6): 146-149.

1115. Pfister, O. (1995). The cranes of Hanley. *Sanctuary Asia.* 15(6): 28-32.

1116. Pfister, O. (1996). Living desert: Travels through eastern Ladakh. *Sanctuary Asia.* 16(3): 26-37.

1117. Pfister, O. (1997). Black-necked Cranes acting as foster parents. *Oriental Bird Club Bulletin.* 25: 58.

1118. Pfister, O. (1998). The breeding ecology and conservation of the Balck-necked crane (*Grus nigricollis*)in Ladakh India. *University of Hull*.

1119. Pfister, O. (1999). Observations on dippers, including the sordidus morph of White throated Dipper in Ladakh, India. *Oriental Bird Club Bulletin.* 30: 26-30.

1120. Pfister, O. (1999). Owls in Ladakh. *Oriental Bird Club Bulletin.* 29: 22-28.

1121. Pfister, O. (2000). Unknown Ladakh. *World Birdwatch.* 21(4): 13-17.

1122. Pfister, O. (2001). Birds recorded during visits to Ladakh, India from 1994-1997. *Forktail.* 17: 81-90.

1123. Pfister, O. (2001). Drying wetlands. Down to Earth. 9(23): 25-28.

1124. Pfister, O. (2003). Status of Black-necked Crane and IBAs in Ladakh. *Mistnet.* 4(2): 3-4.

1125. Pfister, O. (2004). Birds and mammals of Ladakh. Oxford University Press, New Delhi. P. i-xxvii, 361p.

1126. Pfister, O. (2004). Ladakh - a high-altitude melting-pot. *Birding Asia.* 1: 39-48.

1127. Phatak, T.C.; George, J. (1964). Black redstart returning to the same winter quarters. *Newsletter for Birdwatchers.* 4(9): 9-10.

1128. Philips, B.T. (1945). Photographing the Ibis-bill (*Ibidorhyncha struthersii* Gould). *Journal of Bombay Natural History Society.* 45(3): 347-352.

1129. Philips, B.T. (1946). A bird photographer's musings from Kashmir. *Journal of Bombay Natural History Society.* 46(1): 89-103.

1130. Philips, B.T. (1947). A bird photographer's musings from Kashmir Part II On jheel and Marshland. *Journal of Bombay Natural History Society.* 46(3): 487-500.

1131. Philips, B.T. (1947). A bird photographers musings from Kashmir Part III Birds of a Srinagar garden. *Journal of Bombay Natural History Society.* 47(1): 84-102.

1132. Phillips, W.W.A. (1957). Bird migration in relation to Ceylon. *Journal of the Ceylon Branch of the Royal Asiatic Society*. 5(1): 25-41.

1133. Phillot, D.C. (1907). Note on the blue or common heron (*Ardea cinerea*). *Journal of Asiatic Society of Bengal.* 3(8): 553-555.

1134. Phillott, D.C. (1907). Methods of catching wild fowl, herons and other water birds in the Punjab, Sindh and Kashmir. *Journal of Asiatic Society of Bengal*. 3(6): 433-439.

1135. Pittie, A. (2009). A bibliography of ornithology in Arunachal Pradesh, India: 1870-2009. *Indian Birds.* 5(3): 80-88.

1136. Prasad, A. (2006). Some interesting bird records from Manali, Himachal Pradesh. *Indian Birds.* 2(1): 8-9.

1137. Prasad, S.N. (1993). Habitat analysis of Western Tragopan through remote sensing techniques. *Proc. Nat. Symp. On. Remote Sensing*. P. 402-406.

1138. Prasad, S.N. (1993). On the occurrence of Western and Satyr Tragopan together in Uttar Pradesh. *Newsletter for Birdwatchers.* 33(1): 6.

1139. Prasanna, M.; Bagchi, R. (1994). Birdwatching on a trek in the Himalayas. *Newsletter for Birdwatchers.* 34(5): 102.

1140. Prasanna, M.; Nityananda, V.; Belliappa, K.M.; Siddharth, S.; Mor, N. (1995). Birding in Kullu-Manali. *Newsletter for Birdwatchers.* 35(5): 92-93.

1141. Prater, S.H. (1940). The occurrence of the yellowbellied Flowerpecker (*Pachyglossa melanoxantha* Hodgs)at Almora, U.P. *Journal of Bombay Natural History Society.* 42(1): 187.

1142.Praveen, J.; Dalvi, S. (2007). Bird-watching around Jairampur, Arunachal Pradesh. *Indian Birds.* 3(2): 69-72.

1143. Praveen, J.; Mondal, A.; Karuthedathu, D.; Shurpali, S.; Das, V. (2015). Lord Derby's Parakeet *Psittacula derbiana* nesting at Meshai, Anjaw District, Arunachal Pradesh. *Indian Birds.* 10(5): 130-131.

1144. Praveen, J.; Tambe, S. (2007). Eaglenest Sanctuary. A Bird Paradise in North Eastern India. *Mistnet.* 7(4): 4-6.

1145. Price, T. (1991). Morphology and ecology of breeding warblers along an altitudinal gradient in Kashmir, India. *Journal of Animal Ecology*. 60: 643-664.

1146. Price, T.D. (1980). On the occurrence of Tytler's leaf warbler *Phylloscopus tytleri*, Brooks in Goa. *Journal of Bombay Natural History Society.* 77: 143-144.

1147. Price, T.D. (1981). The ecology of the greenish warbler, *Phylloscopus trochiloides*, in its winter quarters. *IBIS.* 123: 131-144.

1148. Price, T.D. (1991). Environmental and genotype-by-environment influences on chick size in the yellow-browed leaf warbler *Phylloscopus inornatus. Oecologia*. 86: 535-541.

1149. Price, T.D. (1991). Morphology and ecology of breeding warblers along an altitudinal gradient in Kashmir, India. *Journal of Animal Ecology*. 60: 643-664.

1150. Price, T.D. (2010). The roles of time and ecology in the continental radiations of the Old World Leaf Warblers (*Phylloscopus* and *Seicercus*). *Philosophical Transactions of the Royal Society*. 365.

1151. Price, T.D. (2012). Eaglenest Wildlife Sanctuary: pressures on biodiversity. *American Naturalist.* 180: 535-545.

1152. Price, T.D.; Hooper, D.M.; Buchanan, C.D.; Johansson, U.S.; Tietze, D.T.; Alstrom, P.; Olsson, U.; Ghosh-Harihar, M.; Ishtiaq, F.; Gupta, S.K.; Martens, J. (2014). Niche filling shows the diversification of Himalayan songbirds. *Nature*. 509(7499): 222-225.

1153. Price, T.D.; Hooper, D.; Mohan, D.; Singh, P. (2001). Phylogenetic relationships of Himalayan birds. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 88-90.

1154. Price, T.D.; Jamdar, N. (1991). The breeding biology of the yellow browed leaf warbler in Kashmir. *Journal of Bombay Natural History Society.* 88: 1-19.

1155. Price, T.D.; Mohan, D. (2011). Bird conservation in India: a view from outside. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011.* P. 1-2.

1156. Price, T.D.; Mohan, D.; Tietze, D.T.; Hooper, D.M.; Orme, C.D.L.; Rasmussen, P.C. (2011). Determinants of northerly range limits along the Himalayan bird diversity gradient. *American Naturalist.* 178 (S1): 97-108.

1157. Price, T.; Gibbs, H.L.; De Sousa, L.; Richman, A.D. (1998). Different timing of the adaptive radiations of North Americans and Asian warblers. *Proc. R. Soc. Lond. B.* 265: 1969-1975.65: 1969-1975.

1158. Price, T.; Gross, S. (2005). Correlated evolution of ecological differences among the old world leaf warblers in the breeding and non-breeding seasons. *IN: R. Greenberg and P.P. Marra, eds. Birds of two worlds : the ecology and evolution of migration. Johns Hopkinds University Press, Baltimore*. P. 359-370.

1159. Price, T.; Helbig, A.; Richman, A.D. (1997). Evolution of breeding distribution in the old world leaf warblers (Genus *Phylloscopus*). *Evolution*. 51: 552-561.

1160. Price, T.; Jamdar, N. (1988). Warblers in a Kashmir sanctuary. *Sanctuary Asia.* 8: 44-51.

1161. Price, T.; Jamdar, N. (1989). Where 8 leaf warblers breed. *Hornbill.* 1989(2): 7-11.

1162. Price, T.; Jamdar, N. (1990). The breeding birds of Overa Wildlife Sanctuary, Kashmir. *Journal of Bombay Natural History Society.* 87(1): 1-15.

1163. Price, T.; Jamdar, N. (1991). Breeding biology of the Yellowbrowed Leaf Warbler *Phylloscopus inornatus* in Kashmir. *Journal of Bombay Natural History Society.* 88(1): 1-16.

1164. Price, T.; Jamdar, N. (1992). Breeding of eight sympatric species of *Phylloscopus* warblers in Kashmir. *Journal of Bombay Natural History Society.* 88(2): 242-255.

1165. Price, T.; Lovette, I.J.; Bermingham, E.; Gibbs, H.L.; Richman, A.D. (2000). The imprint of history on communities of North American and Asian Warblers. *American Naturalist.* 156: 354-367.

1166. Price, T.; Zee, J.; Jamdar, K.; Jamdar, N. (2003). Bird species diversity along the Himalaya: A comparison of Himachal Pradesh with Kashmir. *Journal of Bombay Natural History Society.* 100(2-3): 394-410.

1167. Pring-Mill, F. (1974). Report of the Oxford University expedition to Kashmir 1974. The feeding behaviour of kingfishers on the Dal Lakes at Srinagar, Kashmir. *Bulletin of the Oxford University Explor. Club.* 23: 1-49.

1168. Qadri, M.Y.; Kaul, R.; Iqbal, M. (1990). Status of pheasants in Kashmir with special reference to endangered species. *IN:Pheasants in Asia*. P. 124-128.

1169. Qadri, S.S. (1987). Attempted introduction of Barheaded Goose through a new habitat. *Environmental Conservation*. 14: 264-265.

1170. Qadri, S.S. (1988). Ecological factors affecting waterfowl in the wetlands of Kashmir (Abstract). *University of Kashmir.*

1171. Quader, S. (1995). The Grey Tit (*Parus major caschmerensis*)in northern India: Behaviour and Ecology in the non-breeding season. *M.Sc. dissertation, Saurashtra University, Gujarat*. P. 1-46.

1172. Rahmani, A.R. (1988). Singhrana Taal. *Hornbill.* 1988(1): 5-7.

1173. Rahmani, A.R. (1998). Shooting ducks in Kashmir. *Sanctuary Asia.* 18(2): 88.

1174. Rahmani, A.R.; Islam, Z.U.; Ahmad, K.; Suhail, I.; Chandan, P.; Zarri, A.A. (2012). Important bird areas of Jammu and Kashmir, priority sites for conservation. P. i-xii, 1-151.

1175. Rahmani, A.R.; Mohan, D. (2013). Threatened birds of Uttarakhand. P. i-xii, 1-184.

1176. Rahmani, A.R.; Sankaran, R. (1990). An unusual nesting site of the sunbird. *Journal of Bombay Natural History Society.* 87(1): 148-149.

1177. Rahut, B. (2013). Records of Ward's Trogon *Harpactes wardi* in Neora Valley National Park, West Bengal, India. *Birding Asia.* 20: 96-97.

1178. Rahut, B.; Dutta, M.; Bonpo, C.R. (2012). First photographic record of Blyth's Rosefinch *Carpodacus grandis* from Sikkim, India. *Indian Birds.* 7(5): 148-149.

1179. Rai, I.D.; Bhattacharyya, S.; Adhikari, B.S. (2011). Common Coot *Fulica atra*: first report of Kedarnath Wildlife Sanctuary, Western Himalaya, Uttarakhand, India. *Indian Birds.* 7(4): 110.

1180. Rajagopal, R.; Inskipp, T. (2014). First record of the Chinese Thrush *Turdus mupinensis* from the INdian Subcontinent. *Indian Birds.* 9(5-6): 155-157.

1181. Ramakantha, V.; Gupta, A.K.; Kumar, A. (2003). Biodiversity of northeast India: an overview. *Envis Bulletin: Wildlife and Protected Areas*. 4(1): 1-24.

1182. Ramesh, K. (1995). Western Tragopan, *Tragopan Melanocephalus* roosting on Deodar Tree, Cedrus Deodara. *WPA India News.* 2(3): 6-7.

1183. Ramesh, K. (1999). The mysterious raptors. *Newsletter for Birdwatchers.* 39(1): 12.

1184. Ramesh, K.; Sathyakumar, S.; Rawat, G.S. (2002). Distribution patterns and conservation of pheasants in the Great Himalayan National Park, India Galliformes 2000. *Proceedings of the 2nd International Galliformes Symposium. Kathmandu and Royal Chitwan National Park, Nepal* P. 252.

1185. Ramesh, K.; Sathyakumar, S.; Rawat, G.S. (2002). Report on radio tracking of Western Tragopan in the Great Himalayan National Park, India. *Tragopan*. 16(March): 29-31.

1186. Ramesh, K.; Sathyakumar, S.; Rawat, G.S. (2002). Social organization of pheasants in the Great Himalayan National Park, India. Galliformes 2000. *Proceedings of the 2nd International Galliformes Symposium. Kathmandu and Royal Chitwan National Park, Nepal* P. 253.

1187. Ramesh, K.; Sathyakumar, S.; Rawat, G.S. (2009). Methods of capture and radio tracking of Western Tragopan *Tragopan melanocephalus* J. E. Gray 1829 in the Great Himalayan National Park, India. *Journal of Bombay Natural History Society.* 105(2): 127-132.

1188. Rana, B. S. (1997). A record of Pallas' Fishing Eagle *Haliaeetus leucoryphus* from Spiti Valley (H.P.). *Journal of Bombay Natural History Society.* 94(2): 400.

1189. Rao, V.U.S. (1965). Notes on some birds observed at Nainital. *Newsletter for Birdwatchers.* 5(8): 7.

1190. Rasmussen, P.C. (1998). Tytler's Leaf Warbler *Phylloscopus Tytleri*: non-breeding distribution, morphological discrimination, and ageing. *Forktail.* 14(August): 17-28.

1191. Rasmussen, P.C. (2005). Revised species limits and field identification of Asian rosefinches *Birding Asia.* 3: 18-27.

1192. Rasool, T.J. (1984). Some observation on natural Cheer Pheasant *Catreus wallichii* population at Mukteshwar Reserve Forest Kumaon, Nainital, U.P. *Journal of Bombay Natural History Society.* 81(2): 469-472.

1193. Rastogi, A. (1993). Reviving the Himalayas. *World Wildlife Fund- India Quarterly.* 4(3): 16-21.

1194. Rastogi, A.; Islam, Z.U.; Jathar, G. (2006). Fire on the water smoke in the sky. *Mistnet.* 6(4): 4-8.

1195. Rath, F. (1996). Western Tragopan increase. *WPA News.* 50: 43.

1196. Rattray, R.H. (1897). Nesting of the little-fork-tail (*Microcichla scouleri*). *Journal of Bombay Natural History Society.* 11(2): 334.

1197. Rattray, R.H. (1905). Birds nesting in the Murree hills and gullies Part II. *Journal of Bombay Natural History Society.* 16(4): 657-663.

1198. Rattray, R.H. (1923). Notes on some Indian cuckoos and their habits. Proceedings of the South London Entomological and Natural History Society. 24: 12-22.

1199. Rawat, D.S. (1996). Blooming Bugyals. *Sanctuary Asia.* 16(3): 38-45.

1200. Redman, N. (1992). Little-known bird: Blue-fronted Robin. *Oriental Bird Club Bulletin.* 16: 32-35.

1201. Reed, T.M. (1980). A contribution to the Ornithology of the Rishi Ganga valley and the Nanda Devi Sanctuary. *Journal of Bombay Natural History Society.* 76(2): 275-282.

1202. Reed, T.M. (1980). Feeding behaviour of the White-capped river chat *Chaimarrornis leucocephala*. *Journal of Bombay Natural History Society.* 76(3): 515-517.

1203. Reeves, S.K. (1978). Hoopoes in high himalayas. *Newsletter for Birdwatchers.* 18(3): 9.

1204. Reid, G. (1886). Catalogue of birds in the Provincial museum, N.W.P. and OUdh Lucknow on the 1st January. i-viii, 221p.

1205. Rheindt, F.E. (2006). Splits galore: the revolution in Asian leaf warbler systematics. *Birding Asia.* 5: 25-39.

1206. Richman, A.D.; Price, T. (1992). Evolution of ecological differences in the old world leaf warblers. *Nature*. 355: 817-821.

1207. Rieger, Indo; Walzthony, D. (1991). Look out for the Mountain Quail. *World Wildlife Fund- India Quarterly.* 2(4): 18-19.

1208. Ripley, S.D. (1948). New birds from Mishmi hills. *Proceedings of the Biological Society of Washington.* 61(18): 99-110.

1209. Ripley, S.D. (1950). New birds from Nepal and the Indian region. *Proceedings of the Biological society of Washington.* 63: 101-108.

1210. Ripley, S.D. (1952). A note on the species of *Muscicapa westermanni*. *Proceedings of the Biolgical Society of Washington.* 65: 71-74.

1211. Ripley, S.D. (1952). Breeding birds of Kashmir. *Wilson Bulletin*. 64(4): 249-250.

1212. Ripley, S.D. (1952). The thrushes. *Postilla*. 13: 1-48.

1213. Ripley, S.D. (1952). Vegetation and wildife in Dudhatoli region,. Garhwal Himalaya. *IndianJournal of Forestry.* 14(1): 21-27.

1214. Ripley, S.D. (1958). A note on the firethroat and the blackthroated Robin. *Rostilla*. 37: 1-3.

1215. Ripley, S.D. (1962). The birds of Sikkim. By Salim Ali. *Journal of Bombay Natural History Society.* 59(2): 633-635.

1216. Ripley, S.D. (1980). A new species and a new subspecies of bird from Tirap district, Arunachal Pradesh and comments on the Subspecies of *Stachyris nigriceps* Blyth. *Journal of Bombay Natural History Society.* 77(1): 1-5.

1217. Ripley, S.D. (1981). Black-necked cranes, a review. Crane Research around the World. *Proceedings of the International Crane Symposium Sapporo Japan 21-22 February 1980*. P. 190-196.

1218. Ripley, S.D. (1982). A synopsis of the Birds of India and Pakistan together with those of Nepal, Sikkim, Bhutan, Bangladesh and Sri Lanka. *Oxford Uiversity Press*. xxvi, 653p.

1219. Ripley, S.D. (1985). A note on the status of *Brachypteryx cryptica*. *Journal of Bombay Natural History Society.* 81(3): 700-701.

1220. Ripley, S.D.; Beehler, B.M. (1991). Hybrid House Sparrow-Tree Sparrow from Arunachal Pradesh. *Journal of Bombay Natural History Society.* 88(1): 114-115.

1221. Ripley, S.D.; Hussain, S.A. (1984). *Hypipetes madagascariensis sinensis* (La Touche): a first record for India. *Journal of Bombay Natural History Society.* 81(1): 195-196.

1222. Ripley, S.D.; Saha, S.S.; Beehler, B.M. (1991). Notes on birds from the Upper Noa Dihing, Arunachal Pradesh, northeastern India. *Bulletin of the British Ornithologists' Club.* 111(1): 19-28.

1223. Ritschard, M. (2006). White-tailed Monal in western and central Himachal Pradesh. *Mistnet.* 7(1): 9.

1224. Ritschard, M. (2007). Streak-throated Fulvetta *Alcippe cinereiceps* in north-eastern Arunachal Pradesh, India, with notes on subspecific identification. *Birding Asia.* 8 (December): 68-69.

1225. Ritschard, M.; Marques, D. (2007). Tawny Fish-Owl *Ketupa flavipes* in Arunachal Pradesh, India. *Indian Birds.* 3(3): 108.

1226. Robbins, G.E.S. (1984). Himachal Pradesh Wildlife Project, India. *World Pheasant Association Journal.* 9: 7-12.

1227. Roberts, J. (1979). The captive breeding of Himalayan pheasants and some experience of release. *IN: Pheasants in Asia*. P. 63-65.

1228. Robson, C. (2001). From the Field India. *Oriental Bird Club Bulletin.* 33: 70-71.

1229. Rodon, G.S. (1899). Birds of prey. *Journal of Bombay Natural History Society.* 12(1): 185.

1230. Rodon, G.S. (1899). The courting dance of the moonal pheasant. *Journal of Bombay Natural History Society.* 12(3): 573-574.

1231. Rosalind, L. (1987). A sojourn in Ladakh. *Hornbill.* 1987 (2): 3-6.

1232. Roselaar, C.S. (1994). Notes on Sillem's Mountain-finch, a recently described species from western Tibet. *Dutch Birding*. 16: 20-26.

1233. Roselaar, C.S. (2003). An inventory of major European bird collections. *Bulletin of the British Ornithologists' Club.* 123A: 253-337.

1234. Round, P.D.; Loskot, V. (1995). A reappraisal of the taxonomy of the Spotted Bush Warbler *Bradypterus thoracicus*. *Forktail.* 10: 159-172 (1994).

1235. Roy, B.K.B. (1975). Wildlife in North Sikkim. *Cheetal.* 17(2)L 9-13.

1236. Ruttledge, R.F. (1923). Range of the Tufted pochard (*Fuligula fuligula*). *Journal of Bombay Natural History Society.* 29(3): 839.

1237. Sah, A. (1976). The Nanda Devi Sanctuary. *Cheetal.* 18(1-2); 7-10.

1238. Saha, S.S. (1981). Blacknecked Crane in Bhutan and Arunahcal Pradesh - a survey report for January-February 1978. *Journal of Bombay Natural History Society.* 77(2): 326-328.

1239. Saha, S.S. (1985). Aves: Fauna of Namdapha: Arunachal Pradesh: a proposed biosphere reserve. *Records of the Zoological Survey of India*. 82(1-4): 303-319.

1240. Sahgal, B. (1999). The Great Himalayan National Park, A Walk on the wild side. *Sanctuary Asia.* XIX (3): 16-21.

1241. Sahi, D.N. (1993). Wildlife conservation sites in Kashmir Himalayas. *Tigerpaper.* 20(2): 28-31.

1242. Sahni, A.; Gupta, V. J.; Prakash, B.; Kotlia, B.S. (1987). Fossil bird egg shell fragments from Karewas of Kashmir Valley (J and K), India, a scanning electron microscope study *Journal of Bombay Natural History Society.* 83(3): 623-631.

1243. Saiduzzafar, H. (1982). Bird-watching with Salim Ali at Deoban Chakrata. *Newsletter for Birdwatchers.* 22(7-8): 5-10.

1244. Saikia, U.; Mehta, H.S.; Sharma, I.; Sidhu, A.K. (2008). Preliminary observations on the avifauna of Pangi Valley, district Chamba, Himachal Pradesh. *Newsletter for Birdwatchers.* 48(6): 81-83.

1245. Saili, G. (1985). A pilgrim in the Valley of flowers. *Journey*. 7(3): 74.

1246. Saili, G. (1996). The mountain's avian friends. *Discover India*. 9(10): 23-25.

1247. Saini, S.S. (1971). Screaming of peacock heard in the Himalayas. *Newsletter for Birdwatchers.* 11(5): 1-2.

1248. Saini, S.S. (1972). Unexpected summer visitors in the Himalayas - Redwattled Lapwing. *Newsletter for Birdwatchers.* 12(8): 5-6.

1249. Saini, S.S. (1973). Birdwatching in the Tehri Garhwal hills. *Newsletter for Birdwatchers.* 13(12): 2-5.

1250. Saini, S.S. (1977). Hoopoes in high himalayas. *Newsletter for Birdwatchers.* 17(9): 10.

1251. Samant, J.S.; Prakash, V.; Naoroji, R. (1995). Ecology and Behaviour of Resident Raptors with Special Reference to Endangered Species. *Final Report*. 94+19.

1252. Sangha, H.S. (2005). New and significant records from the Great Himalayan National Park, Himachal Pradesh, India. *Indian Birds.* 1(2): 33-34.

1253. Sangha, H.S.; Dhuman, S.S.; Ovalekar, S. (2014). The first breeding record of the Saker Falcon *Falco cherrug milvipes* for the Indian Subcontinent in Ladakh, Jammu and Kashmir. *Indian Birds.* 9(5-6): 146-148.

1254. Sangha, H.S.; Naoroji, R. (2003). High-altitude records of the House Crow *Corvus splendens* in Himachal Pradesh and Jammu and Kashmir, India. *Forktail.* 19: 141-142.

1255. Sangha, H.S.; Naoroji, R. (2004). Nesting of Great Rosefinch *Carpodacus rubicilla* at Loma, Ladakh, India. *Forktail.* 20: 140.

1256. Sangha, H.S.; Naoroji, R. (2005). Occurrence of Little Cormorant *Phalacrocorax niger* in Ladakh. *Journal of Bombay Natural History Society.* 102(1): 99.

1257. Sangha, H.S.; Naoroji, R. (2005). Slender-billed Babbler *Turdoides longirostris* in Arunachal Pradesh. *Mistnet.* 6(2): 12.

1258. Sangha, H.S.; Naoroji, R. (2006). Birds recorded during seven expeditions to Ladakh from 1997 to 2003. *Journal of Bombay Natural History Society.* 102(3): 290-341.

1259. Sangha, H.S.; Naoroji, R. (2007). New and significant records of birds in Arunachal Pradesh, North-East India. *Forktail.* 23 (August): 179-181.

1260. Sangha, H.S.; Naoroji, R.; Barua, M. (2003). Little Grebe *Tachybaptus ruficollis*: an addition to the avifauna of Ladakh. *Journal of Bombay Natural History Society.* 100(1): 104-105.

1261. Sangha, H.S.; Naoroji, R.; Sharma, M. (2007). Noteworthy records from western Arunachal Pradesh in October-November 2006. *Indian Birds.* 3(5): 199-200.

1262. Sangha, H.S.; Naoroji, R.; Sharma, M. (2007). The Crested Tit warbler *Leptopoecile elegans* in north-west Arunachal Pradesh: An addition to the Indian avifauna. *Indian Birds.* 3(1): 23-25.

1263. Sangha, H.S.; Naoroji, R.; Srivastava, K. (2009). Northern House Martin *Delichon urbica* in Arunachal Pradesh: a new species for north-eastern India. *Indian Birds.* 5(1): 27.

1264. Sangha, H.S.; Penhallurick, J. (2007). Vinaceous Rosefinch *Carpodacus vinaceus* Verreaux in Himachal Pradesh, India. *Journal of Bombay Natural History Society.* 103(1): 103-104.

1265. Sangha, H.S.; Sharma, M.; Jain, A. (2013). The Black-browed Tit *Aegithalos bonvaloti* in Arunachal Pradesh: A new species for the Indian Subcontinent. *Indian Birds.* 8(5): 137-139.

1266. Sangha, H.S.; Singh, S.; Abhinav, C. (2013). The Himalayan Beautiful Rosefinch *Carpodacus pulcherrimus* in Sangla Valley, Kinnaur district, Himachal Pradesh, India. *Indian Birds.* 8(4): 108-109.

1267. Sankaran, R. (1990). Range extension of Yellowbellied Wren-Warbler *Prinia flaviventris*. *Journal of Bombay Natural History Society.* 86(3): 451.

1268. Sankaran, R. (1990). The Mountail Quail - a preliminary survey. Status and Ecology of the Lesser and Bengal Floricans with Reports on Jerdon's Courser and Mountain Quail. *Final Report*. P. 135-137.

1269. Sankaran, R. (1995). Ornithological survey of Nanda Devi National Park, India. *Forktail.* 10: 115-128 (1994).

1270. Santharam, V. (2002). Birdwatching in the Garhwal Himalayas. *Newsletter for Birdwatchers.* 42(1): 4-7.

1271. Santharam, V. (2005). Birds seen on a trek in the Chanshal Pass, Himachal Pradesh, India. *Indian Birds.* 1(2): 28-31.

1272. Sar, C.K. (1987). Occurrence of albino Jungle Crow *Corvus Macrorhynchos* in Bilaspur, Himachal Pradesh. *Newsletter for Birdwatchers.* 27(9-10): 15.

1273. Sathasivam, K. (2007). Plumage of some birds in Kumaon. *Indian Birds.* 2(6): 183-184.

1274. Sathyakumar, S. (1995). Status of Galliformes in Govind Pashu Vihar, Uttarkashi, Western Himalaya. *WPA India News.* 2(1): 11.

1275. Sathyakumar, S.; Athreya, R.; Athreya, V.R. (1992). The Cheer Pheasant a new recording. *WPA News.* 37 (August): 28.

1276. Sathyakumar, S.; Rawat, G.S.; Prasad, S.N.; Johnsingh, A.J.T. (1993). Ecology of Kaleej and Monal Pheasants in Kedarnath Wildlife Sanctuary, Western Himalayas. *Pheasants in Asia. Proceedings of the Fifth International Symposium on Pheasants in Asia.*

1277. Savage, C.D.W. (1979). Pheasants in Asia 1979. *Proceedings of the First International Sympsium on Pheasants in Asia, Kathmandu, Nepal*. 116: 21-23.

1278. Savage, C.D.W. (1980). Pheasant Conservation: a minimum programme. Pheasants in Asia. *Proceedings of the First International Symposium on Pheasants in Asia, Kathmandu.* P. 16-20.

1279. Saxena, R. (1992). Cleaning of nesting material by Brown Dipper (*Cinclus pallasi*). *Blackbuck*. 8(1): 24.

1280. Sclater, P.L. (1908). Remarks on a collection of birds from the Sikkim Himalayas. *IBIS.* 2(5): 116-117.

1281. Searight, E.E.G.L. (1926). A list of birds observed in the Bheling valley Tehri garhwal April 1, 1926 to May 25, 1926 from 2000 feet to 13000 feet. *Journal of Bombay Natural History Society.* 31(3): 817-818.

1282. Searight, E.E.G.L. (1928). Occurrence of the Sheldrake *Cyornis hyperythra* at high levels. *Journal of Bombay Natural History Society.* 32(4): 800.

1283. Selvan, K.M.; Lyngdoh, S.; Habib, B.; Veeraswami, G.G. (2013). A Photographic record of the White-winged Wood-duck *Asarcornis scutulata* from Pakke Tiger Reserve, Arunachal Pradesh, India. *Indian Birds.* 8(4): 96-97.

1284. Sen, A.K. (1993). Sighting of a rare bird-Japanese Hawafinch *Coccothraustes personatus* in Mehao Wildlife Sanctuary, Roing, Arunachal Pradesh. *Arunachal Forest News*. 11(1): 36.

1285. Sen, D. (2001). The last eden. Land of the Sherdukpen. *Sanctuary Asia.* XXI (3): 24-29.

1286. Sen, D. (2002). The hornbill's gift. A forest journal from Namdapha. *Sanctuary Asia.* XXIII(3): 74-79.

1287. Sen, S.; Bhardwaj, G.S. (2013). First record of Rufous-necked Snowfinch *Pyrgilauda ruficollis* from Ladakh, India. *Birding Asia.* 19: 99.

1288. Sevens, H. (1927). Notes on the birds of the Sikkim himalayas - additions and corrections. *Journal of Bombay Natural History Society.* 32: 3.

1289. Shafiq, T.; Javed, S.; Kaul, R. (2000). Himalayan Mountain Quail in India Living or extinct? *Annual Review of the World Pheasant Association 1999/2000*: 46-52.

1290. Shafiq, T.; Javed, S.; Khan, J.A. (1997). Bird community structure of the middle altitude oak forest in Kumaon Hiamalayas, India: A preliminary investigation. *International Journal of Ecology and Environmental Sciences.* 4: 389-400.

1291. Shah, G.M. (1984). Birds of Hokersar: food, feeding and breeding biology of some resident and non-resident birds. *University of Kashmir*.

1292. Shah, G.M.; Jan, U.; Ahanger, F.A.; Bhat, B.A.; Fazili, M.F. (2009). Egg laying, egg parameters and clutch size in Mallard *Anas platyrhynchos*. *Indian Birds.* 4(3): 106-108 (2008).

1293. Shah, G.M.; Qadri, M.Y. (1988). Food of Mallard, *Anas platyrhynchos* at Hokarsar Wetland, Kashmir. *Journal of Bombay Natural History Society.* 85(2): 325-331.

1294. Shah, J.N. (2003). A survey in Chamba: an unforgetable experience. *Mor.* 7-8: 4.

1295. Shah, S.R. (1966). Himalayan birds. *Newsletter for Birdwatchers.* 6(9): 9.

1296. Shah, S.R. (1974). Birdwatching in Garhwal. *Newsletter for Birdwatchers.* 14(9): 1-3.

1297.Shah, S.R. (1976). Birds of Pindari hills. *Newsletter for Birdwatchers.* 16(3): 15.

1298. Shah, S.R. (1979). Orange Honeyguide and Bullfinch, two unusual birds near the Valley of flowers. *Newsletter for Birdwatchers.* 19(5): 5-6.

1299. Shah, S.R. (1980). A Trek in Ladakh. *Newsletter for Birdwatchers.* 20(10): 10-11.

1300. Shah, S.R. (1981). Some spots excellent for watching Himalayan birds. *Mayura*. 2(1): 8-9, 11.

1301. Sharma, D.K.; Chandola-Saklani, A. (1993). Distribution and habitat preferences of Pheasants in forests of Garhwal Himalaya (Abstract). *IN: Bird Conservation: Strategies for the Nineties and Beyond*. 82 pp.

1302. Sharma, L. (1993). Western Tragopan: a sight to remember. *WPA India News.* 1(2): 6-9.

1303. Sharma, L. (1995). Western Tragopan a memorable trip. *WPA News.* 48: 26-29.

1304. Sharma, L. (2000). A Western Tragopan expedition in Shimla district. *WPA News.* 63 (May): 8.

1305. Sharma, L. (2001). Habitat destruction of Western Tragopan in Moral kanda. *Mor.* 4(February): 4-5.

1306. Sharma, M.; Abhinav, C.; Dhadwal, D.S. (2013). Chaffinch *Fringilla coelebs*, Brambling F. Montifringilla, and Yellowhammer *Emberiza citrinella* in Himachal Pradesh, India. *Indian Birds.* 8(6): 156-157.

1307. Sharma, M.; Chaturvedi, D. (2010). Red-tailed Wheatear *Oenanthe chrysopygia* in Uttarakhand. *Indian Birds.* 6(6): 172-173.

1308. Sharma, M.; Sangha, H.S.; Jain, A. (2014). Godlewski's Bunting *Emberiza godlewskii* in Arunachal Pradesh: A First breeding record for the Indian Subcontient and review of its status in the region. *Indian Birds.* 9(2): 49-51.

1309. Sharma, M.; Sangha, H.S.; Jain, A. (2014). Some noteworthy records from the Lohit Valley, Eastern Arunachal Pradesh, India. *Indian Birds.* 9(4): 88-92.

1310. Sharma, M.; Vaidya, A. (2010). Unusual mass-movement of Streaked Spiderhunter *Arachnothera magna* in Namdapha National Park, Arunachal Pradesh India. *Indian Birds.* 5(6): 174-175.

1311. Sharma, N.; Kichloo, M.A. (2016). Chestnut-tailed Minla *Chrysominla Strigula*, an addition to the avifauna of Jammu and Kashmir, India. *Indian Birds.* 11(2): 51.

1312. Sharma, P.K. (2005). Distribution of parental responsibilities among Magpie Robins. *Newsletter for Birdwatchers.* 45(4): 59.

1313. Sharma, P.K. (2006). Greyheaded Canary Flycatcher. *Newsletter for Birdwatchers.* 46(1): 14.

1314. Sharma, P.; Singh, S. (2016). Notes on fledglings of Spectacled Finch *Callacanthis burtoni*. *Indian Birds.* 11(1): 13-16.

1315. Sharma, T.R.; Mahabal, A. (1997). Seasonal changes of bird species in two different altitudinal locations of Solan District, Himachal Pradesh. *Records of Zoological Survey of India*. 96(1-4): 151-166.

1316. Sharma, V. (1993). Ecological status of pheasants in Himachal Pradesh, Western Himalayas. *World Pheasant Association Journal.* 17-18: 76.

1317. Sharma, V. (1994). Present status of captive breeding in India and its role in conservation and education. *WPA News.* 44: 11-14.

1318. Sharma, V.; Garson, P.J.; Khera, S. (1990). Status surveys of Cheer and Western Tragopan in Simla Hills of HImachal Pradesh. *IN: Pheasants in Asia*. 1989: 139-141.

1319. Sharma, V.; Pandey, S. (1989). Pheasant surveys in the Shimla Hills of Himachal Pradesh, India. *World Pheasant Association Journal.* 14: 64-78.

1320. Shawl, T. (1996). Birds of Rajouri. *Newsletter for Birdwatchers.* 36(4): 69-70.

1321. Shawl, T. (2014). Eye in the Sky. *Sanctuary Asia.* 34(5): 42-47.

1322. Shelley, B.A.G. (1894). The nesting of the Brown flycatcher. *Journal of Bombay Natural History Society.* 10(1): 149.

1323. Shortt, W.H.O. (1925). A sporting trip to the Pindari glacier Part 2. *Journal of Bombay Natural History Society.* 30(2): 380-396.

1324. Shortt, W.H.O. (1925). Notes on the birds of the Sikkim Himalayas, Part 5. *Journal of Bombay Natural History Society.* 30(2): 380-396.

1325. Shuttleworth, A.R.B. (1921). Some curious nesting places. *Journal of Bombay Natural History Society.* 28(1): 285-286.

1326. Sillem, J.A. (1934). Ornithological results of the Netherland Karakorum expedition 1929/30. *Orgaan der club van Nederlandsche Vogelkundigen*. 7(1): 1-48.

1327. Simon, P.T.; Sivakumaran; Safiq, Md. (2007). Birding in Ladakh, India. *Suara Enggang*. 15(5): 23-25.

1328. Singh P. (1998). Range extension of Temminck's Tragopan *Tragopan temminckii*. *Tragopan*. 9: 16-17.

1329. Singh, A. (1982). Sirkeer Cuckoo. *Newsletter for Birdwatchers.* 21(12): 15-16.

1330. Singh, A.P. (1991). Sighting of Longtail or Old Squaw Duck after 52 years in India. *Newsletter for Birdwatchers.* 31(3-4): 9.

1331. Singh, A.P. (2000). Birds of lower Garhwal Himalayas: Dehradun valley and neighbouring hills. *Forktail.* 16: 101-123.

1332. Singh, A.P. (2001). Birds of the upper catchment of Ravi River, Chamba district, Himachal Pradesh, India. *Indian Birds.* 7(4): 97-103.

1333. Singh, A.P. (2002). Birds recorded on a trek to the Valley of Flowers National Park: The upper Garhwal Himalaya. *Newsletter for Birdwatchers.* 42(5): 96-97.

1334. Singh, A.P. (2002). New and significant records from Dehra Dun Valley, Lower Garhwal Himalayas, India. *Forktail.* 18: 151-153.

1335. Singh, A.P. (2003). Birds of Tabo: A lesser known cold desert in the Western Himalaya. *Journal of Bombay Natural History Society.* 100(1): 152-154.

1336. Singh, A.P. (2003). Sighting of Sarus Cranes (*Grus antigone*)in Himachal Pradesh. *Newsletter for Birdwatchers.* 43(1): 11-12.

1337. Singh, A.P. (2005). Bird watching in Kedarnath Musk Deer Sanctuary, Chamoli District, Uttaranchal: the upper Garhwal Himalayas. *Indian Birds.* 1(5): 104-106.

1338. Singh, A.P. (2005). Birds on Harkidun trek route (Sankri-Taluka-Khabugad): Garhwal Himalayas. *Newsletter for Birdwatchers.* 45(4): 53.

1339. Singh, A.P. (2006). Birding in the Saryu-Ramganga river valleys (1500-4133m), Kumaon Himalayas, *Indian Birds.* 2(1): 4-6.

1340. Singh, A.P. (2006). New and significant records from Dehra Dun valley and adjacent hills, lower Garhwal Himalayas, India: May 2002 - March 2006. *Forktail.* 22: 160-163.

1341. Singh, A.P. (2007). New records on the wintering range of Variable Wheatear *Oenanthe picata opistholeuca* from northern India. *Indian Birds.* 2(6): 174-175.

1342. Singh, A.P. (2007). Yellow spots on the wings of Wallcreeper *Tichodroma muraria*. *Indian Birds.* 3(3): 110-111.

1343. Singh, A.P. (2013). Lord Derby's Parakeet *Psittacula derbiana*, and Black-headed Greenfinch *Carduelis ambigua* in Arunachal Pradesh, India. *Indian Birds.* 8(5): 133.

1344. Singh, A.P.; Singh, R. (2007). Distribution, Habitat and voice of White-tailed Robin *Myiomela leucura* in Kedarnath Musk Deer Reserve, Garhwal Himalaya, India. *Birding Asia.* 8 (December): 66-67.

1345. Singh, B. (1998). Encounters with birds at Dharamsala. *Newsletter for Birdwatchers.* 38(3): 43-44.

1346. Singh, B. (2006). Birds walk the ramp at Subathu, Himachal Pradesh, India. *Indian Birds.* 2(2): 38-39.

1347. Singh, B. (2006). Can we augment the Important Bird Area concept in India? The role of large landholdings outside Protected Areas. *Indian Birds.* 2(1): 18-20.

1348. Singh, D.N. (1999). Sighting of Whooper Swan (*Cygnus cygnus*)in Namdapha Tiger Reserve, Arunachal Pradesh. *Arunachal Forest News*. 17: 55-58.

1349. Singh, J.L. (1973). From a train window. *Newsletter for Birdwatchers.* 13(1): 1-3.

1350. Singh, K.G. (1956). Game preservation in Jammu and Kashmir State. *Journal of Bombay Natural History Society.* 53(4): 646-650.

1351. Singh, K.S. (1981). Survey of Pheasants. *Newsletter for Birdwatchers.* 21(7): 19-20.

1352. Singh, P. (1991). Sighting of Tibetan Blood Pheasants in Tawang District of Arunachal Pradesh. *WPA News.* 117: 843-849.

1353. Singh, P. (1993). Spotted Longtailed Wren-Babbler *Spelaeornis troglodytoides* (Verreaux)in Arunachal Pradesh. *Journal of Bombay Natural History Society.* 89(3): 376.

1354. Singh, P. (1995). Occurrence of Swamp Partridge, *Francolinus gularis* (Temminck)in Arunachal Pradesh. *Journal of Bombay Natural History Society.* 92(3): 419.

1355. Singh, P. (1995). Recent bird records from Arunachal Pradesh, India. *Forktail.* 10: 65-104 (1994).

1356. Singh, P. (1995). The avifauna of Arunachal Pradesh. *Sanctuary Asia.* 15(5): 71-73.

1357. Singh, P. (1999). Bird survey of selected localities in Arunachal Pradesh, India. *Oriental Bird Club Bulletin.* 30: 11-12.

1358. Singh, P.; Price, T.D. (2015). Causes of the latitudinal gradient in birdsong complexity assessed from geographical variation within two Himalayan warbler species. *IBIS.* 157: 511-527.

1359. Singh, P.; Rawat, G.S. (2014). Role of interspecific aggression in distribution of leaf warblers in the Himalayan region. *Indian Forester.*140(10): 954-959.

1360. Singh, P.; Singh, K.D. (2007). Status, distribution and management of pheasants in Arunachal Pradesh. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 131-135.

1361. Singh, R. (2013). Plumage across the Pir Panjal. The Poonch and Rajouri districts (a photographic guide). P. 1-297.

1362. Singh, R.; Singh, S. (1982). Cheer pheasants in India. *Second International Symposium, Srinagar, India.* 4p.

1363. Singh, S. (1982). International Symposium on pheasants. *Newsletter for Birdwatchers.* 22(3-4): 17.

1364. Singh, S. (1982). Second International Symposium on pheasants. *Newsletter for Birdwatchers.* 22(3-4): 17.

1365. Singh, S.R.; Singh, A. (1980). A brief report of birding in Nainital during Feb-March. *Newsletter for Birdwatchers.* 20(8):4-6.

1366. Singh, S.; Tu, F. (2008). A preliminary survey for Western Tragopan *Tragopan melanocephalus* in the Daranghati Wildlife Santuary, Himachal Pradesh. *Indian Birds.* 4(2): 42-55.

1367. Sinha, A.; Tanvi; Adhikari, B.S.; Ramesh, K. (2015). Records of *Ibisbill Ibidorhyncha struthersii* in the Bhagirathi River, Harsil, Uttarakhand, India. *Journal of Bombay Natural History Society.* 111(2): 132-133.

1368. Sinha, S.; Chandola, S. (2007). Status, distribution and management of Galliformes in Uttarakhand. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 121-124.

1369. Sivakumar, K. (2007). Bird records from simbalbara Wildlife Sanctuary, Himachal Pradesh, India. *Indian Forester.*133(10): 1411-1418.

1370. Skinner, R.B. (1911). Seasonal movement of the himalayan greenfinch (*Hypacanthis spinoides*). *Journal of Bombay Natural History Society.* 21(1): 262.

1371. Smetacek, V. (1975). On the Increasing occurrence of typically plains birds in the Kumaon hills. *Journal of Bombay Natural History Society.* 71(2): 299-302.

1372. Smythies, B.E. (1943). On the occurrence of the yellow-headed fantail warbler (*Cisticola exilis tytleri* Jerdon)in the Kumaon tarai, U.P. *Journal of Bombay Natural History Society.* 44(2): 292-296.

1373. Sngha, H.S.; Naoroji, R. (2006). Large Pied Wagtail *Matacilla maderaspatensis* Gmelin in Ladakh. *Journal of Bombay Natural History Society.* 102(3): 341.

1374. Snow, D. (1992). Birds, discovery and conservation 100 years of the British Ornithologistis' Club. i-x, 1-198.

1375. Sondhi, S.; Kothari, A.; Negi, B.S.; Singh, B.; Joshi, D.C.; Upadhyay, N.; Pikhwal, P.S.; Singh, V. (2016). First record of the Pompadour Ashy-headed-Green Pigeon *Treron ponpadora conoveri*/*phayrei* from Uttarakhand, India. *Indian Birds.* 11(1): 21-22.

1376. Sondhi, S.; Sondhi, A. (2009). Sun and rain: a Namdapha adventure. *Sanctuary Asia.* 29(3): 30-37.

1377. Sreenivasan, R. (2009). Photo gallery: birds of Arunachal Pradesh. *Indian Birds.* 5(3): 70-79.

1378. Sridharan, E. (1974). Birdwatching around Nainital. *Newsletter for Birdwatchers.* 14(10): 5-7.

1379. Srinivasan, U.; Dalvi, S.; Naniwadekar, R.; Anand, M.O.; Datta, A. (2010). The birds of Namdapha National Park and surrounding areas: recent significant records and a checklist of the species. *Forktail.* 26 (August): 92-116.

1380. Srinivasan, U.; Dalvi, S.; Yobin, K. (2009). First records of 'White-headed' Black Bulbul *Hypsipetes leucocephalus* from India. *Indian Birds.* 5(1): 28-30.

1381. Srinivasan, U.; Velho, N. (2014). Land of the Liocichla. *Saevus*. 2(6): 68-71.

1382. Stable, R.H. (1927). Lost snipe. *Journal of Bombay Natural History Society.* 32(2): 374-375.

1383. Stairmand, D.A. (1976). A Kashmir holiday. *Newsletter for Birdwatchers.* 16(5): 3-6.

1384. Steffee, N.D. (1981). Field checklist of birds of Nepal, Kashmir, Garhwal and Sikkim. *Russ Masons Natural History Tours*.

1385. Stevens, H. (1923). Notes on the birds of the Sikkim Himalayas Part I. *Journal of Bombay Natural History Society.* 29(2): 503-518.

1386. Stevens, H. (1923). Notes on the birds of the Sikkim Himalayas. *Journal of Bombay Natural History Society.* 29(3): 723-740.

1387. Stevens, H. (1924). Notes on the birds of the Sikkim Himalayas, Part 2. *Journal of Bombay Natural History Society.* 30(1): 54-71.

1388. Stevens, H. (1924). Notes on the birds of the Sikkim Himalayas part 3. *Journal of Bombay Natural History Society.* 29(4): 1007-1030.

1389. Stevens, H. (1925). Notes on the birds of Sikkim Himalayas Part 7. *Journal of Bombay Natural History Society.* 30(4): 872-893.

1390. Stevens, H. (1925). Notes on the birds of the Sikkim Himalayas part 6. *Journal of Bombay Natural History Society.* 30(3): 664-685.

1391. Stewart, G. (1994). Sarahan Pheasantry. *WPA News.* 43: 25.

1392. Stockley, C.H. (1923). Some notes on Indian game birds. *Journal of Bombay Natural History Society.* 29(1): 278-279.

1393. Stoliczka, F. (1868). Ornithological observations in the Sutlej Valley, N.W. Himalayas. *Journal of the Asiatic Society of Bengal.* 37(2): 1-70.

1394. Stresemann, E. (1975). Ornithology from Aristotle to the present. *Harvard University Press.* xii, 432p.

1395. Sultana, A.; Hussain, M.S.; Khan, J.A. (2001). Bird communities of the proposed Naina and Pindari Wildlife Sanctuaries in the Kumaon Himalaya, Uttaranchal, India. *Oriental Bird Club Bulletin.*2001. 34: 16-17.

1396. Sultana, A.; Hussain, M.S.; Khan, J.A. (2007). Bird communities of the proposed Naina and Pindari Wildlife Sanctuaries in the Kumaon Himalaya, Uttarakhand, India. *Journal of Bombay Natural History Society.* 104(1): 19-29.

1397. Sultana, A.; Khan, J.A. (1999). Avian community in the Kumaon Himalaya, India - a preliminary study. *International Jounral of Ecology and Environmental Sciences*. 25: 167-176.

1398. Sultana, A.; Khan, J.A. (2000). Birds of oak forests in the Kumaon Himalaya, Uttar Pradesh, India. *Forktail.* 16: 131-146.

1399. Sunderraj, S.F.W.; Joshua, J. (1997). Range extension of the Nepal Babbler (*Alcippe nipalensis*). *Journal of Bombay Natural History Society.* 94(1): 159.

1400. Sushkin, P.P. (1925). Notes on systematics and distribution of certain Palaearctic birds. *Proceedings of the Boston society of Natural History*. 55p.

1401. Suyal, B.O. (1992). Birds of Sarahan Bushar, Shimla District. *Newsletter for Birdwatchers.* 32(9-10): 14-15.

1402. Swainson, W. (1838). The natural Arrangement and Relations of the Family of Flycatchers, or Muscicapidae. *The Naturalists, Library No. X. I*. P. 17-256.

1403. Swan, L.W. (1961). The ecology of the high Himalayas. *Scientific American*. 205: 68-78.

1404. Swan, L.W. (1970). Geese of the Himalayas. *Natural History*. 79: 68-74.

1405. Sykes, B. R. (2006). New Liocichla found in Indian at Arunachal Pradesh's Eaglenest Sanctuary. *Birding Asia.* 6 (December): 72.

1406. Taba, R.; Mize, D. (2011). Anthropocentric threats to birds in Arunachal Pradesh. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 249.

1407. Taher, S.A. (2000). Spotlight: Large Whistling Teal / Fulvous Whistling Duck Dendrocygna bicolor. *Pitta*. 113: 6.

1408. Taher, S.A. (2000). Spotlinght: Barheaded Goose Anser indicus. *Pitta.* 112: 6.

1409. Tak, P.C. (1987). On a rare sighting of Western Tragopan (*Tragopan melanocephalus*)in District Chamba, Himachal Pradesh, India. *Cheetal.* 28(4): 42-45.

1410. Tak, P.C. (1995). Aves. *Fauna of Western Himalaya, Part 1. Uttar Pradesh*. P. 169-199.

1411. Tak, P.C. (1997). Aves. *Fauna of Nanda Devi Biosphere Reserve.* P. 129-150.

1412. Tak, P.C. (1997). Fauna of Nanda Devi Biosphere Reserve: a world heritage sites. *Conservation Area series. 9. Published by the Director, Zool. Surv. India. Kolkata*.

1413. Tak, P.C.; Kumar, G. (1987). Wildlife of Nanda Devi National Park: an update. *Journal of Forestry.* 10: 184-190.

1414. Tak, P.C.; Paliwal, R.; Sharma, R.M. (2003). Occurrence of huge wintering population of Bar-headed Goose *Anser indicus*, at Pong Dam wetland, Himachal Pradesh. *Bionotes.* 5: 88.

1415. Tak, P.C.; Sati, J.P. (1994). Birds of Goriganga Valley: Kumaon Himalaya. *Cheetal.* 33(1): 17-26.

1416. Tak, P.C.; Sati, J.P. (2001). Status of birds of Uttarakhand and their conservation. *Status of Indian Birds and their conservation: First International Conference on Indian Ornithology (ICIO)-2011*. P. 25-28.

1417. Tak, P.C.; Sati, J.P. (2006). Birds of Pithoragarh district, Uttaranchal, India. *Newsletter for Birdwatchers.* 46(5): 73-79.

1418. Tak, P.C.; Sati, J.P. (2008). Birds of Chamoli District, Uttarakhand, India. *Newsletter for Birdwatchers.* 48(1): 1-2.

1419. Tak, P.C.; Sati, J.P. (2008). Birds of Chamoli district, Uttarakhand, India. *Newsletter for Birdwatchers.* 48(2): 18-23.

1420. Tak, P.C.; Sharma, R.M. (2003). On abundance of Lesser Sand Plover, *Charadrius amongolus* at Pangong Tso Lake, Ladakh, Jammu and Kashmir. *Bionotes.* 5: 64.

1421. Takekawa, J.Y.; Heath, S.R.; Douglas, D.C.; Perry, W.M.; Javed, S.; Newman, S.H.; Suwal, R.N.; Rahmani, A.R.; Choudhury, B.C.; Prosser, D. J.; Yan, B.; Hou, Y.; Batbayar, N.; Natsagdorj, T.; Bishop, C.M.; Butler, P.J.; Frappell, P.B.; Milsom, W.K.; Scott, G.R.; Hawkes, L.A.; Wikelski, M. (2009). Geographic Variation in Bar-headed Geese *Anser indicus*: Connectivity of wintering areas and breeding grounds across a broad front *Wildfowl*. 59: 100-123.

1422. Talukdar, B.K. (1992). White Winged Wood Duck in captivity at Assam and Arunachal Pradesh. *Zoos' Print.* 7(7): 8-9.

1423. Talukdar, B.K. (1993). Pheasants of north-east India. *WPA India News.* 1(1): 6-7.

1424. Talwar, R. (1996). Mountain Quail, Waiting to be rediscovered. *World Wildlife Fund- India Quarterly.* 7(2): 18.

1425. Talwar, R. (1996). The Mountain Quail waiting to be rediscovered! Discover India. 9(10): 24-25.

1426. Tewary, P.D.; Kumar, V.; Prasad, B.N. (1983). Influence of photoperiod in a subtropical migratory finch, the common Indian Rosefinch *Carpodacus erythrinusIBIS.* 125(1): 115-120.

1427. Thakur, M.L.; Mattu, V.K. (2001). Avifauna of Kaza area of Spiti (Himachal Pradesh), India. *International Journal of Science and Nature.* 2(3): 483-487.

1428. Thakur, M.L.; Mattu, V.K.; Lal, H.; Sharma, V.N.; Raj, H.; Thakur, V. (2010). Avifauna of Arki Hills, Solan (Himachal Pradesh), India. *Indian Birds.* 5(6): 162-166.

1429. Thakur, M.L.; Mattu, V.K.; Paliwal, R.; Mehta, H.S.; Thakur, V. (2008). Birds of Shahnahar Reservoir, Kangra, Himachal Pradesh India. *Annals of Forestry.* 15(1): 129-151.

1430. Thakur, M.L.; Negi, V. (2015). Status and phylogenetic analyses of endemic birds of the Himalayan region. *Pakistan Journal of Zoology.* 47(2): 417-426.

1431. Thakur, M.L.; Paliwal, R.; Tak, P.C.; Mehta, H.S.; Muttu, V.K. (2002). Birds of Kalatop-Khajjiar Wildlife Sanctuary, Chamba district, Himachal Pradesh India. *Cheetal.* 41(3-4): 29-36.

1432. Thakur, M.L.; Paliwal, R.; Tak, P.C.; Muttu, V.K. (2003). Birds of Balh Valley District Mandi, Himachal Pradesh, India. *Annals of Forestry.* 11(1): 113-126.

1433. Thapliyal, G.S. (1991). Arunachal Pradesh - a unique abode of Wildlife. *Indian Forester.*117: 843-849.

1434. Thapliyal, S. (1985). Garden of the gods. *The India Magazine*. 5: 32.

1435. Theobald, W. (1854). Indian Oology: Notes on the Nidification of some of the commoner Birds of the Salt Range, with a few additional, from Kashmir. *Journal of the Asiatic Society of Bengal.* XXIII(Part II Ne): 589-603.

1436. Theobald, W. (1862). Notes on a trip from Simla to the Spiti Valley and Chomoriri (Tshomoriri)Lake during the months of July, August and September, 1861. *Journal of the Asiatic Society of Bengal.* XXXIl 480-527.

1437. Thirumurthi, S.; Banumathi, C.P. (1998). The *Melia azedarach* tree a keystone species for frugivorous birds in Himachal Pradesh. *Newsletter for Birdwatchers.* 38(4): 68-69.

1438. Tho, L.W. (1957). A company of birds. *Joseph,London*. 174p.

1439. Ticehurst, C.B. (1927). Some further notes on the second edition of the fauna of British India - Birds vol.3. *Journal of Bombay Natural History Society.* 32(2): 344-356.

1440. Ticehurst, C.B. (1927). The races of the Indian White eye. *Bulletin of the British Ornithologists Club.* 47: 88-90.

1441. Ticehurst, C.B. (1941). Systematic notes on Indian birds - IX. On some forms for the inclusion of which in the avifauna of British India further proof is needed *IBIS.* 5(1): 177-182.

1442. Tietze, D.T.; Martens, J. (2009). Morphometric characterisation of treecreepers (Genus *Certhia*). *Journal of Ornithology*. 150: 431-457.

1443. Tietze, D.T.; Martens, J.; Sun, Y.-H. (2006). Molecular phylogeny of treecreepers (*Certhia*)detects hidden diversity. *IBIS.* 148: 477-488.

1444. Tilak, R.; Tyagi, A.K. (1977). On the Occurrence of Eastern Wood pigeon or Cushat at Solan (Himachal pradesh). *Newsletter of the Zoological Survey of India.* 3(6): 429-430.

1445. Topfer, T. (2012). Seasonal changes in plumage coloration of Orange bullfinches *Pyrrhula aurantiaca*. *Forktail.* 28: 49-52.

1446. Tree, I. (2004). The bird man: the extraordinary story of John Gould. Ebury press, 250p. P. i-x, 1-324.

1447. Trisal, C.L. (1992). Anthropogenic pressures and management of Dal lake, Kashmir. *IN: Wetlands of India*. P. 71-102.

1448. Trisal, C.L. (1993). Conservation of wetlands in India and International treaties. Wetland and Waterfowl Conservation in South and West Asia. *Proc. Int. Symp., Karachi, Pakistand. 14-20 December, 1991.* P. 41-49.

1449. Trisal, C.L. (1998). Fast disappearing. *Survey of the Environment*. 1998: 95-99.

1450. Trisal, C.L.; Ivan, R.; Kundangar, M.R.D. (1994). Wular Lake, Jammu and Kashmir. *Ramsar Sites of India*. P. 1-39.

1451. Tyabji, H.N. (1992). Flies forming a possible food supply for young House Sparrows *Passer domesticus* (Linn.). *Journal of Bombay Natural History Society.* 88(20: 289.

1452. Tytler, R.C. (1868). Notes on the birds observed during a march from Simla to Mussorrie. *IBIS.* 10(2): 190-203.

1453. Umar, M. (1980). Some known and unknown birds of Eastern Himalayas. *Newsletter for Birdwatchers.* 20(10): 8-10.

1454. Unwin, W.A. (1898). Late stay of wild fowl. *Journal of Bombay Natural History Society.* 11(1): 169.

1455. Urfi, A.J.; Sen, M.; Kalam, A.; Meganathan, T. (2005). Counting birds in India: Methodologies and trends. *Current Science.* 89(12): 1997-2003.

1456. Vagholikar, N.; Kalpavriksh. (2004). Undermining India's ecologically sensitive areas. *IN: Important Bird Areas in India: priority sites for conservation*. P. 71-75.

1457. Van Gruisen, J. (1987). Dachigam National Park. IN: Indian Wildlife, Sri Lanka, Nepal. P. 187-191.

1458. van Tyne, J.; Koelz, W. (1936). Seven new birds from the Punjab - occasional papers of the museum of zoology. *University of Michigan*. 334: 1-6.

1459. Van-Orden, C. V.; Paklina, N.V. (2003). An association between tibetan owlets *Athene noctua ludlowi* and Himalayan Marmots *Marmota himalayan* in West-tibet and Se-Ladakh. *De Takkeling.* 11(1): 80-85.

1460. Vaurie, C. (1949). Notes on some Asiatic finches. *American Museum Novitates.* 1424: 1-63.

1461. Vaurie, C. (1949). Notes on some Ploceidae from Western Asia. *American Museum Novitates.* 1406: 1-41.

1462. Vaurie, C. (1950). Notes on some Asiatic nuthatches and Creepers. *American Museum Novitates.* 1472: 1-10.

1463. Vaurie, C. (1953). Geographical variation in *Garrulax erythrocephalus* in Central and Western Himalayas with description of a new race from Nepal. *Bulletin of the British Ornithologists Club.* 73(7): 77-79.

1464. Vaurie, C. (1954). Systematic notes on Palaerctic birds No. 12. Muscicapinae, Hirundinidae and Sturnidae. *American Museum Novitates.* 1694: 1-18.

1465. Vaurie, C. (1955). Remarks on the nomenclature of the himalayan races of *Regulus regulus*. *Bulletin of the British Ornithologists Club.* 75(8): 99-101.

1466. Vaurie, C. (1959). The birds of the Palearctic fauna: a systematic reference: order Passeriformes. *H.F.G. Witherby, London*. xii, 762p.

1467. Vaurie, C. (1972). Tibet and its birds. *HF Witherby*. xv, 407p.

1468. Velho, N. (2012). Feeding record of the Green *Cochoa cochoa* viridis in Pakke Tiger Reserve, Arunachal Pradesh. *Indian Birds.* 7(5): 144-145.

1469. Vijay, M.; Bhutia, P.T. (2010). Avifaunal interaction with plants in Zoological Survey of India campus, Dehradun, Uttarakhand. *Newsletter for Birdwatchers.* 50(4): 55-57.

1470. Vinod, T.R. (1999). Sighting of Western Tragopan *Trgopan melanocephalus* in the Great Himalayan National Park, Himachal Pradesh. *Mor.* 1(August): 4.

1471. Virdi, M. (2007). Translating global biodiversity values into local benefits, conservation initiatives of a village forest council in Kumaon, Uttarakhand. *Envis Bulletin: wildlife and Protected Areas.* 10(1): 169-173.

1472. Viswanathan, A.; Naniwadekar, R. (2014). Diet and foraging behaviour of purple Cochoa cochoa purpurea in Namdapha National Park, India. *Forktail.* 30: 145-147.

1473. Voous, K.H. (1947). On the history of the distribution of the genus *Dendrocopus*. *Limosa*. 20(1-3): 1-142.

1474. Voous, K.H.; Bijleveld, M.F.I.J. (1964). A note on Himalayan Buzzards *Buteo buteo* (Aves). *Beaufortia.* 11(134): 37-43.

1475. Vrezes, A.; Jancar, T.; Bozic, L.U. (2006). Mandarin Ducks *Aix gallericulata* (Linnaeus)on the Sat Tal lakes near Nanital, Uttaranchal. *Journal of Bombay Natural History Society.* 102(3): 338-339.

1476. Vyas, S. (1969). Birdwatching in Mussoorie. *Newsletter for Birdwatchers.* 9(8): 12.

1477. Vyas, S. (1970). Birds of Mussoorie. *Newsletter for Birdwatchers.* 10(1): 4-6.

1478. Waddell, L.A. (1978). Among the Himalayas. *Philadephia*, *J.B. Lippincott Company*. xvi, 452p.

1479. Waddell, L.A. (2001). A list of Sikkim birds, showing their geographical distribution. *The Gazetteer of Sikkim*. P. 198-234.

1480. Waite, H.W. (1921). Note on the nidification of Hodgson's Striated Swallow (*Hirundo nepalensis*). *Journal of Bombay Natural History Society.* 27(3): 631-632.

1481. Waite, H.W. (1945). Birds on the Hindustan - Tibet road, N.W. *Journal of Bombay Natural History Society.* 45(4): 531-542.

1482. Waite, H.W. (1946). Birds on the Hindustan-Tibet Road, N.W. Himalaya - a correction. *Journal of Bombay Natural History Society.* 46(2): 401.

1483. Waite, H.W. (1963). Notes on the range of certain birds as given in S.D. Ripley II (1961). A synopsis of the birds of India and Pakistan. *Journal of Bombay Natural History Society.* 59(3): 958-963.

1484. Waite, M. (2004). Eagle's Nest WLS (IBA)an avitourism spot in northeastern India. *Mistnet.* 5(1-2): 11-12.

1485. Walden, A.V. (1869). Remarks on Dr Stoliczka's "Ornithological observations in the Sutlej valley. *IBIS.* 11(2): 208-215.

1486. Walters, M. (1976). Some observations on the eggs of the Great Whitebellied Heron, *Ardea insignis*. *Journal of Bombay Natural History Society.* 73(1): 213-214.

1487. Walters, M. (1998). The eggs of the Grey-Crowned Prinia *Prinia cinereocapilla*. *Forktail.* 13 (February): 128-129.

1488. Wan-Tho, L. (1956). Dabchick is born. *Journal of Bombay Natural History Society.* 53(3): 468-470.

1489. Ward, A.E. (1906). Birds of the provinces of Kashmir and Jammu and adjacent districts Part I. *Journal of Bombay Natural History Society.* 17(1): 108-113.

1490. Ward, A.E. (1906). Birds of the provinces of Kashmir and Jammu and adjacent district, Part II. *Journal of Bombay Natural History Society.* 17(2): 479-485.

1491. Ward, A.E. (1907). Birds of the provinces of Kashmir and Jammu and adjacent districts Part III. *Journal of Bombay Natural History Society.* 17(3): 723-729.

1492. Ward, A.E. (1907). Birds of the provinces of Kashmir and Jammu and adjacent districts Part IV. *Journal of Bombay Natural History Society.* 17(4): 943-949.

1493. Ward, A.E. (1908). Further note on birds of the provinces of Kashmir and Jammu and adjacent district. *Journal of Bombay Natural History Society.* 18(2): 461-464.

1494. Ward, A.E. (1922). Game animals and Kashmir and adjacent hill provinces, Part IV. *Journal of Bombay Natural History Society.* 28(4): 874-882.

1495. Ward, A.E. (1922). Game animals of Kashmir and Adjacent hill provinces Part 2. *Journal of Bombay Natural History Society.* 28(2): 334-344.

1496. Ward, A.E. (1922). Game animals of Kashmir and adjacent hill provinces Part 3. *Journal of Bombay Natural History Society.* 28(3): 595-609.

1497. Ward, A.E. (1923). Small game shooting in Kashmir and the adjacent hill provinces. *Journal of Bombay Natural History Society.* 29(3): 653-658.

1498. Ward, A.E. (1924). The mammals and birds of Kashmir and the adjacent hill provinces. *Journal of Bombay Natural History Society.* 30(1): 118-131.

1499. Ward, A.E. (1925). The mammals and birds of Kashmir and the adjacent hill provinces Part 3. *Journal of Bombay Natural History Society.* 30(2)253-259.

1500. Ward, A.E. (1925). The Mammals and birds of Kashmir and the adjacent hill provinces part 4. *Journal of Bombay Natural History Society.* 30(3): 509-524.

1501. Ward, A.E. (1925). The mammals and birds of Kashmir and the adjacent hill provinces part 5. *Journal of Bombay Natural History Society.* 30(4): 719-724.

1502. Ward, A.E. (1928). The mammal and birds of Kashmir and the adjacent hill provinces Part 8. *Journal of Bombay Natural History Society.* 33(1): 65-72.

1503. Warters, H.P.E. (1947). On the nesting of the Red-browed Finch (*Callacanthis burtoni*) Gould. *Journal of Bombay Natural History Society.* 46(4): 721-722.

1504. Wathen, M.L. (1923). Ornithological notes from a trip in Ladakh. *Journal of Bombay Natural History Society.* 29(3): 694-702.

1505. Wayre, P. (1976). The cheer pheasant and its reintroduction in the Himalayas. *Newsletter for Birdwatchers.* 16(6): 6-7.

1506. Weir, J.T.; Wheatcroft, D.J.; Price, T.D. (2012). The role of ecological constraint in driving the evolution of avian song frequency across a latitudinal gradient. *Evolution*. 66: 2773-2783.

1507. Wells, D.R.; Andrew, P.; Van den Berg, A.B. (2001). Systematic notes on Asian birds. 21 Babbler Jungle: a re-evaluation of the 'pyrrogenys' group of Asian pellorneines (Timaliidae). *Zoologische Verhandelingen, Leiden*. 335: 235-254.

1508. Whistler, H. (1916). Some birds observed at Dalhousie hill station in 1915. *Journal of Bombay Natural History Society.* 24(3): 582-588.

1509. Whistler, H. (1919). A note on the breeding of the hill partridge (*Arboricola torqueola*) near Simla. *Journal of Bombay Natural History Society.* 26(3): 849.

1510. Whistler, H. (1919). Some birds observed at Fagoo near Simla. *Journal of Bombay Natural History Society.* 26(3): 770-775.

1511. Whistler, H. (1920). Description of a new subspecies of sparrow from Cashmere. *Journal of Bombay Natural History Society.* 42: 13-14.

1512. Whistler, H. (1920). Further notes on birds about Simla. *Journal of Bombay Natural History Society.* 27(1): 94-111.

1513. Whistler, H. (1921). The call of Franklin Nightjar (*Caprimulgus monticola* Frank). *Journal of Bombay Natural History Society.* 28(1): 284.

1514. Whistler, H. (1922). A contribution to the ornithology of Cashmere. *Journal of Bombay Natural History Society.* 28(4): 990-1006.

1515. Whistler, H. (1923). A himalayan pass. *Journal of Bombay Natural History Society.* 29(3): 839.

1516. Whistler, H. (1923). A note on the birds of spiti. *Journal of Bombay Natural History Society.* 5(4): 611-629.

1517. Whistler, H. (1923). A note on the spotted-winged Grosbeak *Mycerobas malanoxanthus* (hodgs). *Journal of Bombay Natural History Society.* 29(1): 150-153.

1518. Whistler, H. (1923). Double nest of the Kashmir Great tit (*Parus major kashmiriensis*). *Journal of Bombay Natural History Society.* 29(3): 837.

1519. Whistler, H. (1923). Note on a supposed new race of *Otocorys alpinus* the Horned Lark. *Journal of Bombay Natural History Society.* 29(2): 560.

1520. Whistler, H. (1923). On the breeding of certain wagtails. *Journal of Bombay Natural History Society.* 29(1): 281-284.

1521. Whistler, H. (1923). The spotted wing starling (*Psarogolossa spiloptera* Vigors). *Journal of Bombay Natural History Society.* 29(1): 290-292.

1522. Whistler, H. (1924). In the high himalayas, sport and travel in the Rhotang and Baralacha with some notes on the natural history of that area. *Journal of Bombay Natural History Society.* 223p.

1523. Whistler, H. (1924). The distribution of the himalayan tree pie (*Dendrocitta formosae himalayensis* Blyth). *Journal of Bombay Natural History Society.* 30(1): 223.

1524. Whistler, H. (1925). On the breeding of the Indian tree pipit *Anthus hodgsoni* in Kulu. *Journal of Bombay Natural History Society.* 30(3): 701-702.

1525. Whistler, H. (1925). The birds of Lahaul N.W. Himalaya. *IBIS.* 1: 152-208.

1526. Whistler, H. (1926). Note on the birds of Kulu. *Journal of Bombay Natural History Society.* 31(2): 458-485.

1527. Whistler, H. (1926). The birds of the Kangra district, Punjab Part 2. *IBIS.* 2(4): 724-783.

1528. Whistler, H. (1928). A correction to Mr. B.B. Osmaston's notes on the birds of Kashmir. *Journal of Bombay Natural History Society.* 32(3): 607-608.

1529. Whistler, H. (1928). Further notes on birds about Simla. *Journal of Bombay Natural History Society.* 32(4): 726-732.

1530. Whistler, H. (1929). Some aspects of bird life in Kashmir. *The Himalayan Journal*. 1: 29-51.

1531. Whistler, H. (1931). The breeding chiffchaff of Ladakh. *IBIS.* 1(1): 91-92.

1532. Whistler, H. (1931). The Western variegated Laughing Thrush *Trochalpteron variegatum similie* Hume. *IBIS.* 1(1): 96-97.

1533. Whistler, H. (1932). On some larks of Kashmir state. *IBIS.* 2(3): 470-479.

1534. Whistler, H. (1932). On the eggs of *Phylloscopus griseolusIBIS.* 2(1): 211-213.

1535. Whistler, H. (1936). Arctic tern in Kashmir. *IBIS.* 6(3): 600-601.

1536. Whistler, H. (1936). On seven recently described birds from the Punjab. *IBIS.* 6(4): 718-724.

1537. Whistler, H. (1937). The breeding swallow of the Western Himalaya. *IBIS.* 1(2): 413-415.

1538. Whistler, H. (1939). New races of a tailor-bird and rose-finch from Ceylon and the himalayas. *Bulletin of the British Ornithologists Club* LX(cdxxv): 15-16.

1539. Whistler, H. (1941). East himalayan laughing - thrushes. *IBIS.* 5(1): 172-173.

1540. White, L.S. (1925). Notes on the ''Ornithology of Kashmir''. *Journal of Bombay Natural History Society.* 30(2): 471-476.

1541. Whitehead, C.H.T. (1910). On the birds of Kohat and Kurram valley, Northern India. *Journal of Bombay Natural History Society.* 20(1): 169-197.

1542. Whitehead, C.H.T. (1911). On the birds of Kohat and the Kurram valley, Northern India Part II. *Journal of Bombay Natural History Society.* 20(3): 776-799.

1543. Whymper, S.L. (1906). Sites of bird's nests. *Journal of Bombay Natural History Society.* 17(1): 236-237.

1544. Whymper, S.L. (1907). Breeding of Hodgson's Martin (*Chelidon nepalensis*)and the red-billed (*Graculus eremita*). *Journal of Bombay Natural History Society.* 18(4): 909.

1545. Whymper, S.L. (1907). Some notes of birds nesting in Tehri Garhwal. *Journal of Bombay Natural History Society.* 17(3): 817-819.

1546. Whymper, S.L. (1911). Birds nesting in the Nila valley (Garhwal). *Journal of Bombay Natural History Society.* 20(4): 1157-1160.

1547. Whymper, S.L. (1913). On the nesting of Hodgson's grandala (*Grandala coelicolor*). *Journal of Bombay Natural History Society.* 22(1): 196.

1548. Williams, C.; Delany, S. (1985). Migration through the North-West Himalaya - some results of the Southampton University Ladakh expedition - 1. *Oriental Bird Club Bulletin.* 2: 10-14.

1549. Williams, C.; Delany, S. (1986). Migration through the North-West Himalayas - some results of the Southampton University Ladakh Expedition, Part 2. *Oriental Bird Club Bulletin.* 3: 11-16.

1550. Wiltshire, E.P. (1954). Narrative of a trek and of natural history observations in Kashmir in May-June 1942. *Journal of Bombay Natural History Society.* 51(4): 825-838.

1551. Wright, A. (1980). Hope for the Himalayan pheasants. *World Wildlife Fund- India Quarterly.* 32: 9-10.

1552. Wright, M.D. (1949). A bird count in Dehradun. *Journal of Bombay Natural History Society.* 48(3): 570-572.

1553. Wright, M.D. (1957). Notes on birds of a selected area of Dehradun - June 1946 to Junly 1951. *Journal of Bombay Natural History Society.* 54(3): 627-662.

1554. Wright, R.G.; Dewar, D. (1925). The ducks of India, their habits, breeding grounds and migrations; together with other useful information for the sportman and observer. *London, H.F.G. Witherby*. 231p.

1555. Wyatt, M.D.N. (1932). Sex differences in the migration of the common teal (*Nettion creca*). *Journal of Bombay Natural History Society.* 35(3): 680.

1556. Wynter-Blyth, M.A. (1948). An expedition to Sangla in Kunawar. *Journal of Bombay Natural History Society.* 47(4): 565-585.

1557. Wynter-Blyth, M.A. (1952). A naturalist in the North-West Himalaya Part 1. *Journal of Bombay Natural History Society.* 50(2): 344-354.

1558. Wynter-Blyth, M.A. (1952). A Naturalist in the North-West Himalaya part II. *Journal of Bombay Natural History Society.* 50(3): 559-572.

1559. Wynter-Blyth, M.A. (1953). A naturalist in the North-West Himalaya Part III. *Journal of Bombay Natural History Society.* 51(2): 393-406.

1560. Yahya, H.S.A. (1990). Waking time of some birds in Kumaon hills. *Newsletter for Birdwatchers.* 30(5-6): 16.

1561. Yocom, C.F. (1970). Evidence of Canada geese in Kashmir, India. *Murrelet.* 51: 26.

1562. Young, L.; Kaul, R. (1987). Conservation of himalayan pheasants in Kumaun. *IN: Western Himalaya: Environment, Problems and development.* P. 684-691.

1563. Zahler, P.; Dar, N.I.; Akhtar, K. (1997). New record for Blackthroated Jay *Garrulus lanceolatus* (Vigors)in Kashmir. *Journal of Bombay Natural History Society.* 94(3): 570.

1564. Zahler, P.; Dar, N.I.; Karim, A. (1998). Possible breeding by Roack Thrush *Monticola saxatilis* (Linn.)in North Kashmir. *Journal of Bombay Natural History Society.* 95(1): 116-117.

1565. Zarri, A.A.; Rahmani, A.R. (2004). Red Data bird: Kashmir Flycatcher. *World Birdwatch.* 26(1): 14-15.

1566. Zoological Survey of India. (2006). Fauna of Arunachal Pradesh (Part-1). *State Fauna Series.* 1: (13)1-377.

1567. Zoological Survey of India. (2006). Fauna of Sikkim (Part-1). *Vertebrates: State Fauna Series 9*. 1(5): 1-214.

Author Index

Birds

04

Herpetofauna of the Indian Himalayan Region

Bibliography on the Herpetofauna of the Indian Himalayan Region

Naitik G. Patel and Abhijit Das

Introduction

The uplifting of the Himalaya as a result of Cenozoic Indo-Asia collision has greatly influenced biogeography in Asia. Tectonic events resulted in barriers and corridors that influenced dispersal, endemism or transgression. These heterogeneous mountain environments shaped the genetic diversity and evolutionary history of herpetofaunal species (Guo et al., 2011, Agarwal et al., 2014). Being physiologically constrained by temperature, rainfall, and humidity, coupled with limited vagility, herpetofauna are regarded as good model organisms for predicting climate change scenarios (Araujo et al., 2006; Caruso et al., 2014). With increasing anthropogenic pressure coupled with rampant development activities, environmental degradation is at an alarming rate. The rate of warming in the Himalaya is greater than the global average, making it most vulnerable to climate change (Shrestha et al., 2011). Being thermoconformers, herpetofauna thus become one of the most suitable model organism to predict climate change scenarios in the Himalaya.

Diverse herpetofaunal assemblage represents a distinct east to west gradient in the Indian Himalayan Region (IHR). Elevation gradient, high humidity and rainfall coupled with diverse forest type contribute to species richness. Himalayan herpetofauna has been studied from as early as 1818 (Das, 2003). So far 119 reptiles and 108 amphibian species have been recorded from IHR. Of these, 21% of reptiles and 40% of amphibians are endemic to the region. However, even the basic inventory is far from complete. This is evident from the fact that as many as 45 new herpetofaunal species have being added in the last ten years.

About 18% reptiles and 44% of amphibians that are endemic to IHR were categorized as data deficient in IUCN. As the basic documentation is far from complete, inventory seems to be of paramount importance. In the light of current climate change phenomenon, there is a need to identify biological indicator across IHR to delineate measurable responses and to generate information on elevation distribution of species and factors that govern such pattern

Methods

Online databases and scientific journals were searched using the search terms “Himalaya” and name of the six Himalayan States such as “Jammu and Kashmir”, “Himachal Pradesh”, “Uttarakhand”, “Sikkim”, “Arunachal Pradesh” and “West Bengal”. All the information were entered in the Microsoft Excel Spreadsheet and arranged alphabetically to remove any duplication. All the analyses were carried out in Microsoft Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gap. We have classified literature into four broad categories as described below.

Taxonomy and Systematics (Comprises of description of new species, classification, morphological and molecular taxonomy and phylogenetics)

Ecology and behaviour (Comprises of publication on ecology, breeding biology, feeding behaviour, life history and parasitism)

Distribution and Biogeography (Comprisesof publication on distribution study, range extension, new locality record and biogeography)

Inventory and checklist (Comprises of checklist, expedition report, state fauna series by Zoological Survey of India, field guide, museum catalogue and collection notes on reptiles and amphibian.)

Results and Discussion

Previously Dutta(1997) published detail account on "Amphibians of India and Srilanka (Checklist and Bibliography). Sen and Mathew (2008) published "Systematic and bibliography of North East India". Present bibliography on herpetofauna of the Indian Himalayan Region includes 401 unique entries covering a period of almost two centuries, starting from 1825 to 2016. We categorized the articles in three distinct ways: A) The first category was based on parts of six Himalayan States (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, West Bengal-Darjeeling and Jalpaiguri district and Arunachal Pradesh) where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1830 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the broad subjects (ecology and behaviour, taxonomy, evolution, conservation and climate change impact) on which the research was carried out.

Geographical Distribution of Publications

Publications were classified according to the region or state in the IHR where the study took place, wherever possible. The greatest number of studies on herpetofauna has been carried out in the Eastern Himalayan region, compared to the Western Himalaya. Arunachal Pradesh has the greatest number of publications, followed by West Bengal and Sikkim (Table 1). Jammu and Kashmir has the most number of publications in the Western Himalayas, compared to Uttarakhand, while very few studies on herpetofauna have been carried out in Himachal Pradesh.

Table 4.1 State wise distribution of publications

States	Number of Publications
Jammu and Kashmir	22
Himachal Pradesh	5
Uttarakhand	19
Sikkim	23
West Bengal	29
Arunachal Pradesh	32
Others	249

Temporal Pattern of Publications

Literature was classified according to the publication year, and this is represented in a graph by number of publications per decade. Publications date back to 1821, and as recent as 2016 (Fig 4.1). The greatest number of publications were in the 2001-2010 decade, followed by the preceding decade, 1991-2000.

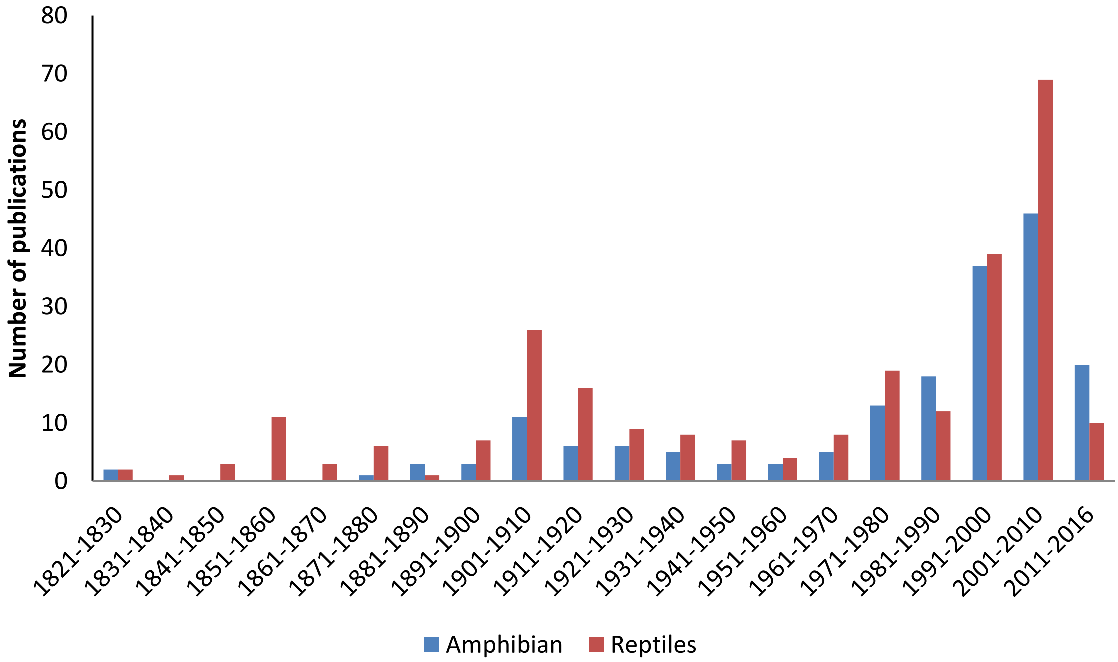


Figure 4.1 Temporal pattern of publications on herpetofauna of the Indian Himalayan Region

Publications by subject

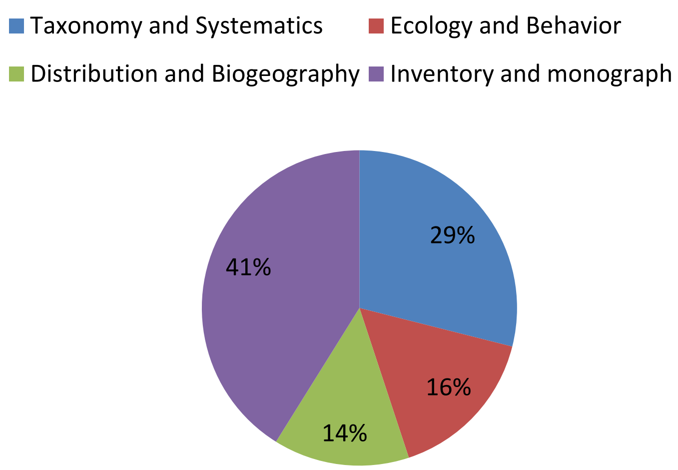


Figure 4.2 Number of publications on herpetofauna of the Indian Himalayan Region in different subject categories

Himalayan herpetofauna has so far received attention largely at the alpha taxonomic level. Major inventory and documentation are by Günther (1860) for Himalayan region, for Uttarakhand (Ray, 1992; Orlov and Helfenberger, 1997; Vasudevan and Sondhi, 2010); Himachal Pradesh (Dutta, 1999), Kashmir and Ladakh (Sahi and Duda, 1985; Gruber, 1981); Sikkim- Darjeeling region (Bhupathy et al., 2009; Pan, 2013); northeast India (Annandale, 1907; Wall, 1908; Whitaker and Captain, 2004; Athreya, 2006; Ahmed et al., 2009; Biju et al., 2010); Nepal Himalaya (Leviton et al., 1956; Schleich and Kastle, 2002).

Studies on the distribution of Himalayan herpetofauna has mainly been in sporadic reports. Few regional studies address elevation distribution patterns for herpetofauna. For example, Waltner (1973, 1974) for herpetofauna of Himalayan region; Chettri (2007, 2010) for reptiles of Sikkim Himalaya, and Das (2011) for snakes of Northeast India. All these observations have revealed that the lower elevation of Himalaya has particularly high herpetofaunal species richness and diversity decreases with increase in elevation. However, mid-elevation is known for unique species richness and regarded as a species replacement zone.

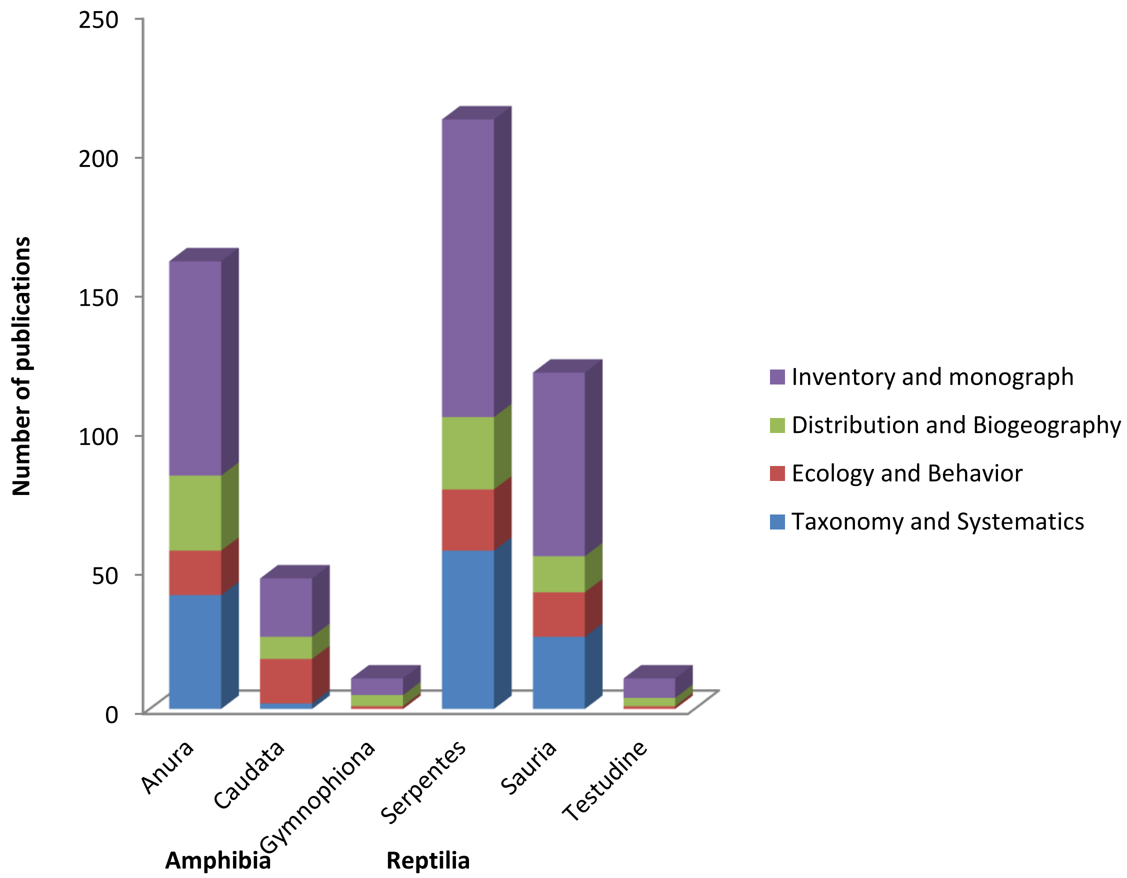


Figure 4.3 Subject wise distribution of scientific literature among Amphibian and Reptilian orders

Aspects of ecology and biology are reported only in few studies such as Waltner (1991), Lal (1991), Bhatnagar (1967) on *Laudakia tuberculata* on aspects of ecology, biology and distribution pattern; Dasgupta (1984, 1994, 1996), Kuzmin et al. (1994) studied ecology and natural history of single representative of salamander in India viz*Tylototriton verrucosus*. Kastle (1998) studied ecology of newly described species *Sitana sivalensis*; Kastle and Schleich (1998) recorded ecological information on endemic *Japalura kumaonensis*; Sharma and Sharma (1976) put some biological observation of perianthropic *Xenochrophis piscator*. Kaul and Duda (1976) reported ovarian cycle of high altitude lizards (Fig. 4.3).

Publications in the bibliography were classified into the following topics – Ecology, Behaviour, Geography, Taxonomy, Evolution, Conservation, Climate Change, and General. The highest number of publications were on Distribution (170), and next highest number were on Taxonomy (157). There were no papers on climate change, and few papers were on evolution (5) or conservation (11) (Fig. 4.4).

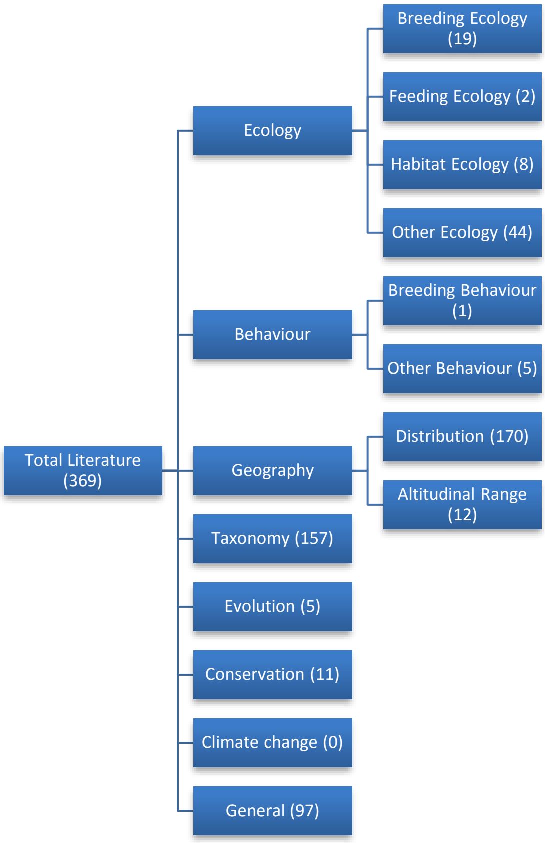


Figure 4.4 Number of publications on the herpetofauna of the Indian Himalayan Region in different subject categories

Research Gaps and Future Priorities

Research priorities in the past have been mainly taxonomy and distribution of herpetofauna, with some publications also focusing on biology. As herpetofauna are particularly vulnerable to climate change and extinction, they make important and ideal indicators for studies on climate change, and this will be of great importance in future research (Table 4.2).

Table 4.2 The key past and future research priorities based on the current assessment

Subject Area	**Key past research priorities**	**Research Gap and future priorities**
Ecology and Behaviour	Distribution	Feeding, breeding and habitat ecology
	Biology	
Taxonomy	Classification	Molecular Phylogeny
Evolution	Evolution and dispersal	
Conservation	Status and conservation	Conservation, prevention of conflict
Climate change	-	Herpetofauna as indicators of climate change
		Effect of climate change on ecology, behaviour, distribution, evolution, or extinction of herpetofauna.

References cited in the chapter are included in the bibliography

Bibliography

Herpetofauna of the Indian Himalayan Region

001. Acharji, M.N.; Mukherjee, A.K. (1966). Report on a collection of snakes from lower Bengal (Reptilia: Ophidia). *Journal of Zoological Society of India*. 16: 76-81.

002. Aengals, R.; Kumar, V.S.; Palot, M.J. (2011). Updated checklist of Indian reptiles. *Zoological Survey of India*.

003. Agarwal, I.; Bauer, A.M.; Jackman, T.R.; Karanth, K.P. (2014). Insights into Himalayan biogeography from geckos: a molecular phylogeny of *Cyrtodactylus* (Squamata: Gekkonidae). *Molecular - Phylogenetics and Evolution*. 80: 145-155.

004. Agarwal, I.; Mistry, V.K. (2011). *Bufo stuarti* from Western Arunachal Pradesh, India. *Russian Journal of Herpetology*. 15(2): 166-168.

005. Agarwal, I.; Mistry, V.K.; Athreya, R. (2010). A preliminary checklist of the reptiles of Eaglenest Wildlife Sanctuary, West Kameng district, Arunachal Pradesh, India. *Russian Journal of Herpetology*. 17(2): 81-93.

006. Agrawal, H.P. (1979). A checklist of reptiles of Himachal Pradesh, India. Indian Journal of Zootomy. 20(2): 115-124.

007. Ahmad, N. (1946). On a small collection of Vertebrates from high altitude in Kashmir state. *Journal of the Asiatic Society of Bengal*. 11: 119-121.

008. Ahmed, M.F.; Das, A. (2010). Tortoises and turtles of Northeast India: Saving them from Extinction : survey, assessment of present status and conservation of Tortoises and freshwater turtles in Northeast India. *Technical Report, Aaranyak, Guwahti*. 86pp.

009. Ahmed, M.F.; Das, A.; Dutta, S.K. (2009). Amphibians and reptiles of Northeast India: A photographic guide. *Aaranyak*.

010. Ahmed, S.; Dasgupta, G. (1992). Reptilia. *IN: Ghosh, A.K. (ed.). Fauna of West Bengal Part - 2 (Reptilia, Amphibia, Fishes, Hemichordata and Archaezoology). State Fauna Series 3. Zoological Survey of India, Calcutta*.

011. Alley, L.; Musahary, D.; Sengupta, S. (2013). Amphibians of East District of Sikkim, with notes on their natural history. *NeBio Journal*. 4(3): 2013. 28-31.

012. Ananjeva, N.B.; Tuniyev, B.S. (2011). Some aspects of historical biogeography of Asian rock Agamids. *Russian Journal of Herpetology*. 1(1): 42-52.

013. Anders, C.C.; El-Matbouli, M.; Hoffmann, R.W. (1998). Oxyurid nematode parasite of the intestine of *Tylototriton verrucosus* Anderson 1871. *In: (Schleich, H.H. and Kastle, W. Eds.): Contributions to the herpetology of South-Asia (Nepal, India). Veroff. Fuhlrott Mus., Wuppertal.* P.27-34.

014. Anderson, J. (1871). A list of reptilian accession to the Indian Museum, Calcutta from 1865 to 1870 with a description of some new species. *Journal of the Asiatic Society of Bengal.* 40(2): 12-39.

015. Anderson, J. (1871). On some Indian reptiles. *Proc. Zool. Soc. London*. 11: 149-211.

016. Anderson, J. (1872). On some Persian, Himalayan and other Reptiles. *Proc. Zool. Soc. London.* P. 371-404.

017. Anderson, J. (1878). Zoological result of the two expeditions to Western Yunnan in 1868 and 1875. *Anat. Zool. Res*. 1: 809-810.

018. Annandale, J. (1905). Contributions to Oriental Herpetology. Suppl. II. Notes on the Oriental lizards in the Indian museum with a list of the species recorded from British India and Ceylon. *Journal of the Asiatic Society of Bengal*. (2): 1.

019. Annandale, N. (1907). A colour variety of *Typhlops braminus*. *Rec. Ind. Mus*. 1: 397.

020. Annandale, N. (1906). A notes on the Freshwater Fauna of India. No. VIII. Some Himalayan Tadpoles. *Journal of the Asiatic Society of Bengal*. 289-292 pp.

021. Annandale, N. (1905). Addition to the collection of Oriental snakes in Indian Museum *Journal of the Asiatic Society of Bengal.* Part I : 739(1904)207-212, Part II: Specimens from the Andaman and Nicobars. 1905: 173-176 Part III (1905): 209-211.

022. Annandale, N. (1911). Contribution to the fauna of Yunnan, based on collections made by J. Coggin B.Sc. 1909-1910, Part VI, Batrachia and Reptiles. *Rec. Ind. Mus*. VI: 215-218.

023. Annandale, N. (1907). Eggs of *Tylototriton verrucosus*.*Records of Indian Museum*. 1: 278-279.

024. Annandale, N. (1915). Herpetological notes and descriptions. *Rec. Ind. Mus*. XI: 341-347.

025. Annandale, N. (1909). Miscellanea. Batrachia : Notes on Indian Batrachia. *Records of Indian Museum*. 3: 282-286.

026. Annandale, N. (1906). Notes on the freshwater fauna of India No. 8 - Some Himalayan tadpoles. *Journal of the Asiatic Society of Bengal*.

027. Annandale, N. (1905). On abnormal Ranid larvae from NorthEastern India. *Proc. Zool. Soc. London*. 1: 58-61.

028. Annandale, N. (1907). Reports on a collection of Batrachia, Reptiles and Fish from Nepal and the Western Himalays. Lacertilia. Records of the Indian Museum. 1: 151-155.

029. Annandale, N. (1913). The Indian gecko of the genus *Gymnodactylus*. *Rec. Ind. Mus. Calcutta*. 9: 309-329.

030. Annandale, N. (1914). Three rare Himalayan Lizards. *Rec. Ind. Mus., Calcutta*. 10: 319-320.

031. Annandale, N. (1917). Zoological results of a tour in the Far East Batrachia. *Memoirs of the Asiatic Society of Bengal.* 6: 119-155.

032. Annandale, N. (1912). Zoological results of the Abor Expedition, 1911-1912. 2. Reptilia. *Rec. Indian Mus., Calcutta*. 8: 37-59.

033. Annandale, N. (1912). Zoological results of the Abor expedition, 1911-12 I. Batrachia. *Records of Indian Museum*. 8: 7-36.

034. Annandale, N.; Hora, S.L. (1922). Parallel evolution in the fish and tadpoles of mountain torrents. *Records of the Indian Museum. Calcutta*. 24: 505-509 pp.

035. Athreya, R. (2006). Eaglenest Biodiversity Project - I (2003-2006): Conservation Resources for Eaglenest Wildlife Sanctuary. *A Report submitted to the Forest Departmentof the Government of Arunachal Pradesh, India, and the Rufford-Maurice-Laing Foundation (UK). Kaati Trust, Pune*.

036. Athreya, R. (2005). Herpetofauna of W. Arunachal Pradesh, Checklist. Version 13 March (2005). *Electronic database accessible at http://www.clsp.jhu.edu/people/zak/ramana/waplistherp.htm. Captured on 22 March 2005.*

037. Bahuguna, A. (2011). Altitudinal Variations in Morphological Characters of *Laudakia tuberculata* Hardwicke and Gray, 1827 from Western Himalayas (Uttarakhand), India. *Russian Journal of Herpetology*. 15(3): 207-211.

038. Bahuguna, A.; Bhutia, P.T. (2010). Amphibia. *Fauna of Uttarakhand.State Fauna Series*, 18(Part - I), 2010: 505-532.

039. Bahuguna, A.; Padmanaban, P. (2007). Reptilia. *Faunal Diversity Western Doon Shiwaliks.* 65-72 pp.

040. Baldauf, R.J. (1949). Records of amphibians and reptiles from Assam. *Copeia*. 1949: 289-90.

041. Barker, D.G.; Barker, T.M. (2008). The Distribution of the Burmese python, *Python molurus bivittatus*. *Bulletin of Chicago Herpetological Society*. 43(3): 33-38.

042. Bashir, T.; Poudyal, K.; Bhattacharya, T.; Sathyakumar, S.; Subba, J.B. (2010). Sighting of King Cobra *Ophiophagus hannah* in Sikkim, India: a new altitude record for the northeast. *Journal of Threatened Taxa*. 2(6): 990-991.

043. Bhatnagar, R.K. (1969). Extension of range of copper-head snake, *Elaphe radiata* Schlegel (Ophidia: Colubridae)to Doon Valley and Doon Shiwaliks. *Journal of the Bombay Natural History Society*. 66(2): 383.

044. Bhatnagar, R.K. (1972). Reptile fauna of Dehra Dun District (Uttar Pradesh. Part I. *Cheetal*. 15(4): 15-23.

045. Bhatnagar, R.K. (1967). Studies on Biology and Ecology of Common Rock Lizard (*Agama tuberculata* Gray)(Reptilea: Agamidae)in the Doon. *Cheetal.* 10 (1): 1967, 39-46 and 10(2): 27-37.

046. Bhatt, B.B. (2004). Present status of Ophidian fauna and habitat ecology of certain species of Ophidians in Arunachal Pradesh, India. *PhD. Thesis, Gauhati University, Assam, India.*

047. Bhupathy, S.; Chettri, B.; Bauer, A.M. (2009). Rediscovery and revalidation of *Takydromus sikkimensis* (Gunther, 1888)(squamata: Lacertidae)from Sikkim, India. *Journal of Herpetology*. 43(2): 267-274.

048. Biju, S.D.; Senevirathne, G.; Garg, S.; Mahony, S.; Kamei, R.G.; Thomas, A. (2016). *Frankixalus*, a new Rhacophorid Genus of Tree Hole Breeding Frogs with Oophagous Tadpoles. *Plos One*. 11(1):

049. Blanford, W.T. (1878). Notes on reptilia from the Himalayas and Assam. *Proceedings of the Asiatic Society of Bengal.* 6: 141-142.

050. Blyth, E. (1853). Notices and descriptions of various reptiles, new or little known. *Journal of the Asiatic Society of Bengal*. XII (1853): 639-55 and xxiii, 1854, 284-302 pp.

051. Borah, M.M. (2016). A study on distribution of amphibian fauna of Arunachal Pradesh with special reference to habitat ecology of tadpoles. *Ph.D. Thesis; Department of Zoology, University of Guwahti.*

052. Borah, M.M.; Bordoloi, S. (2001). Nine new records of Amphibia (Anura)from Arunachal Pradesh, India. *Journal of the Bombay Natural History Society*. 98(1): 123-126.

053. Borah, M.M.; Bordoloi, S. (2001). Rediscovery of *Bufo macrotis* Boulenger (Amphibia: Anura)in Arunachal Pradesh, India. *Zoos' Print Journal*. 16(8): 574.

054. Borah, M.M.; Bordoloi, S.; Purkayastha, J.; Das, M.; Dubois, A.; Ohler, A. (2013). *Limnonectes* (*Taylorana*)*medogensis* (FEI, YE and HUANG, 1997)from Arunachal Pradesh, India, and on the identity of some diminutive ranoid frogs. *Herpetozoa*. 26(1-2): 39-48.

055. Borang, A.; Bhatt, B.B.; Chaudhury, S.B.; Borkotoki, A.; Bhutia, P.T. (2005). Checklist of snakes of Arunachal Pradesh, Northeast India. *Journal of the Bombay Natural History Society.* 102(1): 19-26.

056. Bordoloi, S.; Borah, M.M. (1999). First record of *Hoplobatrachus crassus*(Jerdon, 1853), from North Eastern Region in Assam and Arunachal Pradesh. *Journal of the Bombay Natural History Society*. 96(1): 158.

057. Bordoloi, S.; Borah, M.M.; Chakravorty, P.; Sinha, B. (2001). First record of the ranid frog *Paa annandalii* (Boulenger, 1920)from North Eastern region (Arunachal Pradesh)of India, with a note on its larval stages. *Current Science*. 1219-1222 pp.

058. Bordoloi, S.; Borah, M.M.; Sharma, K.K.; Kalita, S.N. (2000). An Overview of amphibian fauna of Arunachal Pradesh, India. *Journal of the Assam Science Society*. 41(4): 363-371.

059. Bordoloi, S.; Bortamuli, T.; Ohler, A. (2007). Systematics of the genus *Rhacophorus* (Amphibia, Anura): identity of red-webbed forms and description of a new species from Assam. *Zootaxa*. 1653: 1-20.

060. Boulenger, G.A. (1913). A list of reptiles obtained by Mr. H. Stevens in Upper Assam and the Eastern Himalayas. *Rec. Indian Mus, Calcutta*. 337-338 pp.

061. Boulenger, G.A. (1920). A monograph of the South Asian, Papuan, Melanesian and Australian frogs of the genus Rana. *Records of the Indian Museum*. 20: 1-226.

062. Boulenger, G.A. (1896). Catalogue of the Snakes in the British Museum (Natural History). *London, Order of the Trustees*. Vol. 3.

063. Boulenger, G.A. (1906). Description of two new Indian frogs. *Journal of the Asiatic Society of Bengal.* 2: 385-386.

064. Boulenger, G.A. (1905). Description of two new snakes from Upper Assam, (*Oligodon Herberti, Amblycephalus Hamptoni*.). *Journal of the Bombay Natural History Society*. XVI: 253-256.

065. Boulenger, G.A. (1917). Descriptions of new frogs of the genus *Rana*. *Annals and Magazine of Natural History, Series, 8*. 20: 413-418.

066. Boulenger, G.A. (1888). Descriptions of two new Indian species of *Rana*. *Annals and Magazine of Natural History, Series, 6*. 2: 506-508.

067. Boulenger, G.A. (1887). On a rare Himalayan Toad, *Cophophryne sikkimensis*, Blyth. *Annals and Magazine of Natural History, Series. 5*. 20: 405-408.

068. Boulenger, G.A. (1891). On new or little-known Indian and Malayan Reptiles and Batrachians. *Annals and Magazine of Natural History*. 6(8): 288-292.

069. Boulenger, G.A. (1905). On the habitat of *Rana blanfordii*. *Annals and Magazine of Natural History Series* 7. 16: 640.

070. Boulenger, G.A. (1907). Report on a collection of Batrachia, Reptiles and Fish from Nepal and the Western Himalayas. *Rec. Indian Mus*. 1: 149-158.

071. Boulenger, G.A. (1890). Reptilia and Batrachia. *Taylor and Francis*. Vol. 10.

072. Boulenger, G.A.; Wall, F.; Tate, R. (1907). Report on a collection of Batrachia, reptiles and fish from Nepal and western Himalaya. *Rec. Indian Mus*. 1(2): 149-158.

073. Bourret, R. (1936). Les serpents de 1'Indochine. II. *Catalogue systematique description. Henri Basuyau et Cie, Toulouse.*

074. Burbrink, F.T.; Lawson, R. (2007). How and when did old would rat snakes disperse into the New World. *Molecular - Phylogenetics and Evolution*. 43: 173-189.

075. Cantor, T.E. (1839). *Spicilegium serpentium indicorum*. Parts 1 and 2. *Proc. Zool. Soc. London,* 7: 31-34, 49-55.

076. Captain, A. (1997). A catalog of most of the snakes preserved by various institutions in Itanagar. Arunachal Pradesh, India. *Unpublished Manuscript*. 1-131 pp.

077. Captain, A.; Bhatt, B.B. (2000). An interim checklist of the snakes of Arunachal Pradesh. *The Refni Newsletter*. 3: 10-13.

078. Captain, A.; Bhatt, B.B. (2001). First record of *Amphiesma venningi* (Wall, 1910)Serpentes, Colubridae: Natricinae)from India, with remarks on its subspecies. *Hamadryad*. 26(2): 354-358.

079. Captain, A.; Bhatt, B.B. (1997). Some snakes of the Itanagar area of Papumpare District, Arunachal Pradesh. *Arunachal Forest News*. 15: 12-14.

080. Captain, A.; Patel, A. (1998). *Sinonatrix percarinata*, a new genus for India. *Hamadryad*. 22(2): 114-115.

081. Captain, A.; Patel, A. (1997). Some snakes of the Miao Woodlot (Dist. Changlang)Arunachal Pradesh, India. *Unpublished Manuscript*. 1-15 pp.

082. Cardew, A. (1897). A rough key to the identification of Indian ophidian. *Journal of the Bombay Natural History Society*. 10(4): 585-596.

083. Cazaly, W.H. (1914). The common snakes of India and Burma and how to recognize them. *The Pioneer Press, Allahabad*.

084. Chabanaud, P. (1922). Reptiles et Batraciens. Resultats Scientifiques. Mission Guy Barbault dans les Provinces Centrales de 1'Inde et dans le Region Occidentale de 1'Himalaya. 1914. *Paris: Blondel La rougery*.

085. Chanda, S.K. (2002). Amphibia. *Fauna of Sikkim, State Fauna Series*. 9 (Part-I): 173-183.

086. Chanda, S.K. (1994). Anuran (Amphibia)fauna of Northeast India. *Memoirs of Zoological Survey of India.* 18: 1-143.

087. Chanda, S.K. (2006). Fauna of Sikkim : Amphibian. *State Fauna Series, 9(Part-I), (Published by the Director, Zool. Surv. India, Kolkata)*. 1-214 pp.

088. Chanda, S.K. (1992). Further note on the distribution pattern of Amphibia in northeast India. *Journal of the Bombay Natural History Society*. 11(1): 25-33.

089. Chanda, S.K. (2002). Handbook - Indian Amphibians. *Zoological Survey of India*, Kolkata.

090. Chanda, S.K. (1986). On a collection of Anuran amphibians from Darjeeling and Sikkim Himalayas, with a description of a new species of *Rana* (Ranidae). *Journal of the Bombay Natural History Society*. 5(2): 140-151.

091. Chanda, S.K.; Das, I.; Dubois, A. (2001). Catalogue of amphibian types in the collection of the Zoological Survey of India. *Hamadryad.* 25: 100-128.

092. Chanda, S.K.; Deuti, K. (1997). Endemic amphibians of India. *Records of the Zoological Survey of India.* 96(1-4): 63-79.

093. Chanda, S.K.; Ghosh, A.K. (1989). A new frog of the genus *Philautus gistel*, from the proposed Namdapha Biosphere Reserve, Arunachal Pradesh, Northeast India. *Journal of the Bombay Natural History Society*. 86: 215-217.

094. Chatterjee, K.; Mahji, A. (1974). Karyotype of the Himalayan Newt *Tylototriton verrucosus*. *Norw. J. Zool*. 22: 65-66.

095. Chaudhury, R.C. (1966). Studies on *Tylototriton verrucosus* (Himalayan newt)found in Darjeeling. *Journal of Bengal Natural History Society, Darjeeling*. 35: 32-36.

096. Che, J.; Zhou, W.W.; Hu, J.S.; Papenfuss, T.J.; Wake, D.B.; Zhang, Y.P. (2010). Spiny frogs (Paini)illuminate the history of the Himalayan region and Southeast Asia. *Proceedings of the National Academy of Sciences of the United States of America*. 107: 1376-1370.

097. Chen, L.Q.; Murphy, R.W.; Lothrop, A.; Ngo, A.; Ngo, A.; Orlov, N.L.; Ho, C.T.; Somorjai, I. (2005). Taxonomic chaos in Asian Ranid frogs: an initial phylogenetic resoultion. *Herpetological Journal. London*. 15: 231-243.

098. Chen, W.; Bi, K.; Fu, J. (2009). Frequent mitochondrial gene introgression among high elevation Tibetan megophryid frogs revealed by conflicting gene genealogies. *Molecular Ecology*. 18: 2856-2876.

099. Chettri, B. (2010). A study on the distribution pattern and conservation of amphibians in Sikkim, India. *Darjeeling: Ashoka Trust for Research in Ecology and Environment*.

100. Chettri, B. (2007). Distribution and resource use patterns of reptiles along the Teesta Valley, Eastern Himalayas, Sikkim, India. *Ph. D. Thesis. Bharathiar University, Coimbatore, India*.

101. Chettri, B.; Bhupathy, S. (2009). Occurrence of *Dinodon gammiei* (Blanford, 1878)in Sikkim, Eastern Himalaya, India. *Journal of Threatened Taxa*. 1(1): 60-61.

102. Chettri, B.; Bhupathy, S. (2007). Reptile fauna of Sikkim with emphasis to the Teesta valley. *Journal of Hill Research*. 20: 1-6.

103. Chettri, B.; Bhupathy, S.; Acharya, B.K. (2010). Distribution pattern of reptiles along an eastern Himalayan elevation gradient, India. *Acta Oecologica*. 36: 16-22.

104. Chettri, B.; Bhupathy, S.; Acharya, B.K. (2009). Morphometry and aspects of breeding biology of *Trachischium guentheri* Boulenger, 1890 (Serpentes: Colubridae)in north Sikkim, eastern Himalaya, India. *Russian Journal of Herpetology*. 16(3): 177-182.

105. Chopra, R.C.; Kumar, K. (1977). Extension of range of the frog, *Rana crassa* Jerdon, to Western Himalayas. U.P. *Journal of the Bombay Natural History Society*. 74(1): 180.

106. Cole, C.J. (1990). Chromosomes of *Agkistrodon* and other viperid snakes. *In: (Gloyd, H.K. and Conant, R.C. eds.): Snakes of the Agkistrodon complex. A monographic review, . Society for the study of Amphibians and Reptiles. Contributions to Herpetology, 6, SSAR, Oxford, Ohio*. 533-538 pp.

107. Cope, E.D. (1860). Catalogue of the Colubridae in the Museum of the Academy of Natural Sciences of Philadelphia, with notes and descriptions of new species. Part II. *Proc. Acad. Nat. Sci. Phil*. 12: 241-266.

108. Cope, E.D. (1861). Catalogue of the Colubridae in the Museum of the Academy of Natural Sciences of Philadelphia. Part 3. *Proc. Acad. Nat. Sci. Phil*. 12(1860): 553-566.

109. D'Abreu, E.A. (1912). Is *Lycodon gammiei* (Blanford)is an aberrant specimen of *Lycodon fasciatus* (Anderson). *Journal of the Bombay Natural History Society*. 21: 1335-1336.

110. Daniel, J.C. (1962). Notes on some amphibians of the Darjeeling area, West Bengal, *Journal of the Bombay Natural History Society*. 59(2): 666-668.

111. Daniel, J.C. (1983). The Book of Indian Reptiles. *Bombay Natural History Society, Oxford Univ. Press., Bombay.*

112. Daniel, J.C. (2002). The Book of Indian reptiles and amphibians. *Bombay Natural History Society, Oxford Univ. Press, Mumbai.*

113. Darlington, P.J. (1957). Zoogeography: the Geographical Distribution of Animals. *John wiley and Sons, New York.*

114. Das, A.; Das, I. (2007). Rediscovery of *Mictopholis austeniana* (Annandale, 1908)(Squamata: Agamidae). *Current Herpetology*. 26(1): 45-47.

115. Das, A.; Mohapatra, P.P.; Purkayastha, J.; Sengupta, S.; Dutta, S.K.; Ahmed, M.F.; Tillack, F. (2010). A contribution to *Boiga gokool* (Gray, 1835)(Reptilia: Squamata: Colubridae). *Russian Journal of Herpetology*. 17(3): 161-178.

116. Das, A.; Nair, M.V.; Ahmed, M.F.; Sharma, P.K. (2008). Distribution of King Cobra (*Ophiophagus hannah*)in Northeastern India with new altitudinal record and notes on its habitat. *Tigerpaper* (FAO).

117. Das, I. (2002). A Photographic Guide to Snakes and other Reptiles of India. *New Holland Publishers Ltd., London*.

118. Das, I. (2003). Growth of Knowledge on the reptiles of India, with an introduction to systematics, taxonomy and nomenclature. *Journal of the Bombay Natural History Society*. 100(2-3): 446-501.

119. Das, I.; Dasgupta, B.; Gayen, N.C. (1998). History and catalogue of reptile types in the collection of the Zoological Survey of India. *Journal of South Asian Natural History*. 3(2): 121-172.

120. Das, I.; Dutta, S.K. (1998). Checklist of the amphibians of India, with English common names. *Hamadryad*. 23: 63-68.

121. Dasgupta, R. (1990). Distribution and conservation problems of the Himalayan newt. (*Tylototriton verrucosus*)in the Darjeeling Himalayas. *Hamadryad.* 15(1): 13-15.

122. Dasgupta, R. (1997). Effects of predation and trophic conditions on the reproduction of *Tylototriton verrucosus* (Caudata: Salamandridae)in Darjeeling. *Russ. J. Herpetol., Moskau*. 4(2): 163-169.

123. Dasgupta, R. (1996). Habitat and Biology of the Himalayan Newt, *Tylototriton verrucosus* Anderson. *Abstract of Ph.D., University of Kalyani, India-Zoos Print, Amphibian Special Issue, Coimbatore*. 11(8): 45-46.

124. Dasgupta, R. (1983). Observation on the Himalayan newt. *Journal of Bengal Natural History Society, Darjeeling.* 2: 59-60.

125. Dasgupta, R. (1984). Parental care in the Himalayan newt. *Journal of Bengal Natural History Society, Darjeeling.* 3(2): 106-109.

126. Dasgupta, R. (1998). The distribution pattern of *Tylototriton verrucosus* (Salamandridae: Caudata)in Conjunction with the absence of Neoteny in species as indications for its migration to the foot-hills of Himalayas (sic). in eastern India and Nepal From Yunnan hills of China during Holocene: a hypothesis. Third Asian Herpetological Meeting (1-5 Sept. 1998)- Abstracts: 14. Almaty, Kazakhstan.

127. Dasgupta, R. (1988). The young of the Himalayan newt. *Journal of Bengal Natural History Society, Darjeeling.* 7(1): 3-18.

128. Dasgupta, R. (1993). *Tylototriton verrucosus*-eine gefahrdete Art in Himalaya. *Elaphe, N.F., Berlin*. 1: 25.

129. Dasgupta, R.; Dasgupta, B. (1990). On the Conservation of the Himalayan Salamander *Tylototrition verrucosus*. *In: (Manna, G.K. and Jana, B.B Eds.): Impacts of environment on animals and agriculture*. 283-285 pp.

130. Datta, A. (1998). Records of Turtles form Pakhui Wildlife Sanctuary, Arunachal Pradesh, Northeastern India. *Journal of the Bombay Natural History Society*. 95: 121-123.

131. Dattatri, S. (1986). A note on reproduction in the Himalayan pit viper (*Agkistrodon himalayanus*). *Journal of the Bombay Natural History Society*. 82(1): 224-225.

132. David, P.; Captain, A.; Bhatt, B.B. (2002). On the occurrence of *Trimeresurus medoensis* Djao in Djao and Jing, 1977 (Serpentes, Viperidae, Crotalinae)in India, with a redescription of this species and notes on its biology. *Hamadryad*. 26(2): 222-228.

133. David, P.; Mathew, R. (2005). Notes on some noteworthy snake specimens deposited in the collections of Eastern Regional Station of the Zoological Survey of India. *Rec. Zool. Surv. Indi, Kolkata,* 104(3--4): 83-90.

134. Dawson, W.R. (1946). On the history of Gray and Hardwicke's illustrations of Indian zoology and some biographical notes on General Hardwicke. *Journal of Soc. Biblio. Nat. Hist., London*. 2(3): 55-69. 427.

135. Deoras, P. J. (1965). Snakes of India, National Book Trust India, New Delhi. *In: Duda, P.L. and Sai, D.N. (1976). Field guide to the snakes of Jammu and Kashmir State. 65th session of All India Congress. Part III*. 211 pp.

136. Deuti, K.; Kumar, A. (2008). Rediscovery of robust pelobatid frog. *Xenophrys robusta*, after fifty years with three colour morphs. *Rec. Zoo. Surv. India*. 108(4): 119-120.

137. Dilger, W.C. (1952). The Brij Hypothesis as an explanation for the tropical faunal similarities between the westernghat and the eastern Himalayas, Assam, Burma, and Malaya. *Evolution*. 67: 125-127.

138. Dinesh, K.P.; Radhakrishnan, C.; Gururaja, K.V.; Deuti, K.; Bhatt, G. (2012). A checklist of Amphibia of India with IUCN Red list Status. *Online Version, updated September 2012. http://zsi.gov.in/checklist/amphibia_final.pdf (accessed 23 September, 2013).* 17pp.

139. Dinesh, K.P.; Radhakrishnan, C.; Gururaja, K.V.; Bhatt, G. (2009). An annotated checklist of Amphibia of India with some insights into the patterns of species discoveries, distribution and endemism. *Records of the Zoological Survey of India. Occasional Paper*. 302: 1-153.

140. Dodsworth, P.T.L. (1913). On the Habits of the Rock Lizard (*Agama tuberculata*). *Journal of the Bombay Natural History Society*. 22: 404.

141. Dubois, A. (1986). Miscellanea taxinomica batrachologica (I). *Alytes. Paris*. 5: 7-95.

142. Dubois, A. (1992). Notes sur la classification des Ranidae (Amphibiens anoures). *Bulletin Mensuel de la Societe Linneenne de Lyon*. 61: 305-352.

143. Dubois, A. (1980). Notes sur la systematique et al repartition des amphibiens anoures de Chine et des regions avoisinantes IV. Classification generique et subgenerique des Pelobatidae Megophryinae. *Bulletin Mensuel de la Societe Linneenne de Lyon*. 49: 469-482.

144. Dubois, A. (1999). South Asian Amphibia: A new Frontier for Taxonomists. *Journal of the South Asian Natural History*. 4(1): 1-11.

145. Dubois, A. (1975). Un nouveau sous-genre (Paa)et trois nonvelles especes du genre *Rana*. Remarques sur la phylogenies des Ranides (Amphibiens, Anoures). *Bulletin du Museum National d'Histoire Naturelle. Paris. Serie 3, Zoologie*. 324: 1093-1115.

146. Dubois, A. (1978). Une espece nouvelle de Scutiger Theobald 1868 de 1'Himalaya occidental (Anura: Pelobatidae). *Senckenbergiana Biologica*. 59: 163-171.

147. Duda, P.L.; Sahi, D.N. (1977). An up to date checklist of herpetiles of Jammu and Kashmir. *Jammu and Kashmir University Review*. 6(10): 1-7.

148. Duda, P.L.; Sahi, D.N. (1978). *Cyrtodactylus himalayanus*: A new gekkonid Species from Jammu, India. *Journal of Herpetology*. 12(3): 351-354.

149. Duda, P.L.; Sahi, D.N. (1978). *Cyrtodactylus mansarulus* n. sp. from Jammu. *Proceedings of the Indian Science Congress.* 65: 211.

150. Duda, P.L.; Verma, A.K.; Sahi, D.N. (1993). Sex ratio in freshwater turtles from Jammu, India. *Hamadryad*. 18: 10-12.

151. Dujsebayeva, T. (1998). The histology of callous scales of Asian Rock agamas *Laudakia caucasia* and *Laudakia himalayana* (Reptilia: Agamidae). *Russ. J. Herpetol*. 5(2): 160-164.

152. Dutta, S.K. (1997). Amphibians of India and Sri Lanka. *Odyssey Publishing House*, *Bhubaneswar.*

153. Dutta, S.K. (1992). Amphibians of India: Updated species list with distribution record. *Hamadryad.* 17: 1-13.

154. Dutta, S.K. (1999). Assessment of Herpetofauna: Diversity, Density, Distribution, Ecological Requirements and Responses to Human Activities in GHNP and WLSs. *Final Report, FREEP-GHNP Research Project, Wildlife Institute of India, Dehradun*. 1-17p.

155. Eliosa-Leon, H.; Canseco-Marquez, L.; Yanez-Gomez, G. (1995). Geographic distribution: Serpentes: *Ramphotyphlops braminus* (Braminy Blind Snake). *Herpetological Review*. 26(2): 110.

156. Ernst, C.H. (1982). A study of the fangs of snakes belonging to the *Agkistrodon* complex. *Journal of Herpetology*. 16(1): 72-80.

157. Evans, G.H. (1901). *Dipsas cyanea*. *Journal of the Bombay Natural History Society*. xiii: 553.

158. Evans, G.H. (1903). The King Cobra or Hamdryad, *Naja bungarus* Boulenger, *Ophiophagus elaps* Gunther. *Journal of the Bombay Natural History Society*. xiv: 409-18.

159. Fayrer, J. (1872). The Thanatophidia of India, being a description of the venomous snakes of the Indian Peninsula, with an account of the influence of their poison on life and a series of experiments. J. *and A. Churchill, London. (Second edition 1874).* 156 pp + 31 pls.

160. Fei, L.; Ye, C.Y.; Jiang, J.P. (2010). Phylogenetic systemtics of Ranidae. *Herpetologica Sinica/Liang qi pa xing dong wu xue yan jiu*. 12: 1-43.

161. Fenton, L.L. (1910). The snakes of Kashmir. *Journal of the Bombay Natural History Society.* 29: 1092-1004.

162. Fitzinger, L. (1843). Systema Reptilium. *Amblyglossae, Braumuller et Seidel, Vindobonae (Vienna)*.

163. Fotedar, D.N. (1959). On a new species of the Genus *Cosmocerca* Diesing, 1861 from a Toad, *Bufo viridis*, in Kashmir. *Journal of Helminthology*. 33(2-3): 161-170.

164. Fotedar, D.N.; Tikoo, R. (1968). Further studies on the life cycle of *Cosmocerca kashmirensis* Fotedar, 1959, common oxyurid nematode parasite of *Bufo viridis* in Kashmir. *In: Proceedings of the Indian Science Congress Association*. 55: 460.

165. Frank, N.; Ramus, E. (1995). Complete Guide to Scientific and Common Names of Amphibians and Reptiles of the World. *Pottsville, Pennsylvania: N.G. Publishing Inc*.

166. Frost, D.R. (2016). Amphibian Species of the World: An Online Reference. Version 6.0 (Date of Access). *Electronic Database accessible at http://research.amnh.org/herpetology/amphibia/index.html.American Museum of Natural History, New York, USA.*

167. Frost, D.R.; Grant, T.; Faivovich, J.; Bain, R.H.; Bain, R.H.; Haas, A.; Hadded, C.F.B.; De Sa, R.O.; Channing, A.; Wilkinson, M.; Donnellan, S.C.; Raxworthy, C.J.; Campbell, J.A.; Blotto, B.L.; Moler, P.E.; Drewes, R.C.; Hussbaum, R.A.; Lynch, J.D.; Green, D.M.; Wheeler, W.C. (2006). The amphibian tree of life. *Bulletin of the American Museum of Natural History*. 297: 1-370.

168. Fu, J.; Lathrop, A.; Murphy, R.W. (1997). Phylogeny of Genus *Scutiger* (Amphibia: Megophryidae): A Re-evaluation. *Asiatic Herpetological Research*. 7: 32-37.

169. Gharpurey, K.G. (1954). The snakes of India and Pakistan. *W.S. Heinman*. pp. xi+154, pls.

170. Gleadow, F. (1899). Note on the Himalayan Viper (*Ancistrodon himalayanus*). *Journal of the Bombay Natural History Society.* 12: 577-578.

171. Golay, P.; Smith, H.M.; Broadley, D.C.; Dixon, J.R.; McCarthy, C.; Rage, J.C.; Schatti, B.; Toriba, M. (1993). Endoglyphs and other venomous snakes of the World. *A Checklist, Azemiops S. A. Herpetological Data Center, Geneva.*

172. Goodyear, N.C. (1994). *Python molurus bivittatus* (Burmese Python). Movements. *Herpetological Review*. 25(2): 71-72.

173. Gray, J.E. (1825). A synopsis of the genera of Reptiles and Amphibia, with a description of some new species. *Annals of Phylosophy*. 10: 193-217.

174. Gray, J.E. (1845). Catalogue of lizards in the British Museum, London. *London, Order of the Trustees*. xxvii + 289 pp.

175. Gray, J.E. (1849). Catalogue of the snakes in the collection of the British Mus. *London*. 125 pp.

176. Gray, J.E. (1846). Description of some new species of Indian lizard. *Annals and Magazine of Natural History.* 28: 429-30.

177. Gray, J.E. (1853). Descriptions of some undescribed species of reptiles collected by Dr. Joseph Hooker in the Kassia Mountains, East Bengal, and Sikkim Himalaya. *Annals and Magazine of Natural History*. 12(2): 386-392.

178. Gray, J.E. (1835). Illustrations of Indian Zoology: Chiefly selected from the collection of Major General Hardwicke. *London.* 2 Vols.

179. Gruber, U. (1981). Note on the herpetofauna of Kashmir and Ladakh. *British Journal of Herpetology.* 6: 145-150.

180. Gunther, A. (1858). Catalogue of colubrine snakes in the British Museum. *Alden and Mowbray Ltd at the Alden Press, Oxford*, 281 pp.

181. Gunther, A. (1860). Contributions to a Knowledge of the reptiles of the Himalaya mountains. I. Descriptions of the New species. II. List of Himalayan reptiles, with remarks on their horizontal distribution. *Proceedings of the Zoological Society of London*. 148-175p.

182. Gunther, A. (1858). Neue Batrachier in der Sammlung des britischen Museums. *Archiv fur Naturgeschichte. Berlin.* 24: 319-328.

183. Gunther, A. (1864). The Reptiles of British India. *Taylor and Francis, London*. xxvii + 452 pp.

184. Guo, P.; Lu, S.Q.; Huang, S.; Zhao, H.; Zhao, E.M. (2006). Hemipenial morphology of five species of asian pitvipers, with a discussion on their taxonomy. *Amphibia - Reptilia*. 27: 19-23.

185. Guo, P.; Zhang, F.J. (2001). Comparative studies on hemipenes of four species of Trimeresurus (sensu stricto)(Serpentes: Crotalinae). *Amphibia - Reptilia*. 22: 113-117.

186. Halliday, T. ; Adler, K.A. (2002). The New Encyclopedia of Reptiles and Amphibians. Oxford, United Kingdom. *Oxford University Press*.

187. Hora, S.L. (1926). Notes on lizards in the Indian Maseum: on the unnamed collection of the family Agamidae. *Records of the Indian Museum*. 28: 215-220.

188. Hora, S.L. (1953). The Satpura Hypothesis. *Sc. Progress*. 41(162): 245-255.

189. Hora, S.L.; Jayaram, K.L. (1949). Remarks on the distribution of snakes of Peninsular India with Malayan affinities. *Proc. Nat. Inst. Sci. India, New Delhi*. 15(8): 399-402.

190. Hussain, A. (1995). Amphibia. Himalayan Ecosystem Series, Fauna Western Himalayas, Part I. Uttar Pradesh, *Zoological Survey of India, Kolkata*. 15: 1-157.

191. Hussain, A. (2015). Amphibians of Doon Valley (Dehra Dun, Uttarakhand)with their Systematics, Distribution, Ecology Conservation Status and Threats. *In: Aquatic Ecosystem: Biodiversity, Ecology and Conservation, Springer India.* 217-229 pp.

192. Hussain, A. (2004). Reptilia. *In: Some selected fauna of Govind Pashu Vihar, Conservation Area Series*. 18:37-40 pp.

193. Hussain, A. (2004). Some selected fauna of Gobind Pashu Vihar. *Conservation Area Series -18, Zoological Survey of India (Eds. Arun Kumar, Gupta, S.K. and Padmanabhan*, P.). 35-36 pp.

194. Hussain, A.; Ray, P. (1995). Fauna of Western Himalaya, Part I. *Uttar Pradesh: Reptilis. Himalayan Ecosystem Series, Zoological Survey of India.* 159-167. Pl. I. figs. 1-4, Pl. II, figs. 1-3.

195. Hussain, A.; Roy, P. (1992). Occurrence of Twin Spotted Wolf Snake *Lycodon jara* (Shaw)(Dipsadidae: Lycodontinae)in Rajaji National Park and Doon Valley, Uttar Pradesh. *Journal of the Bombay Natural History Society*. 90: 112-113.

196. Inger, R.F.; Dutta, S.K. (1986). An overview of the amphibian fauna of India. *Journal of the Bombay Natural History Society*. 83 (suppl.): 135-146.

197. Inglis, C.M.; Travers, W.L.; O'Donel, H.V.; Shebbeare, E.O. (1920). A tentative list of the vertebrates of the Jalpaiguri District, Bengal. Part III. *Journal of the Bombay Natural History Society.* 27(1): 151-162.

198. Ingoldby, C.M. (1922). A new stone gecko from the Himalaya. *Journal of the Bombay Natural History Society.* 28: 1051.

199. Jayaram, K.C. (1949). Distribution of Lizards of peninsular India with Malayan affinities. *Proc. Natl. Inst. Sci. India*. 15: 403-409.

200. Jerdon, T.C. (1870). Notes on Indian herpetology. *Proceedings of the Asiatic Society of Bengal*. 1870: 66-85.

201. Jha, A. (2009). Order Testudines: First recorded instance in Sikkim. *Tigerpaper*. 36(1): 31-34.

202. Jha, A.; Thapa, K. (2002). Reptiles and Amphibians of Sikkim. *Mrs. Shila Jha, Chattisgarh, India.*

203. Kastle, W. (1998). Studies on the ecology and behavior of *Sitana sivalensis* spec. Nov. *In: (Schleich, H.H. and Kastle, W. Eds.): Contributions to the herpetology of South-Asia (Nepal, India). Veroff. Fuhlrott Mus., Wuppertal.* 4: 247-268.

204. Kastle, W.; Schleich, H.H. (1998). Contributions to the Biology of *Japalura kumaonesis* (Annandale, 1907). *In: (Schleich, H.H. and Kastle, W. Eds.): Contributions to the herpetology of South-Asia (Nepal, India). Veroff. Fuhlrott Mus., Wuppertal*. 4: 247-268.

205. Kastle, W.; Schleich, H.H. (1998). Note on comparative ethology and taxonomy of the genus *Japalura*. *In: (Schleich, H.H. and Kastle, W. Eds.): Contributions to the herpetology of South-Asia (Nepal, India). Veroff. Fuhlrott Mus., Wuppertal.* 4: 233-246.

206. Kastle, W.; Schleich, H.H.; Shah, K.B. (1993). Contributions to the biology of *Japalura tricarinata* and *J. Polygonata* (Sauria: Agamidae). *Journal of the Bombay Natural History Society*. 90(2): 223-262.

207. Kaul, O.; Duda, P.L. (1967). Ovarian cycle in high altitude lizards from Kashmir. *Copeia*. 1977: 751-753.

208. Khan, M.S. (1979). On a collection of amphibians from northern Punjab and Azad Kashmir, with ecological notes. *Biologia*. 37-50 pp.

209. Khan, M.S. ; Tasnim, R. (1986). Notes on the Himalayan pit viper, *Agkistrodon himalayanus* (Gunther). *Litteratura Serpentium (English Edition), Dutch Snake Soc*. 6: 45-55.

210. Khan, M.S.; Tasnim, R. (1989). A new frog of the genus *Rana*, Subgenus Paa, from Southewestern Azad Kashmir. *Journal of Herpetology*. 419-423 pp.

211. Killips, P.E. (2001). Patterns of distribution of amphibians. A global perspective. *Journal of Animal Ecology.* 70(3): 536-536.

212. Knight, A.; Densmore, L.D.; Dael, E.D. (1992). Molecular systematics of the *Agkistrodon* complex. *In: (Compbelly, A. and Brodie. E.D. Jr. Eds.). Biology of the pitvipers. Seiva Tyler, Texas*. 49-69 pp.

213. Kumar, A.; Gupta, S.K.; Padmanaban, P. (2004). Some selected fauna of Gobind Pashu Vihar. *Conservation Area Series, Zoological Survey of India*. 18: 1-90 pp.

214. Kunte, K.; Manthey, U. (2009). Rediscovery of *Japalura sagittifera* (Sauria: Agamidae)from the Eastern Himalayas, Arunachal Pradesh: An addition to the Indian Herpetofauna. *Sauria*. 39(2): 42-55.

215. Kuzmin, S.L,; Dasgupta, R.; Smirina, E.M. (1994). Ecology of the Himalayan newt. (*Tylototriton verrucosus*)in Darjeeling Himalayas, India. *Russ. J. Herpetol., Moskau*. 1(1): 69-76.

216. Lal, O.P. (1991). Distribution, habits, habitats and feeding behavior of common rock lizard, *Agama tuberculata* Gray (Reptilia: Agamidae)in Kullu Valley, Western Himalayas. *Journal of Ent. Res*. 15(4): 248-250.

217. Lu, S.Q.; Yang, D.T. (1995). A study on morphological similarity between the genera *Nanorana* and *Altirana* (Amphibia, Anura, Ranidae). *Asiatic Herpetological Research*. 6: 69-72.

218. Mahajan, K.K.; Agrawal, H.P. (1976). Reports on a collection of reptile fauna from Shimla hills, Himachal Pradesh. *Records of Zoological Survey of India*. 71(1-4): 301-312.

219. Mahendra, B.C. (1939). The Zoogeography of India in the light of herpetological studies. *Sci. Cult*. 4(7): 1-11.

220. Mahony, S.; Sengupta, S.; Kamei, R.G.; Biju, S.D. (2011). A new low altitude species of *Megophrys kuhl* and van Hasselt (Amphibia: Megophryidae), from Assam, northeast India. *Zootaxa.* 3059: 36-4.

221. Malhotra, A.; Thorpe, R.S. (2004). A phylogeny of four mitochondrial gene regions suggests a revised taxonomy for Asian pit-vipers (*Trimeresurus* and *Ovophis*). *Molecular - Phylogenetics and Evolution.* 32(1): 83-100.

222. Malhotra, A.; Thorpe, R.S. (2000). A phylogeny of the *Trimeresurus* group of pit vipers: new evidence from a mitochondrial gene tree. *Molecular - Phylogenetics and Evolution*. 16: 199-211.

223. Malhotra, A.; Thorpe, R.S. (2004). Maximizing information in systematic revisions: a combined molecular and morphological analysis of a cryptic green pitviper complex (*Trimeresurus stejnegeri*). *Biological Journal of Linnean Society*. 82: 219-235.

224. Malhotra, S.K.; Capoor, V.N. (1984). On a new Reptilian Cestode *Oochoristica pauriensis* n. sp. from *Hemidactylus brooki* (Gray)and *Hemidactylus*. *The Korean Journal of Parasitology*. 22(1): 99-101.

225. Malnate, E.V. (1960). Systematic division and evolution of the Colubrid snake genus *Natrix*, with comments on the subfamily Natricinae. *Proc. Acad. Nat. Sci. Phila*. 112(3): 41-71.

226. Mansukhani, M.R.; Julaka, J.M.; Sankar, H.K. (1976). On the occurrences of the Himalayan newt *Tylotoriton verrucosus* Anderson from Arunachal Pradesh, India. *Newsletter of Zoological Survey of India*. 2(6): 138-139.

227. Mathew, R. (1992). Additional records of snakes from northeast India, with four new records. *Records of the Zoological Survey of India*. 91(3-4): 287-292.

228. Mathew, R. (1983). On a collection of snakes from North-East India (Reptilia: Serpentes). *Rec. Zool. Surv. India.* 80: 449-458.

229. Mathew, R. (1999). Snakes in North-East India. *In: B.D. Sharma (ed.). Snakes in India: A Source Book. Asiatic Publ. House, New Delhi.*

230. Mathew, R.; Sen, N. (2007). Description of two new species of *Xenophrys* (Amphibia: Anura: Megophryidae)from north-east India. *Cobra*. 1(2): 18-28.

231. Mathew, R.; Sen, N. (2006). Occurrence of *Rana humeralis* Boulenger, 1887 in Arunachal Pradesh and Assam and notes on *Rana nigrovittata* (Blyth, 1855)(Amphibia: Anura: Ranidae)in Assam. *Rec. Zool. Surv. India*. 106: 81-82.

232. Mathew, R.; Sen, N. (2010). Pictorial Guide to the Amphibians of North East India. *Zoological Survey of India, Kolkata*. 144 pp.

233. Mathew, R.; Sen, N. (2009). Studies on little known amphibian species of North East India. *Zoological Survey of India.*

234. McCann, C. (1932). Notes on Indian Batrachians. *Journal of the Bombay Natural History Society*. 32.

235. Mehta, H.S. (2005). Amphibia. *IN:Alfred, J.R.B. ed., Fauna of Western Himalaya (Part 2): Himachal Pradesh, Kolkata, Zoological Survey of India*. 269-274 pp.

236. Mehta, H.S.; Murthy, T.S.N. (2006). Class: Amphibia. *Biodiversity in the Shivalik Ecosystem of Punjab.* 697-700 pp.

237. Mehta, H.S.; Uniyal, D.P. (2007). Amphibia. *Faunal Diversity of eastern Doon Shiwaliks*. 61-64 pp.

238. Mistry, V.; Vogel, G.; Tillack, F. (2007). Rediscovery of *Dinodon gammiei* (Blanford, 1878)(Serpents: Colubridae)with discussion on its validity. *Hamadryad*. 31(2): 265-273.

239. Malhotra, C.S.; Thorpe, R.S. (2003). Assessing the phylogenetic utility of four mitochondrial genes and a nuclear intron: separate, conditional, and simultaneous analyses in the genus *Trimeresurus sensu stricto*. *Molecular Biology Evolution.* 20: 1240-1251.

240. Mukherji, D.D. (1991). Bifurcated tailed skink *Leiolopisma himalayanam* (Gunther) from Kinnaur District, Himachal Pradesh. *Journal of the Bombay Natural History Society*. 88(2): 291.

241. Mukherji, R.P. (1980). Occurrence of *Opalina scalpriformis* Ghosh (Protozoa: Opalinidae)in the toad *Bufo himalayana* Gunther from Darjeeling District, West Bengal. *Journal of Zoological Society of India*. 30(1-2): 83.

242. Murthy, T.S.N. (1990). Field book of the lizards of India. *Zoological Survey of India*. 116pp.

243. Murthy, T.S.N.; Sharma, B.D. (1976). A contribution to the herpetofauna of Jammu and Kashmir. *British Journal of Herpetology.* 5(6): 533-538.

244. Myers, G.S.; Leviton, A.E. (1962). Generic classification of the high-altitude Pelobatid toads of Asia (Scutiger, Aelurophryne, and Oreolalax). *Copeia*. 1962: 287-291.

245. Negi, S.S. (1992). Himalayan wildlife, habitat and conservation. *Indus, Publ. Co., New Delhi.* 441 pp.

246. Nieden, F. (1923). Anura I. Subordo Aglossa und Phaneroglossa, Sectio 1. Arcifera. *Das Tierreich.* 46: xxxii +584 .

247. Noble, G.K. (1926). An analysis of the remarkable cases of distribution among the Amphibia, with description of new genera. *American Museum Novitates*. 212: 1-24.

248. Nussbaum, R.A.; Brodie, E.D., Jr.; Yang, D. (1995). A taxonomic review of *Tylototriton verrucosus* Anderson (Amphibia: Caudata: Salamandridae). *Herpetologica*. 257-268 pp.

249. Ohler, A. (1995). Digital pad Morphology in torrent-living ranid frogs. *Asiatic Herpetological Research*. 6: 85-96.

250. Ohler, A.; Dubois, A. (2006). Phylogenetic relationships and generic taxonomy of the tribe Paini (Amphibia, Anura, Ranidae, Discroglossinae), with diagnoses of two new genera. *Zoosystema*. 28: 769-784.

251. Orlov, N.L. (1995). Rare snakes of the mountainous forests of Northern Indo-China. *Russ. J. Herpetol*. 2(2): 179-183.

252. Orlov, N.L.; Helfenberger, N. (2011). New Mountain Species of *Trimeresurus* (Serpentes, Viperidae, Crotalinae)of the Green Pit Vipers Group from the Himalayas. *Russian Journal of Herpetology*. 4(2): 195-197.

253. Orlov, N.L.; Ryabov, S.V.; Shiryaev, K.A.; Sang, N.V. (2001). On the Biology of pit vipers of *Protobothrops* genus (Serpentes: Colubroidea: Viperidae: Crotalinae). *Russian Journal of Herpetology*. 8(2): 159-164.

254. Pan, H.; Chettri, B.; Yang, D.; Jiang, K.; Wang, K.; Zhang, L.; Vogel, G. (2013). A new species of the genus *Protobothrops* (Squamata: Viperidae)from southern Tibet, China and Sikkim, India. *Asian Herpetological Research*. 4(2): 109-115.

255. Pawar, S.; Birand, A. (2001). A survey of amphibians, reptiles and birds in Northeast India. *CERC Technical Report No. 6, Nature Conservation Foundation, Mysore.*

256. Pawar, S.; Koo, M.S.; Kelley, C.; Ahmed, M.F.; Chaudhuri, S.; Sarkar, S. (2007). Conservation assessment and prioritization of areas in Northeast India: priorities for amphibians and reptiles. *Biological Conservation*, 136(3): 346-361.

257. Pillai, R.S.; Chanda, S.K. (1976). The distribution pattern of Amphibia in Northeast India. *Journal of the Assam Science Society*. 19(53).

258. Prashad, B. (1914). Lizards of the Shimla-hill States. *Records of the Indian Museum*. 367-369 pp.

259. Prater, S.H. (1929). Note on a Formosan Viper (*Trimenesurus mucrosquamatus*)from the North East Frontier. *Journal of the Bombay Natural History Society*. xxxiii: 998.

260. Prater, S.H. (1919). Notes on some interesting snakes recently presented to the society.. 26: 683-684. *Journal of the Bombay Natural History Society*

261. Prater, S.H. (1935). Occurrence of (*Dipsadomorphus multimaculata*)Schleg in Assam. *Journal of the Bombay Natural Hist. Soc*. 38: 201.

262. Rage, J.C.; Gupta, S.S.; Prasad, G.V. (2001). Amphibians and squamates from the Neogene Siwalik beds of Jammu and Kashmir, India. *Palaontologische Zeitschrift.* 75(2): 197-205.

263. Raina, S.; Raina, S.; Kaul, R.; Chander, V.; Jaryal, A. (2014). Snakebite profile from a medical college in rural setting in the hills of Himachal Pradesh, India. *Indian Journal of Critical Care Medicine*. 18(3): 134.

264. Ramesh, C.; Shanthakumar, B.; Ramachandran, A.P.; Sony, R.K.; Maruthakutti, M.; Das, A.; Bhupathy, S. (2015). Further confirmation for *Platyceps rhodorachis* (Jan, 1865), from India, with a note on feeding on *Cyrtodactylus fasciolatus* (BLYTH, 1861). *Herpetozoa*. 28(1-2): 109-112.

265. Rao. (1995). Amphibia. In: Fauna of Western Himalaya (V.P.)Himalayan Ecosystem Series Part-I, Zoological Survey of India. *Published by Director, Zoological Survey of India*. 151-158 pp.

266. Ray, P. (1991). Amphibian diversity in and around Tehri Dam Site, UP, India. *Zoos' Print, Amphibian Spec. Issue, Coimbatore*. 11(5): 6.

267. Ray, P. (1997). Amphibian: Fauna of Nanda Devi Biosphere Reserve, A world heritage site, *Published in Commemoration of the 50th Anniversary of India's Independence. Zoological Survey India*. 109-114 pp.

268. Ray, P. (1991). On the natural distribution of the rare tree frog *Rhacophorus taeniatus* Boulenger, 1906 (Anura: Rhacophoridae)with notes on its biology and osteology. *Journal of the Bombay Natural History Society*. 376-383 pp.

269. Ray, P. (1999). Systematic studies on the amphibian fauna of the District Dehradun, Uttar Pradesh, India. *Memoirs of Zoological Survey of India*. 18: 1-102.

270. Rizvi, A.N.; Bursey, C.R. (2014). *Cosmocercoides himalayanus* sp. nov. (Nematoda, Cosmocercidae)in *Duttaphrynus himalayanus* (Amphibia, Anura)from Dehradun (Uttarakhand), India. *Acta Parasitologica*. 59(1): 80-84.

271. Rizvi, A.N.; Bursey, C.R.; Bhutia, P.T. (2013). Two new species of Rhabdias (Nematoda: Rhabditida: Rhabdiasidae)in Anuran Hosts from Dehradun (Uttarakhand), India. *Journal of Parasitology*. 99(2): 303-306.

272. Romer, J.D. (1949). Herpetological observation in Assam and Bengal (1994). *Journal of the Bombay Natural History Society.* 48: 376-387.

273. Rooijen, J.V.; Vogel, G. (2008). Contributions to a review of the *Dendrelaphis pictus* complex (Serpentes: Colubridae)- 1. Description of a sympatric species. *Amphibia - Reptilia*. 29(2008): 101-115.

274. Roy, D.; Mushahidunnabi, M. (2001). Courtship, mating and egg-laying in *Tylototriton verrucosus* from the Darjeeling district of the Eastern Himalaya. *Current Science*. 81(6): 693-694.

275. Roy, P. (1992). Two new hill stream frogs of the genus *Amolops* Cope (Amphibia: Anura: Ranidae)from Uttar Pradesh (India). *Indian Journal of Forestry*. 15: 346-350.

276. Sahi, D.N.; Duda, P.L. (1985). A checklist and keys to amphibians and reptiles of Jammu and Kashmir State, India. *Bulletin of Chicago Herpetological Society*. 20(3-4): 86-97.

277. Sahi, D.N.; Duda, P.L. (1985). Eco-geographical distribution and present status of herpetiles in Kashmir Himalayas. *Advances in fish and wildlife ecology and biology*. 289-297 pp.

278. S aikia, U.; Shanna, R.M.; Sharma, O.K. (2005). Record of the Leith's sand snake from Himachal Pradesh. *Bionotes*. 7(2): 53.

279. Sailo, S.; Lalremsanga, H.T.; Hooroo, R.N.K. (2007). Geographic distribution: *Amolops kaulbacki*. *Herpetological Review*. 38: 96.

280. Sanyal, D.P.; Gayen, N.C. (2006). Reptilia *In: Alfred, J.R.B.(Ed.)., Fauna of Arunachal Pradesh.State Fauna Series, Zool. Surv. India, Kolkata*. 13(1): 247-284.

281. S anyal, D.P.; Sur, S.; Gayen, N.C. (2006). Fauna of Sikkim: Reptilia. *State Fauna Series, 9 (Part-1), Zoological Survey of India.* 9(1): 1-214.

282. Sanyal, D.P.; Sur, S.; Gayen, N.C. (2006). Reptilia. In: Fauna of Sikkim. Part - I, Vertebrates. *Zoological Survey of India, Kolkata. State Fauna Series*. 9: 157-171.

283. Sanyal, D.P.; Talukdar, S.K.; Dasgupta, G. (1979). Two new distributional records of snakes from Dun valley and the Corbett National Park. Uttar Pradesh. *Cheetal*. 21(1): 11-12.

284. Sarania, B.; Devi, A.; Kumar, A.; Wang, K.; Rakshit, K. (2015). A record of *Scutiger nyingchiensis* Fei, 1977 (Amphibia: Anuran: Megophryidae)in the Eastern Himalaya, North East India. *Current Science*. 109: 412-414.

285. Sarkar, A.K.; Biswas, M.L.; Ray, S. (1992). Fauna of the West Bengal: Amphibia. *State Fauna Series. Zoological Survey of India*. 3: 67-100.

286. Sarkar, A.K.; Ray, S. (2006). Fauna of Arunachal Pradesh: Amphibia. *State Fauna Series, Zoological Survey of India Calcutta*. 13(1): 285-316.

287. Sarkar, A.K.; Sanyal, D.P. (1985). Namdapha Biosphere Reserve: An overview: Amphibia. *Records of the Zoological Survey of India*. 82(1-4): 285-295.

288. Satsangi, P.P. (1964). A preliminary note on the siwalik vertebrates of Jammu, Udhampur and Ramnagar area of Jammu, J. and K. State. *Indian Minerals.* 18(1): 91-92.

289. Schleich, H.H.; Kastle, W. (1998). SEM stuides on the morphology of *Sitana sivalensis* - complex. *In: (Schleich, H.H. and Kastle, W. Eds.): Contributions to the herpetology of South-Asia (Nepal, India). Veroff. Fuhlrott Mus., Wuppertal*. 4: 207-226.

290. Schleich, H.H.; Kastle, W. (1998). *Sitana fusca* spec. Nov. a further species from Sitana sivalensis - complex. *In: (Schleich, H.H. and Kastle, W. Eds.): Contributions to the herpetology of South-Asia (Nepal, India). Veroff. Fuhlrott Mus., Wuppertal*. 4: 207-226.

291. Sclater, W.L. (1891). A list of the Batrachia of the Indian Museum. *London: Taylor and Francis.*

292. Sclater, W.L. (1891). List of snakes in the Indian Museum. *Indian Museum, Calcutta*. 1-79 pp.

293. Sclater, W.L. (1891). Notes on the collection of snakes in the Indian Museum with description of Several new species. *Journal of the Asiatic Society of Bengal*. 60: 230-250.

294. Sclater, W.L. (1892). On some specimens of frogs in the Indian Museum, Calcutta with description of several new species. *Proceedings of the Zoological Society of London*, 1892: 341-348 +pls. XXIV.

295. Seimon, T.A.; Seimon, A. (2015). Comment on Scaling new heights: first record of Boulenger's Lazy Toad *Scutinger boulengeri* (Amphibia: Anura: Megophryidae)from high altitude lake in Sikkim Himalaya, India", by Barkha Subba, G. Ravikanth and N.A. Aravind (2015). *Journal of Threatened Taxa*. 7(11): 7849-7850.

296. Sekar, A.G. (1991). Distribution of the Amphibian fauna of India. *Journal of the Bombay Natural History Society*. 88(1): 125-127.

297. Sen, N. (2004). Further notes on statewise distribution of the amphibian fauna of North East India. *Records of Zoological Survey of India*. (Part 3-4): 105-112.

298. Sen, N.; Mathew, R. (2008). Bibliographical notes on the amphibians of north East India. *Zoological Survey of India.*

299. Sengupta, S.; Das, A.; Das, S.; Hussain, B.; Chaoudhury, N.K.; Dutta, S.K. (2009). Taxonomy and biogeography of Kaloula Species of Eastern India. *The Natural History Journal of Chulalongkorn University*. 9(2): 209-222.

300. Sethy, J.; Chauhan, N.P.S. (2011). Observation of Himalayan Newt *Tylototriton verrucosus* in Namdapaha Tiger Reserve, Arunachal Pradesh, India. *Frog Leg.* 302(16): 24-26.

301. Sharma, B.D. (1977). Cannibalism in a Colubridae snake (Serpents: Colubridae)in Poonch valley, Jammu and Kashmir State. *British Journal of Herpetology*. 6(7).

302. Sharma, B.D. (1999). Fauna of Indian Snakes. *In: Sharma, B.D. (Ed.)Snakes in India: A Source Book.Asiatic Publ. House, Delhi*. 87-114 pp.

303. Sharma, B.D. (1979). Notes on the ecology of the Indian *PythonMolurus molurus*, Linn., in the Jammu region. India. *British Herpetological Society, Newsletter.* 1977 (16): 30-33.

304. Sharma, B.D. (1998). Snakes in India - A Source Book. *Asiatic Publishing House, Delhi.* 550 pp. figs, plts, Photographs.

305. Sharma, B.D. (1975). Some new records of snakes from J and K State. *Current Science.* 44(17): 646-647.

306. Sharma, B.D.; Sharma, T. (1980). Myriapods and ants found in the gut contents of *Agistrodon himalayanus* (Gunther)in Kashmir Himalayas India. *The Snake, Nittagun*. 12: 54-55.

307. Sharma, B.D.; Sharma, T. (1976). Some ecological notes on *Xenochrophis piscator* (Serpents: Colubridae)in the Poonch Valley, Jammu and Kashmir, India. *British Journal of Herpetology.* 5(6): 560-561.

308. Sharma, R.C. (2007). Fauna of India and adjacent countries. Reptilia. vol. III (Sepentes)*Zool. Surv. Ind. Kolkata.*

309. Sharma, R.C. (2003). Handbook - Indian snakes. *Zoological Survey of India, Kolkatta*.

310. Sharma, R.C. (1981). The osteology of the Indian Mountain lizard *Japalura variegata* Gray (Reptilia: Agamidae). *Rec. Zool. Surv. India*. 80: 525-549.

311. Sharma, S.W. (1973). The variation in the distribution of the Indian python (*Python molurus molurus* (Linnaeus)(Serpentes: Boidae)in Jammu Provinces, India. *Indian Journal of Animal Research.* 6(2): 103.

312. Shaw, G.E.; Shebbeare, E.O. (1930). Snakes of Northern Bengal and Sikkim. *Journal of Bengal Natural History Society, Darjeeling.* 5: 3-8.

313. Shaw, G.E.; Shebbeare, E.O. (1929). The snakes of northern Bengal and Sikkim. *Journal of Bengal Natural History Society, Darjeeling*. 3(3): 51-57.451.

314. Shaw, G.E.; shebbeare, E.O.; Barker, P.E. (1939). The Snakes of Northern Bengal and Sikkim. Part 6. Notes on rat snakes. *Journal of Bengal Natural History Society, Darjeeling.* 14: 67-79.

315. Shaw, G.E.; Shebbeare, E.O.; Barker, P.E. (1941). The Snakes of northern Bengal and Sikkim. Part IX. *Journal of Bengal Natural History Society, Darjeeling.* 15(2): 60-68.

316. Shaw, G.E.; Shebbeare, E.O.; Barker, P.E. (2000). The snakes of Sikkim and Bengal. *Asiatic Publishing House, Delhi*. 125 pp.

317. Shresta, T.K. (1989). Ecological aspects of the life-history of the Himalayan newt, *Tylototriton verrucosus* (Anderson)with reference to conservation and management. *Journal of the Bombay Natural History Society.* 86: 333-338.

318. Shresta, T.K. (1998). Herpetofauna of High Himalayas and conservation issues. *Third Asian Herpetological meeting (1-5 Sept. 1998)-Abstracts: 36. Almaty, Kazakhstan*.

319. Shresta, T.K. (2001). Herpetology of Nepal. A Field Guide to Amphibians and Reptiles of Trans Himalayan Region of Nepal, India, Pakistan and Bhutan. *Kathmandu, Nepal: Privately Printed.*

320. Shresta, T.K. (1994). The Himalayan Newt: A cryptological enterprise. *In: Encounter with the Himalayan wildlife; Kathmandu.*

321. Singh, V.; Banyal, H.S. (2014). First record of Kashmir rock agama (*Laudakia tuberculata* Hardwicke et Gray, 1827)from Kalatop-khajjiar wildlife sanctuary, chamba (Himachal Pradesh), India. *Russian Journal of Herpetology*. 21(3).

322. Singh, V.; Banyal, H.S. (2013). Study of herpetofauna of Khajjiar lake of chamba district, Himachal Pradesh, India. *International Journal of Plant, Animal and Environmental Sciences.* 3(2): 1-8.

323. Smith, M.A. (1934). In Kingdom Ward's Exploration of the Burma - Tibet Frontier Appendix.Reptiles and Amphibians. *Geograph, J.* 465-480.

324. Smith, M.A. (1929). On a collection of Amphibians, Reptiles from the upper reaches of Brahmaputra. *Rec. Ind. Mus.* 31(1): 77-80.

325. Smith, M.A. (1935). The Amphibians and Reptiles obtained by Capt. Kingdom ward in Upper Burma, Assam and S.W. *Tibet. Rec. Ind. Mus*. 37: 237-40.

326. Smith, M.A. (1940). The Amphibians and reptiles obtained by Mr. Ronald Kaulback in upper Burma. *Rec. Ind. Mus.* 42(3): 465-486.

327. Smith, M.A. (1943). The fauna of British India, Ceylon and Burma, including the whole of the Indo-Chinese region. Reptilia and Amphibia. Vol. III Serpentes. *Taylor and Francis, London.*

328. Smith, M.A. (1931). The fauna of British India. Vol. I Loricata. Reptilia and Amphibia, Testudines. *London; Taylor and Francis.* 184 pp.

329. Smith, M.A. (1935). The fauna of British India. Vol. II Sauria. Reptilia and Amphibia, *London; Taylor and Francis.* 440 pp.

330. Smith, M.A. (1924). The tadpole of *Tylototriton verrucosus* Anderson*. Rec. Indian Mus, Calcutta.* 26: 309-310.

331. Soman, P.W. (1966). An addition to the amphibians of Nepal and extension of the range of the Indian newt *Tylototrion verrucosus*. *Cuv. Sci. Cult., Calcutta*. 32: 427-428.

332. Sondhi, S.; Ohler, A. (2011). A blue-eyed *Lepobrachium* (Anura: Megophryidae)from Arunachal Pradesh, India. *Zootaxa*. 2912: 28-36.

333. Stoliczka, F. (1871). Notes on some Indian and Burmese ophidians. *Journal of the Asiatic Society of Bengal.* 40(4): 421-445.

334. Stoliczka, F. (1872). Notes on various new or little known Indian lizards (part*). Journal of the Asiatic Society of Bengal*. 41: 86-116.

335. Stoliczka, F. (1872). Observations on Indian Batrachia. *Proceedings of the Asiatic Society of Bengal*. 1872: 101-113.

336. Stuart, S.N.; Hoffmann, M.; Chanson, J.; Cox, N.; Berridge, R.; Ramani, P.; Young, B. (2008). Threatened Amphibians of the World. *Barcelona, Spain; International Union for the Conservation of Nature, Gland. Switzerland; Conservation International, Arlington, Virginia, U.S.A.: Lynx Editions.*

337. Subba, B.; Ravikanth, G.; Aravind, N.A. (2016). Geographic distribution; Scutiger boulengeri. *Herpetological Review*. 47: 251.

338. Subba, B.; Ravikanth, G.; Aravind, N.A. (2015). Reply to global high-altitude limits for amphibians by Tracie A. Seimon and Anton Seimon (2015). *Journal of Threatened Taxa*. 7(11): 7851-7852.

339. Sun, Y.B.; Xiong, Z.J.; Xiang, X.Y.; Liu, S.P.; Zhou, W.W.; Tu, X.L.; Zhong, L.; Wang, L.; Wu, D.D.; Zhang, B.L.; Zhu, C.L.; Yang, M.M.; Chen, H.M.; Li, F.; Zhou, L.; Feng, S.H.; Huang, C.; Zhang, G.J.; Irwin, D.; Hillis, D.M.; Murphy, R.W.; Yang, H.M.; Che, J.; Wang, J.; Zhang, Y.P. (2015). Whole-genome sequence of the Tibetan frog *Nanorana parkeri* and the comparative evolution of tetrapod genomes. *Proceedings of the National Academy of Sciences of the United States of America.* E1257-E1262 pp.

340. Theobald, W.T. (1868). Catalogue of Reptiles in the Museum of the Asiatic Society of Bengal. *Journal of the Asiatic Society of Bengal*. 82 pp. App. I-III.

341. Theophilus, E.; Captain, A.; Tillack, F.; Kuch, U. (2008). Reptilia, Elapidae, Bungarus niger: Distribution extension and first record for the State of Uttarakhand, India, with notes on snakebites in the Gori River Valley. *Check List*. 4(4): 404-409.

342. Tikoo, R. (2014). Studies on the Morphology and life cycle of some Helminth Parasites of Amphibians in Kashmir. *Ph.D. Thesis, Department of Zoology, University of Kashmir, Jammu and Kashmir.*

343. Tilak, R.; Hussain, A. (1977). Extension of the range of distribution of a Microhylid frog *Uperdon systoma* (Schneider). *Journal of the Bombay Natural History Society*. 73(1): 407.

344. Tilak, R.; Mehta, H.S. (1983). On a collection of Amphibians of the Sirmour District (H. P.). *Research Bulletin (Science)Punjab University*. 34(3-4): 157-166.

345. Tilak, R.; Ray, P. (1990). Range extension and notes on *Rana erythraea* (Schlegel, 1837)(Anura: Ranidae)from National Park, Uttar Pradesh. *Journal of the Bombay Natural History Society*. 87(3): 380-384.

346. Tilak, R.; Roy, P. (1985). Description of a new species of the sub-genus *Rana (Paa)Dubois* from Chakrata Hills, District Dehra Dun, Uttar Pradesh, India (Ranidae, Anura). *Zoologischer Anzeiger*. 215: 231-239.

347. Tillack, F. (1999). Das Portrait: Boiga Ochracea Stoliczkae. *Sauria*. 21(2): 1-2.

348. Tillack, F. (2002). Uber die verbreitung und biologie der Himalaya-Gebirgs wassernatter *Amphiesma platyceps* (Blyth, 1854)und einen Fall von *Amphigonia retardata* (Serpentes: Colubridae: Natricinae). *Sauria*. 25(1): 21-27.

349. Tillack, F.; Shah, K.B.; Gumprecht, A.; Hussain, A. (2002). Anmerkungen zur Verbreitung, Morphologie, Biologie, Haltung und Nachzucht der Berg - Grubenotter *Ovophis monticola monticola* (Gunther, 1864)(Serpentes: Viperidae; Crotalinae). *Sauria*. 25(4): 29-46.

350. Tillack, F.; Ziegler, T.; Le, K.Q. (2004). Eine neue Art der Gattung Boiga Fitzinger, 1826 (Serpentes: Colubridae; Colubrinae)aus dem zentralen Vietnam. *Sauria*. 26(4): 3-12.

351. Toriba, M. (1993). *Ovophis* Burger. In: P. Golay et al. Endoglyphs and Other Major Venomous Snakes of the World. A Checklist. *Azemiops S.A., Aire-Geneva, Switzerland*. 81-83 pp.

352. Uetz, P. (2003). The EMBL Reptile Database. Vol. 2003: *Peter Uetz and the Uropean Molecular Biology Laboratory.*

353. Uetz, P.; Freed, P.; Jiri, H. (2016). The Reptile Databse. *http.//www.reptile-database.org, accessed (31 August, 2016).*

354. Utiger, U.; Helfenberger, N.; Schatti, B.; Schmidt, C.; Ruf, M.; Ziswiler, V. (2002). Molecular systematics and Phylogeny of old and New World ratsnakes, Elaphe Auct. and related genera (Reptilia, Squamata, colubridae). *Russian J. Herpetol*. 9(2): 105-124.

355. Utiger, U.; Schatti, B.; Helfenberger, N. (2005). The oriental colubrine genus *Coelognathus* Fitzinger, 1843 and classification of old and new world racers and rat snakes (Reptilia, Squamata, Colubridae, Colubrinae). *Russian J. Herpetol*. 12(1): 39-60.

356. Van Rooijen, J.V.; Vogel, G. (2008). Contributions to a review of the *Dendrelaphis pictus* complex (Serpentes: Colubridae): - Description of a sympatric species. Amphibia - Reptilia. 29: 101-115.

357. Vasudevan, K.; Sondhi, S. (2010). Amphibians and reptiles of Uttarakhand, India. Wildlife Institute of India, Dehradun.

358. Venning, F.E.W. (1910). A collection of the Ophidians from the chin hills (With notes by F. Wall, I.M.S., C.M.Z.S.). *Journal of the Bombay Natural History Society*. 20: 331-343.

359. Venning, F.E.W. (1911). Further notes on snakes from the chin hills (with notes by F. Wall, I.M.S., C.M.Z.S.). *Journal of the Bombay Natural History Society*. 20: 770-775.

360. Vogel, G.; David, P. (2006). On the taxonomy of the *Xenochrophis piscator* complex (Serpentes: Natricidae). *In: Vences, M., Kohler, J., Ziegler, T., Bohme, W. (Eds.). Herpetologia Bonnensis II. 241-246 pp, Proceedings of the 13th Congress Societas Europaea Herpetologica.* 241-246 pp.

361. Vogel, G.; David, P.; Pauwels, O.S.G. (2004). A review of morphological variation in *Trimeresurus popeiorum* (Serpentes: Viperidae: Crotalinae), with the description of two new species. *Zootaxa.* 727: 1-63.

362. Wall, F. (1910). A new blind snake from the Western Himalayas (*Typhlops mackinnoni*). *Journal of the Bombay Natural History Society*. 805-806 pp.

363. Wall, F. (1906). A new Himalayan Snake (*Lycodon mackinnoni*). *Journal of the Bombay Natural History Society.* 17: 29-30.

364. Wall, F. (1910). A new snake from Assam (*Oligodon erythrorhachis*). *Journal of the Bombay Natural History Society*. 19: 923-24.

365. Wall, F. (1922). A new snake from the Northern frontier of Assam. *Records of the Indian Museum.* 24: 29-30.

366. Wall, F. (1911). A new snake from the Western Himalayas, *Trachischium quinquelabialis*. *Journal of the Bombay Natural History Society*. 21: 201-202.

367. Wall, F. (1914). A new snake of the genus *Tropidonotus* from the Eastern Himalayas. *Journal of the Bombay Natural History Society*. (1914-1915)13 (1): 166-167.

368. Wall, F. (1913). A rare snake *Elachistodon westermanni* from the Jalpaiguri District. *Journal of the Bombay Natural History Society*. 22(2): 400-401.

369. Wall, F. (1922). A review of the Indian species of *Amblycephalus*. *Records of the Indian Museum. Calcutta*. 24: 19-27.

370. Wall, F. (1910). A second specimen of the sanke *Oligodon erythrogaster* from the Eastern Himalayas. *Journal of the Bombay Natural History Society*. 19: 1000-1001.

371. Wall, F. (1899). Notes on 26 specimens of the pohur or Himalayan viper (*Ancistrodon himalayanus*). *Journal of the Bombay Natural History Society*. 12: 411-414.

372. Wall, F. (1909). Notes on a collection of snakes made in Baxa Dooars. *Journal of the Bombay Natural History Society*. 19(3): 757-758.

373. Wall, F. (1910). Notes on snakes collected in the Jalpaiguri district. *Journal of the Bombay Natural History Society*. 19(4): 897-900.

374. Wall, F. (1910). Notes on snakes collected in upper Assam. Part I. *Journal of the Bombay Natural History Society*. 608-623 (Part II, IBID, xix, pp. 825-845).

375. Wall, F. (1910). Notes on snakes collected in Upper Assam. Pt. 2. *Journal of the Bombay Natural History Society*. 19(4): 825-845.

376. Wall, F. (1909). Notes on snakes from the neighbourhood of Darjeeling. *Journal of the Bombay Natural History Society*. 19(2): 337-357.

377. Wall, F. (1909). Remarks on some forms of *Dipsadomorphus*. *Rec. Ind. Mus*. 3(2): 151-155.

378. Wall, F. (1909). Remarks on some little known Indian ophidian. *Rec. Ind. Mus*., iii: 145-50.

379. Wall, F. (1907). Reports on a collection of Batrachia, Reptiles and fishes from Nepal and the Western Himalayas. *Records of the Indian Museum*. 1: 155-157.

380. Wall, F. (1912). The breeding of the false Himalayan viper (*Psammodynastes pulverulentus*). *Journal of the Bombay Natural History Society.* 21: 686.

381. Wall, F. (1908). Two new snakes from Assam. *Journal of the Bombay Natural History Society.* 18(2): 272-274.

382. Wall, F. (1907). Viviparous habit of false Himalayan viper (*Psammodynastes pulverulentus*). *Journal of the Bombay Natural History Society*. 18: 204.

383. Wallach, V. (1999). *Typhlops meszoelyi*, a new species of blind snake from North-Eastern India (Serpents: Typhlopidae). *Herpetologia*. 55(2): 185-191.

384. Waltner, R.C. (1991). Altitudinal ecology of *Agama tuberculata* Gray in the western Himalayas. *Museum of Natural History, University of Kansas*.

385. Waltner, R.C. (1974). Geographical and Altitudinal Distribution of Amphibians and Reptiles in the Himalayas (Part I.). *Cheetal*. 16(1): 1974, 17-25.

386. Waltner, R.C. (1974). Geographical and Altitudinal Distribution of Amphibians and Reptiles in the Himalayas (Part II). *Cheetal*. 16(2): 1974 28-36.

387. Waltner, R.C. (1975). Geographical and Altitudinal Distribution of Amphibians and Reptiles in the Himalayas (Part III). *Cheetal*. 16(3):

388. Waltner, R.C. (1975). Geographical and Altitudinal Distribution of Amphibians and Reptiles in the Himalayas (Part IV). *Cheetal.* 16(4): 1975.

389. Whitaker, R. (2006). Common Indian snakes. A Field guide. *Macmillan India Ltd. New Delhi,* (6th revised editon).

390. Whitaker, R.; Captain, A. (2004). Snakes of India. *The Field Guide, Draco Books, Chennai.*

391. Wuster, W.; Golay, P.; Warrell, D.A. (1998). Synopsis of recent developments in venomous snake systematics, No.2. *Taxocon*, 36(2): 299-307.

392. Yang, D. (1991). Phylogenetic systematics of the amolops group of ranid frogs of southeastern Asia and the Greater Sunda Islands. *Fieldiana. Zoology. New Series*. 63: 1-42.

393. Zambre, A.; sheth, C.; Dalvi, S.; Kulkarni, N. (2009). First record of *Protobothrops jerdonii xanthomelas* (Gunther, 1889)from Eaglenest Wildlife Sanctuary, India. *Journal of the Bombay Natural History Society*. 106(2): 211.

394. Zhao, E.M. (1998). A study on genus *Laudakia* (Sauria: Agamidae)with diagnoses of two new species. *Third Asian Herpetological Meeting (1-5, Sept. 1998)- Abstracts 44. Almaty, Kazakhstan.*

Author Index

Herpetofauna

05

Fishes of the Indian Himalayan Region

Bibliography on Fishes of the Indian Himalayan Region

Aashna Sharma, Vineet Kumar Dubey, Jeyaraj Antony Johnson and Kuppusamy Sivakumar

Introduction

The rivers that originate in the Himalaya provide sustenance, livelihoods and prosperity to millions of people living in India and neighbouring countries. Freshwater fish diversity in the Himalaya is structured by diverse geomorphic conditions thermal regimes and rapid water current. These combination factors have given rise to unique composition of fish species assemblages in Himalaya. While Himalaya can be considered as key landscape for conservation of unique cold water fish diversity of world but it is recognised that the fish species and their aquatic systems are fast declining. Maintaining the extent and ecosystem functionality of the aquatic ecosystems in the Himalaya and preventing any further retrogression is, therefore, important as a strategy to address climate change. In this context, a bibliographical review was carried out with available research publications to understand research gaps in fish ecology and conservation in Himalaya. All the available relevant published information related this subject were collected through an in-depth search of various sources, viz. international databases, CD-ROMs, the WII Library and Documentation Centre and libraries of various research institutes in India.

Knowledge of occurrence of fish in India dates back to three millenium B.C., though the first attempt on the documentation of Himalayan fishes were made by Hora (1937) on certain aspects of the torrential fish distribution and zoogeography, which were appreciably continued by Menon (1962) and Jayram (1977) and then several documentations of fish diversity of Himalayas till date (Sehgal 1999; Karmakar 2000; Sundar and Joshi 2002; Bhatt 2016, Nautiyal 2016). Presently, the Indian Himalaya is known to be home for around 266 fish species, which is about 27% of the India's total freshwater fish diversity including vast variety of threatened, migratory and endemic species (Nautiyal, 2005, FishBase 2016). This uniqueness in Himalayan freshwater fishes pertaining to different geomorphic conditions, changing thermal regimes and fast water current, which are drained by 19 major rivers. There are multitudes of factors, which are responsible for the inimitable distribution of fishes in the Himalayas. Their specialized morphology enables them to inhabit in the torrential rivers and streams of the Himalayas, earlier recognized by Menon (1954) into six major groups: (a) fish with powerful muscular cylindrical bodies inhabiting the bottom water layers in deep fast current,: *Schizothoracines* and the introduced *trouts*; (b) fish with adhesive organs cling to exposed surfaces of bare rocks in slower current,: *Garra, Glyptothorax* and *Glyptosternum*; (d) fish with special attachment devices inhabiting among pebbles around near shore areas,: the loaches *Noemacheilus, Botia* and *Amblyceps*; (e) fish with highly modified oval bodies and mouth, gills and fins able to cling to surfaces of bare rocks: *Balitora* (c) fish inhabiting among pebbles and stones to avoid the strong current: *Crossocheilus*; and (f) fish without any prominent modifications dwelling in shallow, clear cold waters in the foothills: *Labeo, Tor, Barilius* and *Puntius*. Later, Sehgal (1988) identified numerous fish zones on the basis of dominant fish species and the hydrographical features.

Albeit a long history of studies on fishes within the Indian Himalaya Region (IHR) (Hora 1937), there is lack of an exclusive platform where all the information can be assembled and make it readily available for further use. Presently, the central (Nepal) Himalaya was known to be richest (181 species) in fish diversity, followed by the western (167 species) and the eastern Himalaya (159) however the survey work is little comprehensive and there are several areas which remain unexplored and needs to be updated. Moreover, the current unpredictability of estimates of fish species diversity and their ecology within the IHR makes it nearly certain that the current knowledge is inadequate. From the fisheries viewpoint, the Himalayan rivers Indus, Ganga and Brahmaputra are of great importance to livelihoods and economies are now been embark upon an unprecedented scale of development. Further, the current anthropogenic threats and their consequences may likely to be complicated in future by global climate change leading to rising temperatures and shifts in runoff and precipitation patterns which may pose significant extinction of fish fauna already susceptible in the Indian Himalayan Region. Therefore, there is an urgent need of robust and readily available information on several aspects of fishes in IHR to cope up with new challenges. To close this information gap, as a first step; a comprehensive assessment was made in this article by collecting all the scientific literature on the freshwater fish fauna of IHR and categorizing the trend of scientific development and knowledge gap till date.

Method:

All the available relevant published information related this subject were collected through an in-depth search of various sources, viz. international databases, CD-ROMs and the WII Library and Documentation Centre. Further, the literature review was undertaken online by browsing a total of 75 keywords related to different aspects of fishes and adding the term Himalaya with names of six Himalayan States such as “Jammu and Kashmir”, “Himachal Pradesh”, “Uttarakhand”, “Sikkim”, “Arunachal Pradesh” and “West Bengal”. All the information were entered in the Microsoft Excel Spreadsheet and arranged alphabetically to remove any duplication. All the analyses were carried out in Microsoft Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gap. This review was restricted only to those research articles published in English that too in peer reviewed and online journals. Therefore, there is a scope for updating this bibliography in future with more publications that are either in the form of grey literature or not available online.

Result and Discussion

Temporal pattern of studies of fishes in Himalaya:

The first study on fishes of Himalaya was reported from 1785. A total of 812 publications related to multitude of studies on fishes in the IHR beginning from 1785 to 2016 were collected and compiled (Fig. 1). Although the studies on fishes in India date back to three millennium B.C. (Hora 1956) but the first researcher on Himalayan fishes was Bloch (1785) who could collect and describe few fish specimen from Himalaya. The numbers of studies of fishes from IHR have started growing after 1930s onwards and it was at peak during 1991 to 2000 and almost 21% of the studies out of the total literature collected was recorded during this period (Fig. 5.1).

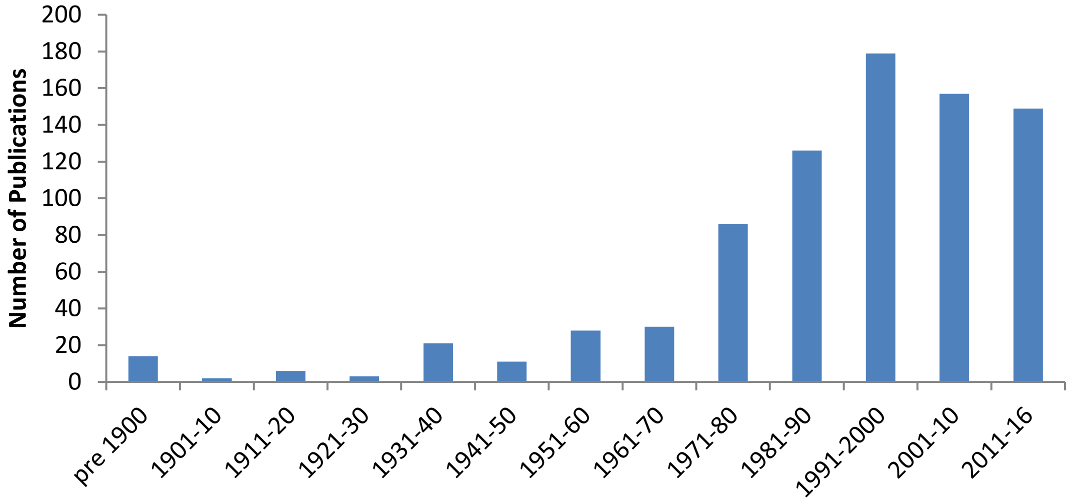


Figure 5.1 Temporal pattern of publication on fishes in the Indian Himalayan Region

Subject focus of publications:

Considering the range of study areas available on the fishes of IHR and the research trend over the centuries, all the literature were classified into 12 broad subject categories (Fig. 5.2). All the collected literature were grouped into wide ranging themes such as biodiversity and distribution, biology, ecology, evolution, taxonomy, disease, fish farming, aquatic conservation management, population biology, molecular taxonomy/population genetics, climate change/altitudinal distribution and other aquatic taxa. Some of the publications collected from the browsing, for instance was devoted to range of subjects such as fish biology, conservation, distribution in a single study as such these publications were manually scrutinized and added in the relevant subject categories.

The number of publications on the fishes of IHR increased with time broadly focussed on taxonomy, biogeography and evolution particularly during 17th to 18th century in the beginning to range of subjects viz. fish diversity, distribution, disease and ecology etc in the later time intervals (Fig. 5.3). Out of the total publications, approximately 22 % and 20% dealt with Taxonomy and biodiversity/distribution respectively and only 1% to 3% studies were related with aquatic conservation, molecular, population and climate change related studies (Fig. 5.3).

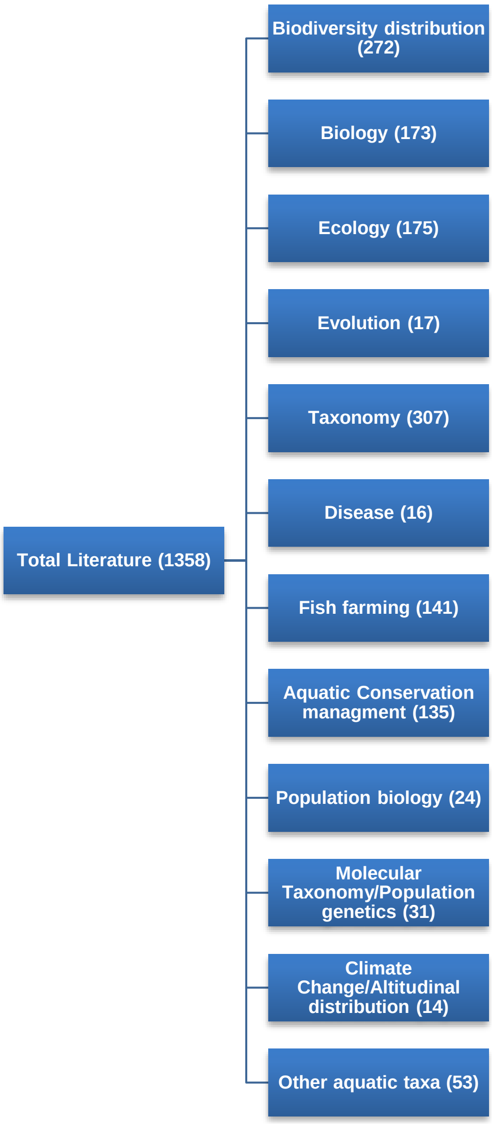


Figure 5.2 Number of publications in different broad subject categories

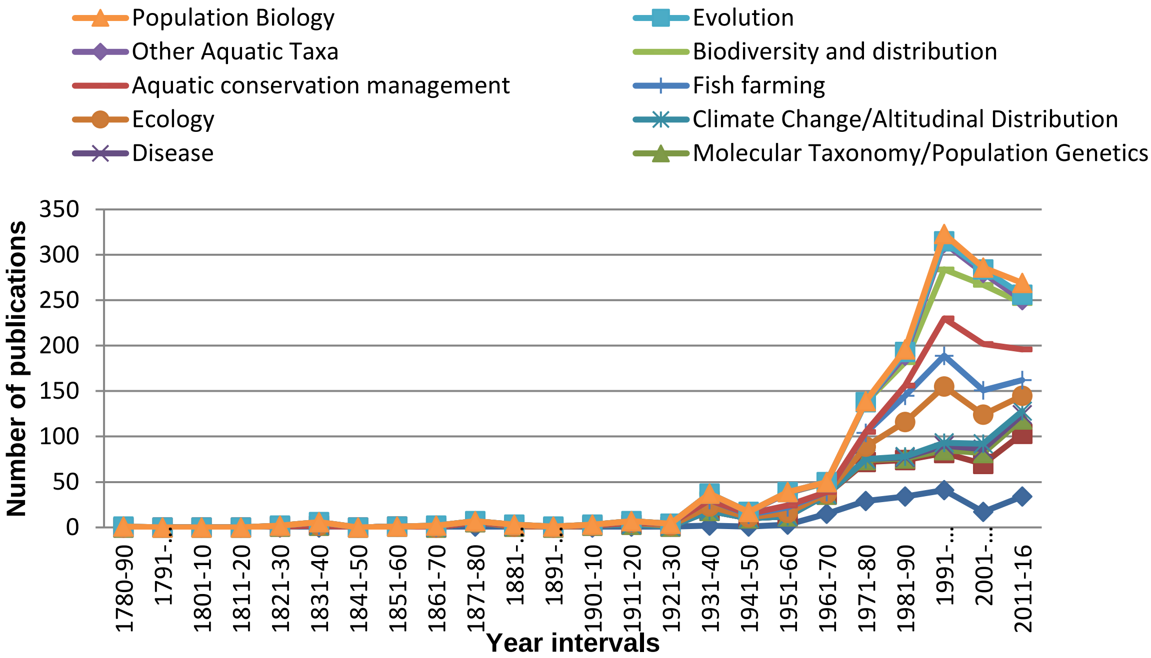


Figure 5. 3 Trend of publications under different broad categories in different year intervals

Spatial distribution of fish researches across Himalaya:

A total of six Himalayan States viz. Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh and hilly regions of Assam and West Bengal were taken into account for listing the available literature on fishes so far. Among the selected states Uttarakhand was recorded highest with 582 publications followed by hill regions of Assam & West Bengal (184), Jammu & Kashmir (172) and only 25 publications could be recorded from the Sikkim state (Fig. 5.4). This distribution of publication were then categorized into 12 broad subject and studies like taxonomy, biology and biodiversity were recorded to be the major focus areas whereas studies like ecology, evolution, climate change related studies were remain neglected in all these states (Fig. 5.5).

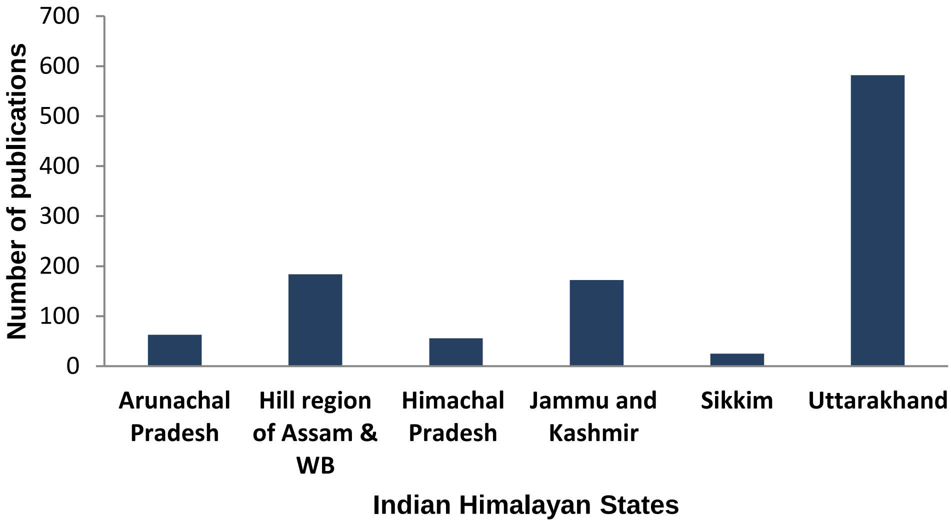


Figure 5.4 Number of publications in the Indian Himalayan states

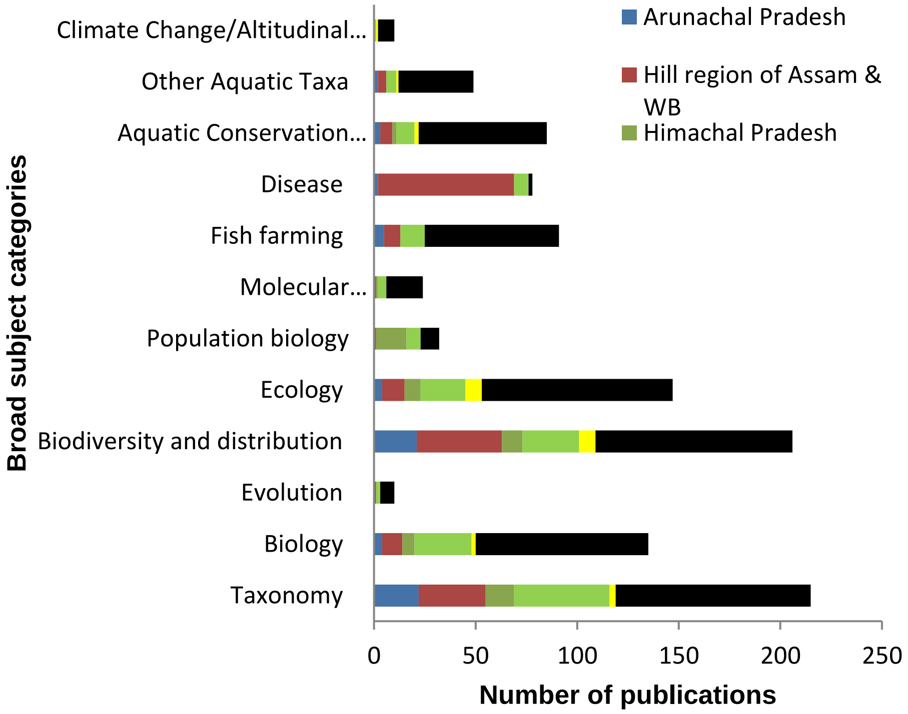


Figure 5.5 Trends in publications in the Indian Himalayan states under different broad subject categories

Research gaps and future priority

Fishes in the Indian Himalayan Region has always been an attraction for ichthyologists worldwide that reflected here in a vast variety of studies over last two decades. However, there are still several research gaps which need to be identified in order to set the future priorities for betterment of conservation efforts. In this view, a range of broader subject areas were assessed based on the current information collected in this study and the key past research priorities among different study areas were investigated to find out the research gaps (Table 1).

A range of broader subject areas identified here with less publication output clearly revealed the less research investment in the particular subject which required special attention. Looking after the current challenges which the IHR is facing in terms of severe anthropogenic disturbances and upcoming climate change effects which are more critical for freshwater fishes of this region, studies on the habitat requirements, ecology and biology of freshwater species is essential to fill this information gap. Most of the information available for IHR is based on taxonomy, species distribution and biodiversity studies that were scattered and old. Many of the areas are still unexplored that need to be surveyed to determine current threat status of freshwater fishes. The proper taxonomic revision of the freshwater fishes within the IHR is also required to discourage taxonomic ambiguities. All this information can only be achieved with a proper assessment and filed survey.

Table 5.2 The key past and future research priorities based on the current assessment

Subject Area	Key past research priorities	Research Gap and future priorities
Biodiversity and distribution	Cataloguing, distribution pattern, abundance in certain localities	Unexplored areas, taxonomic ambiguities, lack of robust methodology
Biology	Life history parameters, Age and growth, fecundity, maturity periods, breeding	Focused mostly on economic important species, lack of understanding on population health management and species recovery. No studies on migration pattern of threatened migratory species
Ecology	Fish assemblage patterns, Physiochemical parameters	Limited studies, Lack of understating on priority area identification. No information about the environmental flow required to sustain the normal life history of fishes.
Evolution	Morphological characterization, geographic distribution and similarities	Lack of readily available historical records and data
Taxonomy	Redescriptions, new records, systematic accounts	Taxonomic ambiguities, proper exploration
Disease	Morphological anomalies, parasites, diet and toxicological studies	Mainly focussed on economic important species
Fish farming	Captive breeding, hatchery/pond maintenance, ranching, fish production	Motivated towards exotic species, less attention to native species
Aquatic Conservation management	Protected area management, anthropogenic threats and threat status	Inadequate scientific data on threats, regional species distribution and threat categories
Population biology	Phenotypic variations, stock identification, comparative life history traits	Lack of understanding on suitable stock characterization, conservation and recovery programmes
Molecular Taxonomy/Population Genetics	Mitochondrial, microsatellite DNA based studies, DNA barcoding	Needed to be linked with ecology, evolution and conservation of threatened species
Climate Change/Altitudinal Distribution	Studies based on altitudinal distribution, shifts in distributions	Freshwater ecosystems largely neglected, Lack of suitable reference data

References cited in the chapter are included in the bibliography

Bibliography

Fishes of the Indian Himalayan Region

01. Acharjee, M.L.; Barat, S. (2010). Impact of fishing methods on conservation of Ichthyofauna of river Relli in Darjeeling Himalaya of West Bengal. *Journal of Environmental Biology.* 31: 431-434.

02. Acharjee, M.L.; Barat, S. (2013). Ichthyofaunal diversity of Teesta river in Darjeeling Himalaya of West Bengal, India. *Asian Journal of Experimental Biological Sciences.* 4(1): 112-122.

03. Acharjee, M.L.; Barat, S. (2014). Loaches of Darjeeling Himalaya and adjoining areas of West Bengal: their prospects as ornamental fish and constraints. *Int. J. Pure Appl. Biosci.* 2(3): 258-264.

04. Acharjee, M.L.; Barat, S. (2014). Seasonal dynamics of ichthyodiversity in a hill stream of the Darjeeling Himalaya, West Bengal, India. *Journal of Threatened Taxa.* 6(14): 6635-6648.

05. Agarwal, N.K.; Khanna, D.R.; Thapliyal, B.L.; Rawat U.S. (2005). Resources assessment and Potential of Hill fisheries in Garhwal Himalaya Region of Uttaranchal: A Perspective. *In: D. R. Khanna, A. K. Chopra and G. Prasad (eds.). Aquaculture Biodiversity, Present Scenario, Daya Publishing House, New Delhi* 81-97 pp.

06. Agarwal, N.K.; Rawat, U.S.; Thapliyal, B.L.; Raghuvanshi, S.K. (2003). Seasonal variation in physico-chemical characteristics of the River Bhagirathi and its impact on phytoplankton and benthic entomofauna. *Proceedings of 12th National Symposium on Environment.* 430-437 pp.

07. Agarwal, N.K.; Singh, G. (2012). Documentation of fishes and physicochemical characters of a stream Indrawati - a spring fed tributary of river Bhagirathi at Uttarkashi (Central Himalaya, Garhwal). *Environmental conservation*. 13(3): 117-124.

08. Agarwal, N.K.; Singh, G.; Singh, H. (2011). Present status of Ichthyofaunal diversity of Garhwal Himalayan river Bilangna and its tributaries with reference to changing environment. *Environmental conservation*. 12(3): 101-108.

09. Agarwal, N.K.; Singh, H. (2009). Snow trout fishery in Garhwal Himalaya: causes of depletion and strategy for propagation. *Environmental conservation*. 10(1-2): 141-146.

10. Agarwal, N.K.; Thapliyal, B.L. (2005). Preimpoundment hydrological study of Bhilangana river from Tehri dam reservoir area in Uttaranchal. *Environ. Geochem.* 8: 143-148.

11. Akhtar, M.S.; Pal, A.K.; Sahu, N.P.; Ciji, A.; Mahanta, P.C. (2013). Thermal tolerance, oxygen consumption and haemato-biochemical variables of *Tor putitora* juveniles acclimated to five Temperatures. *Fish Physiol. Biochem.* 39: 1387-1398.

12. Akhtar, M.S.; Pal, A.K.; Sahu, N.P.; Ciji, A.; Mahanta, P.C. (2014). Higher acclimation temperature modulates the composition of muscle fatty acid of *Tor putitora* juveniles. *Weather and Climate Extremes.* 4: 19-21.

13. Akhtar, M.S.; Sharma, D.; Barat, A. (2013). Development of coldwater fisheries of Himalayas: an assessment of the present status and future outlook. *Fishing Chimes.* 33(1-2): 47-53.

14. Akhtar, N. (1991). The Northern Areas (Pakistan). Fisheries profile, feasible sites for trout culture and an overall sector development perspective. *Report for Project PAK/91/008. Rome FAO.* 29 pp.

15. Akhtar, N. (1992). Pakistan's cold water fisheries and trout farming sector study: Trends opportunities and challenges. Thermal tolerance, oxygen consumption and haemato-biochemical variables of *Tor putitora* juveniles acclimated to five temperatures. *Report for FAO/UNDP Projects PAK/88-8048 and PAK/91/008. Rome, FAO.* 75 p.

16. Ali, S.; Barat, A.; Kumar, P.; Sati, J.; Kumar, R.; Haldar, R.S. (2014). Study of length-weight relationship and condition factor of the Golden Mahseer, *Tor putitora* from Himalayan rivers of India. *Journal of Environmental Biology.* 35: 225-228.

17. Allen, D.J.; Molur, S.; Daniel, B.A. (2010). The status and distribution of freshwater biodiversity in the Eastern Himalaya. *IUCN, Cambridge, UK and Gland, Switzerland and Zoo Outreach Organisation, Coimbatore, India.* 88 pp+DVD.

18. Anganthoibi, N.; Vishwanath, W. (2013). *Glyptothorax, Pantherinus*: A new Species of Catfish (Teleosteri: Sisoridae) from the Noa Dehing River, Arunachal Pradesh, India. *Ichthyol Res.* 60 (2): 172-177.

19. Arjamand, S.; Dar, S.A. ; Desai, A.Y.; Sayani, A.N.; Yusufzai, S.I.; Ashfaq, M.; Bhola, D.V.; Fofandi, M.D. (2013). Reproductive biology of an endangered coldwater fish Golden Mahseer, *Tor putitora* (Ham) from Anji Mahseer hatchery Reasi (J and K). *IOSR Journal of Pharmacy.* 3: 13-16.

20. Armantrout, N.B. (1998). Hillstream fishes: Why study them? *In: Proceedings of Indo-U.S. Workshop on Conservation and Development of Natural Fisheries Resources of Western Himalayas. Department of Zoology, Punjab University, Chandigarh, India*. 16-18 pp.

21. Arora, R.; Julka, J.P. (2013). Phenotype and genotype differentiation between two stocks of *Tor putitora* (Hamilton) population (Pisces: Cyprinidae) from Himachal Pradesh, India. *Int. J. Plant Anim. Environ. Sci.* 3: 31-41.

22. Arunachalam, M.; Manickam, R.; Punniyam, M.; Mayden, R.L. (2014). New Species of Aborichthys (Cypriniformes: Balitoridae) from Arunachal Pradesh, India. *Species,* 2014. 7(18): 33-47.

23. Ashok, K. (2014). Studies on ichthyfaunal diversity with species reference to monthly and seasonal variation of fish landings in Glacial fed mountainous Goriganga river of Kumaon Himalaya, Uttarakhand, India. *Research Journal of Animal, Veterinary and Fishery Sciences.* 2(4): 1-12.

24. Atkinson, E.T. (1974). Fauna of the Himalayas containing species of Kumaon Garhwal, Nepal and Tibet. *Himalayan Gazetter.* 2: 79-86.

25. Atkore, V.M. (2005). Conservation status of fishes in the tributaries of Ramganga with special reference to golden Mahseer (*Tor putitora*) Hamilton. *Dissertation submitted to Saurashtra University, Rajkot, India.*

26. Atkore, V.M.; Sivakumar, K.; Johnsingh, A.J.T. (2007). Length-weight relationship and relative condition factor of juvenile golden Mahseer *Tor putitora* (Hamilton 1822), in the tributaries of Ramganga river, Uttarakhand. *Journal of the Bombay Natural History Society.* 104(2): 161-164.

27. Atkore, V.M.; Sivakumar, K.; Johnsingh, A.J.T. (2011). Patterns of diversity and conservation status of freshwater fishes in the tributaries of river Ramganga in the Shiwaliks of the Western Himalaya. *Current Science*. 11(5): 731-736.

28. Ayyoade, A.A.; Agarwal, N.K.; Chandola Saklani, A. (2009). Changes in physico chemical features and plankton of two regulated altitude rivers of Garhwal Himalayas, India. *European Journal of Scientific Research*. 27(1): 72-92 pp.

29. Badola, S.P. (1975). Fish fauna of the Garhwal Hills, Pt. II Pauri Garhwal, U.P. India. *Journal of Zootomy*. 16(1): 57-7.

30. Badola, S.P. (1980). Fish fauna of Kedar Valley, Chamoli Garhwal. *Indian J. Fish*. 27(1-2); 10-16.

31. Badola, S.P.; Pant, M.C. (1973). Fish fauna of the Garhwal hills, Part I Ind. *Journal of Zoology*. 14(1): 37-44.

32. Badola, S.P.; Singh, H.R. (1977). Fishing methods in Garhwal Hills. *Proc. Nat. Acad. Sci. India.* 47: 177-181.

33. Badola, S.P.; Singh, H.R. (1980). Food and feeding habits of the Genera *Tor, Puntius* and Barilius. *Proc. Indian Nat. Sci. Acad. B.* 46: 58-62.

34. Badola, S.P.; Singh, H.R. (1981). Hydro-biology of the river Alaknanda of the Garhwal Himalaya. *Ind. J. Ecol.* 8: 269-276.

35. Badola, S.P.; Singh, H.R. (1981). Fish and Fisheries of the River Alaknanda. *Proc. Nat. Acad Sci. India.* 51 (B) 133-142.

36. Badoni, K.; Nautiyal, R.; Bhatt, J.P.; Kishor, B.; Nautiyal, P. (1997). Variations in epilithic diatom community structure due to river valley projects on the Ganga between Rishikesh and Hardwar. *Proc. Indian Nat. Sci. Acad.* 63(6): 523-536.

37. Bagra, K.; Das, D. (2010). Fish diversity of River Siyom of Arunachal Pradesh: A case study. *Our Nature.* 8: 164-169.

38. Bagra, K.; Kadu, K.; Nebeshwar-Sharma, K.; Laskar, B.A.; Sarkar, U.K.; Das, D.N. (2009). Ichtyological survey and review of the checklist of fish fauna of Arunachal Pradesh, India. *Checklist.* 5(2): 330-350.

39. Bahuguna, M. (2008). Impact of Tehri Dam construction on Aquatic biodiversity of Bhagirathi of Garhwal Himalaya. *D. Phil. Thesis. Srinagar-Garhwal, India. H. N. B. Garhwal University.*

40. Bahuguna, S.N.; Badoni, A.K. (2002). Qualitative and quantitative productivity of fish food from three important tributaries of river Alaknanda. *Him J. Env. Zool.* 16(2): 215-222.

41. Bahuguna, S.N.; Singh, H.R. (1981). Food and feeding habits of a hill stream fish *Glyptothorax pectinopterum* (Mc Clelland). *Ind. J. Anim. Sci.* 51(10): 964-967.

42. Bakalial, B.; Biswas, S.P.; Borah, S.; Baruah, D. (2014). Checklist of fishes of lower Subansiri river drainage, Northeast India. *Annals of Biological Research*. 5(2): 55-67.

43. Bala, N. (1999). Deformaties in some fresh water fishes viz. *Cirrhinus mrigala* (Ham.), Labeo rohita (Ham.) and Channa Punctatus (Bloch) from Jammu (J and K). *M.Sc. Dissertation. University of Jammu.*

44. Balkhi, M.H.; Yousuf, A.R.; Qadri, M.Y. (1987). Hydrobiology of Anchar Lake, Kashmir. *Comp. Physiol. Ecol.* 12(3): 121-139.

45. Banyal, H.S. (1998). Morphology and characteristics of hillstreams of Himachal Pradesh, *In: Proc. Indo-U.S. workshop on Conservation and Development of Natural Fishery Resources of Western Himalayas. Dec. 7-8, 1998. Department of Zoology, Panjab University, Chandigarh.* 90-92 pp.

46. Banyal, H.S. (2001). Ecology of fish communities of some selected stream morphology. *Ph. D. thesis, Panjab University Chandigarh.*

47. Barat, A.; Ali, S.; Sati, J.; Sivaraman, G.K. (2012). Phylogenetic analysis of fishes of subfamily Schizothoracihae (Teleostei: Cyprinidae) from Indian Himalayas using Cytochrome b gene. *Indian J. Fish*. 59(1): 43-47.

48. Barat, A.; Goel, C.; Tyagi, A.; Ali, S.; Sahoo, P.K. (2012). Molecular cloning and expression profile of Snow trout GPDH gene in response to abiotic stress. *Mol. Bio. Rep.* DOI NO. 10.1007/s11033-012-1980-6.

49. Barat, A.; Ponniah, A.G. (1998). Karyotype and unclear organizer regions (NORs) of golden Mahseer, *Tor putitora* from different populations of north western Himalaya. *In: Manna G.K., Roy, S.C.(eds.) Perspectives in cytology and genetics, vol. 9. AICCG Publication, Kalyani University.* 283-286 pp.

50. Barat, A.; Sahoo, P.K.; Kumar, R.; Mir, J.I.; Ali, S.; Patiyal, R.S.; Singh, A.K. (2015). Molecular characterization of rainbow trout, *Oncorhynchus mykiss* (Walbaum, 1972) stocks in India. *Journal of Genetics*. 94(1)e13-8.

51. Barat, A.; Sharma, S.; Matura, R.; Mahanta, P.C. (2010). Development of eight EST derived microstellite markers in India snow trout (*Schizothorax richardsonii*). *Journal of Inland Fish Society of India.* 42(2): 21-24.

52. Barat, A.; Sharma, S.; Matura, R.; Mahanta, P.E. (2011). Successful crossamplification of few microsatellite loci isolated from *Tor tambroides* for Indian snow trout, *Schizothorax richardsonii* (Gray, 1832) Family: Cyprinide). *Global Journal of Molecular Science*. 6(1): 22-25.

53. Barman, R.P. (1985). Fauna of Namdapha, Arunachal Pradesh (Pisces). *Records of the Zoological Survey of India.* 6(1-3): 275-277.

54. Bartwal, M.; Singh, D.; Bhandari, M.S. (2013). Assessment of ecology of aqua-biodiversity and economic development through aquatic tourism in Uttarkashi, Uttarakhand, India. *Octa Journal of Environmental Research*. 1(4): 310-318.

55. Basade, Y.; Kapila, S.; Kapila, R. (2006). Changes in muscle biochemical composition with size in snow trout, *Schizothorax richardsonii* (Gray). *Indian J. Fish*. 53(4): 463-467.

56. Basade, Y.; Mohan, M. (2009). Effect of feeding frequency of growth performance, feed efficiency and bioenergetics of golden Mahseer early fry. *Asian Fisheries Science*. 22: 549-559.

57. Bashir, A.; Bisht, B.S.; Mir, J.I.; Patiyal, R.S.; Kumar, R. (2015). Morphometric variation and molecular characterization of Snow trout species from Kashmir valley, India. *Mitochondrial DNA*. 1-6.

58. Bashir, A.; Bisht, B.S.; Patiyal, R.S. (2015). Morphometric and meristic characteristics of *Triplophysa marmorata* (Heckel, 1838) from Kashmir Valley, India. *World Journal of Fish and Marine Sciences*. 7(1): 1-4.

59. Bashir, A.; Kumar, R. ; Bisht, B.S.; Patiyal, R.S.; Mir, J.I.; Singh, A.K. (2015). Molecular characterization of *Cyprinus carpio* var. communis and *Carassius carassius* from Kashmir SKUAST. *Journal of Research*. 17(1): 1-7.

60. Bashir, A.; Sharma, N.K.; Bisht, B.S.; Singh, R.; Mir, J.I. (2015). Length-weight relationships of 10 fish species from two tributaries of Indus River Basin in Jammu and Kashmir, India. *Journal of Applied Ichthyology*. 31(6): 1163-1164.

61. Beavan, R. (1877). Handbook of freshwater fishes of India. *L. Reeve and Co., London*.

62. Bhagat, N.; Kumar, R. (2014). Deformities in some freshwater fish of river Tawi in Jammu (Jammu and Kashmir). *The Bioscan*. 9(3): 991-996.

63. Bhagat, N.; Kumar, R.; Singh, R. (2013). Anomalies in some freshwater fishes of Jammu (J and K) morphometric examination. *The Bioscan*. 8(1): 67-72.

64. Bhat, A.A.; Jan, U.; Shah, G.M. (2014). Comparative studies on specific growth rate and feed conversion efficiencies of *Schizothorax niger* and *Schizothorax esocinus*. *American Journal of Life Sciences*. 2(2): 57-62.

65. Bhat, F.A.; Yousuf, A.R.; Balkhi, M.H.; Mahdi, M.D.; Shah, F.A. (2010). Length-weight relationship and morphometric characteristics of *Schizothorax* spp. in the River Lidder of Kashmir. *Indian J. Fish*. 47(2): 73-76.

66. Bhatnagar, G.K. (1973). On a collection of a fish from Bhakra reservoir, Sutlej river and closely associated waters. *Journal of Inland Fish Society of India.* 5: 134-136.

67. Bhatt, B.P.; Bajubaruah, K.M.; Vinod, K.; Karunakaran, M. (2011). Integrated fish farming for nutritional secureity in Eastern Himalayas India. *Journal of Applied Aquaculture*. 23(2): 157-165.

68. Bhatt, D.S.; Pathak, J.K. (1989). Hydrological profile of river Sarju draining upland of Kumaun (Greater Himalaya). *Journal of Freshwater Biology*. 1: 33-42.

69. Bhatt, D.S.; Bisht, Y. (1987). Environmental effects on the reproductive function of the yellow finned Mahseer of the Kumaun Himalaya. *Him. J. Environ. Zool*. 1(1): 14-22.

70. Bhatt, D.S.; Pandey, R.K. (1991). Ecology of the Mountain waters. *Ashish Publ. House, Delhi.* 38 pp.

71. Bhatt, D.S.; Pathak, J.K. (1991). Streams of the Great Mountain arc: Physiography and Physiochemistry. *In: Ecology of the Mountain Waters. (Eds.). S. D. Bhatt and r. K. Pande, Ashish Publishing House, Delhi*. 43-58 pp.

72. Bhatt, D.S.; Pathak, J.K. (1992). Himalayan environment: water quality of the drainage basins. *Shree almora Book Depot. Almora*. 318 pp.

73. Bhatt, J.P.; Bhaskar, A.; Pandit, M.K. (2005). Biotic communities of Kishanganga river: A pre-impoundment case study of a Himalayan river. Aquatic Ecosystem Health and Management. 8: 259-265.

74. Bhatt, J.P.; Manish, K.; Pandit, M.K. (2012). Elevational gradients in fish diversity in the Himalyaa: Water discharge is the key divers of distribution patterns. Plos One. 7(9): 46237.

75. Bhatt, J.P.; Nautiyal, P. (1999). Martality and survival of the Himalayan Mahseer *Tor putitora* in a regulated section of the River Ganga between Rishikesh and Hardwar. *Journal of the Bombay Natural History Society.* 96: 70-73.

76. Bhatt, J.P.; Nautiyal, P.; Singh, H.R. (1998). Comparative study of morphometric characters of Himalayan Mahseer *Tor putitora* (Hamilton) between Ganga and Gobindsagar reservoir Stocks. *Indian J. Fish*. 45 (1): 85-87.

77. Bhatt, J.P.; Nautiyal, P.; Singh, H.R. (1998). Racial structure of Himalayan Mahseer, *Tor putitora* (Hamilton) in the river Ganga Between Rishikesh and Hardwar. *Indian Journal of Animal Science*. 68: 587-590.

78. Bhatt, J.P.; Nautiyal, P.; Singh, H.R. (2000). Population structure of Himalayan Mahseer, a large cyprinid fish in the regulated foothill section of the river Ganga. *Fisheries Research*. 44: 267-271.

79. Bhatt, J.P.; Nautiyal, P.; Singh, H.R. (2004). Status (1993-1994) of the endangered fish Himalyaan Mahseer *Tor putitora* (Hamilton) (Cyprinidae) in the mountain reaches of the river Ganga. *Asian Fisheries Science*. 17: 341-355.

80. Bhatt, J.P.; Pandit, M.K. (2010). A macro-invertebrate based new biotic index to monitor river water quality. *Current Science*. 99: 196-203.

81. Bhatt, J.P.; Rawat, V.S.; Nautiyal, P. (1999). Maturity stages and sex ratio in the Golden Mahseer, *Tor putitora* (Hamilton) in the Ganga river system. *Indian Journal of Animal Science*. 69(8): 645-647.

82. Bhuyan, R.N.; Ghosh, D.; Sarma, D. (2009). Fish and Fisheries in North-East India: *Geophill Publications. Guwahati. Assam*.

83. Bilgrami, K.S. (1991). The Living Ganga. *Narendra Publishing House, New Delhi*. 212 pp.

84. Bisht, B.; Badoni, A.K.; Bahuguna, S.N. (2009). Seasonal distribution and relative abundance of fish fauna of a small hill-stream Dangchaura (Takoli) Gad alongwith river Alaknanda. *Our Nature*. 7: 182-186.

85. Bisht, H.C.S.; Bisht, R.; Kunjwal, S.S.; Pandey, N.N. (2012). Observations on the use of artificial substrates for periphyton based culture of *Schizothorax richardsonii* (Gray) in raceways of mountainous region of Kumaon, Uttarakhand. *Journal of Env. and Bio. Sci.* 26(1): 99-104.

86. Bisht, K.L. (1993). Environmental parameters and seasonal succession in planktonic biomass in the river Pinder of Garhwal Himalaya. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 163-170 pp.

87. Biswas, S.; Baruah, S. (2000). Fisheries ecology of the Northeastern Himalayas with special reference to the Brahmaputra river. *Ecological Engineering* 16: 39-50.

88. Bleeker, P. (1860). Ichthyology aearchipelagi. *Indici Prodromus, Batavia*.

89. Bloch, M.E. (1785). Naturqeschldite der auslandischen Fische, *Berlin; 9 parts in 2, and atlas (3 Vols.)*. Atlas.

90. Boote, P. (1979). Mahseer Mission I-IV. *Angling: August, 9-11; September 21-24; October 26-29; November 22-25, Report* 79 p.

91. Borana, K.; Fayaz, F.A. (2013). Morphological adaptations of fish fauna inhabiting river Indus of Ladakh region of Jammu and Kashmir state. *Indian Journal of Biotechnology and Pharmaceutical Research.* 1(2): 24-27.

92. Britz, R.; Maclanine, J. (2007). A review of the eel-loaches, genus *Pangio* from Myanmar (Teleostei: Cypriniformes: Cobitidae). *Ichtyol. Explor. Freshwater*. 18(1): 17-30.

93. Burrard, S.C.; Hayden, H.H. (1933). A sketch of the geography and geology of the Himalayan mountains and Tibet (Revised by Burrard and Heron). *Delhi, Manager of Publications.* 1-x+1-359+xxxi Pi 52pls.

94. Chacko, P.I.; Ganpati, S.V. (1952). Hydrobiological survey of the Suruli river in the highways, Madurai district, India to determining its suitability for the introduction of the rainbow trout. *Arch. Hydrobiol*. 46: 128-141.

95. Chadhary, R.P. (1989). Study of the preservation and marketing of fishes of Kathmandu with specieal reference to their microbiology and chemical analysis. *M.Sc. Dissertation, Tech. Univ. Kathmandu.*

96. Chakrabarty, M.; Homechaudhuri, S. (2013). Fish guild structure along a longitudinally - determined ecological zonation of Teesta, an eastern Himalayan river in West Bengal, India. *Arxius de Miscel-lania Zoologica*. 11: 196-213.

97. Chakrabarty, M.; Homechaudhuri, S. (2015). Resource partitioning as determining factor in structuring fish diversity pattern along ecological gradient of river Teesta in Eastern Himalaya. *International Journal of Fisheries and Aquatic studies*. 2(4): 74-80.

98. Chalai, R.S.; Pandey, N.N.; Kumar, P. (2012). Use of PGE for successful spawing of snowtrout, *Schizothorax richardsonii* (Gray). *Journal of sustainable Environmental Research*. 1(1): 37-40.

99. Chalkoo, S.R.; Ajmair, T.A.Q.; Qureshi, T.A. (2007). Status of cold water fisheries of Kashmir. *Fishing Chimes.* 26(10): 152-154.

100. Chanda, S.K. (1990). Amphibian (Anuran) species and their altitudinal distribution in Northeast India. *Journal of the Bombay Natural History Society* 87(1): 157.

101. Chanda, T. (1989). A study of chromosomes in some hill stream fishes of Assam, India. *Ph. D. Thesis, Kalyani University, Kalyani, West Bengal, India*.

102. Chandra, S.; Barat, A.; Singh, M.; Singh, B.K.; Matura, R. (2012). DNA barcoding of Indian coldwater fishes of Genus Schizothorax (Family: Cyprinidae) from Western Himalaya. *World Journal of Fish and Marine Sciences*. 4(4): 430-435.

103. Chandra, S.; Jain, S.; Mir, J.I.; Singh, B.K. (2015). In-silico characterization of Cytochrome C Oxidase I Protein of Himalayan Snow Trout, *Schizothorax richardsonii*. 3-D Structure Prediction World. 7(2): 87-97.

104. Chaturvedi, S.K. (1976). Spawning biology of Tor Mahseer, *Tor tor* (Hamilton). *Journal of the Bombay Natural History Society.* 73(1): 63-73.

105. Chaudhuary, S.; Sen, N. (1977). On a Collection of fish Iron Arunachal Pradesh with some new records. *Newsletter of Zoological Survey of India*. 3(4): 217-223.

106. Chaudhuri, B.L. (1910). Description of a new species of *Nemacheilus* from northern India. *Records of the Indian Museum*. 5: 183-185.

107. Chaudhuri, B.L. (1912). Description of some new speces of freshwater fishes from north India. *Records of the Indian Museum*. 7: 437-444.

108. Chaudhuri, B.L. (1913). Zoological results of the Abor Expedition, 1911-1912. *Records of the Indian Museum*. 8: 243-257.

109. Chong, C.K.; Ahmed, M.; Valmonte-Santos, R.A.; Balasubramaniam, H. (2007). A review of literature on values of inland capture fisheries and dam construction at the lower Mekong and Ganga Basins. *Penang, World Fish Centre*. 23pp.

110. Chopra, A.K.; Madhwal, B.P.; Singh, H.R. (1990). Abiotic variables and primary productivity of river Yamuna at Naugaon, Uttarkashi, Garhwal. *Ind. J. Ecol.* 17(1): 61-64.

111. Chopra, A.K.; Madhwal, B.P.; Singh, H.R. (1993). Relationship of abiotic variables and benthic fauna in river Yamuna of Garhwal Himalaya. *Ind. J. Ecol.* 20: 52-58.

112. Chopra, A.K.; Patrick, N.J. (1994). Effect of domestic sewage on self puricication of river Ganga water at Rishikesh. I. Physico-chemical parameters. Advances in Biosciences. 13: 75-82.

113. Cordington, K.; De, B. (1946). Notes on the Indian Mahseer s. *Journal of the Bombay Natural History Society.* 46: 336-344.

114. Dar, S.A.; Najar, A.M.; Balkhi, M.A.; Rather, S.R. (2012). Length weight relationship and relative condition factor of *Schizopyg esocinus* from Western Himalaya. *International Journal of Aquatic Science*. 3(1): 29-36.

115. Darshan, A.; Dutta, R.; Kachari, A.; Gogoi, B.; Aran, K.; Das, D.N. (2014). A new species of Glyptosternine catfish (Siluriformes: Sisoridae) from yomgo river, Arunachal Pradesh, India. *Aqua. Int. J. Ichthyol*. 20(2): 73-80.

116. Das R.C.; Mukherjee, A.B. (2004). Final report for provision of fish way at the proposed Tista law dam project - IV dam structure of NHPC at Kalijhora. *Report submitted NHPC, Siliguri.*

117. Das, B.K.; Siakiya, H.; Doley, A.K. (2014). A report on prevalence abundance and intensity of fish parasites in cat fishes of river Siang in Arunachal Pradesh, India. *International Journal of Scientific Research and Development.* 2(7): 231-233.

118. Das, M.K.; Bordoloi, S. (2012). Diversity of fish and insect fauna of Diyung Thiep watershed, Arunachal Pradesh. *International Journal of Advanced Biological Research*. 2(2): 289-292.

119. Das, M.K.; Naskar, M.; Mondal, M.L.; Srivastava, P.K.; Dey, S.; Rej, A. (2012). Influence of ecological factors on the pattern of fish species richness in tropical Indian rivers. *Acta Ichtyhologica et Piscatoria*. 42(1): 47-58.

120. Das, M.K.; Sharma, A.P.; Sahu, S.K.; Srivastava, P.K.; Rej, A. (2013). Impacts and vulnerability of inland fisheries to climate change in the Ganga river system in India. *Aquatic Ecosystem Health and Management*. 16(4): 415-424.

121. Das, P. (1994). Conservation and Management of Cold water Fish genetic resources. *IN: Singh, H.R. and Lakra, W.S. (eds). Coldwater Aquaculture and Fisheries. Narendra Publishing House, Delhi.* 337 pp.

122. Das, P. (1996). Conservation of Himalayan Mahseer. *Fishing Chimes.* 2: 14-17.

123. Das, P.; Joshi, K.D. (1994). Mahseer conservation-present and future. *In: Nautiyal, P. (ed.)* Mahseer *the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* PP. D3-9.

124. Das, R.C.; Mukherjee, A.B. (2005). Important fish fauna of river Teesta, their biodiversity and the need of their conservation. *In: P. C. Mahanta and A. K. Singh (ed.). Proceedings of the National Symposium on Reassessment of Fish Genetic resources in India and Needs to Evolve sustainable methodology for conservation, organized by Asian Fisheries Society, Indian Branch and NBPGR, Lucknow, from 26-27th April 2005*. 39-40 pp.

125. Das, S. M.; Nath, S. (1971). A revision of fishes from Jammu province, India. *Kashmire Science*. 8: 1-22.

126. Das, S. M.; Subla, B.A. (1963). The icthyofauna of Kashmir, Part - I: History, topography, origin, ecology and general distribution. *Icthyologica.* 2(1-2): 87-106.

127. Das, S. M.; Subla, B.A. (1964). The icthyofauna of Kashmir, Part-II: the specification of Kashmir fishes with two new records of species. *Icthyologica.* 3(1-2): 57-62.

128. Das, S.H. (1967). Studies on the gonads and fecundity of food fishes of Kashmir. *Proc. 1. atl. Acad. Sci.* 8: 111-120.

129. Das, S.M. (1960). The remarks of the Doon Valley. *Uttarakhand Bharti*. 11-17 pp.

130. Das, S.M. (1964). A study on the fecundity of some freshwater fishes of India with a note on a new concept of comparative fecundity. *Ichthyologica.* 3: 33-36.

131. Das, S.M.; Fotedar, I.D. (1965). Studies on the scales, age and growth of freshwater fishes of Kashmir Pt I Cyprinus carpio specularis Linn. *Ichthylogica*. 4: 79-91.

132. Das, S.M.; Moitra, S.K. (1963). Studies on the food and feeding habits of some freshwater fishes of India, Part. IV: A Review on the food and feeding habits with general conclusion. *Ichthyologica.* II (1-2): 107-115.

133. Das, S.M.; Pande, J. (1978). Some physico-chemical and biological indicators of population in lake Nainital, Kumaun, U.P. *Ind. J. Ecol.* 5(1): 7-16.

134. Das, S.M.; Pathani, S.S. (1978). Study on the biology of the Kumaon Mahseer *Tor putitora* (Ham): adaptation of the alimentary tract in relation to feeding habits body weight and body length. *Indian Journal of Animal Science*. 48: 461-465.

135. Das, S.M.; Pathani, S.S. (1978). A study on the effect of lake ecology on productivity of Mahseer (*Tor tor* and *Tor putitora*) in Kumaun Lakes, India. *Matsya*. 4: 25-31.

136. Das, S.M.; Srivastava, V.K. (1959). Studies on freshwater plankton, Pt. III, Quantitative composition and seasonal fluctuation in plankton components. *Proc. Nat. Acad Sci. India.* 29B (4): 174-189.

137. Dasgupta, M. (1982). An investigation on some aspects of biology of Mahseer from the North-Eastern India. *Ph. D. Thesis, North-Eastern Hill Unviersity, Shillong, India*.

138. Dasgupta, M. (1988). Length-weight relationship and condition of the copper Mahseer, Acrossocheilus hexagonolepis (McClelland). *Matsya*. 14: 79-91.

139. Dasgupta, M. (1991). Biometry of the Mahseer, *Tor putitora* (Hamilton) correlated from Garo Hills, Meghalaya. *Indian J. Fish*. 38(2): 129-131.

140. Dasgupta, M. (1991). Food and feeding habits of the Mahseer, *Tor putitora* (Hamilton). *Indian J. Fish*. 38: 212-217.

141. Dasgupta, M. (1993). A study on food and feeding habits of the Mahseer *Tor putitora* (Hamilton). *Proc. 80th Indian Sci. Congr*. 3: 22-23.

142. Dasgupta, M. (1994). Mahseer of northeastern India - A review on the Biology. IN: Nautiyal, P. (ed.) Mahseer the game fish. *Rachana Publication, Srinagar (Garhwal).* p. B54-B66.

143. Datt, S.P.S; Kaur, H. (1999). Some new fish records for Jammu and Kashmir State. *Oriental Science*. 41: 45-47.

144. Datta, M.J.S.; Srivastava, M.P. (1988). Natural History of Fishes and Systematics of freshwater Fishes of India - A Handbook. *XVIII + 403 pp., Narendra Publishing House, Delhi - 6(India).* 403 pp.

145. Datta, S. (2011). Inland Fisheries Resources of India. *Inland Water Biology*.

146. Day, F. (1873). Report of freshwater fish and fisheries of India and Burma. *Superintendent Government Printing Press, Calcutta*. 448p.

147. Day, F. (1878). The fishes of India: being a natural history of fishes known to inhabit the seas and freshwater of India, Burma and Ceylon. *Taylor and Francis, London*. 778 pp.

148. Day, F. (1885). Geogrpahical distribution of Indian freshwater fishes. *Journal of Linnean Society.* 13: 138-155. 338-353.

149. Day, F. (1889). The fauna of British India including Ceylon and Burma fishes, Vol. 1.2. *Taylor and Francis, London*.

150. De, K. C. (1910). Report on the Fisheries on Eastern Bengal and Assm. *Shillong, Eastern Bengal and Assam Secretariate.* 77 pp.

151. Desai, V.R. (1973). Studies on fishery and biology of *Tor tor* (Ham) from river Narmada. II Maturity, fecundity and larval development. *Proc. Indian Nat. Sci. Acad.* 39B: 228-248.

152. Desai, V.R. (1982). Studies on fishery and biological aspects of Tor Mahseer, *Tor tor* (Ham.)from river Narmada. *Ph. D. Thesis, Agra University, Agra*. 216 pp.

153. Desai, V.R. (2003). Synopsis of biological data on the tor Mahseer *Tor tor* (Hamilton, 1822). *FAO Fish. Synopsis* No. 158: 36 pp.

154. Dey, S.C. (1973). Studies on the distribution and taxonomy of the Ichthyofauna of the Hill streams of Kamrup - Khasi-Garo regions of Assam with special reference to the functional morphology of some rheophilic fishes. *D. Sc. Thesis. Calcutta Univ. XI* - 299 pp.

155. Dey, S.C. (1975). Ecomorphology of the ichthyofauna of the river Pagladia within Kamrup district. *Journal of Assam Sci. Soc*. 18(1): 1-5.

156. Dey, S.C. (1976). Significance of fishes in the hill streams of Assam and Meghalaya, India. *Rev, Des Trav. deL' Inst. et. Tech, des Poches Marit. Paris*.

157. Dey, S.C. (1976). Studies on the probable origin and distribution of the ichthyofauna of the river Brahmaputra, India. *Rev, Des Trav. deL' Inst. et. Tech, des Poches Marit. Paris.*

158. Dey, S.C. (1978). Fish and fisheries of the Brahmaputra drainages - its problems and potentialities. *Proc. Assam Sci. Soc. Svmp. Gauhati*. 41-43 pp.

159. Dey, S.C. (1982). A critical analysis on the fish and fisheries of Assam. *Proc. All India Sent. Techth.* 3: 16.

160. Dey, S.C.; Das, M. (1982). Studies on *Tor putitora* (Ham.) and *Tor tor* (Ham.) for the Jia-Bharali river system in Darrang district of Assam*. Proc. All India Sem. Ichthyol*. 3: 37.

161. Dey, S.C.; Nath, S. (1982). Ecomorphology of the ichthvofauna of the river Jatinea in J. Assam (India). *Proc. All India Sem. Ichthyol*. 3: 37.

162. Dey, S.C.; Sen, N. (1982). Fish and fisheries of some major drainages of Meghalaya. *Proc. All India Sem. Ichthyol*. 3: 10-11.

163. Dhu, S. (1923). The angler in India or the mighty Mahseer. *Allahabad (Reprint 1993 Natraj Publishers, Dehradun).*

164. Dilger, V.C. (1952). The Brij Hypothesis, an explanation for the tropical faunal similarities between the Western Ghats and the Eastern Himalayas.Assam, Burma and Malaya. *Evolution.* 6: 125-127.

165. Dinesh, K.; Nandeesha, M.C.; Nautiyal, P.; Aiyappa, P. (2010). Mahseer s in India: a review with focus on conservation. *Indian J. Sci*. 80 (Supplt. 1): 26-38.

166. Dobriyal, A.K. (1983). Bioecolgy of some coldwater fishes correlated with hydrobiology of the Mandakini and Nayar. *D. Phill. Thesis, H.N.B. Garhwal University, Srinagar, Garhwal.*

167. Dobriyal, A.K. (1985). Ecology of the limnofauna in the small streams and their importance to the village life in Garhwal Himalayas, Uttar Pradesh. *Journal of Zoology*. 5(2): 139-144.

168. Dobriyal, A.K. (1991). An appraisal of the fishery resources of riverine ecosystems of Garhwal. *In: Ecology of the Mountain Waters. (Eds.). S. D. Bhatt and R. K. Pande. Ashish Publ. House, New Delhi,* 306-312 pp.

169. Dobriyal, A.K.; Bahuguna, A.K.; Kumar, N.; Kotnala, C.B. (1993). Ecology and seasonal diversity of plankton in a springfed stream Khandagad of Garhwal Himalayas. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* pp. 175-18.

170. Dobriyal, A.K.; Kumar, N.; Bahuguna, A.K.; Singh, H.R. (2000). Breeding ecology of some cold water minor carps from Garhwal Himalayas. *IN: Singh, H.R. and Lakra, W.S. (eds). Coldwater Aquaculture and Fisheries. Narendra Publishing House, Delhi*. 177-186 pp.

171. Dobriyal, A.K.; Singh, H.R. (1981). Diurnal variation in some aspects of limnology of the river Mandakini from the Garhwal Himalaya. Uttar Pradesh. *Journal of Zoology*. 1: 16-18.

172. Dobriyal, A.K.; Singh, H.R. (1988). Ecological basis for Ichthyofaunal variation in two hillstreams of Garhwal Himalayas. *In: Proc. The First Indian Fisheries Forum. Asian Fisheries Society, (ed. Joseph, M.M.). Indian Branch, Mangalore*. 313-317 pp.

173. Dobriyal, A.K.; singh, H.R. (1990). Ecological studies on age and growth of Barilius bendelisis (Ham.) from India. *Arch. Hydrobiol.* 118(1): 93-103.

174. Dollo, M.; Samal, P.K.; Sundriyal, R.C.; Kumar, K. (2009). Environmentally sustainable traditional natural resource management and conservation in Ziro valley, Arunachal Himalaya, India. *Journal of American Science.* 5(5): 41-52.

175. Dubey, G.P. (1978). Survey of the waters of Bhutan. Physiography and fisheries potential. *Report. FAO, Rome.* 38 p.

176. Dunsford, H.S. (1911). The report on fish and fisheries of the Punjab. *Govt Press, Lahore*.

177. Dutta, A.K.; Sen, T.K. (1977). *Schizopygopsis stoliczkae steindachner*-First record from Arunachal Pradesh, India, with observation on the extension on the geographical range, *Newsletter of Zoological Survey of India*. 3(4): 143-144.

178. Dutta, R.; Sarma, D.; Tyagi, B.C. (2010). Fish Fauna and hydro biological environment of Deopani Stream, Arunachal. *In: Ecology and Biodiversity of River and Streams of North East. Ankansha Publishing House, New Delhi.*

179. Dutta, S.P.S.; Kour, H.; Gupta, S.C.; Bali, J.P.S. (2002). Fishes of river Chenab, Jammu Province, J and K. Cold Water Fish Genetic Resources and their conservation. *NATCON Publication.* 181-187.

180. Dutta, S.P.S.; Kour, H.; Zutshi, N. (2003). Icthyofauna of river Tawi and its tributaries. *Journal of Aquatic Biology*. 18(2): 61-68.

181. Dutta, S.P.S.; Sharma, K.; Gupta, S.C.; Verma, M. (1997). A report on abnormal fishes inhabiting the aquatic environments of Jammu (J and K State). *Him. J. Environ. Zool*. 11: 87-92.

182. Edds, D.R. (1986). Fishes of Kali Gandaki/Narayani Rivers, Nepal. *J.N.H.M., Tech. Univ. Kathmandu*. 10(14): 13-22.

183. Edds, D.R. (1993). Fish assemblage structure and environmental correlates in Nepal'sGandaki River. *Copeia.* 1: 48-60.

184. Everard, M.; Kataria, G. (2011). Recreational angling markets to advance the conservation of a reach of the Western Ramganga river, India. *Aquatic Conservation: Marine and Freshwater Ecosystems.* 21: 101-108.

185. Farooq, A.G.; Sabzar, A.D.; Yousuf, A.R.; Tripathi, N.K.; Samee, W. (2012). Karyoevolutionary and karyosystematic considerations on *Schizothorax curvifrons* and *Schizothorax niger* (Teleostei: Cyprinidae): Important hill-stream food fishes of Kashmir Himalayas. *African Journal of Biotechnology*. 11(57): 11998-12004.

186. Gautam, A.; Singh, N. (1995). Water quality of lotic aquatic environment in Garhwal Himalaya towards deterioration: A review. *In: Recent Researchs in Aquatic environment*. 67-76 pp.

187. Geetakumari, G.; Kadu, K. (2011). *Badis singnensis*, a new fish species (Teleostei: Badidae) from Singen river, Arunachal Pradesh, Northeastern India. *Journal of Threatened Taxa.* 3(9): 2085-2089.

188. Ghosh, S.K.; Lipton, A.P. (1982). Ichthyofauna of N.E.H. region with special reference to their economic importance. *ICAR Special Bulletin*. (1): 119-126.

189. Goel, C.; Barat, A.; Pande, V.; Ali, S.; Kumar, R. (2011). Length weight relationship of snow trout (*Schizo thorax richardsonii*) based on linear and non-linear models from hill stream of Uttarakhand, India. *World Journal offish and Marine sciences*. 3(6): 485-488.

190. Gopal, B.; Shilpakar, R.; Sharma, E. (2010). Functions and services of wetlands in the Eastern Himalayas: impacts of climate change; climate change impact and vulnerability in the Eastern Himalayas *Technical Report 3. Kathmandu, ICIMOD*. P. 14-16.

191. Gopal, B.; Zutshi, D.P. (1998). Fifty years of hydrobiological research in India. *Hydrobiologia*. 384: 267-290.

192. Goswami, U.C.; Basistha, S.K.; Bora, D.; Shyamkumar, K.; Saikia, B.; Changsan, K. (2012). Fish diversity of North East India, Inclusive of the Himalayan and Indo Burma biodiversity hotspots zones: A checklist on their taxonomic status, economic importance, geographical distribution, present status and prevailing threats. *International Journal of Bioddiversity and Conservation.* 4(15): 592-613.

193. Govind, B.V.; Rajagopal, K.V. (1977). A new record of Himalayan catfish, Amblvceps mangois (Hamilton) in the peninsular Tungabhadra river (Karnataka State). *Science and Culture.* 43(10): 448-449.

194. Grover, S.P. (1971). On the Collection of fishes of the Song river in Dun Valley, Uttar Pradesh. *Gurukul Kangri Vish. J. Sci. Res*. 2: 115-118.

195. Grover, S.P. (1979). Taxonomic Account and Field Observations on the Biology of Nemachilus rupicola (McClelland) in Doon Valley. *Cheetal.* 21(1)1979: 27-28.

196. Grover, S.P.; Baloni, S.P. (1977). Some biological notes on the hill stream fishes of Tehri Garhwal. *Geobios.* 4: 248-251.

197. Grumbine, R.E.; Pandit, M.K. (2013). Threats from India's Himalaya dams. Science. 339: 36-37.

198. Gulgani, H.K. (2000). Survey and Systematic analysis of fish fauna of Jammu. *Ph. D. thesis, University of Jammu.*

199. Gunther, A. (1870). Catalogue of the Fishes of the British Museum 8 vols. *London. Taylor and Francis, London. 549pp*.

200. Gunther, A. (1880). An Introduction to the Study of Fishes. *Adams and Charles Black, Edinburgh*. 720 pp.

201. Gupta, A.; Michael, R.G. (1983). Seasonal differences in relative abundance among populations of benthic insects in a moderately high altitude stream. *Proc. Workshop on High Altitude Entomology and Wildlife Ecology, Zoological Survey of India*. 21-28 pp.

202. Gupta, A.; Michael, R.G. (1992). Diversity, distribution and seasonal abundance of Ephemeroptera in streams of Meghalaya State, India. *Hydrobiol*. 228: 131-139.

203. Gupta, N.; Bower, S.D.; Raghavan, R.; Danylchuk, A.J.; Cooke, S.J. (2015). Status of recreational fisheries in India: development, issues, and opportunities. *Rev. Fish Sci. Aquac.*

204. Gupta, N.; Chadwick, M.A.; Drake, N.; Sivakumar, K.; Mathur, V.B. (2013). Importance of protected areas for managing freshwater fish biodiversity in Indian Himalayan rivers. *Hydrol. Curr. Res*. 4(2): 60.

205. Gupta, N.; Kanagavel, A.; Dandekar, P.; Dahanukar, N.; Sivakumar, K.; Mathur, V.B.; Raghavan, R. (2016). God's fishes: religion, culture and freshwater fish conservation in India. *Oryx.* 50(2): 244-249.

206. Gupta, N.; Nautiyal, P.; Borgohain, A.; Sivakumar, K.; Mathur, V.B.; Chadwick, M.A. (2016). Catch-and-release angling as a management tool for freshwater fish conservation in India. *Oryx.* 50(2): 250-256.

207. Gupta, N.; Raghavan, R.; Sivakumar, K.; Mathur, V.B. (2014). Freshwater fish safe zones: a prospective conservation strategy for river ecosystems in India. *Current Science*. 107(6): 949-950.

208. Gupta, N.; Raghavan, R.; Sivakumar, K.; Mathur, V.B.; Pinder, A.C. (2015). Assessing recreational fisheries in an emerging economy: Knowledge, perceptions and attitudes of catch-and-release anglers in India. *Fisheries Research*. 165: 79-84.

209. Gupta, N.; Sivakumar, K.; Mathur, V.B.; Chadwick, M.A. (2014). The tiger of Indian rivers: Stakeholder's perspectives on the golden Mahseer as a flagship fish species Area. *doi: 10.1111/area.12124.*

210. Gupta, N.; Sivakumar, K.; Mathur, V.B.; Chadwick, M.A. (2015). Terrestrial protected areas and managed reaches conserve threatened freshwater fish in Uttarakhand, India. *Parks.* 21(1): 89-101.

211. Gupta, P.; Khan, H.A. (1994). Mahseer fisheries in India. *In: Threatened fishes of India (Eds. Dehadrai, P.V., Das, P. and Verma, S.R.), Nat. Con. Publ No.4, Muzaffarnagar. 181-190 pp.*

212. Gupta, S.C.; Dutta, S.P.S.; Verma, M. (1998). A report on abnormal specimen of puntius sarana (Ham.) from river Basantar, Samba, Jammu. *Journal of Freshwater Biology*. 10(3-4): 137-140.

213. Gurumayum, S.D.; Daimari, P.; Goswami, B.S.; Sakar, A.; Choudhury, M. (2000). Physico chemical qualities of water and plankton of selected rivers in Meghalaya. *Journal of Inland Fisheries Society of India*. 34: 36-42.

214. Gusain, O.P. (1994). River Bhilangana. *In: Nautiyal, P. (ed.)* Mahseerthe Game Fish. *Jagdamba Prakashan, Dehradun for Rachna, Srinagar, Garhwal.* B: 147-159.

215. Hamilton, F. (1822). An account of the fishes found in the river Ganges and its branches. Printed for A. *Constable and company*.

216. Haque, N.; Saroj, T.; Rahman, H. (2007). Impact of fishing on riverine fish diversity of Sikkim. *Bioinformatic Centre Sikkim*.

217. Haque, N.; Saroj, T.; Rahman, H. (2010). Aquatic environment and riverine fish diversity in Sikkim. *In: Cold Water Fisheries Management, edited by P. C. Mahanta and Debajit Sharma.* PP. 141-156.

218. Hassan, N.; Pandey, D.N. (2012). Present status of trout fisheries in Jammu and Kashmir. *IOSR Journal of Pharmacy.* 2(5): 35-37.

219. Hazarika, A.K.; Dutta, A. (1998). Inter-relation of certain physico-chemical parameters and plankton community of Tasek lake (Meghalaya). *Environ. Ecol*. 16(3): 561-567.

220. Heckel, J.J. (1838). Fischeaus Cashmir gesammelt und herausgegeben von Carl Freiherrn von Hugel. etc. Wien. *Annals and Magazine of Natural History Wien*. 112pp.

221. Holdsworth, R.L. (1959). Mahseer fishing in North of India. *Cheetal.* 1(2): 1959, 11-15.

222. Holdsworth, R.L. (1960). Conservation of Trout and other Fish in the Kashmir Valley. *Cheetal.* 3(1): 1960.

223. Hora, S.L. (1930). Ecology, Bionomics and evolution of the Torrentia 1 Fauna, with special reference to the organs of attachment. *Phil. Trans. Roy. Soc. London, B1 CCXVII*. 171-282 pp.

224. Hora, S.L. (1935). Notes on fishes in the Indian Museum. XXIV. Loaches of the genus Nemachilus from eastern Himalayas, with the description of a new species from Burma and Siam. *Records of the Indian Museum*. 37 (pt. 1): 49-67, Pl.1.

225. Hora, S.L. (1936). Nature of Substratum as an important factor in the Ecology of Torrential Fauna. *Proc. Nat. Acad Sci. India.* 45-47 pp.

226. Hora, S.L. (1937). The game fishes of India. Part III. *Journal of the Bombay Natural History Society.* 39: 659-678, Pl. 1.

227. Hora, S.L. (1937). The game fishes of India. 1. The Indian Trout. Hamilton. *Journal of the Bombay Natural History Society.* 39: 200-210.

228. Hora, S.L. (1937). On fossil fish-remains from the Karewas of Kashmir. Rec. Geol. Surv. India. 72: 178-187.

229. Hora, S.L. (1938). The game fishes of India. IV. The silond catfish. *Silonia silondia* (Hamilton). Journal of the *Bombay Natural History Society* 40: 137-147.

230. Hora, S.L. (1938). The Game Fishes of India. V. The Pungas Catfish. *Pangasius pangasius* (Hamilton). Journal of the *Bombay Natural History Society* 40: 355-366.

231. Hora, S.L. (1939). The game fishes of India. VI. The Goonch. Bagarius bagarius (Hamilton). Journal of the *Bombay Natural History Society* 40: 583-593.

232. Hora, S.L. (1939). The game fishes of India VIII. The Mahseer Tor the large scaled barbels of India 1. The putitor Mahseer, Barbus (*Tor putitora*) (Ham). *Journal of the Bombay Natural History Society.* 41: 272-285.

233. Hora, S.L. (1940). The Game Fishes of India. XI. The Mahseer s or the large-scaled barbels of India. 4. The Bokar of the Assamese and Katli of the Nepalese. *Barbus (Lissochilus) hexagonolepis* McClelland). *Journal of theBombay Natural History Society.* 42: 78-88.

234. Hora, S.L. (1940). The game fishes of India I. The Mahseer s and large scaled barbels of India. 2. The Tor Mahseer *Barbus (Tor) mosal* (Hamilton). *Journal of the Bombay Natural History Society.* 41: 518-525.

235. Hora, S.L. (1940). The game fishes of India X. The Mahseer or the large scaled Barbels of India. 3. The Mosal Mahseer, Barbus (Tor) mosal (Hamilton). *Journal of the Bombay Natural History Society.* 41: 784-794.

236. Hora, S.L. (1941). The game fishes of India. XIII. The Mahseer or the large scaled Barbels of India 6. The Jungha or the Assamese Barbus (Tor) progeneius McClelland. *Journal of the Bombay Natural History Society.* 42: 526-572.

237. Hora, S.L. (1942). The game fishes of India XV. The Mahseers or the large scaled Barbels of India 8. On the specific identity of Syke's species of Barbus from the Deccan. *Journal of the Bombay Natural History Society.* 43: 163-169.

238. Hora, S.L. (1943). The game fishes of India XVI. The Mahseer or the large scaled Barbels of India 9. Further observation on Mahseer from the Deccan. *Journal of the Bombay Natural History Society.* 44: 1-8.

239. Hora, S.L. (1950). Siluroid fishes of India, Burma and Ceylon. XIII. Fishes of the genera Erethistes Mullar and Troschel, Hara Blyth and of two new allied genera. *Records of the Indian Museum*. 47: 183-202.

240. Hora, S.L. (1951). Knowledge fo the ancient Hindus concerning fish and fisheries of India: Matsyavioda or a chapter on angling in the Manasallos by King Someswara (1127 A.D.). *Journal of Asiatic Society letters*. 17: 145-169.

241. Hora, S.L. (1951). A Sanskrit work on angling of the early twelfth century. *Nature*. 167: 778.

242. Hora, S.L. (1953). Are there any precedent Himalayan rivers? Address of the Chief Guest. Bhu Vidya. *J. geol. Inst. Presidency College, Calcutta*. *Diamond Jubilee* Vol. 49-55.

243. Hora, S.L. (1953). Knowledge of ancient Hindus concerning fish and fisheries of India 4. Fish in Sutras and Smriti literature. *Journal of Asiatic Society*. 19(8): 63-77.

244. Hora, S.L. (1955). The evolution of the Indian torrential environment and its fishes. *Bull. Nat. Inst. Sci. India.* 7: 264-268.

245. Hora, S.L. (1955). Place of Kashmir in the fish geography of India. *Everyday Science*. 3: 36-45.

246. Hora, S.L. (1955). Tectonic history of Indian and its bearing on fish geography. *Journal of the Bombay Natural History Society.* 52: 692-701.

247. Hora, S.L.; Ahmad, N. (1946). Culture of Katli *Barbus (Lissochilus) hexagonolepis* MacClelland in Darjeeling Hamalayas. *Fishery Development pamphlet. No. 3. Directorate of Fisheries, Govt. of Bengal, Govt. Press, Culcutta*.

248. Hora, S.L.; Menon, A.G.K. (1952). Distribution of Indian fishes of the past and their bearing on the geography of India (1). The extinct freshwater dipnoan and ganoid fishes of India. *Everyday Science.* 1: 26-37.

249. Hora, S.L.; Menon, A.G.K. (1953). Distribution of the Indian fishes of the past and their bearing on the geography of India 2. The extinct freshwater Teleostean fishes of India. *Everyday Science*. 2: 105-113.

250. Hora, S.L.; Mishra, K.S. (1941). The fishes of India. XXII. The Mahseer s or the large scaled Barbels of India 5. The Extra Indian distribution of the Boker of Assamese Katli of Nepalese, *Barbus (Lissocheilus) hexagonolepis* McClelland. *Journal of the Bombay Natural History Society.* 42: 305-319.

251. Hora, S.L.; Mukherjee, D.D. (1936). Fishes of the Eastern Doons, United provinces with introduction and remark on Mahseer fisheries. *Records of the Indian Museum*. 38: 133-146 pp.

252. Hora, S.L.; Mukherji, D.D. (1935). Fish of the Naga Hills Assam. *Records of the Indian Museum*. 37: 381-404.

253. Hora, S.L.; Nair, K.K. (1943). The game fishes Bokar of the Assamese or Katli of Nepalese, *Barbus (Lissocheilus) hexagonolepis* McClelland. *Journal of the Bombay Natural History Society.* 17: 107-110.

254. Hora, S.L.; Silas, E.G. (1952). Evolution and distribution of Glyptosternoid fishes of the family sosoridae (order: Siludoidea). *Proc. Nat. Acad Sci. India.* 18(4): 309-322.

255. Hornell, J. (1924). The Fishing methods of the Ganges. *Mem. Asiat. Soc. Bengal*. 8: 201-237.

256. Husain, A. (1975). Fauna of Rajaji Sanctuary (District Saharanpur), Uttar Pradesh 2. Fish. *Cheetal.* 16(4): 55-57.

257. Husain, A. (1995). Pisces. *In: Fauna of Western Himalaya (U. P.),Himalayan ecosystem series, Zoological Survey of India Publication. Part: I.* P.117-150, fi gs 1-63.

258. Husain, A. (2010). A comparative study on fish fauna of Thar Desert and Western Himalaya with conservation status of species. *In: Proceeedings of national seminar on impact of climate changes on biodiversity and challenges in Thar Desert*. 96-117 pp.

259. Husain, A. (2012). Description of a new species of fish, Barillius pectoralis (Cypriniformes: Cyprinidae: Danininae) from Uttarakhand. *Journal of New Biological Reports.* 1(1): 21-24.

260. Husain, A. (2015). Fish Fauna of Asan River and its tributaries, Western Doon Valley, Dehradun (Uttarakhand), with conservation status of species and Threats. *Aquatic Ecosystem: Biodiversity, Ecology and Conservation.* pp. 231-269.

261. Husain, A.; Tilak, R. (1995). Fishes (Pisces). *In: Fauna of Rajaji National Park. Fauna of Conservation area. Zoological Survey of INdia Publication*. 5: 115-193, fi. gs. 1-49.

262. Hutchison, E. G. (1936). Ecological observations on the fishes of Kashmir and Indian Tibet. Ecological Monographs. 9(2): 145-182.

263. Imam, A.R.H.B. (1982). Trout Fishing in Kashmir. *Cheetal.* 24(1-2): 41-45 (1982).

264. Imtiyaz, J.; Barot, H.O.; Fahabi, I.A. (2014). Cross examination on taxonomic status, economic importance, geographical distribution, present status and prevailing threats of Fish varieties, Himalayan and Indo-Burma biodiversity hotspots zones of North-East India. *African Journal of Fisheries Sciences*. 2(6): 107-127.

265. Islam, S.M.; Tanaka, M. (2004). Optimization of dietary protein requirement for pond-reared Mahseer *Tor putitora* Hamilton (Cypriniformes: Cyprinidae). *Aqua. Res*. 35: 1270-1276.

266. Jagtap, H.S. (2013). Fish fauna of Himachal Pradesh: a case study. *International Journal of Scientific Research*. 2(7): 526-628.

267. Jan, M.; Jan, U.; Shah, G.M. (2014). Studies on fecundity and Gonadosomatic index of Schizothorax plagiostomus (Cypriniformes: Cyproinidae). *Journal of Threatened Taxa.* 6(1): 5375-5379.

268. Jan, N.A.; Dogra, R.K. (2001). Observations on first induced breeding of farm reared Mahseer *Tor putitora* (Ham) at Anji Mahaseer Hatchery, reasi in Jammu and Kashmir State. *Appl. Fish Aquac*. 1: 45-46.

269. Jayaram, K.C. (1999). The Freshwater fishes of the Indian Region. *Narendra Publishing House, New Delhi, India.*

270. Jena, J.K.; Gopalakrishnan, A. (2012). Aquatic biodiversity management in India. *Proc. Indian Nat. Sci. Acad.* 82: 363-379.

271. Jha, B.R.; Rayamajhi, A. (2010). Tor putitora. *In: IUCN 2011. IUCN Red List of Treatened species. Version 2011.2.C. Accessed 3 May, 2012*.

272. Jha, K.K.; Chetri, K. (2014). New record of a threatened ornamental freshwater pipiefish, Doryichthys martensii (Peters, 1868) or Microphis ignoratus (Vaillant 1902) from Indian subcontinent: Arunachal Pradesh, India. *Africa Journal of Advanced Agricultural Rsearch.* 2(2): 19-23.

273. Jha, K.K.; Tamuk, O.; Ghosh, T.K.; Jha, V.C. (2013). First ever record of a threatened onespot barb fish, Puntius terio (Hamilton) from Arunachal Pradesh, India: A biodiversity hot spot. African *Journal of Zoology*. 1(3): 21-24.

274. Jhan, K.K.; Chetri, K.; Ghosh, T.K.; Jha, V.C. (2014). Distribution of an endagered fish species, Chaca chaca (Ham-Buch) in Arunachal Pradesh, India: a biodiversity hot spot. *International Journal of Biology and Biological Sciences*. 3(3): 23-30.

275. Jhingran, V.G. (1982). Fish and Fisheries of India. *Hindustan Publishing Corportation (India), India. (revised and enlarged 2nd edition).*

276. Jhingran, V.G.; Sehgal, K.L. (1978). Coldwater Fisheries of India. *Inland Fish. Soc. India, Barrackpore*. 239 pp.

277. Jindal, R.; Kumar, R. (1993). Limnology of a freshwater pond of Nalagarh (Himachal Pradesh, India). 1. Physicochemical complexes. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 107-112 pp.

278. Johal, M.S. (1998). Fishes of Himachal Pradesh (India). *In: Proc. Indo-U.S. Workshop on 'Conservation and Development of Natural Fishery Resources of Western Himalaya'. December 7-8, 1998. Department of Zoology, Panjab University Chandigarh*. 22-35 pp.

279. Johal, M.S.; Kingra, J.S. (1988). Harvertable size of golden Mahseer *Tor putitora* (Ham) for its conservation. *In: Proc. National Seminar on Prospective in Aquatic Biology. Published by Papyrus Publishing House, New Delhi*. 355-360 pp,

280. Johal, M.S.; Rawal, Y.K. (2005). Key to the management of Wetsern Himalayan hillstreams in relation to fish species richness and diversity. *Hydrobiologia*. 532(1-3): 225-232.

281. Johal, M.S.; Rawal, Y.K.; Tyor, A.K. (2001). Dam and water scenario in western Himalayas. *Proc. Conf. Youth World Water Forum at Hogeschool Zeeland University, Vlissingen, The Netherlands, June, 25-28, 2001*.

282. Johal, M.S.; Tandon, K.K. (1981). Age, growth and length-weight relationship of *Tor putitora* from Gobindsagar, Himachal Pradesh India. *In: Fish Bull, special publication on Coldwater fisheries seminar organized by CIFE Chandigarh, India*. 43-48 pp.

283. Johal, M.S.; Tandon, K.K. (1993). The decline of native fishes. *Pb. Fish. Bull*. 7(1-11): 3-15.

284. Johal, M.S.; Tandon, K.K. (1998). Stream exploitation and fish communities. In: Proc. Indo-U.S. workshop on Conservation and Development of Natural Fishery Resources of Western Himalayas. Dec. 7-8, 1998. *Department of Zoology, Panjab, University, Chandigarh*. 39-45 pp.

285. Johal, M.S.; Tandon, K.K.; Rawal, Y.K.; Tyor, A.K.; Banyal, H.S.; Rumana, H.S. (2001). Species richness of fish in relation of environmental factor. *Current Science*. 80(4): 499-501.

286. Johal, M.S.; Tandon, K.K.; Sandhu, G.S. (1994). Mahseer in lacustrine. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* B 67-85 pp.

287. Johal, M.S.; Tandon, K.K.; Sandhu, G.S. (1994). Morphometry of Tor putitora. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* B68-B75 pp.

288. Johal, M.S.; Tandon, K.K.; Sandhu, G.S. (1999). Age and growth of an endangered cold water fish golden Mahseer *Tor putiora* (Ham.) from Gobindsagar, Himachal Pradesh, India. *In: Saksena DN (ed) Recent research advances in Ichthyology. Oxford and IBH Publishing Co, New Delhi*. 59-73 pp.

289. Johal, M.S.; Tandon, K.K.; Sandhu, G.S. (2000). Maturity, Fecundity and sex ratio of an endangered coldwater fish, Golden masher, *Tor putitora* (Ham) from gobindsagar, (H. P.), India. *IN: Singh, H.R. and Lakra, W.S. (eds). Coldwater Aquaculture and Fisheries. Narendra Publishing House, Delhi*. 265-278 pp.

290. Johal, M.S.; Tandon, K.K.; Tyor, A.K.; Rawal, Y.K. (2002). Fish diversity in different habitats in the streams of lower middle Western Himalayas. *Polish Journal of Ecology*. 50(1): 45-56.

291. Johal, M.S.; Tondon, K.K.; Esmaeili, H.R.; Rumana, H.S. (2001). Water quality vs. fish diversity in Jeuni stream of the river Beas (Indus river system). *Proc. Conf. Youth World water Forum at Hogeschool Zeeland University Vlissinger, The Netherlands, June, 25-28, 2001.*

292. Johal, M.S.; Tyor, A.K.; Rawal, Y.K. (2001). Role of human beings vis-a-vis stream morphology and water quality of western Himalayan streams. *Proc. Conf. Youth World water Forum at Hogeschool Zeeland University Vlissinger, The Netherlands, June, 25-28, 2001.*

293. Johnsingh, A.J.T.; Negi, A.S.; Mohan, D. (2006). Golden Mahseer conservation in Uttaranchal. *Cheetal.* 43: 9-17.

294. Joseph, K.M.; Narayan, K.P. (1965). Fishing gear and methods of the river Brahmaputra in Assam. *Journal of Fish-Tech*. 2(2): 205-219.

295. Joshi, A.; Kumar, P.; Kujwal, S.S.; Bahuguna, P. (2014). Sex ratio of Noemacheilus montanus (McClelland) from Pithoragarh district, Uttarakhand, India. *International Journal of Current Microbiology and applied Sciences*. 3(12); 761-767.

296. Joshi, B.D.; Bisht, R.C.S. (1993). Some aspects of physico-chemical characteristics of western Ganga Canal near Jwalapur at Haridwar. *Him. J. Environ. Zool*. 7: 76-82.

297. Joshi, B.D.; Pathak, J.K. (1991). A relative study of some physicochemical parameters of sewage water at Uttarkashi. *Him. J. Environ. Zool*. 5: 53-56.

298. Joshi, B.D.; Pathak, J.K.; Singh, Y.N.; Bisht, R.C.S.; Joshi, N. (1993). Assessment of water quality of river Bhagirathi at Uttarkashi. *Him. J. Environ. Zool*. 7: 118-123.

299. Joshi, C.B. (1982). Artificial breeding of golden Mahseer, at Bhimtal (U.P.) *Journal of Inland Fish Society of India.* 2: 66-67.

300. Joshi, C.B. (1991). Benthos composition of a hill stream in western Himalayas. *Journal of Indian Institute of Science*. 71: 373-382.

301. Joshi, C.B. (1994). Conservation of Tor putiora-hatchery practices*. In: Mahseer the game fish. Nautiyal, P. (ed.) Akashdeep Printers, New Delhi. P.15-25.*

302. Joshi, C.B. (1994). Alikhad (Sutlej river system): Juvenile habitat and breeding grounds. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal. B102-B111.*

303. Joshi, C.B. (1994). Report on coldwater fisheries in Pithoragarh district of Kumaon Himalaya (U.P.). Present Status, Problems and Prospects. *NRCCWF Publ. No. 5 1994*. 7 pp.

304. Joshi, C.B. (1996). Hydrobilogical profile of R. Sutlej in its middle stretch in Western Himalaya. Uttar Pradesh. *Journal of Zoology*. 16(2).

305. Joshi, C.B. (1997). Sports fisheries potential of Pithoragarh district in Kumaon Himalayas. *Journal of Inland Fish Society of India.* 29(2): 46-52.

306. Joshi, C.B. (1998). Problems and future prospects of trout fisheries in Himalayas. Fish Gen. Biodiversity Conserv. *Natcon Pub*. 05: 323-329.

307. Joshi, C.B. (1998). Mahseer fishery of some hill streams in western Himalayas. *Indian J. Fish*. 35(4): 327-329.

308. Joshi, C.B. (2002). Artificial seed Production of golden Mahseer in Kumaon upland. *In: Highland Fisheries and Aquatic Resources Management* 275-283 pp.

309. Joshi, C.B.; Kumar, K. (1980). Food spectrum of juveniles of golden Mahseer (*Tor putitora*) collected from the streams of Jammu Province. *Journal of Inland Fish Society of India.* 12(20): 105-108.

310. Joshi, C.B.; Malkani, K.L. (1986). On the breeding and hatchery practices of golden Mahseer *Tor putitora* at Bhimtal in Kumaun Himalaya. *Pb. Fish. Bull*. 10: 2.

311. Joshi, C.B.; Sehgal, K.L.; Sunder, S. (1978). Observations on the fishery resources of the hillstreams of Jammu Province with special reference to Mahseer and other commercially important species. *Indian J. Fish*. 25(1-2): 197-206.

312. Joshi, C.B.; Sunder, S. (1995). Breeding and culture of snow trout *S. richardsonii* (Gray) in Kumaon Himalaya. Uttar Pradesh. *Journal of Zoology*. 15(2): 136-40.

313. Joshi, C.B.; Tyagi, B.C. (1997). Some Limnological features of a coldwater Stream the Chirapani in Kumaon Himalaya. Uttar Pradesh. *Journal of Zoology*. 16(2).

314. Joshi, K.D. (1998). Changunius chagunio (Hamilton-Buchanan)(Pisces: Cyprinidae): A new record from Kumaon hills, Uttar Pradesh. *Journal of the Bombay Natural History Society.* 95: 127-128.

315. Joshi, K.D.; Mahanta, P.C. (2009). Asela Snow trout, *Schizothorax richardsonii* (Gray): its natural history and domestic attributes. *Fishing Chimes.* 28(10-11): 90-93.

316. Joshi, K.D.; Tyagi, B.C. (2008). Rearing of carp fry under polyhouse ponds at high altitudes of Uttaranchal Himalaya, during winters. *Journal of Inland Fisheries Society of India*. 40(1): 78-81.

317. Joshi, P.C.; Joshi, N. (2004). Aquatic resources and fish biodiversity of western Himalayan region. *In: Joshi, P. C. and Joshi, N. (Editors) Biodiversity and Conservation, APH Publishing House, New Delhi*. 283-303 pp.

318. Joshi, P.C.; Negi, R.K.; Negi, T. (2007). Seasonal variation in benthic macro invertebrates and their correlation with the environmental variables in a freshwater stream in Garhwal region (India). *Life Sci. J*. 4(4): 85-89.

319. Joshi, S.N.; Tripathi, G.; Tewari, B.C. (1993). Fish and fisheries of Goriganga. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 361-366 pp.

320. Juyal, C.P.; Gusain, O.P. (1990). Fish and fisheries of river khoh (Garhwal Himalaya). *Geobios* 9(2): 133-135.

321. Jyoti, M.K. (1976). Seasonal variations on food and feeding habits of some lacustrine fishes of Kashmir. *Journal of Inland Fish Society of India.* 8: 24-32.

322. Jyoti, M.K.; Gupta, S.C. (1978). An addition to the icthyofauna of J and K state. *Jammu University Rev.* 6: 165-166.

323. Jyoti, M.K.; Malhotra, Y.R. (1975). Seasonal variation in feeding of *Noemacheilus Kashmiransis* (Hora). *Matsya*. 1: 53-58.

324. Kadu, K.; Das, D.N. (2011). New record of freshwater erithistid catfish *Conta conta* (Hamilton, 1822) (Teleostei : erethistidae) from Arunachal Pradesh (Biodiversity hotspot) India. *The Bioscan*. 6(3): 413-416.

325. Kalekar, V.; Singh, H.P.; Chandra, R. (1995). Plankton studies of two perennial ponds at Guwahati (Assam). *Pb. Fish. Bull*. 19(1): 27-36.

326. Kansal, M.L.; Arora, S. (2012). Biodiversity and present status of freshwater fishes in Lohit river basin of India. *Environmentalist.* 32: 58-69.

327. Kanwal, B.P.S.; Pathani, S.S. (2012). Food and feeding habits of a hill stream fish, *Garra lamta* (Hamilton - Buchanan) in some Tributaries of Suyal river, Kumaon Himalaya, Uttarakhand. *International Journal of Food and Nutrition Science*. 1(2): 16-22.

328. Kapila, R.; Kapila, S.; Basade, Y. (2000). Sex related haematological variations in Himalayan golden Mahseer, *Tor putitora* (Ham). *Indian J. Fish*. 47(1): 81-85.

329. Kapila, R.; Mishra, D.P. (2006). Randomly Amplified DNA (RAPD) Fingerprinting of coldwater fish, *Schizothorax richardsonii* (Gary). *Indian J. Fish*. 53(2): 219-224.

330. Kapila, R.; Mishra, D.P. (2006). Esterase as molecular marker for identification of genetic variations in coldwater fish, *Schizothorax richardsonii* (Gray). *Journal of Inland Fish Society of India.* 38(1): 68-71.

331. Kapur, A.P. (1958). High altitude insects of the Himalayas. *Proc. 10th Intern. Cong. Ent. Montreal, Ottawa.* 775-784 pp.

332. Kar, D.; Nagarathna, A.V.; Ramachandra, T.V.; Dey, S.C. (2006). Fish diversity and conservation aspect in an aquatic ecosystem in North Eastern India. *Zoos' Print*. 21(7): 2308-2315.

333. Kar, D.; Sen, N. (2007). Systematic list and distribution of fish biodiversity in Mizoram, Tripura and Barak drainage in North-East India. *Zoos' Print*. 22(3): 2599-2607.

334. Karamchandani, S.J. (1972). Mahseer a sport fish of India. *In: Cent Inland Fish. Res. Inst. Silver Jubilee Souvenir CIFRI Barrackpore*. 132-137 pp.

335. Karmakar, A.K. (2000). Fish communities and their distribution in Himalayan drainage system. *Records of the Zoological Survey of India.* 98(4): 25-37.

336. Karmakar, A.K. (2006). Fishes. *Fauna of Sikkim, State Fauna Series 9 (Part I). Zoological Survey of India, Kolkata*. 214p.

337. Kaul, B.K.; Sharma, S.C.; Bali, R.K. (1993). Some observations on the ecology of streams of Kangra valley. *Ind. J. Ecol.* 16(3): 136-139.

338. Kaul, V. (1977). Limnological survey of Kashmir lakes with reference to trophic status and conservation. *International Journal of Ecology and Environmental Science*. 3: 24-44.

339. Khajuria, B.; Sanger, S.; Tripathi, N.K. (2013). Status of Golden Mahseer (*Tor putitora*) in Jammu region (J and K.). *Int. J. Rec. Sci. Res*. 4: 1154-1156.

340. Khan, H.A. (1939). Study of the sex organs of Mahseer (*Barbus tor*). *Journal of the Bombay Natural History Society.* 40: 653-666.

341. Khan, M.A.; Sabah. (2013). Length-weight and length-length relationships for five fish species for Kashmir valley. *Journal of Applied Ichthyology*. 29(1): 283-284.

342. Khan, M.A.; singh, M. (2000). Status of Mahseer fishery in north and north-eastern India with a note on their conservation. *Journal of Inland Fish Society of India.* 32: 28-36.

343. Khanna, D.R.; Badola, S.P. (1991). Fish fauna of the river Ganga at Haridwar. *Aquatic Environment, Ashish Publishing House, 8/81, Punjab Bagh, New Delhi.* 90-93.

344. Khanna, D.R.; Badola, S.P. (1994). Foothill section of river Ganga - Habitat of adult Mahseer. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Dehradun for Rachna, Srinagar, Garhwal.* B98-101.

345. Khanna, D.R.; Badola, S.P.; dobriyal, A.K. (1993). Plankton Ecology of the river Ganga at Chandighat, Hardwar. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 171-174 pp.

346. Khanna, D.R.; Bhutiani, R.; Ruhela, M. (2013). Fish diversity and their limnological status of Ganga River system in foothills of Garhwal Himalaya, Uttarakhand, India. *Journal of Environmental Research and Development*. 7(4): 1374-1380.

347. Khanna, D.R.; Sarkar, P.; Gautam, A.; Bhutiani, R. (2007). Fish scales as bioindicator of water quality of River Ganga. *Environmental Monitoring and Assessment*. 134: 153-160.

348. Khudabaksh, A.R. (1980). A high number of chromosomes in the hill stream cyprinid *Tor putitora*. *Experentia*. 36: 173-174.

349. Khudabaksh, A.R. (1982). Karyomorphology of two species of tow (Pisces: Cyprinidae) with a high number of Chrom. *Experentia.* 38: 82-83.

350. Khulbe, R.D. (1992). Studies on water pollution in Nainital and Bhimtal Lakes of Kumaun Himalaya. *IInd Annual Progress Report, Ministry of Environment and Forests, Govt. of India.* 187 pp.

351. Kishor, B.; Bhatt, J.P.; Rawat, V.S.; Nautiyal, P. (1998). Variations in the food habit of the Himalayan Mahseer *Tor putitora* (Ham.) inhabiting the Ganga river system in Garhwal region. *Indian J. Fish*. 45(1): 113-118.

352. Kishor, B.; Bhatt, J.P.; Rawat, V.S.; Nautiyal, P. (1998). Stream regulation: Variations in the density of Benthic macro-invertebrate fauna of Ganga in the lateral canals at Hardwar. *Journal of Hill Research*. 11(1): 62-67.

353. Kishor, B.; Bhatt, J.P.; Rawat, V.S.; Nautiyal, P. (1999). Size and related variations in the feeding intensity of Himalayan Mahseer (*Tor putitora*) from the Ganga river system. *Fourth INdian Fisheries Forum Proceeding, Kochi, India.* 279-281 pp.

354. Kosygin, L. (2012). *Aborichthys waikhomi*, a new species of fish (Teleostei: Nemacheilidae) from Arunachal Pradesh, India. *Records of the Zoological Survey of India.* 112(1): 49-55.

355. Kottelat, M. (1988). Indian and Indochinese species of *Balitora* (Osteichthyes: Cypriniformes) with descriptions of two new species and comments on the family-group names Balitoridae and Homalopteridae. *Rev. Suisse Zool.* 95(2): 487-504.

356. Kottelat, M. (1990). Indochinese neacheilines. A revision of nemacheiline loaches (Pisces: Cypriniformes) of Thailand, Burma, Laos, Cambodia and southern Viet Nam.Verlag Dr. Friedrich Pfeil, Munchen. *Indochinese Nemacheilines*. P. 1-262.

357. Kottelat, M. (2012). *Conspectus cobitidum*: an inventory of the loaches of the world (Teleostei: Cypriniformes: Cobitoidei). *Raffles Bull Zool Supplement* 26: 1-199.

358. Kottelat, M.; Whitten, T. (1996). Freshwater Biodiversity in Asia with special reference to fish. *World Bank Technical PaperNo. 343*. *The World Bank, Washington*. 59 pp.

359. Kour, H.; Sharma, K.K.; Sharma, A. (2015). Ichthyofaunistic survey of some lotic waterbodies of R.S. Pura Tehsil, Jammu. *Journal of International Academic Research for Multidisciplinary*. 3(1): 251-260.

360. Kour, R.; Bhatiya, S.; Sharma, K.K. (2014). Nile Tilapia (*Oreochromis niloticus*) as a successful biological invader in Jammu (J and K.) and its impacts on native ecosystem. *International Journal of Interdisciplinary and Multidisciplinary Studies*. 1(10): 1-5.

361. Krishnamurthi, C.R.; Bilgrami, K.S.; Das, T.M.; Mathur, R.P. (1991). Ganga: A Scientific Study. *Northern Book Center, New Delhi*. 246 pp.

362. Kulkarni, C.V. (1981). Mahseer in danger needs protection. *Cheetal.* 23: 24-28.

363. Kulkarni, C.V. (1991). Mahseer the mighty game fish of India. *Fishing Chimes.* 11(3): 43-49.

364. Kulkarni, C.V.; Ogale, S.N. (1979). The present status of Mahseer. *Journal of the Bombay Natural History Society* 75(3): 551-560.

365. Kulkarni, C.V.; Ogale, S.N. (1991). Conservation of mighty Mahseer, 3rd workshop on conservation and artificial propagation of Mahseer. *The Tata Power Company Ltd., Maharashtra.*

366. Kullander, S.O.; Fang, F.; Delling, B.; Ahlander, E. (1999). The fishes of the Kashmir valley. *In: River Jhelum, Kashmir, Impacts on the Aquatic Environment, Svedmar, Goteberg, Sweden (Ed.: L. Nyman).* 198 pp.

367. Kumar, K. (1987). Observations on seasonal variations of two trout streams of Kashmir. *Proc. Indian Nat. Sci. Acad.* 55(3): 227-234.

368. Kumar, K.; Bhagat, M.J. (1978). Observation on the ecology of the trout stream in Kashmir and its possible effects on the brown trout (*Salmo trutta fario* L.) catches. *Journal of Inland Fish Society of India.* 10: 1-8.

369. Kumar, K.; Sehgal, K.L.; Sunder, S. (1979). Length weight relationship and Ponderal index of brown trout (*Salmo trutta fario*) (Linnaeus) catches in the streams Kashmir. *Journal of Inland Fish Society of India.* 11(1): 156-61.

370. Kumar, N. (1991). Ecological studies on macrobenthic communities of some hillstreams of the Alknanda River. *D. Phill. Thesis. H.N.B. Garhwal University, Srinagar, Garhwal Uttaranchal*.

371. Kumar, N.; Dobriyal, A.K. (1993). Benthic diversity of Garhwal Himalayan hill-stream in relation to their fishery potential. *In: Proceedings of Third Indian Fieheries Forum (ed. C.V. Mohan). Pantnagar, India*. 159-162 pp.

372. Kumar, P.; Husain, A. (2014). Pisces. *In: Fauna of Jhilmil Jheel conservation reserve, Conservation area series 50. Zoological Survey of India, Kolkata*. 93-125 pp.

373. Lai, M.B. (1995). *Tor putitora* (Hamilton): The Golden Mahseer (The major carp of Hill streams). *Hindustan Publishing Corportation (India), New Delhi*.

374. Lai, M.S.; Nautiyal, P. (1980). Eco-biological studies of some hill-stream fishes of Garhwal Himalayas-II Length-weight relationship of *Tor putitora* (Ham.). *Indian J. Zool.* 21(1-3): 107-110.

375. Lakra, W.S. (1996). Cytogenetic studies on the endangered and threatened fishes : 1 Karyotypes of three species of Mahseer, *Tor Khudree*, *Tor Tor* and *Tor putitora* (Cyprinidae, Pisces). *Cytobios*. 85: 205-218.

376. Lakra, W.S.; Goswami, M.; Sarkar, U.K. (2010). Conservation biology of Indian Mahseer. *Indian Journal of Animal Science*. 80: 98-108.

377. Lakra, W.S.; Mohindra, V.; Lal, K.K. (2007). Fish genetics and conservation research in India: Status and perspectives. *Fish Physiol. Biochem.* 33: 475-487.

378. Lakra, W.S.; Sarkar, U.K.; Gopalakrishnan, A.; Kathirvelpandian, A. (2010). Threatened Freshwater Fishes of India. *National Bureau of Fish Genetic Resources, Lucknow*. 1-20 pp.

379. Lal, M.B. (1961). Neural plates in the Indian Hill stream fish Mahseer *Tor putitora* (Hamilton). *Science and Culture*. 27: 548-549.

380. Lal, M.B. (1962). Morphology of *Tor putitora*. *Agra Univ. J. Res. Sci.* 11(1): 167-172.

381. Lal, M.B. (1963). Distribution and migration of *Tor putitora* (Hamilton). *Cheetal.* 1: 54-56.

382. Lal, M.B. (1963). Studies on the urinogenital organs of the Mahseer *Tor putitora* (Ham). *Ichthyologica.* 11: 45-50.

383. Lal, M.B. (1964). The air bladder and weberian ossicles of *Tor putitora* (Hamilton). *Agra Univ. J. Res. Sci.* 13: 107-112.

384. Lal, M.B.; Chaterjee, P. (1962). Survey of eastern Doon fishes with certain notes on their biology. *Journal of Zoological Society of India.* 14(2): 230-243.

385. Lall, G.W. (1960). Fishing in Kashmir. *Cheetal.* 3(1): 1960.

386. Laskar, B.A.; Bagra, K.; Roy, S.; Das, D.N. (2010). Invasion of rainbow trout in Arunachal Pradesh. *Science and Culture.* 76(1-2): 67-69.

387. Laskar, B.A.; Bhattacharjee, M.J.; Dhar, B.; Mahadani, P.; Kundu, S.; Ghosh, S.K. (2013). The species dilemma of northeast Indian Mahseer (Actinopterygii: Cyprinidae): DNA Barcoding in clarifying the riddle. *Plos One*. 8: 1-11.

388. Lokeshwor, Y.; Vishwanath, W. (2012). *Physoschistura dikrongensis*, a new loach from Arunachal Pradesh, India (teleostei: Nemacheilidae). *Zootaxa*. 3586: 249-254.

389. MacDonald, A.S.J. (1948). Circumventing the Mahseers and other sporting fish in India and Burma. *Journal of the Bombay Natural History Society.* 48: 306.

390. Mahanta, P.C.; Kapoor, D.; Pandey, A.K.; Srivastava, S.M.; Dayal, R.; Patiyal, R.S.; Joshi, K.D.; Singh, A.K.; Paul, S.K. (1998). Conservation and rehabilitation of Mahseer in India. *In: Ponniah, A.G., Das, P., Verma, S.R. (eds.)Fish genettics and biodiversity. NATCON Publication, Mazaffarnagar*, 93-110 pp.

391. Mahanta, P.C.; Sharma, D. (2011). Fisheries and aquaculture scenario NE region. *IN: Souvenir, DCFR, Bhimtal*. P. 13-19.

392. Mahanta, P.C.; Singh, S.D.; Sharma, D. (2014). Coldwater fisheries development in India with special reference to North-East India. *IN: Workshop on Sustainable Utilization of Mountain Fishery Resources of North-East region*. P. 32-43.

393. Mahapatra, B.K.; Vinod, K.; Mandal, B.K. (2003). Fish biodiversity of Meghalaya with note on their sustainable utilisation. *Aquaculture*. 4(1):, 1-10.

394. Mainwarings, E.G. (1960). The Tons River. *Cheetal.* 3(1): 1960.

395. Maitland, P.S. (1993). Conservation of freshwater fish in India. *In: Advances in fish research (ed. R.B. Singh).* 1: 349-364.

396. Malhotra, S.K. (1982). Bionomics of hill-stream cyprinids. III. Food, parasites and length weight relationship of Garhwal Mahseer, *Tor tor* (Hamilton). *Proc. Indian Nat. Sci. Acad.* (Anim. Sci.). 91: 495-499.

397. Malhotra, S.K.; Chauhan, R.S.; Capoor, V.N. (1980). Nematode infection in relation to some ecological aspects of hill-stream fishes. *Geobios*. 7: 193-198.

398. Malhotra, Y.R. (1966). On the comparative anatomy of the ovaries and fecundity of some Kashmir fishes. *Proc. 2nd All-India Conqr. Zool. Calcutta*. 2(1962): 217-224.

399. Malhotra, Y.R. (1967). A preliminary account of the relationship between feeding and ovarian cycle in *Schizothorax niger* Heckel and *Botia birdi* Chaudhary. *Indian J. Fish*. 14: 313-317.

400. Malhotra, Y.R. (1969). Fishes of Nagaland. *Journal of Assam Sci. Soc*. 12: 145-155.

401. Malhotra, Y.R.; Dutta, S.P.S. (1980). Diurnal variations in some hydrobiological parameters in Gadigarh stream, Jammu. *Abstract: 2nd All India seminar on Ichthyology, Nainital.*

402. Malhotra, Y.R.; Dutta, S.P.S.; Suri, S.N. (1987). Limnology of a fish pond in regional research laboratory. *Jammu Matsya*. 12-13: 174-177.

403. Malhotra, Y.R.; Jyoti, M.K.; Datta, S.P.S. (1975). An aid to the identification of fishes found in Jammu division of J and K State. *Jammu University Rev*. 5(8): 50-66.

404. Malik, D.S. (2011). Population dynamics and conservation management of Himalayan Mahseer (Tor species) in riverine aquatic ecosystem in Garhwal region of Uttarakhand (India). *Journal of Applied Natural Science*. 3: 97-101.

405. Malik, D.S.; Bharti, P.K. (2007). Ecology of Sahastradhara Hill Stream at Dehradoon, Uttaranchal. *In: Advances in Aquatic Ecology (ed. V. B. Sakhare), Daya Publishing House, New Delhi, India*. 1-11 pp.

406. Malik, G.M. (1966). A revision of the fishes of the genus *Oreinus* McCl. from Kashmir and in the Indian Museum, Calcutta, with description of a new variety. *Kashmir Science*, *A Science Research Jounral of J. K. University, Srinagar.* 3(1-2): 125-144.

407. Mallik, S.K.; Shahi, N.; Haldar, R.S.; Pandey, N.N.; Pande, A. (2010). Occurrence of fish louse (*Argolis* sp.) on Indian Snow Trout and Golden Mahseer in subtropical Himalayan Lake of Bhimtal, Uttarakhand. *Journal of Animal Science*. 80(11): 1152-1156.

408. Mandal, S.C.; Barman, D.; Biswas, P.; Nandeesha, M.C. (2013). Potential indigenous ornamental fish species of North-Eastern region of India - process development. *Journal of Inter academicia.* 17(1); 143-147.

409. Mani, M.S. (1968). Zoogeography of the mountains of India. In: Mountains and Rivers of India. *21st Internal. Geogr. Gongr. India*. 96-109 pp.

410. Mann, G.S. (1959). Destruction of Mahseer in the Doon Valley. *Cheetal.* 2(1): 1959: 19-21.

411. Mathur, R.P.; Kapoor, V. (2015). Concept of keystone species and assessment (Himalayan segment of Ganga river) *International Conference on Hydropower for Sustainable Development*. P. 387-397.

412. Mathur, R.P.; Kapoor, V.; Shivam, A.; Verma, J. (2012). Status of fish and Fisheries of Ganga river GRB EMP: Ganga river Basin Environment Management Plan. *Report code 030-GBP-IIT-ENB-DAT-08-Ver 1-Jun 2012.*

413. McClelland, J. (1839). Indian Cyprinidae. *Asiatic Res*. 19: 217-468.

414. Mehta, H.S.; Uniyal, D.P. (2005). Pisces. *In: Editor-Director. 2005. Fauna of Western Himalaya (Part-2)-Himachal Pradesh: (Published by the Director, Zool. Surv. India, Kolkata).* 1-359 + 16 plates.

415. Menon, A.G.K. (1949). Notes on fishes in the Indian Museum XLIV. *Fishes of Kosi Himalayas, Pepsi, Rec. Indian Mus. Delhi.* 47: 231-237.

416. Menon, A.G.K. (1954). Fish Geography of the Himalayas. *Proceedings of the National Academy of Sciences, India.* 20(4): 467-93.

417. Menon, A.G.K. (1962). A distributional list of fishes of the Himalayas. *Journal of Zoological Society of India.* 14(1-2): 23-32.

418. Menon, A.G.K. (1974). A check list of the Himalayan and the Indo-Gangetic plains. *Inland Fisheries Society of Indoa, Special Publication No.1. Barrackpore*.

419. Menon, A.G.K. (1974). A checklist of fishes of the Himalayas and the Indo-Gangetic plains. *Special Publication no. 1. Inland Fisheries Society of India. Barrackpore*. 136pp.

420. Menon, A.G.K. (1992). Taxonomy of the Mahseer fishes of Genus *Tor* Gray with description of a new species from Deccan. *Journal of the Bombay Natural History Society.* 89: 210-228.

421. Menon, A.G.K.; Singh, H.R.; Kumar, N. (2000). Present eco status of coldwater fish and fisheries*. In: Singh, H.R. and W. S. Lakra (eds.). Coldwater Aquaculture and Fisheries. Narendra Publishing House, New Delhi, India*. 1-36 pp.

422. Menon, M.A.S. (1952). On a small collection of fish from Manipur, Assam. *Records of the Indian Museum*. 50: 265-270.

423. Mir, F.A.; Mir, J.I.; Chandra, S. (2013). Phenotypic variation in the Snow trout *Schizothorax richardsonii* (Gray, 1832) (Actinopterygii Cypriniformes: Cyprinidae) from the Indian Himalayas Contributions of Contributions to Zoology. *Himalayas Contributions to Zoology.* 82(3): 115-122.

424. Mir, F.A.; Mir, J.I.; Chandra, S. (2014). Detection of morphometric differentiation in Sattar Snow trout, *Schizothorax curvifrons* (Cypriniformes: Cyprinidae) from Kashmir Himalaya using a truss network system. *Revista de Biologia Tropical* 62(1): 132-141.

425. Mir, F.A.; Mir, J.I.; Patiyal, R.S.; Chandra, S. (2013). Pattern of morphometric differentiation among three populations of Snow trout, *Schizothorax plagiostomus* (Actinopterygii: Cypriniformes: Cyprinidae), from Kashmir Himalaya Using a Truss Network System. *Acta Ichtyhologica et Piscatoria*. 43(4): 277-284.

426. Mir, J.I.; Gusain, O.P.; Gusain, M.P.; Mir, F.A.; Sarkar, U.K.; Pandey, A. (2014). Length-weight and length-length relationships of the vulnerable dark Mahseer *Puntius chelynoides* (McClelland, 1839) from Garhwal Himalaya, India. *Journal of the Applied Ichthyology.* 30(1): 225-226.

427. Mir, J.I.; Mir, F.A. (2012). Length-Weight relationship and condition factor of Rosy Barb, *Puntius conchonius* (Hamilton 1822) from River Jhelum in Kashmir Valley, India. *Advances in Biological Research.* 6(5): 186-190.

428. Mir, J.I.; Mir, F.A.; Chandra, S.; Patiyal, R.S. (2013). Pattern of Morphological variations in Alghad Snowvtrout, *Schizopyge niger* (Heckel 1838) from Kashmir Himalaya using truss network analysis. *Ichthyological Research*. 60(3): 256-262.

429. Mir, J.I.; Mir, F.A.; Patiyal, R.S. (2014). Phenotypic variations among three populations of Chirruh Snow trout, (Heckel, 1838) in Kashmri Himalaya with insights from Truss Network System. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*. 84: 1: 105-11.

430. Mir, J.I.; Patiyal, R.S.; Sharma, N.K. (2015). Analysis of length-weight relationship of sympatric hill stream teleosts *Barilius bendelisis* (Hamilton, 1807) and *Barilius vagra* (Hamilton, 1822) from Garhwal Himalaya, India. *Journal of Applied Ichthyology*. 31(4): 1-2.

431. Mir, J.I.; Saxena, N.; Patiyal, R.S.; Sahoo, P.K. (2015). Phenotypic differentiation of *Barilius bendelisis* (Cypriniformes: Cyprinidae) in four rivers from Central Indian Himalaya. *Revista de Biologia Tropical*. 63 (1): 165-173.

432. Mir, J.I.; Shabir, R.; Mir, F.A. (2012). Length-weight relationship and condition factor of *Schizopyge curvifrons* (Heckel, 1838) from River Jhelum, Kashmir, India. *World Journal of Fish and Marine Sciences*. 4(3): 325-329.

433. Mirza, M.R.; Javed, M.N. (1992). Fishes of the Genus *Naziritor* Mirza and Javed 1985 (Pisces: cyprinidae). *Acta. Sci*. 2(2): 97-100.

434. Mishra, K.S. (1959). An aid to the identification of common commercial fishes of India and Pakistan. *Records of the Indian Museum*. 57(1-4): 1-320.

435. Mishra, K.S. (1967). The fauna of India and the adjacent countries. Pisces. *Zool. Sur. India. Calcutta.* 3: xxi + 367 2ml.

436. Mishra, K.S. (1976). The fauna of India and the adjacent countries. Pisces (2nd Ed.) 2. Telcostomi: Clupeiformes. Bathyclupeiformes. Galaxiiformes. Scolpeliformes and Ateleopiformes. *Zoological Survey of India, Calcutta*. XXVII: 438 pp. 11pis.

437. Misra, M. (1982). Studies on fishery biology of *Schizothorax richardsonii* (Gray), an economically important food fish of Garhwal Himalaya. *Ph.D. Thesis, Garhwal University, Srinagar Garhwal.*

438. MOEF. (2002). Carrying capacity studies of Teesta Basin in Sikkim. Volume VI. Biological environment Terrestrial and Aquatic Research. Ministry of Environment and Forests, Government of India. National Hydroelectric Power Corporation Ltd. Faridabad. *Centre for Inter-Disciplinary Studies of Mountain and Hill Environment, University of Delhi*. 1-259 pp.

439. Mohan, M. (2000). Pre-impoundment bio-ecological characteristics of River Gaula in Kumaon Himalaya. *Ph.D. thesis, Ch. Charan Singh University, Meerut.*

440. Mohan, M. (2002). Nutrition and feed development for coldwater fishes. *In: Vass K.K. Raina, H.S. (eds.). Highland fisheries and aquatic resource management. National Research Centre for Coldwater Fisheries (ICAR), Bhimtal.* 284-305 pp.

441. Mohan, M. (2004). Hydrobiological statuts of lesser Himalayan Rivers. *Journal of Indian Fisheries Association*. 31: 1-12.

442. Mohan, M.; Singh, H.B.; Sunder, S. (1996). Management of fisheries for sustained yields in a Himalayan Lake the Khurpatal. *IN: Pathak, P.S. and Gopal, B.(eds.). Studies in Indian Agro Ecosystems.* 129-136 pp.

443. Mohan, M.; Sunder, S.; Raina, H.S.; Joshi, C.B. (1998). Production of stocking material of Golden Mahseer - a step towards rehabilitation of endangered germplasm. *In: Ponniah, A.G., Das, P., Verma, S.R.(eds.) Fish genetics and biodiversity. NATCON Publication, Mazaffarnagar*, 5: 195-202 pp.

444. Mohindra, V.; Rajana, L.K.; Ponniah, A.G.; Kuldeep, K.L. (2004). Microsatellite loci to assess genetic variation in *Tor putitora*. *Journal of Applied Ichthyology*. 20: 466-469.

445. Motwani, M.P.; Jayaram, K.C.; Sehgal, K.L. (1962). Fish and Fisheries of Brahmaputra river system, Assam. 1. Fish fauna with observations on their zoogeographical significance. *Tropical Ecology* 3(1-2): 17-43.

446. Mukherjee, M.; Lepcha, R.F.; Chakraborty, C. (2011). Fish and fisheries of Himalayan and Terai region of West Bengal with ornamental touch. *Daya publishing House, Delhi*. 342 pp.

447. Naeem, M.; Salam, A.; Ishtiaq, A. (2011). Length-weight relationships of wild and farmed *Tor putitora* from Pakistan. *Journal of Applied Ichthyology*. 27: 1133-1134.

448. Nath, P.; Dam, D.; Bhutia, P.T.; Dey, S.C.; Das, D.N. (2007). A new fish species of the genus *Bhavania* (Homalopteridae: Homalopterinae) from river Noadhing drainage, Arunachal Pradesh, India. *Records of the Zoological Survey of India.* 107(3): 71-78.

449. Nath, P.; Dam, D.; Kumar, A. (2010). A new fish species of genus *Barilius* (Cyprinidae: Rasborinae) from river Siang, D'Ering Memorial Wildlife Sanctuary, Arunachal Pradesh. *Records of the Zoological Survey of India.* 110(3): 19-33.

450. Nath, P.; Dey, S.C. (1982). Culture fisheries, an unfocussed treasure of Arunachal Pradesh. *Fishing Chimes.* 5(4): 22-25.

451. Nath, P.; Dey, S.C. (1997). Fish and Fisheries of North-East India. *Vol. 1. Arunachal Pradesh,* xviii, 201 pp.

452. Nath, S. (1994). The Ichthyogeography of Jammu Province (Jammu and Kashmir State) India. *Rec. Adv. Fish. Eco. Limn. Eco-conserv*. 3: 103-119.

453. Nautiyal, P. (1984). Ignored ichthyofauna of the Garhwal Himalaya. *Bull. Env. Sco*. 1: 1-2.

454. Nautiyal, P. (1984). Natural history of the Garhwal Himalayan Mahseer *Tor putitora*. II. Breeding Biology. *Proc. Indian Nat. Sci. Acad.* (Anim. Sci.). 93: 97-106.

455. Nautiyal, P. (1985). Length-weight relationship and relative condition factor of the Garhwal Himalayan Mahseer with reference to its fishery. *Indian Journal of Animal Science*. 55(1): 65-70.

456. Nautiyal, P. (1985). Studies on the riverine ecology of torrential waters in the Indian uplands of Garhwal region. 1. Seasonal variations in percentage occurrence of planktonic algae. Uttar Pradesh. *Journal of the Zoology*. 5: 14-19.

457. Nautiyal, P. (1989). Mahseer conservation problems and prospects. *Journal of the Bombay Natural History Society.* 86: 32-36.

458. Nautiyal, P. (1990). Natural history of the Garhwal Himalayan Mahseer : growth rate and age composition in relation to fishery, feeding and breeding ecology. *In: Hirano, R. Hanyn, I. (Eds.). Proceedings of the second Asian Fisheries forum. Asian Fisheries Society, Manila*. 769-772 pp.

459. Nautiyal, P. (1994). The Himalayan or Putitor Mahseer *Tor putitora* (Hamilton). *In: Nautiyal, P. (ed.)* Mahseer *the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* B4-B12 pp.

460. Nautiyal, P. (1996). Conservation of Mahseer in India: research, a priority. *Fishing Chimes.* 15: 27.

461. Nautiyal, P. (2000). Spawning ecology and threats to Mahseer. *IN: Singh, H.R., Lakra, W. S. (eds). Coldwater aquaculture and fisheries. Narendra Publishing House, New Delhi*. 291-306 pp.

462. Nautiyal, P. (2001). Ichthyofauna. *In: Kandari, O.P. and Gusain, O.P. (Editors) Garhwal Himalaya - Nature, Culture and Society Transmedia, Srinagar, Garhwal, Uttaranchal, India*. 191-197 pp.

463. Nautiyal, P. (2002). The Himalayan Mahseer : migratory pattern in relation to ecological characteristics of the Ganga river system in Garhwal Hiamalay. *In: Vass K.K. Raina, H.S. (eds.). Highland fisheries and aquatic resource management. National Research Centre for Coldwater Fisheries (ICAR), Bhimtal*. 172-195 pp.

464. Nautiyal, P. (2006). Rising awareness and efforts to conserve the Indian Mahseers. *Current Science*. 91: 1604.

465. Nautiyal, P. (2006). Assessment of ecological health of fish populations of the upper reaches of Ganga (Garhwal Himalaya). *In: Dutta Munshi JS, Singh HR (eds.) Advances in fish research, Vol. 4. Narendra Publishing House, Delhi*. 211-238 pp.

466. Nautiyal, P. (2011). The golden Mahseer (a threatened fish of Himalaya). *Lambert Academic Publishing, Amazon Distribution GmbH, Leipzig*.

467. Nautiyal, P. (2014). Review of the art and science of Indian Mahseer (Game Fish) from nineteenth to twentieth century: road to extinction or conservation? *Proc. Nat. Acad Sci. India.* Sect. B. Biol. Sci. 84: 215-236.

468. Nautiyal, P.; Bahuguna, S.N.; Thapliyal, R.P. (2001). The role of ecological factors in governing the direction time and purpose of migration in Himalayan Mahseer *Tor putitora*. *Appl. Fish Aquac*. 1: 133-138.

469. Nautiyal, P.; Lai, M.S. (1984). Preliminary observation on the migratory behaviour of the Garhwal Himalayan Mahseer. *Journal of the Bombay Natural History Society.* 81(1): 204-208.

470. Nautiyal, P.; Bhatt, J.P.; Kishor, B.; Rawat, V.S.; Nautiyal, R.; Badoni, K.; Singh, H.R. (1997). Altitudinal variations in phytobenthos density and its components in coldwater mountain river Alaknanda - Ganga. *Phykos*. 36(1-2): 81-88.

471. Nautiyal, P.; Bhatt, J.P.; Kishor, B.; Rawat, V.S.; Nautiyal, R.; Singh, H.R. (1997). Assessment of fish food resource in relation to the migratory habits of *Tor putitora* (Ham.) found in the impounded sections of the river Ganga between Rishikesh and Hardwar. *Proc. Nat. Acad Sci. India.* 67B: 203-212.

472. Nautiyal, P.; Bhatt, J.P.; Kishor, B.; Rawat, V.S.; Nautiyal, R.; Singh, H.R. (1998). Himalayan Mahseer : Magnitude of commercial fishery in Garhwal hills. *Fish Gen. Biodiversity Conserv. Natcon Pub*. 05: 107-114.

473. Nautiyal, P.; Johal, M.S. (1994). Age and growth (the Himalayan or Putitor Mahseer *Tor putitora*). *IN: Nautiyal, P. (ed.) Mahseer the game fish. Jagdamba Prakashan, Dehradun*, B31-B35.

474. Nautiyal, P.; Lai, M.S. (1978). Ecobioloical studies on some hillstreams fishes of Garhwal Himalaya III. Hydrological factors and their bearing on the productivity of the Mahseer in the Hillstreams Alaknanda, Mandakini and Nayar. *Indian J. Zool.* 1(19): 21-27.

475. Nautiyal, P.; Lai, M.S. (1981). Limnological studies on some hill streams of Garhwal Himalayas. II - Variation in water chemistry of eastern Nayar. *Ind. J. Zool*. XXII(2): 113-116.

476. Nautiyal, P.; Lai, M.S. (1981). Recent records of Garhwal Mahseer (Tor putitora) with a note on its present status. *Journal of the Bombay Natural History Society.* 79(3): 693-695.

477. Nautiyal, P.; Lai, M.S. (1985). Fecundity of Garhwal Himalayan Mahseer *Tor putitora* (Ham.). *Journal of the Bombay Natural History Society.* 82(2): 253-257.

478. Nautiyal, P.; Lai, M.S. (1994). Food and feeding habits of fingerings and juveniles of Mahseer (*Tor putitora*) (Ham.) in Nayar river. *Journal of the Bombay Natural History Society.* 81(3): 642-647.

479. Nautiyal, P.; Lal M.S. (1985). Studies on the natural history of Garhwal Himalayan Mahseer *Tor putitora* I Maturation. *Indian J. Phys. Nat. Sci*. 5: 36-42.

480. Nautiyal, P.; Lal, M.S. (1985). Food and feeding habits of Garhwal Himalayan Mahseer in relation to certain abiotic factors. *Matsya*. 11: 31-35.

481. Nautiyal, P.; Lal, M.S. (1994). Fishing technique and the status of Himalayan Mahseer in the Nayar (Garhwal). *In: Mahseer the game fish: Natural History, Status and conservation practices in India and Nepal (Ed. P. Nautiyal). Jagdamba Prakashan Dehradun*. 545-564 pp.

482. Nautiyal, P.; Misra, M.; Lai M.S. (1982). Note on the distribution of *Schizothorax richardsonii* in some Garhwal hillstreams. *JOSHARAD*. 6: 93-95.

483. Nautiyal, P.; Rizvi, A.F.; Dhasmana, P. (2008). Life history traits and decadal trends in the growth parameters of Golden Mahseer *Tor putitora* (Hamilton 1822) from the Himalayan stretch of the Ganga river system. *Turkish Journal of Fisheries and Aquatic Sciences.* 8: 125-132.

484. Nautiyal, P.; Singh, H.R. (1989). River projects and endangered Himalayan Mahseer *Tor putitora* in India uplands of Garhwal region, A critical evaluation. *Him. J. Environ. Zool*. 3: 129-139.

485. Nautiyal, R. (1993). Diatoms of the coldwater river Alakananda. *D. Phill. Thesis (1993) HNB Garhwal University, Srinagar, Garhwal.*

486. Nautiyal, R.; Nautiyal, P.; Singh, H.R. (1996). Impact of sewage on the diatom communities of the river Alaknanda (Srinagar Garhwal). *International Journal of Ecologyand Environmental Science*. 22(3): 289-296.

487. Nautiyal, R.; Nautiyal, P.; Singh, H.R. (1996). Community structure of coldwater epiphytic diatoms in relation to substrate and flow condition of a Himalayan river Alaknanda. *Journal of Freshwater Biology*. 8(1): 1-5.

488. Nayak, A.K.; Kumar, P.; Mahanta, P.C.; Haldar, R.S.; Saxena, A.K. (2009). Development of user friendly databse software for Indian upland fishes. *Journal of Inland Fisheries and Society of India.* 41(2): 1-5.

489. Nayak, A.K.; Vass, K.K. (2005). Development of database on freshwater lakes of Uttaranchal in Central Himalayas. *Journal of Inland Fisheries Society of India.* 37(2): 80-82.

490. Negi, K.S.; Malik, D.S. (2008). Macrobenthic invertebrate population of Chhirapani, a hill stream in Kumaon in Himalaya, India. *International Journal of Ecology and Environmental Science*. 4: 329-334.

491. Negi, M. (1993). Phytobenthos of the hillstream Alakananda of Garhwal Himalaya. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 139-144 pp.

492. Negi, R.K.; Negi, T. (2010). Assemblage structure of stream fishes in the Kumaon Himalaya of Uttarakhand State, India. *Life Sci. J*. 7(2): 6974.

493. Negi, R.K.; Rajput, V. (2014). Diversity of fish species in the lakes of Kumaon Himalaya Uttarakhand, India. *Academia Arena*. 2014 6(10): 67-70.

494. Nevill, C.A. (1915). The breeding habitats of the Mahseer (*Barbus tor*). *Journal of the Bombay Natural Histroy Society*. 24: 838.

495. Ng, H.H. (2005). *Glyptothorax botius* (Hamilton, 1822), a valid species of catfish (Teleostei: Sisoridae) from northeast India, with notes on the identity of *G. Telchitta* (Hamilton, 1822). *Zootaxa.* 930: 1-19.

496. Ng, H.H.; Tamang, L. (2012). *Pseudolaguvia viriosa*, a new catfish (Teleostei: Sisoridae) from north-eastern India. *Zootaxa*. 3522: 81-88.

497. Nguyen, T.T.T.; Na-Nakorn, U.; Sukmanomon, S.; ZiMing, C. (2008). A study on phylogeny and biogeography of Mahseer species (Pisces: Cyprinidae) using sequence of three mitochondrial DNA gene region. *Mol. Phyl. Evol*. 48: 1223-1231.

498. Ogale, S.N. (2000). Mahseer hatchery: Planning and management. *Fishing Chimes.* 19(10-11): 69-77.

499. Ogale, S.N. (2001). Multiple breeding in golden Mahseer *Tor putiora*. *Appl. Fish Aquac.* 1: 31-33.

500. Ogale, S.N. (2002). Mahseer breeding and conservation and possibilities of commercial culture: the Indian experience. *IN: Petr. T. and Swar, SB (eds.). Coldwater fisheries in the trans Himalayan countries. FAO Fisheries Technical Paper*. 431: 193-212.

501. Ogale, S.N.; Kulkarni, C.V. (1987). Breeding of pond raised hybrids of Mahseer fish *Tor Khudree* and *Tor tor*. *Journal of the Bombay Natural History Society.* 84: 332-335.

502. Pahwa, D.V.; Mehrotra, S.N. (1966). Observation on fluctuations in the abundance of plankton in relation to certain hydrobiological conditions of River Ganga. *Proc. Nat. Acad Sci. India.* 26 B(2): 19-66.

503. Pandey, A.; Dubey, V.K.; Kumar, R.S.; Sarkar, U.K.; Lakra, W.S. (2011). New record of *Glyptothorax brevipinnis* (Hora, 1923) (Pisces, Siluriformes, Sisoridae) in the river Ken, Central India. *Journal of the Applied Ichthyology*. 27(4): 1112.

504. Pandey, A.K.; Patiyal, R.S.; Upadhya, J.C.; Tyagi, M.; Mahanta, P.C. (1998). Induced spawning of endangered Mahseer (*Tor putitora*) with ovaprim at State Fish Farm near Dehradun. *Indian J. Fish*. 45: 457-459.

505. Pandey, A.; Lakra, W.S.; Thapliyal, R.P.; Goswamic, M.; Singh, M.; Malakar, A.K. (2012). Morphological taxonomy and molecular divergence of Mitochondrial DNA: The Journal of DNA Mapping, four Balitorid species (subfamily: Nemachelinae) from Central Himalaya, India Mitochondrial DNA. *Journal of DNA Mapping.* 23(3).

506. Pandey, R.C.; Pathak, J.K.; Bhatt, S.D. (1991). Ecology of the Wetland Pterido. Phytes of Kumaon Himalayas. *In: Ecology of the Mountain Waters. (S.D. Bhatt and R.K. Pande Eds.), Ashish Publ. House. New Delhi*. 174-197 pp.

507. Pandey, S.K.; Nautiyal, P. (1997). Statistical evaluation of some morphometric characters of taxonomic significance in *Schizothorax richardsonii* (Gray) and Schizothorax Plagiostomus. *Indian J. Fish*. 44(1): 75-79.

508. Pandit, A.K.; Qadri, M.Y. (1986). Nutritive values of some aquatic life forms, Kashmir. *Environmental Conservation*. 13(3): 260-62.

509. Pandit, M.K. (2009). Other factors at work in the melting Himalaya: follow-up to Xu, et. al. *Conserv. Biol*. 23: 1346-1347.

510. Pandit, M.K.; Grumbine, R.E. (2012). Potential effects of ongoing and proposed, hydropower development on terrestrial biological diversity in the Indian Himalaya. *Conserv. Biol.* 26: 1061-1071.

511. Pandit, M.K.; Kumar, V. (2013). Land use and conservation challenges in Himalaya: Past, Present and future. *In: Sodhi N.S., Gibson, L. and Raven, P.H., Conservation Biology: Voices from the Tropics, Wiley-Blackwell, Oxford, U.K.* 123-133 pp.

512. Pandit, M.K.; Manish, K.; Koh, L.P. (2014). Dancing on the roof of the world: Ecological Transformation of the Himalayan Landscape. *Bio. Sci.* 64: 980-992.

513. Pant, M.C. (1970). Fish fauna of the Kumaon hills. *Records of the Zoological Survey of India.* 64: 83-96.

514. Pascoe, E.H. (1919). Early History of the Indus, Brahmaputra and Ganges. Quart, J011rn. *The Geological Society*. LXXV: p. 136 (1919).

515. Pathak, J.K. (1991). Growth of *Tor putitora* specimen caught from Sarju River (Kumaun Himalaya, India). *Journal of Advances in Zoology*. 12: 60-62.

516. Pathak, J.K.; Bhatt, S.D. (1991). Water quality characteristics of the Lesser Himalayan streams. Trends in arithmetic water quality indices iwth special reference to River Smju. *In: Ecology of the Mountain Waters. (S.D. Bhatt and R.K. Pande eds.). Ashish Publ. House, New Delhi*. 92-103 pp.

517. Pathani, K.; Upadhyay, K. (2003). An inventory on Zooplankton, Zoobenthos and fish fauna in the river Ramganga of Uttaranchal, India. *IN: P.P. Dhyani, (ed) Envis Bulletin, GB Pant Institute of Himalayan Environment and Development*. 11(2): 37-46.

518. Pathani, S.S. (1977). The problems of Kumaun Mahseer (*Tor tor* and *Tor putitora*). *Uttarakhand Bharti*. 2(1): 65-68.

519. Pathani, S.S. (1978). A note on ecology and conservation of Mahseer *Tor Tor* and *Tor putitora* in Kumaun Lakes. *Env. India*. 1(2): 36-37.

520. P athani, S.S. (1978). A note on secondary sexual characters in Kumaun Mahseer *Tor tor* and *Tor putitora* (ham.) in Uttar Pradesh. *Indian Journal of Animal Science*. 48(10): 773-775.

521. Pathani, S.S. (1979). Otoliths as age indictor in the Mahseer, *Tor putitora* (Hamilton). *Current Science*. 48(21): 957-958.

522. Pathani, S.S. (1979). Studies on the ecology and biology of Kumaun Mahseer *Tor tor* (Ham.) and *Tor putitora* (Ham.). *Ph.D. Thesis Kumaun University, Nainital, India.*

523. Pathani, S.S. (1980). On the age and growth of Mahseer *Tor tor* (Ham.) by opercular bone. *Fifth All India Congr. Zool. Bhopal*. 114-115 pp.

524. Pathani, S.S. (1980). The giant Mahseer of kumaun Himalayas with a recent rare record. *Journal of the Bombay Natural History Society*. 77: 154-155.

525. Pathani, S.S. (1981). Age and growth of Mahseer *Tor putitora* by scale and opercular bone. *Matsya*. 7: 41-46.

526. Pathani, S.S. (1981). Fecundity of Mahseer *Tor putitora* (Hamilton). *Proc. Indian Nat. Sci. Acad. (Anim. Sci.).* 90: 253-260.

527. Pathani, S.S. (1982). Studies on fecundity of Himalayan *Tor Mahseer*. *Journal of Advances in Zoology*. 3: 122-128.

528. Pathani, S.S. (1983). On the age and growth of Mahseer *Tor tor* (Ham.) by opercular bone. *Indian J. Zool.* 11(1): 13-19.

529. Pathani, S.S. (1983). Studies on the spawning ecology of Kumaun Mahseers *Tor tor* (Hamilton) and *Tor putitora* (Hamilton). *Journal of the Bombay Natural History Society.* 79(3): 525-530.

530. Pathani, S.S. (1984). Population biology of Mahseer *Tor tor* and *Tor putitora* (Ham.). *Journal of Himalayan Research Development*. 3: 29-32.

531. Pathani, S.S. (1988). Vertebral centrum as age indicator in the Mahseers, *Tor tor* (Ham.) and *Tor putitora* (Ham.). *Indian Journal of Animal Science*. 58(1): 155-158.

532. Pathani, S.S. (1994). Trends of Mahseer, Snow trout and Chital abundance in Kumaun Himalaya. *IN: Dehadrai, PV, Das, P., Verma, SR (Eds). Threatened fishes of India, Vol. 4, NATCON Publication, Muzaffarnagar*. 155-160 pp.

533. Pathani, S.S. (1994). Biology of Tor and Putitora Mahseer. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* B86-B90 pp,

534. Pathani, S.S. (1994). Mahseer of Kumaun lakes: population and its status. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* C44-C48 pp.

535. Pathani, S.S. (2000). Reproductive biology of the golden Mahseer, Tor putiora (Ham.) from Kumaun Himalayas. *IN: Singh, H.R. and Lakra, W.S. (eds). Coldwater Aquaculture and Fisheries. Narendra Publishing House, Delhi*. 253264 pp.

536. Pathani, S.S.; Das, S.M. (1979). On induced spawning of Mahseer *Tor putitora* (Hamilton) by mammalian and ifsh pituitary hormone injection. *Science and Culture*. 54(5): 209-210.

537. Pathani, S.S.; Das, S.M. (1980). A note on length-weight relationship and seasonal condition factor of Mahseer *Tor tor* and *T. Putitora* (Hamilton). *Journal of Inland Fish Society of India.* 12: 140-143.

538. Pathani, S.S.; Das, S.M. (1987). On age and growth of the Mahseer *Tor tor* (Hamilton) by scales. *Matsya*. 194-199 pp.

539. Pathani, S.S.; Joshi, M.L. (1980). On food and feeding habits of fingerlings of the two Kumaon Mahseer fishes *Tor Tor* (Ham.) and *Tor putitora* (ham). *Bioresearch.* 4: 43-46.

540. Patil, R.; Lakra, W.S. (2005). Effect of cryoprotectants, equilibration periods and freezing rates on cryopreservation of spermatozoa of Mahseer, *Tor khudree* and *T. putitora*. *Aquac Res*. 36: 1465-1472.

541. Patiyal, R.S.; Mir, J.I.; Sharma, R.C.; Chandra, S.; Mahanta, P.C. (2014). Pattern of Meristic and Morphometric Variations between Wild and Captive Stocks of Endangered *Tor putitora* (Hamilton 1822) Using Multivariate Statistical Analysis Methods. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*.

542. Peter, T. (1999). Coldwater fish and fisheries in Bhutan. *FAO Fish. Tech. Pap. No. 385*. 6-12 pp.

543. Pilgrim, G.E. (1919). Suggestions concerning the History of the Drainage of Northern India. *Journal of Asiatic Society of Bengal.* XV, p. 81 (1919).

544. Pillai, R.S. (1974). Two new species and two records of Lepidocephalichthys Bleeker (Pisces: Cobitidae) from Assam and Meghalaya India, with a key to the known species. *Journal of Zoology*. 26(1-2): 11-18.

545. Pillai, R.S. (1977). Ichthyofauna of Garo hills, Meghalaya (India). *Records of the Zoological Survey of India.* 12(1-4): 1-22.

546. Pillai, R.S.; Hatter, S.J.S. (1972). Rain of fish in Shillong Meghalaya. *Journal of the Bombay Natural History Society.* 69: 202-204.

547. Pinder, A.C.; Raghavan, R. (2013). Conserving the endangered Mahseers (*Tor* spp.) of India: the positive role of recreational fisheries. *Current Science*. 104: 1472-1475.

548. Pradhan, N.; Wagle, S.K.; Gurung, T.B. (2011). Genetic variation of Mahseer (*Tor putitora*) populations from hatchery, lake and rivers of Nepal. *In: Gurung TB, Pokharel, P.K., Upreti CR, Joshi BR, Pradhan SM, Wagle, SK (eds.). Proceedings of the 8th national workshop on livestock and fisheries research. Nepal Agricultural Research Council (NARC), Nepal*. 35-43 pp.

549. Prasad, R.; Pant, B.C. (1980). Propagation of Trout in a Garhwal Himalayan District Uttarkashi. *Cheetal.* 22(2-3): 22-26.

550. Purohit, R.; Singh, S.P. (1981). Seasonal variation in physicochemical limnology of Nainital lake, Western Himalaya India. *Proc. Indian Nat. Sci. Acad. B.* 47: 194-203.

551. Qadri, M.Y.; Showkat, A.N.; Mustafa, G.; Yousuf, A.R. (1981). Limnology of two trout streams of Kashmir. *Journal of Indian Institute of Science*. 63: 137-141.

552. Qadri, M.Y.; Yousuf, A.R. (1979). Physicochemical features of Beehama spring. *Geobios*. 6: 212-214.

553. Qassim, S.Z.; Qaqqum, A. (1961). Spawning frequencies and breeding seasons of some freshwater fishes with special reference to those occurring in the plains of Northern India. *Indian J. Fish*. 8(1): 24-33.

554. Rahman, M.A.; Mazid, A.M.; Rahman, M.R.; Khan, M.N.; Hossain, M.A.; Hussain, M.G. (2005). Effect of stocking density on survival and growth of critically endangered Mahseer, *Tor putitora* (Hamilton) in nursery ponds. *Aquaculture*. 249: 275-284 pp.

555. Raina, H.S. (1977). Observations on the fecundity and spawning behaviour of *Schizothorax esocinus* (Heckel) from Dal lake Kashmir India. *Journal of Fisheries*. 24(1-2): 201-203.

556. Raina, H.S. (1987). A biological note on introduced common carp in the temperate waters in Kashmir. *Indian J. Fish*. 34(1): 114.

557. Raina, H.S. (1998). Ecology of hillstreams with special reference to coldwater fish communities. In: Proceedings of Indo-U.S. Workshop on Conservation and Development of Natural Fisheries Resources of Western Himalayas. *Department of Zoology, Punjab University, Chandigarh, India.* 19-21 pp.

558. Raina, H.S.; Peter, T. (1999). Coldwater fish and fisheries in the Indian Himalaya: lakes and reservoir. *In: Fish and Fisheries at higher altitudes: Asia, FAO Fisheries Technical Paper, T385*: 304.

559. Raina, H.S.; Sunder, S.; Joshi, C.B.; Mohan, M. (1999). Himalayan Mahseer. *Bull. National Research Centre on Coldwater Fisheries, Bhimtal.*

560. Raina, H.S.; Vass, K.K. (1993). Distribution and species composition of zooplankton in Himalayan ecosystem. *Internationale Revue der gesmten Hydrobiologie*. 78(2): 295-307.

561. Rainboth, W.J. (1989). Discherodontus, a new genus of Cyprinid fishes from south eastern Asia. *Occ. Pap Mus Zool Univ. Michigan*. 718: 1-31.

562. Rainboth, W.J. (1991). Cyprinids of South-east. *In: Winfield J, Nelson JS (eds.). Cyprinid fishes: systemic biology and exploration*. *Chapman and Hall, London*.

563. Raizada, S.B. (1981). The Mighty Mahseer -Problems and prospects of culture and propagation. *Cheetal.* 23: 5-12.

564. Raizada, S.B. (1982). Breeding, Development and Culture Prospects of the Himalayan Barbel, *Schizothorax plagiostomus* Heckel. *Journal of Bombay Natural History Society*. 82(1): 130-137.

565. Raizada, S.B. (1985). Remaking of the Himalayan Trout waters. *Cheetal.* 27: 5-12.

566. Raj, B.S. (1945). The decline of Mahseer fisheries of Kumaun Lakes and possible remedy. *Proc. Nat. Acad Sci. India.* 31: 341-345.

567. Rajbanshi, K.G. (1976). Looping of Snow trout - asla. *Journal of Science*. 6(1): 59-64.

568. Rajbanshi, K.G. (1982). A general bibliography on fish and fisheries of Nepal. *Royal Nepal Academy, Kamaladi, Kathmandu, Nepal*. 96 pp.

569. Rajbanshi, K.G. (2005). Review on current taxonomic status and diversity of fishes in Nepal. *Royal Nepal Academy of Science and Technology. Occasional Paper.* No. 10. 41 pp.

570. Rajput, V.; Johnson, J.A.; Sivakumar, K.; Gangaiamaran, P. (2012). Ecomorphology of a snow trout *Schizothorax richardsonii* (Gray, 1832) from upper Ganga River Basin, India. *Taprobanica*. v. 4 no. 1.

571. Rajvanshi, A.; Arora, R.; Mathur, V.B.; Sivakumar, K.; Sathyakumar, S.; Rawat, G.S.; Johnson, J.A.; Ramesh, K.; Dimri, N.; Maletha, A. (2012). Assessment of cumulative impacts of hydroelectric projects on aquatic and terrestrial biodiversity in Alaknanda and Bhagirathi Basins, Uttarakhand. *Widlife Institute of India, Technical Report,* 203 pp. Plus Appendices.

572. Ramanujam, S.N.; Manorama, M.; Dey, S. (2010). Ichthyodiversity of Meghalaya: India. *Electronic Journal of Ichthyology*. 2: 15-26.

573. Rana, A.S.; Jha, B.R.; Khatri, K. (2012). Situation analysis of Mahaseer conservation in Nepal and prospects of developing angling tourism. *In: Shrestha M.K., Pant, J. (eds.). Small scale aquaculture for rural livelihood. Symposium Proceedings*. 182-196 pp.

574. Ranjana. (2005). Molecular characterization of golden Mahseer (*Tor putitora*) for stock identification. *Ph. D. Thesis, A.P.S. University, Rewa.*

575. Rao, P.S.; Sharma, A.P.; Singh, J.S. (1982). Limnology and phytoplankton production in a high altitude lake. *International Journal of Ecology and Environmental Science*. 8: 39-51.

576. Rauthan, J.V.S.; Rawat, S.; Rawat, G.; Joshi, V.; Grover, S.P. (2002). Taxonomic account and field observations on the biology of Hill trout, *Barillus vagra vagra*. *Cheetal.* 39(3-4): 62-65.

577. Rawal, Y.K. (1998). Dangers to hillstreams and fish communities. *In: Proc. Indo-U.S. workshop on Conservation and Development of Natural Fishery Resources of Western Himalayas. Dec. 7-8, 1998 Department of Zoolgy, Panjab University, Chandigarh*. 82-86 pp.

578. Rawat, J.S. (1988). Water Resources and burning hydrobiological problems of Kumaon. *In: Kumaon Land and People. (ed.). KS. Valdiya, Gramodaya Prakashan, Nainital*, 201-212.

579. Rawat, M.S.; Bantwan, B.; Singh, D.; Gusain, O.P. (2011). Status of Brown trout (*Salmo trutta fario* L.) in Garhwal Himalaya with a note on it morphometric characteristics. *Environmental Conservation*. 12(3): 47-52.

580. Rawat, M.S.; Gusain, O.P.; Juyal, C.P.; Sharma, R.C. (1993). First report on the limnology (Abiotic profile) of a Garhwal Himalayan lake, Deoria Tal. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.*

581. Rawat, M.S.; Juyal, C.P.; Sharma, R.C. (1975). Morphometry and physicochemical profile of high altitude lake Deoria Tal of Garhwal Himalaya. *Journal of Freshwater Biology*. 7: 1-6.

582. Rawat, R.; Nautiyal, R.; Singh, H.R. (1997). Assessment of fish food resource in relation to the migratory habit of *Tor putitora* (Hamilton) found in the impounded section of the river Ganga between Rishikesh and Hardwar. *Proc. Nat. Acad Sci. India.* 67(B): 3-4.

583. Rawat, V.S. (1998). Studies on growth rate of Himalayan Mahseer in relation to its dispersal in upper reaches of river resilience, and recovery of animal communities and habitats in lotic ecosystems. *Environmental Management*. 14: 647-660.

584. Ray, P. (1998). Ecological imbalance of the Ganga River System: its impact on Aquaculture. *Daya publishing House, Delhi*.

585. Rora, S.L. (1937). Comparison of the fish fauna of the northern and the southern and the southern faces of the great Himalayan range. *Records of the Indian Museum*. 39: 241-250.

586. Rumana, H.S. (2001). Fish biodiversity in some hillstreams of western Himalayas in relation to altitude, abiotic factors and stream morphology. *Ph.D. Thesis, Punjab University Chandigarh, India.*

587. Sah, S.; Barat, A.; Pande, V.; Sati, J.; Gael, C. (2011). Population structure of hill trout (*Barilius Bendelisis*) inferred from variation in mitrochondrial DNA sequences. *Advances in Biological Research*. 5(2): 93-98.

588. Saha, K.C.; Sen, D.P. (1956). Biological conrol of submerged aquatic vegetation in pond fisheries by culture of Katli Barbus (*Lissocheilus hexagonolepis*), a hillstream fish of Darjeeling district (West Bengal). *Journal of the Bombay Natural History Society.* 53(4): 726-729.

589. Sahni, A.; Bhatia, S.B.; Kumar, K. (1983). Faunal evidence for the withdrawal of the Tethys in the Lesser Himalaya, Northwestern India (1983) Bollettino delta Sodeta *Paleontologicalt aliana*. 22(1-2): 77-86.

590. Sahoo, P.K.; Saikia, S.K.; Das, D.N. (2009). Natural food resources and niche breadth of *Barillus bendelisis* (Hamilton) (Pisces, Cyprinidae) in river Dikrong, an upland riverine ecosystem in India. *Pan-American Journal of Aquatic Sciences.* 4(1): 12-16.

591. Saigal, B.H. (1964). Studies on the fishery and biology of the commercial catfishes of the Ganga river system, II. Maturity, spawning and food of *Mystus aor*. *Indian J. Fish*. 11: 1-11.

592. Sanjay, M.; Walker, S. (1998). Conservation Assessment and management plan (C.A.M.P.). *Workshops Report by Zoo Outreach Organization/CBSG, India*.

593. Sanwal, S.; Sarma, D.; Singh, N.O. (2010). Effect of stage and seasonal differences of length and weight relationship and condition factor of chocolate Mahseer (*Neolissochilus hexagonolepis*). *Journal of Inland Fish Society of India.* 42(2): 52-56.

594. Sarkar, U.K.; Pathak, A.K.; Lakra, W.S. (2008). Conservation of fish resources of India: new approaches, assessment and challenges. *Biod. Conserv*. 10: 2495-2511.

595. Sarkar, U.K.; Pathak, A.K.; Sinha, R.K.; Sivakumar, K.; Pandian, A.K.; Pandey, A.; Dubey, V.K.; Lakra, W.S. (2011). Freshwater fish biodiversity in the river Ganga (India: changing pattern, threats and conservation perspectives. *Rev. Fish Biol. Fisheries.* 22(1): 251-272.

596. Sarkar, U.K.; Ponniah, A.G. (2000). Evalution of North East Indian fishes for their potential as cultivable, sport and ornamental fishes along with their conservation and endemic status,. p. 11-30. *In: AG Ponniah and UK Sarkar (Eds). Fish Biodiversity of North East India. NBFGR.NATP Publ*. 2: 228.

597. Sarma, D. (2009). Chocolate Mahseer (*Neolissochilus hexagonolepis*): a condidate fish for Aquaculture. *Fishing Chimes.* 29(7): 8-11.

598. Sarma, D.; Jha, G.N. (2011). Effect of Spirulina fortified diets on growth of chocolate Mahseer (*Neolissochilus hexagonolepis*). *Indian Journal of Animal Nutrition.* 28(2): 203-206.

599. Sarma, D.; Tiwari, T.; Das, P.; Jha, G.N. (2011). Proximate and mineral composition of indigenous hill stream and fishes of Uttarakhand. *Indian Journal of Animal Nutrition*. 28(2): 203-206.

600. Sarma, O.; Mohan, M.; Haldar, R.S.; Das, P.; Mahanta, P.C. (2009). Captive breeding and grow out of the golden Mahseer. *Info-Fish International*. V. 18-22.

601. Sati, J.; Sah, S.; Pandey, H.; Ali, S.; Sahoo, P.K.; Pande, V.; Barat, A. (2013). Phylogenetic relationship and molecular identification of five Indian Mahseer species using COI sequence. *Journal of Environmental Biology.* 34: 933-939.

602. Sehgal, K.C. (1971). Fisheries survey of Himachal Pradesh and some adjacent areas with special reference to trout, Mahseer and allied species. *Journal of the Bombay Natural History Society.* 70: 458-474.

603. Sehgal, K.L. (1955). On a collection of fish from Assam. *Journal of the Bombay Natural History Society.* 53(4): 717-724.

604. Sehgal, K.L. (1959). Two new fish records from Assam. *Journal of the Bombay Natural History Society.* 56(1): 147-149.

605. Sehgal, K.L. (1972). Coldwater fisheries and their development in India for sport and profit. Silver Jubilee Souvenir, Central Inland *Fisheries Research* (ICAR), Barrackpore. 125-131 pp.

606. Sehgal, K.L. (1983). Fisheries resources and their management. *In: Singh, T.V. and J. Kaur (eds.), Studies in ecodevelopment: Himalayan mountain and men. Print House, Lucknow, India.*

607. S ehgal, K.L. (1987). Sport fisheries in India. *ICAR, New Delhi*. 126p.

608. Sehgal, K.L. (1988). Ecology and fisheries of mountain streams of Tte North-Western Himalaya. *Thesis for the award of D.Sc. degree. University of Meerut, India*.

609. Sehgal, K.L. (1989). Ecological degradation of uplands waters and possible ways of conserving their fish genetics. *In: Fish Genetics in India (Ed. Das and Jhingran). Today and tomorrow's Printer and Publishers, New Delhi -5*. 229-235 pp.

610. Sehgal, K.L. (1989). Conservation and Management of aquatic ecosystems of Indian uplands. *In: Management of Aquatic Ecosystems (eds.), Narendra Pub. House, Delhi*. 331-362 pp.

611. Sehgal, K.L. (1991). Distributional pattern, structural modifications and diversity of benthic biota in mountain streams of North-West Himalayas. *In: Ecology of Mountain Waters. (eds.), S.D. Bhatt and R.K. Pande, Ashish Publ. House New Delhi*. 198-250 pp.

612. Sehgal, K.L. (1991). Efficiency of flow-through system for seed production of *Tor putitora* (Himilton) at Bhimtal, Kumaon Himalayas. *Indian J. Fish*. 38(2): 134-137.

613. Sehgal, K.L. (1991). Artificial propagation of Golden Mahseer, *Tor putitora* (Hamilton) in Himalayas. *National Research Centre on Coldwater Fisheries (ICAR), Haldwani. Special Publication* 2.

614. Sehgal, K.L. (1992). Coefficient of accessibility (CA) of food of Brown Trout, *Salmo trutta fario* and Snow trout *Schizothorax richardsonii* in R. Beas During 1985-87. *In: K. L. Sehgal (ed.), Recent Researchces in Coldwater Fisheries. Today and Tomorrow's printers and Publishers, New Delhi*. 129-143 pp.

615. Sehgal, K.L. (1992). Review and status of cold water fisheries research in India. *Special Publication No. 3. National Research Centre on Coldwater Fisheries (ICAR), Haldwani*.

616. Sehgal, K.L.; Shukla, J.P.; Shah, K.L. (1971). Observations on fisheries of Kangra valley and adjacent areas with special reference to Mahseer and other indigenous fishes. *Journal of Inland Fish Society of India.* 3: 63-71.

617. Sen, N. (1982). Studies on the systematics, distribution and ecology of the ichthyo species of Meghalaya and their bearing on the fish and fisheries of the state. *Ph.D. Thesis. Gauhati University.* 529 pp.

618. Sen, N. (1995). Pisces. In: Fauna of Meghalaya, Part 1. *Vertebrates. State Fauna Series 4. Zoological Survey of India*. 546 pp.

619. Sen, N. (2000). Occurrence, distribution and status of diversified fish fauna of North East India; *In: AG Ponniah and UK Sarkar (eds.), Fish Biodiversity of North East India. NBFGR, NATP Publ*. 2: 31-48.

620. Sen, N.; Dey, S.C. (1984). Fish geography of Meghalaya. *Records of the Zoological Survey of India.* 81(3-4): 299-314.

621. Sen, N.; Khynriam, D. (2014). Pictorial handbook of fishes of north east India. *Zool Surv. India.* 1-345 pp.

622. Sen, T.K. (1985). Fish fauna of Assam. *Records of the Zoological Survey of India.* 64: 86-87.

623. Sen, T.K. (1992). Freshwater fish. *IN: Fauna of Sikkim, State Fauna series part 2. Zoological Survey of India, Kolkata.* P. 101-242.

624. Sen, T.K. (1992). Reptilia, Amphibia, Fishes, Hemichordata and Archaezoology. *IN: Fauna of Uttarakhand, State Fauna Series 3 Part 2.* P. 101-242.

625. Sen, T.K. (1995). The fish fauna of Assam and neighbouring North-Eastern states of India. *Records of Zoological Survey of India*. 64: 216.

626. Sen, T.K. (2006). Pisces. *Fauna of Arunachal Pradesh, State Fauna Series. Zool. Surv*. *India*. 13: 317-396.

627. Sen, T.K.; Jayaram, K.C. (1982). Mahseer fishes of India: a review. *Records of the Zoological Survey of India, Occ. Pap* 39.

628. Shah, K.L. (1975). Studies on the food and feeding habits of brown trout, Salmo trutta L. in R. Beas. *Journal of Int. Fish. Soc. India*. 7: 101-104.

629. Sharestha, J. (1978). Fish fauna of Nepal. *Journal of Natural History Museum Tribhuvan University.* V. 5 (nos. 1-4): 33-43.

630. Sharestha, J. (1981). Fishes of Nepal. *Tribhuvan University, Kathmandu, Nepal*. 318 pp.

631. Sharestha, J. (1999). Coldwater fish and fisheries in Nepal. *In: Petr. T. (ed.). Fish and Fisheries at higher altitudes: Asia. Food and Agricultural Organization, Fisheries Technical Paper*. 385: 13-40.

632. Sharestha, J. (2003). Taxonomic revision of fishes of Nepal. *In: Cold water fisheries in the Trans-Himalayan countries. FAO Fisheries technical paper no*. 431. 431: 273-288.

633. Sharma, A.P.; Das, M.K.; Samanta, S.; Paul, S.K.; Bhowmick, S. (2014). The ecology and fishery status of river Yamuna. *Central InlandFisheries ResearchInstitute*, *ICAR, Barrackpore, Kolkata Bulletin no*. 184. 38p.

634. Sharma, A.P.; Mishra, A. (2002). Present status and prospects of Mahseer fishery in Garhwal region of central Himalaya. *IN: Petr. T and Swar, SB (eds.). Coldwater fisheries in the Trans Himalayan countries. FAO Fisheries Technical Paper*. 431: 257-272.

635. Sharma, B.D. (2006). Status of fisheries development in Himachal Pradesh. *Fishing Chimes.* 26: 120-122.

636. Sharma, C.K. (1983). Water and energy resources of the Himalayan block A Handbook, *Navana Printing Works Private Limited, Calcutta*. 58 pp.

637. Sharma, D.; Baruah, D.; Mahanta, P.C. (2010). Performance of three prolonged Chinese carp farming in mid Himalayas of West Kameng district, Arunachal Pradesh. *Journal of Inland Fisheries Society of India*. 42(2): 48-51.

638. Sharma, J.P.; Gupta, V.K.; Srivastava, J.B. (1992). Studies on the food and feeding habits of juvenile of Mahseer *Tor tor* (Ham.) from a tributary of the river Tawi Jammu (J and K). *Indian J. Anim. Res*. 26: 37-40.

639. Sharma, K.; Gupta, N.; Johnson, J.A.; Sivakumar, K. (2016). Fish festivals in the Garhwal Himalaya: Conservation options amidst age-old practices. *Current Science*. 110(7): 1155-1156.

640. Sharma, K.K.; Mohan, V.C.; Kouser, U. (2015). Comparative accounts of merestic count and morphometric measurements of Golden Mahseer (*Tor putitora*) among Chenani hydroelectric dam, Jhajjar Stream and Dansar Stream. (J and K) India. *Indian J. Appl. Res*. 2: 772-774.

641. Sharma, N.K.; Akhtar, M.S.; Pandey, N.N.; Singh, R.; Singh, A.K. (2015). Seasonal variation in thermal tolerance, oxygen consumption, antioxidative enzymes and non-specific immune indices of Indian hill trout, *Barilius bendelisis* (Hamilton, 1807) from central Himalaya, India. *Journal of Thermal Biology*. 52(2015)166-176.

642. Sharma, N.K.; Mir, J.I.; Pandey, N.; Singh, R. (2014). Morphometric and meristic characteristics of Birdi Loach, *Botia birdi* (Chaudhuri, 1909) from a tributary of Indus Basin, Jammu and Kashmir, India. *World Journal of Fish and Marine Sciences*. 6(3):262-266

643. Sharma, N.K.; Mir, J.I.; Pandey, N.N.; Akhtar, M.S.; Bashir, A.; Singh, R. (2014). Meristic and morphometric characteristics of *Crossocheilus diplochilus* (Heckel, 1838) from the Ponch Valley of Jammu and Kashmir, India. World *Journal of Zoology*. 9(3): 184-189.

644. Sharma, N.K.; Mir, J.I.; Pandey, N.N.; Akhtar, M.S.; Bashir, A.; Akhtar, M.S. (2015). Length-weight relationships of six fish species from an Indus basin tributory in the Poonch region of Jammu and Kashmir, India. *Journal of the Applied Ichthyology*. 31(3): 585-586.

645. Sharma, P.; Gupta, S.; Mehta, M. (2014). Effect of flood on Ganga's fish assemblages (Devprayag to Haridwar). *Journal of Indian Research*. 292): 146-150.

646. Sharma, R.C. (1983). Icthyofauna of the snowfed river Bhagirathi of Garhwal Himalaya. Uttar Pradesh. *Journal of Zoology*. 42(2): 208-212.

647. Sharma, R.C. (1984). Studies on spawning ecology of Himalayan fish, *Labio dero* (Ham.). *Bulletin of Pure and Applied Sciences*. 34(1): 37-41 pp.

648. Sharma, R.C. (1984). Potamological studies on lotic environment of the upland river Bhagirathi of Garhwal Himalaya. *Environment and Ecology*. 2: 239-242 pp.

649. Sharma, R.C. (1984). Studies on spawning ecology of Mahseers of snowfed river Bhagirathi of Garhwal Himalaya. *Proceedings of Fifth All India Symposium on Developmental Biology.* 147-155 pp.

650. Sharma, R.C. (1985). Composition and abundance of phytoplankton in the Bhagirathi river, Garhwal Himalaya. *Ind. J. Ecol.* 12(1): 157-160.

651. Sharma, R.C. (1986). Effect of physico-chemical factors on benthic fauna of Bhagirathi river, Garhwal Himalaya. *Indian Journal of Ecology*. 13: 133-137 pp.

652. Sharma, R.C. (1986). Ecology and problem of survival of Mahseer in Garhwal Himalaya. *Journal of Himalayan Studies and Regional Development*. 9-10: 57-61.

653. Sharma, R.C. (1987). Aims and strategies of fisheries management for the Tehri dam reservoir in Garhwal Himalaya. India. *IDRC, Ottawa, ON, CA*.

654. Sharma, R.C. (1988). Fish and Fisheries of Snow-fed river Bhagirathi of Garhwal Himalaya. *National Academy of Sciences, India*. 58(2): 182-192 pp.

655. Sharma, R.C. (1991). Ecological impact of Tehri dam construction on dynamics of biological production in the river Bhagirathi of Garhwal Himalaya. *D.Sc. Thesis. Srinagar-Garhwal, India, N.H.B. Garhwal University.*

656. Sharma, R.C. (1991). Rhithronology of Bhagirathi, Garhwal Himalaya (India). *In: Bhatt, S.D. and Pathak, R.K. (Eds.). Ecology of Mountain Waters, Ashish Publishing House, New Delhi,* 125-137 pp.

657. Sharma, R.C. (2003). Fish diversity and their ecological status in protected areas of Uttarachal. *In: Protected Habitats and Biodiversity, ed. Verma, S.R. New Delhi: D.K. Agencies*. 14-36 pp.

658. Sharma, R.C. (2003). Protection of an endangered fish *Tor tor* and *Tor putitora* population impacted by transportation network in the area of Tehri Dam Project, Garhwal Himalaya, India. *Proceedings of International Conference on Ecology and Transportation*. 83-90 pp.

659. Sharma, R.C. (2003). River valley projects and fish life in Garhwal Himalaya. *Proceedings of XII National Symposium on Environment*. 162-170 pp.

660. Sharma, R.C. (2005). Restoration of aquatic habitats and fish passage degraded by widening of Indian Highway 58 in Garhwal Himalayas. *Proceedings of INternational Conference on Ecology and Transportation*. 40-51 pp.

661. Sharma, R.C. (2006). Response of biomass and production of zooplankton community in upper Ganges to Tehri dam construction in Garhwal Himalaya. *Journal of Ecology and Sustainable Development.* 1: 51-63 pp.

662. Sharma, R.C. (2007). Habitat restoration and mitigation of the impact of transportation network on hyporheic organisms dwelling in the upper Ganges, India. *Proceedings of International Conference on Ecology and Transport*. 143-154 pp.

663. Sharma, R.C. (2009). Effective mitigation: The cumulative impact of climate change on transportation network and its implications on aquatic biodiversity of Ganges Headwaters, Garhwal Himalayas. *Proceedings of International Confrerence on Ecology and Transportation.* 512-522 pp.

664. Sharma, R.C. (2011). Post impoundment faunal survey and analysis of Tehri dam environs. *Final Technical Report. H.N.B. Garhwal University, Srinagar-Garhwal, Uttarakhand, India.*

665. Sharma, R.C.; Arambam, R.; Sharma, R. (2009). Surveying macro invertebrate diversity in the Tons river, Doon Valley, India. *The Environmentalist*. 29 (3): 241.

666. Sharma, R.C.; Bahuguna, M. (2008). Periphytonic diversity in Bhagirathi: pre-impoundment study of Tehri dam reservoir. *Journal of Environmental Science and Engineering.* 50(4): 255-262 pp.

667. Sharma, R.C.; Chauhan, P.; Bahuguna, M. (2008). Impact of Tehri dam construction on aquatic macroinvertebrates diversity of Bhagirathi, Uttaranchal. *Journal of Environmental Science and Engineering.* 50(1): 41-50 pp.

668. Sharma, R.C.; Singh, H.R. (1989). Conservation and management of fish genetic resources of Garhwal Himalaya. *Himalayan Research and Development*. 8: 31-33.

669. Sharma, S.; Moog, O. (2005). Description of a simple operative top down stream typology for the HKH region. *Deliverable 4: ASSESS - HKH*. 50p.

670. Shaw, G.E.; Shebbeare, E.O. (1937). The fishes of Northern Bengal. *Journal of Royal Asiatic Society of Bengal*. 2: 1-317.

671. Shrestha, C.; Rai, A.K.; Gurung, T.B.; Mori, K. (1990). Successful artificial induced spawning of Himalayan Mahseer (*Tor putitora* Hamilton) in Pokhara Valley, Nepal. *In: Hirano, R. Hanyn, I. (Eds.). Proceedings of the second Asian Fisheries forum. Asian Fisheries Society, Manila.* 573-575 pp.

672. Shrestha, T.K. (1986). Ecology and Behaviour of Mahseer *Tor putitora* (Hamilton) in the Himalayan water of Nepal., *In: (Ed. Maclean, J.L., Dizon, L.B. and Hosillos, L.V.)The First Asian Fisheries Forum. Asian Fisheries Society, Manila, Philippines*. 689-692 pp.

673. Shrestha, T.K. (1986). Spawning ecology and behaviour of Himalayan Mahseer *Tor putitora* (Ham.) in the Himalayan waters of Nepal. *In: Ficsr Asian Forum (Maclean, J. L. Dixon, L.B.and Hoslillos, L.V. ess), Phillipines. Asian Fishery Society*. 689-692 pp.

674. Shrestha, T.K. (1990). Rare fishes of Himalayan waters of Nepal. *Journal of Fish. Biol. 37 (Supplement A) Academic Press, London.* 213-219 pp.

675. Shrestha, T.K. (1990). Behaviour of the Golden Mahseer, *Tor putitora* (Hamilton) in nature and captivity. *Journal of Freshwater Biology*. 2(3): 209-219.

676. S hrestha, T.K. (1990). Resource Ecology of the Himalayan Waters. *Tribhuvan University, Kathmandu: Curriculum Development Centre.*

677. Shrestha, T.K. (1993). Chronology of early development and life history of the Golden Mahseer in the intergravel environment of the Himalayan streams in Nepal. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 253-270 pp.

678. Shrestha, T.K. (1994). Ecology of the Mahseer in the Himalayan Waters of Nepal. *A study of the life of Mahseer in the running water of Nepal P. 117, Kathmandu, Nepal*. 117 pp.

679. Shrestha, T.K. (1994). Development of Mahseer culture towards ranching. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* 26-41 pp.

680. Shrestha, T.K. (1994). Ecostatus of Mahseer in the rivers of Nepal. *In: Nautiyal, P. (ed.) Mahseer the Game Fish. Jagdamba Prakashan, Srinagar, Garhwal.* 3-9 pp.

681. Shrestha, T.K. (1994). Migration and spawning of Golden Mahseer in Himalayan Water of Nepal. *Journal of Freshwater Biology*. 6(1): 71-77.

682. Shrestha, T.K. (2002). Ranching Mahseer (*Tor tor* and *Tor putitora*) in running waters of Nepal. *IN: Petr. T. and Swar, SB (eds.). Coldwater fisheries in the Trans Himalayan countries. FAO Fisheries Technical Paper*. 431: 297-300.

683. Shrestha, T.K.; Sharestha, B. (1997). The Mahseer in the rivers of Nepal disrupted by dams and ranching strategies. *Kathmandu, Nepal*. 259 pp.

684. Shyam, S.; Joshi, C.B. (1977). Preliminary observations on the spawning of *Tor putitora* (Hamilton) in Anji stream. Jammu Province during 1969. *Inland J. Fish*. 24: 153-158.

685. Silas, E.G. (1952). Further studies regarding Hora's Satpura Hypothesis (2). Taxonomic assessment and levels of evolutionary divergence of fishes with the so called Malayan affinities in Peninsular India. *Proc. Nat. Acad Sci. India.* 18(5): 633-659.

686. Silas, E.G. (1960). Fishes from the Kashmir Valley. *Journal of the Bombay Natural History Society*. 57(1): 1-12.

687. Singh, A.K. (2014). Emerging alien species in Indian aquaculture: prospects and threats. *Journal of Aquatic Biology and Fisheries.* 2(1): 32-41.

688. Singh, D. (1993). Study of fish production in the River Alaknanda. *D. Phil. Thesis, H.N.B. Garhwal University, Srinagar Garhwal, U.P., India.*

689. Singh, D.P.; Lakra, W.S.; Goswami, M.; Gopalakrishnan, A.; Chauhan, U.K. (2011). Isolation and characterization of 26 polymorphic microsatellite loci in Golden Mahseer , *Tor putitora* (Teleostei, Cyprinidae) and their cross-species amplification in four related species. *Conserv. Genet. Resour*. 3: 141-145.

690. Singh, D.; Sharma, R.C. (1998). Biodiversity, Ecological status and conservation priority of the river Alaknanda, a parent river of the river Gangas (India). *Aquatic Conservation*: *Marine Freshwater Ecosystem*. 8: 761-772.

691. Singh, H.; Joshi, S.C.; Bisht, I.; Agarwal, S.K. (2013). The adaptive modification of snout epidermis of a hill stream fish *Schizothroax richardsonii* of Kumaun HImalayas: *A SEM Investigation Research. Journal of Animal Veterinary and Fishery Sciences*. 1(2): 1-4.

692. Singh, H.R. (1988). Biological studies on the Mahseer and Snow Trout of Garhwal Himalaya. *Final Technical Project Report, Indian Council of Agricultural Research Project.* 41-44.

693. Singh, H.R. (2008). Ecological parameters of the Bhagirathi. *Final Technical Report, National Thermal Power Corporation (NTPC), New Delhi, India.*

694. Singh, H.R.; Badola, S.P.; Dobriyal, A.K. (1982). Ecology of the river Nayar of Garhwal Himalaya. Uttara Pradesh. *Journal of Zoology*. 2: 72-76.

695. Singh, H.R.; Badola, S.P.; Dobriyal, A.K. (1987). Geographical distributional list of ichthyofauna of the Garhwal Himalaya with some new records. *Journal of the Bombay Natural History Society.* 64: 126-132.

696. Singh, H.R.; Bahuguna, S.N. (1983). Gross morphology of the alimentary canal and seasonal variation in feeding of *Noemacheilus montanus* (Mc Clelland). *Anat. Anz. Jena*. 154: 119-124.

697. Singh, H.R.; Bahuguna, S.N. (1983). Food and feeding habits with gross morphology of the alimentary canal of *Puntuis chilinoides* (Mc Clelland). *Journal of Animal MorphologyPhysiology*. 30(1-2): 1-8.

698. Singh, H.R.; Dobriyal, A.K. (1981). Potamology of the Stream Chakagadhera in relation to the productivity of cold water minor carps in Garhwal Himalayas. *Proc. Indian Nat. Sci. Acad. (Anim. Sci.).* 47(B): 652-655.

699. Singh, H.R.; Joshi, C.B.; Prasad, R. (1983). The trout fishery of Garhwal : Present status, management problems and prospects*. In: Singh, T.V. and J. Kaur (eds.), Studies in ecodevelopment: Himalayan mountain and men. Print House, Lucknow, India*. 273-288 pp.

700. Singh, H.R.; Kumar, N. (2003). Some aspects of ecology of hillstreams: stream morphology, zonation, characteristics and adaptive features of Ichyofauna in Garhwal Himalaya. *In: Datta Munshi, J.S., J. Ojha and T.K. Ghosh (eds.), Advances in Fish Research. Narendra Publishing House, New Delhi, India*. 3: 119-142.

701. Singh, H.R.; Nautiyal, B.P.; Dobriyal, A.K. (1982). Fecundity of a hillstream minor carp *Puntius chilinoides* (McClelland) from Garhwal Himalaya. *Proc. Indian Nat. Sci. Acad. (Anim. Sci.).* 91(5): 487-491.

702. Singh, H.R.; Nautiyal, P. (1990). Altitudinal changes and the impact of municipal sewage on the community structure of macrobenthic insects in the torential reaches of the River Ganges in Garhwal Hymalaya (India). *Acta. Hydrobiol*. 32(3-4): 407-421.

703. Singh, H.R.; Nautiyal, P.; Dobriyal, A.K.; Pokhriyal, R.C.; Negi, M.; Baduni, V.; Nautiyal, R.; Agarwal, N.K.; Nautiyal, P.; Gautam, A. (1994). Water quality of the River Ganga Garhwal. *Hydrobiologia*. 36(1): 3-15.

704. Singh, K. (1976). Mahseer. *Cheetal.* 18(1-2): 16-19.

705. Singh, M.; Kumar, R.; Nagpure, N.S.; Kushwaha, B.; Gond, I.; Lakra, W.S. (2009). Chromosomal localization of 18S and 5S DNA using fish in the genus *Tor* (Pisces, Cyprinidae). *Genetica*. 137: 245-252.

706. Singh, M.; Kumar, R.; Nagpure, N.S.; Kushwaha, B.; Mani, I.; Chauhan, U.K.; Lakra, W.S. (2009). Population distribution of 45S and 5S rDNA in golden Mahseer, *Tor putitora*: population-specific fish marker. *Journal of Genetics*. 88: 315-320.

707. Singh, N.; Agarwal, N.K.; Singh, H.R. (1994). SEM investigations on the adhesive apparatus of *Garra gotyla gotyla* (Family - Cyprinidae) from Garhwal Himalaya., *IN:Advances in Fish Biology. Narendra Publishing Corporation, New Delhi*. 281-291 pp.

708. Singh, N.; Kumar, N. (2000). Some aspects of ecology of hillstreams: stream morphology, zonation, Characteristics and adaptive features of Icthyofauna in Garhwal Himalaya. *In: Datta Munshi, J.S. (ed.). Modern Trends in Fish Biology Research. Narendra Publishing House, New Delhi, India*. 1-18 pp.

709. Singh, N.O.; Joshi, C.B.; Paul, A.K. (2009). Nonlinear statistical model on estimation of maximum size of *Tor putitora* (Hamilton) in different aquatic environments. *Indian J. Fish*. 56(2): 103-106.

710. Singh, N.O.; Kumar, S.; Mahanta, P.C.; Pande, M.K. (2008). Analysis of the quality of Jhelum river waters by multivariate techniques*. ICFAI University Journal of Soil and Water Sciences*. 1(2): 33-43.

711. Singh, N.O.; Kumar, S.; Mahanta, P.C.; Singh, N.G. (2009). A modified logistic model to incorporate fluctuations in growth rate of *Tor putitora* (Hamilton). *Asian Fisheries Science*. 22(4): 1131-1136.

712. Singh, N.O.; Kumar, S.; Mahanta, P.C.; Pande, M.K. (2009). Estimation of maximum size of *Schizothorax richardsonii* in different aquatic environmetn by statistical approach. *Proc. Nat. Acad Sci. India.(Biological Sciences).* 79(4): 369-375.

713. Singh, N.O.; Paul, A.K. (2010). Fitting of allometric model with expected value parameters for different species of Snow trout from Jhelum River, Kashmir. *Indian Journal of Animal Science*s. 80(1): 85-88.

714. Singh, N.O.; Saran, D.; Singh, N.G. (2011). Length-Weight relationship of *Tor putitara* (Hamilton) considering different stages of its lifespan. *Indian J. Fish*. 58(1): 35-38.

715. Singh, N.O.; Sunder, S.; Kumar, S.; Pande, M.K. (2009). Realistic modeling on length weight relationship of *Schizothoraichthys curvifrons* (Heckel, 1838) from river Jhelum, Kashmir. *ICFAI University Journal of Life Sciences.* 3(2): 4-30.

716. Singh, P.P. (1964). Fishes of the Doon valley. *Ichthyologica.* 3(1-2): 86-92.

717. Singh, R.; Akhtar, S.; Pandey, N.; Mir, J.I.; Sharma, N.K. (2015). Threatened fishes of the world: *Glyptothorax kashmirensis* (Hora, 1923) (Siluriformes: Sisoridae) a mini review. *Journal of Fisheries Livest Prod.* 3(147): 2.

718. Singh, S. (1990). The lotic water fisheries of Kumaun Himalaya. *In: Himalaya Environment Resources and Development, Shree Almora Book Depot, Almora*. 276-284 pp.

719. Singh, S.; Maheshwari, G. (1987). Swarming ecology of Chironomidae (Diptera) of high altitude lake Chandratal (Northwest Himalayas). *Advances in Biosciences*. 6: 179-186.

720. Singh, v.; Baniyal, H. (2013). Study on fish species recorded from Khajjar lake of Chamba district, Himachal Pradesh, India. *International Journal of Science and Nature*. 4(1): 96-99.

721. Sinha, M. (1992). Mahseer fishery in the North Eastern States. *Pb. Fish. Bull*. 16: 66-69.

722. Sivakumar, K. (2002). Fishes of Trans-Himalayas. WII *Newsletter.* 8(4) and 9(1): 12-13.

723. Sivakumar, K. (2002). Distribution and conservation of lotic water fishes of Ladakh. *Proceedings on workshop Life History traits of freshwater fish population for its utilization in conservation. 6-7 June 2002. NBFGR, Lucknow*.

724. Sivakumar, K. (2007). Diversity, conservation and sustainable use of fish resources of Banganga wetland, Uttarakhand, India. *Indian Forester.* 133(10): 1373-1380.

725. Sivakumar, K. (2008). Species richness, distribution pattern and habitat use of fishes in the Trans-Himalayas, India. *Electronic Journal of Ichthyology*. 1: 31-42.

726. Sivaraman, G.K.; Barat, A.; Ali, S.; Pandey, N.N.; Joshi, K.D.; Mahanta, P.C. (2010). An analysis of genetic diversity among Indian coldwater fishes (Pisces: Cyprinidae) using RAPD markers. *The IUP Journal of Genetics and Evalution*. 3(2): 31-40.

727. Sivaraman, G.K.; Barat, A.; Ali, S.; Pandey, N.N.; Joshi, K.D.; Mahanta, P.C. (2010). Phylogenetic analysis of coldwater fish species (Cyprinids) of India using markers. *The IUP Journal of Genetics and Evaluation.* 3(4): 42-49.

728. Sivaraman, G.K.; Barat, A.; Ali, S.; Mahanta, P.C. (2011). Prediction of fish growth rate and food availability in the Himalayan water bodies by estimation of RNA/DNA rations. *The IUP Journal of Genetics and Evolution*. 4(3): 15-19.

729. Smakhtin, V.; Anputhas, M. (2006). An Assessment of Environmental Flow Requirements of Indian River Basins. *International water Management Institute Research Report 107. Colombo, Sri Lanka.*

730. Sodhi, A.S.; Saroch, J.D.; Verma, J. (2013). Fisheries resources of Kashmir. A case study of river Jhelum. *Journal of Chem Biol. Phys. Sci.* 3: 1194-1200.

731. Srivastava, G.J. (1968). Fishes of U.P. and Bihar. *Vishwa Vidyalaya Prakashan, Varanasi*. pp. xx+207, fig. 113.

732. Srivastava, S.K.; Sarkar, U.K.; Patiyal, R.S. (2002). Fishing methods in streams of the Kumaon Himalayan region of INdia. *Asian Fisheries Science*. 15: 347-356.

733. Subla, B.A.; Dass, S.M. (1970). Studies on the feeding habits, the food and the seasonal fluctuation in feeding in nine Kashmir fishes. *Kashmire Science*. 4(1-2): 25-44.

734. Subla, B.A.; Wanganeo, A.; Raina, R.; Vishen, N.; Zutshi, D.P. (1992). Studies on zooplankton of Jammu and Kashmir state. *In: Recent Advances in Fish Ecology and Conservation (ed. S. Nath), Daya Publishing House, Delhi, India*. 33-49 pp.

735. Sunder, S. (1990). Studies on some aspects of Biology and fishery of Schizo the orax curvifrons (Heckel) from R. Jhelum, Kashmir and its bearing on Conservation. *Journal of Inland Fish Society of India.* 22(122): 80-85.

736. Sunder, S. (1995). Composition, distribution and seasonality of benthic invertebrates in two important Kumaon Himalayan lakes. *Indian J. Fish*. 43(2): 187-194.

737. Sunder, S. (1995). Some conservation and management strategies for Dal lake fisheries. *Punjab Fish. Bull*. 19(1): 53-63.

738. Sunder, S. (1996). Composition, distribution and seasonality of benthic invertebrates in two important Kumaon Himalayan lakes. *Indian J. Fish*. 43(2): 187-194.

739. Sunder, S. (1996). Studies on macro-zoobenthos with special reference to aquatic insects of various ecosystems from Jammu and Kashmir State. *Punjab Fish. Bull.* 29(2): 1-15.

740. Sunder, S. (1996). Biotic communities of Kumaon Himalayan River, the Gaula-Plankton. *Uttar PradeshJ. Zool*. 16(1): 39-45.

741. Sunder, S. (1997). Status and management of endangered coldwater fisheries from Himalayan uplands. *IN: Pathak, P.S. and Gopal, B. (eds.) Studies in Indian Agroecosystem. Indian Institute of Ecology*. 115-127. pp.

742. Sunder, S. (1998). Role of exotic fishes in Indian uplands. *Fish Gen. Biodiversity Conserv. Natcon Pub.* 05: 301-314.

743. Sunder, S. (2005). Himalayan environment and fishery. *NRCCWF Publ. No*. 25.

744. Sunder, S. (2005). Snow trout fishery in Himalayas. *NRCCWF Publ. No*. 27.

745. Sunder, S. (2007). Wular Lake a Ramsar site in J and K state needs in fisheries restoration. *In: Ecology of Fisheries and Wetland Lakes (eds. Kohli M.P.S.) Indian Society of Fisheries Professionals, Mumbai*. 151-158 pp.

746. Sunder, S.; Joshi, C.B. (2002). State-of-art on the threatened fishes of Himalayan upland and strategies for their conservation. *In: Coldwater fish genetic resources and their conservation. Edited by DAs, P., Dhanje, J.R., Varma, S.R. and Mali, D.S., Natcon, Publication* No. 7. 7: 101-111.

747. Sunder, S.; Raina, H.S. (2002). Fishery resources and their management in Kashmir Himalaya a profile. *In: Natural Resources of Western Himalaya. Edited by Pandit, A.K. Valley Book House, Srinagar (J and K.).* 222-243 pp.

748. Sunder, S.; Raina, H.S.; Mohan, M.; Joshi, C.B. (1996). Cultural possibilities of golden Mahseer *Tor putitora* (Ham.) in Himalayan upland. *Uttar Pradesh J. Zool*. 15(3): 177-181.

749. Sunder, S.; Subla, B.A. (1986). Macrobenthic fauna of a Himalayan river. *Ind. J. Ecol.* 13: 127-132.

750. Talwar, P.K.; Jhingran, A.G. (1991). Inland fisheries of India and Adjacent countries. Vol. 1 and 2. *Oxford and IBH Publication Co. Calcutta*.

751. Tamang, L. (2013). *Garra magnidiscus*, a new species of Cyprinid fish (Teleostei: Cypriniformes) from Arunachal Pradesh, Northeastern India. *Ichthyol. Explor. Freshwaters.* 24(1): 31-41.

752. Tamang, L.; Chaudhuary, S. (2011). *Glyptothorax dikrongensis*, a new species of catfish (Teleostei: Sisoridae) from Arunachal Pradesh, Northeastern India. *Ichthyol Res.* 58: 1-9.

753. Tamang, L.; Singh, B. (2014). Additional record of *Batasio merianiensis* (Chaudhuri 1913), a catfish (Teleostei: Bagridae) in upper Brahmaputra River drainage in Arunachal Pradesh, India. *Journal of Threatened Taxa.* 6(5): 5738-5743.

754. Tamang, L.; Sinha, B. (2014). Two new species of the South Asian catfish genus *Pseudolaguvia* from northeastern India (Teleostei: Sisoridae). *Zootaxa*. 3887(1): 037-054.

755. Tamang, L.; sinha, B.; Gurumayum, S.D. (2015). *Exostoma tenuicaudata*, a new species of Glyptosternine catfish (Siluriformes: Sisoridae) from the upper Brahmaputra drainage, North-Eastern India. *Zootaxa.* 4048(3): 441-445.

756. Tamang, P. (1993). Fish geography of Sikkim. *Panda (Bi-annual Newsletter on Environment, Forest and Wildlife, Forest Department, Government of Sikkim*, 1: 19-20.

757. Tandon, K.K.; Johal, M.S. (1983). Study on age and growth of *Tor putitora* (Hamilton) as evidenced by scales. *Indian J. Fish*. 30(1): 171-175.

758. Tandon, K.K.; Johal, M.S. (1993). Mineral composition of the different regions of the scale of an endangered fish *Tor putitora* (Ham.) using energy depressive X-ray microanalysis (E.D.X.) techniques. *Current Science*. 65(7): 572-573.

759. Tandon, K.K.; Johal, M.S. (1994). Scales-A tool in fish biology. *Advance in Fish Biology and Fisheries*. 1: 1-11.

760. Tandon, K.K.; Johal, M.S. (1996). Age and Growth in Indian Freshwater Fishes. *Narendra Publishing House, New Delhi*. 1-232 pp.

761. Tandon, K.K.; Johal, M.S.; Kaur, J. (1991). Growth parameters of an endangered fish species-golden Mahseer *Tor putitora* (Hamilton) from Gobindsagar. *IN: Singh, H.R. (ed.) Advances in Limnology. Narendra Publishing House, Delhi.* 207-220 pp.

762. Terashima, A. (1984). Three new species of the Cyprinid genus Schizothorax from Lake Rara, North-western Nepal. *Journal of Applied Ichthyology*. 31(2): 122-135.

763. Tesia, C.; Bordoloi, S. (2012). Ichthyofaunal diversity of Charju River, Tirap District, Arunachal Pradesh, India. *Asian Journal of Experimental Biological Sciences.* 3(1): 82-86.

764. Thakiyal, M.S. (1992). Studies on some habitats of Jammu. *Ph.D. Thesis, University of Jammu, Jammu, India.*

765. Thomas, H.S. (1897). The rod in India being hints how to obtain sport with remarks on the natural history of fish and their culture. *Thacker and Co., London (First Indian Edition 1984, Natraj Publishers, Dehradun)*. 3rd edn.

766. Thomson, A.W.; Page, L.M. (2006). Genera of the Asian catfish families Sisoridae and Erethistidae (Teleostei: Siluriformes). *Zootaxa.* 1-96 pp.

767. Tilak, R. (1967). The fishes of the river Tawai and its tributiaries (Jammu state) with some notes on Ecology. *Records of the Zoological Survey of India.* 65: 183-277

768. Tilak, R. (1969). Description of two new sisoricls and a hybrid carp froin Pauri-Garhwal (Kumaon Hills), Uttar Pradesh. *Journal of Inland Fish Society of India.* 1: 37-48, 14 figs.

769. Tilak, R. (1972). On a collection of fishes from Sikkim. *Records of the Zoological Survey of India.* 66(1-4): 277-286.

770. Tilak, R. (1973). On additions to the fish fauna of North Bengal. *Cheetal.* 15(4).

771. Tilak, R. (1974). Multipurpose dams and fisheries. *Cheetal.* 16(1): 1974, 42-53.

772. Tilak, R. (1975). The trout in India. *Cheetal.* 16(4): 1975.

773. Tilak, R. (1976). The adhesive thoracic apparatus in the evolution of glyptothoracoid fishes (Sisoridae. Siluriformes). Zooz. Anz. Jena. 196(3-4): 255-261, 5 figs.

774. Tilak, R. (1978). Redescription of *Kara kara* (Ham.) and *Hara hara* (Misra) with a key to the species of Hara (Blyth) (Pisces: Sisoridae). *Bull. Zool. Surv. India*. 1(3): 207-209.

775. Tilak, R.; Husain, A. (1971). Notes on the fishes of Doon valley Uttar Pradesh, I. Distribution and morphological studies on some glyptothoracoid fishes: Family Sisordae. *Proc. with Indian Sci. on g.r*. 3(13): 525.

776. Tilak, R.; Husain, A. (1973). Notes on fishes of Doon Valley, Uttar Pradesh, I. Distributional and morphological studies on some glyptothoracoid fishes, Family Sisoridae. *Records of the Zoological Survey of India.* 67(1-4): 391-399. 2 text figs.

777. Tilak, R.; Husain, A. (1976). Description of a new species of the genus Glyptothorax Blyth from river Yamuna, Uttar Pradesh (Sisoridae: Siluriformes). *Annals. Zool. Warsz*. 33(14): 229-234, 7 figs.

778. Tilak, R.; Husain, A. (1978). Redescription of *Glyptothorax saisii* (Jenkins) (Sisoridae: Siluriformes) with remarks on its discontinuous distribution. *Ann. Zool*. 14(1): 33-40, figs. 18-22.

779. Tilak, R.; Husain, A. (1981). On the systematics of the Indian fishes of the genus Lepidocephalus Bleeker with keys to the species of the genus and genera of the subfamilies Botiinae and Cobitinae (Cobitidae: Cypriniformes). *In: Records of Zoological Survey of India, Occasional Paper* No. 32. 1-42 pp.

780. Tilak, R.; Husain, A. (1990). Description of a new cyprinid, *Barilius dimorphicus* (Subfamily: Rasborinae) from Rajaji National Park, Uttar Pradesh. *Journal of the Bombay Natural History Society.* 87(1): 102-105.

781. Tilak, R.; Juneja, D.P. (1978). On a collection of fishes of district Kangra (Himachal Pradesh). *Cheetal.* 20(1): 1978, 34-37.

782. Tiwari, T.N. (1989). Pollutional of the river Jhelum and correlation among its water quality parameters. *Indian J. Env. and Agri*. 4: 47-50.

783. Tiwari, T.N.; Bax, P.K.; Das, S.C. (1988). Pollution of Ganga at Kasipra. The COD BOD relationship. *J. Maulana Azad Coll. Techno*. 21: 33-37.

784. Tripathi, V.R. (1977). Artificial breeding of *Tor putiora* (Ham.). *Journal of Inland Fish Society of India.* 9: 161.

785. Under, S. (1988). Monitoring water quality in a stretch of river Jhelum, Kashmir. *In: Ecology and Pollution of Indian Waters (ed. R.K. Trivedy), Ashish Publication House, New Delhi.* pp. 131-162.

786. Uniyal, D.P. (2003). Eco-Taxonomical studies of Ichthyofauna of the Amlawa and Asan rivers of Western Doon Valley. *D. Phil. thesis. H.N.B. Garhwal University, Srinagar Garhwal.*

787. Uniyal, D.P. (2010). Pisces. *IN: Fauna of Uttarakhand, State Fauna Series. 18(Part 1):* 533-621.

788. Uniyal, D.P. (2010). Fauna of Uttarakhand. *State fauna series ZSI Publication*. 18(1): 533-621.

789. Uniyal, D.P.; Bahuguna, S.N.; Kumar, A.; Bahuguna, M. (2001). Bleaching powder menace for fish fauna of Amlawa River of western Doon valley. *Cheetal.* 40(3-4):67-68.

790. Uniyal, D.P.; Kumar, A. (2006). Fish diversity in the selected streams of Chakrata and Shiwalik hills (district Dehradun), India. *Records of the Zoological Survey of India.* 253: 1-120.

791. Uniyal, D.P.; Mehta, H.S. (2007). Fishes (Pisces). *In: Faunal Diversity of Western Doon Shiwaliks.Zoological Survey of India Publication, Kolkata*. 41-59 pp.

792. Upadhyay, A.D.; Roy, A.K.; Karga, J. (2012). Exploratory data analysis approach with fish and seed production in Arunachal Pradesh. *Korean Journal of Science*. 1: 108-115.

793. Vass, K.K.; Raina, H.S. (2002). Highland fisheries and aquatic resource managment. *National Research Centre on Coldwater Fisheries (ICAR), Bhimtal*. 363 pp.

794. Venu, P.; Kumar, V.; Bhasin, M.K. (1990). Limnological survey of water bodies of the Sikkim Himalayas, India. *Hum. Ecol*. 1(2): 141-167.

795. Vinod, K.; Mahapatra, B.K.; Mandal, B.K. (2007). Umiam reservoir fisheries of Meghalaya (Eastern Himalayas) strategies for yield optimization. *Fishing Chimes.* 26: 8-15.

796. Vishwanath, W. (2002). Fishes of North-East India, a field guide to species identification. *Manipur University and NATP*. 198 pp.

797. Vishwanath, W.; Darshan, A. (2007). A two new catfish species of the genus Pseudecheneis Blyth (Teleostei: Siluriformes) from Northeastern India. *Zoos' Print* . 22(3): 2627-2631.

798. Vishwanath, W.; Geetakumar, K. (2009). Diagnosis and interrelationships of fishes of the genus Channa Scopoli (Teleostei: Channidae) of Northeastern India. *Journal of Threatened Taxa.* 1(2): 97-105.

799. Vishwanath, W.; Lakra, W.S.; Sarkar, U.K. (2007). Fishes of North-East India. *National Bureau of Fish Genetic Resources, Lucknow, India.*

800. Vishwanath, W.; Ng, H.H.; Britz, R.; Kosygin, L.; Chaudhury, S.; Conway, K.W. (2010). The status and distribution of freshwater fishes of the Eastern Himalaya region. *IUCN Red list, Cambridge, U.K. and Gland, Switzerland: IUCN, and Coimbartore, India: Zoo Outreach Organisation*. 22-41 pp.

801. Vladykov. V.D. (1934). Environmental and taxonomic characters of Fishes. *Trans R. Can Inst*. 20: 99-140.

802. Wager, L.R. (1937). The Al'un River drainage pattern and the rise of the Himalayas. *Geog. Journ. LXXXIX*: 239-250 (1937).

803. Walker, W. (1888). Angling in the Kumaun Lakes. Thacker, Spink and Co., Calcutta (Reprint 2010. Pahar Pothi) Fish and Fisheries in western China. *FAO Fisheries Technical Paper, FAO, Rome.* 385: 237-278 pp.

804. WWF. (2013). Mahseer conservation in India: Status, challenges and the way forward. *Proceedings of the workshop, New Delhi*. 1-36 pp.

805. Yadava, Y.S.; Chandra, R. (1994). Some threatened carps and catfishes of Brahmaputra river system. *IN: Dehadrai, PV, Das, P., Verma, SR (Eds). Threatened fishes of India, Vol. 4, NATCON Publication, Muzaffarnagar*. 45-55 pp.

806. Yaqoob, M. (2002). Productionand culture of trout in the Northwest Frontier Province and Northern areas of Pakistan: a review. *IN: Petr. T. and Swar, SB (eds.). Coldwater fisheries in the Trans Himalayan countries. FAO Fisheries Technical Paper*. 431: 327-332.

807. Yazdani, G.M. (1977). Fishes of Khasi Hills, Meghalaya (India) with observations on their distributional pattern. *Journal of the Bombay Natural History Society.* 74: 17-28.

808. Zafar, M.; Nazir, A.; Akhtar, N.; Rab, A. (2001). Weight-length and condition factor relationship of a fresh water wild Mahseer *Tor putitora* from Korang river Islamabad. *Pak J. Bio. Sci.* 6:626-627.

809. Zargar, U.R.; Chishti, M.Z.; Yousuf, A.R.; Fayaz, F.A. (2013). Species spectrum, diversity profile and infection indices of Helminth parasite fauna of Chirruh snowtrout, *Schizothorax esocinus* (Heckel) in lake ecosystems of Kashmir Himalayas-Do similarity and host-parasite associations arise? *Veterinary Research Communications* September 2013. 37(3): 197-207.

810. Zargar, U.R.; Yousuf, A.R.; Mushtaq, B.; Jan, D. (2012). Length-weight relationship of the crucian carp, *Carassius carassius* in relation to water quality, sex and season in some lentic water bodies of Kashmir Himalayas. *Turkish Journal of Fisheries and Aquatic Sciences.* 12: 685-691.

811. Zehra, A.; Arshad, N.; Mirza, M. (1997). Analysis of *Triplophysa yasinesis* complex (Pisces: Nemacheilidae). *Punjab Univ. J. Zool*. 12: 25-29.

812. Zutshi, D.P.; Kaul, V.; Vass, K.K. (1972). Limnology of high altitude Kashmir lakes. *Verh. Int. Ver. Limnol.* 18: 599-604.

Author Index

Fish

06

Butterflies and Odonates of the Indian Himalayan Region

Bibliography on the Butterflies and Odonates of the Indian Himalayan Region

Manish Bhardwaj, Shuvendu Das, Pooja Kala, and Virendra Prasad Uniyal

Introduction

Insects account for about 65% of all described species on earth. As there are a large number of studies on insects because of their huge diversity, it is beyond the scope of this compilation to focus on all insect groups. However, we have attempted here to compile a bibliographic database of butterflies and odonates reported from Indian Himalayan Region(IHR) to understand trends om research and identify gaps in knowledge.

A. Butterflies

Introduction

Lepidoptera is one of the most widespread and widely recognizable insect order in the world. Butterflies are the most studied group amongst insects and the best known insects after ants. Butterflies belong to “flagship taxa” in biodiversity inventories. Since early 18th century butterflies have been studied systematically and about 19,238 species have been documented worldwide (Heppner, 1998). The butterflies were categorized into ten families Papilionidae, Pieridae, Danaidae, Satyridae, Nymphalidae, Amathusiidae, Acraeidae, Erycinidae and Lycaenidae, and Hesperiiodea. Except for Hesperiids all the butterflies are placed in single superfamily Papilionoidea under suborder Rhopalocera and the latter is separated out into superfamily Hesperiioidea under suborder Grypocera.

In the Indian subcontinent 1,504 species of butterflies have been recorded so far (Smetacek, 1992) and over 800 species are reported from the Indian Himalayan Region (IHR).The earliest collections of butterflies from the Himalaya were perhaps by Hardwick and Carl von Hugel during 1846-1848. Hardwick collections were described by Doubleday and Gray in 1846 and Hugel collection by Redtenbacker in 1848. Many workers have worked on butterflies from India including the IHR. Pioneers among them were Marshall and DeNiceville (1882-1890), Bingham (1905, 1907) Seitz (1906-1928), Antram (1928), Evans (1932),Wynter-Blyth (1957) and Varshney (1985, 1990, 1997). De Rhe-Philipe (1931) was probably the first to publish a comprehensive list of 246 butterflies from Himalayas of Shimla region which he has included later in his book ‘Butterflies of Indian Region’ (1957). Evans (1932) identified 1,438 species of butterflies from oriental region including 417 species from western Himalaya and 962 species north eastern Himalaya.

Antram (1924) reported about 512 butterflies excluding Lycaenidae and Hesperiidae from North-East Himalayan region. According to his record maximum number of butterflies was found in North Eastern Himalayas that extends into Sikkim. He also listed them as ‘very rare’ and 'rare' which was later incorporated in the schedule-I (Part-4) and schedule-II (Part-2) of the Indian Wildlife (Protection) Act, 1972 (IWPA).

Methods

Online research databases were searched using the search terms "Himalaya" and name of the six Himalayan States such as Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh and West Bengal. Lamas (1991) provided a list of 175 periodical publications, dealing exclusively with lepidopterological studies were also referred, which were available. All the information was entered in the Microsoft Excel Spreadsheet and arranged alphabetically to remove any duplication. All the analyses were carried out in Microsoft Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gap.

Results and Discussion

The bibliography on butterfly fauna of the IHR includes 276 unique entries covering a period of nearly two centuries, starting from 1857 to 2016 (Fig. 6.2). We categorized the articles in four distinct ways: A) The first category was based on the regions of five Himalayan states (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and West Bengal-Darjeeling and Jalpaiguri district and Arunachal Pradesh) where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1857 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the broad subjects (ecology and behaviour, taxonomy, evolution, conservation and climate change impact) at which the research was carried out.

Geographical Distribution of Publications

A large number of studies are from Jammu and Kashmir, followed by Himachal Pradesh and Uttarakhand which shows that western Himalayan region was in focus during British era in India (Fig 6.1).

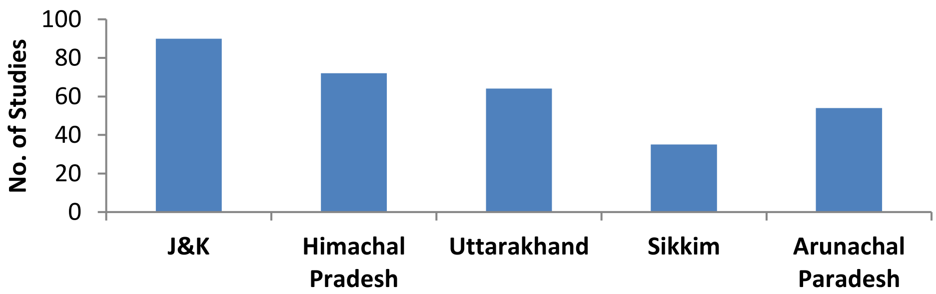


Figure 6.1 State wise distribution of publications

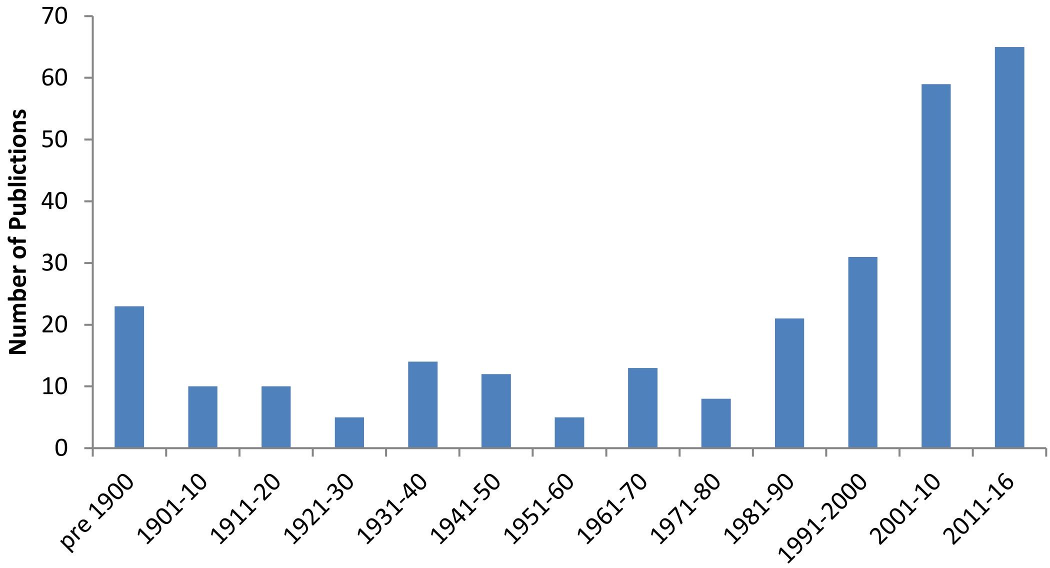


Figure 6.2 Temporal pattern of publications on butterfly of Indian Himalayan Region

D) Articles were also categories based on the five butterfly families which were the object of research in the various publications where no distinct pattern was found. Most of the studies were found to cover all the butterfly families (Fig 6.3). Family Nymphalidae and Papilionidae were include in most of the studies because of their large size and colour patterns. However, in many of the studies family Hesperiidae was not included.

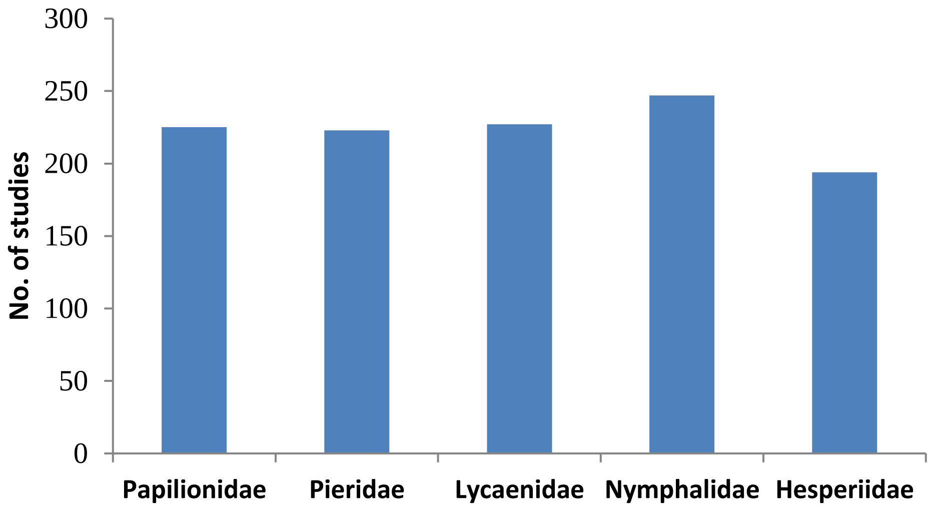


Figure 6.3 Distribution of scientific literature among different families

In recent years there is some progress in the study of butterfly biodiversity from Himalayan region. However most of the researches are confined only to certain localities and these are inventory checklists (Fig. 6.4). Considering the total area of the region information generated is very meagre. Detailed studies focusing on butterfly biodiversity, ecology and evolutionis needed from Himalayan region. This information will help in proper revision of status of butterflies in IWPA.

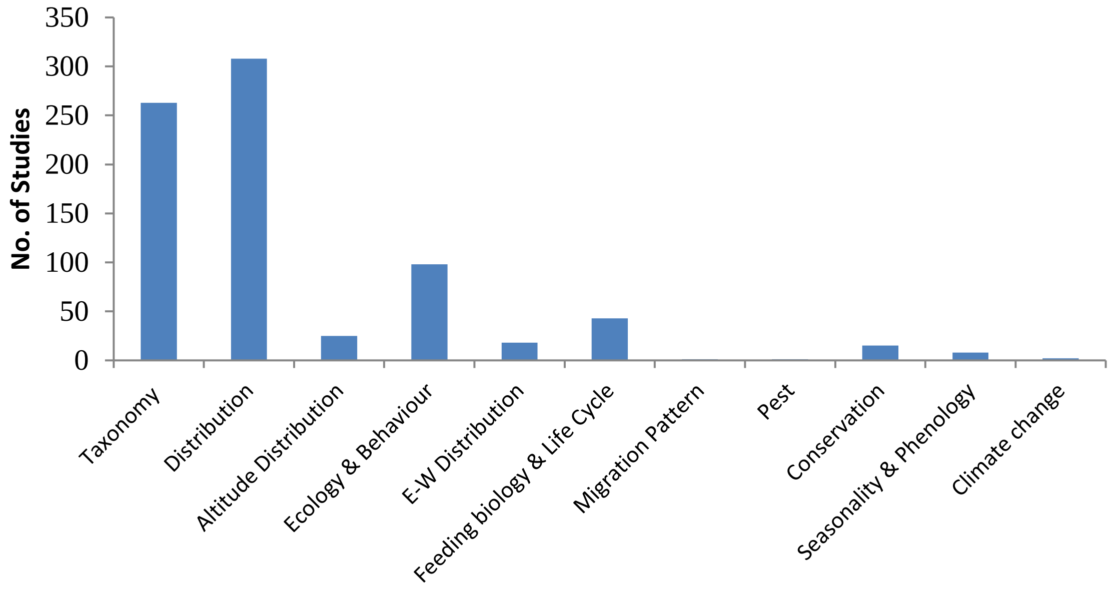


Figure 6.4 Number of publications on butterflies of the Indian Himalayan Region in different subject categories

B. Odonates

The IHR is bestowed with very rich and diverse odonata assemblages. Within the Indian sub-region, the odonatafauna of the Himalaya has so been most extensively studied. During the period of late 1950's to early 1980's, number of odonatologists have studied the dragonflies of the Himalaya *(*Kiauta, 1975), consequent to which about 225 species, out of approximately 600 Indian species of odonata, have been recorded from the Himalayan region alone (i.e." Western, Central and Eastern Himalaya). These include a considerable number of new species and a large number of new records made from this region since the publication of Fauna of British India.

Variations in the topography and altitudes in Himalaya play important roles in changing the climatic conditions within short distances. The fauna is composed largely of tropical elements derived from the fauna of Indo-malayan sub-region of the Oriental region. It is presumed that after the elevation of the Himalayas, odonata from different parts or the Oriental region have reached the mountains and constitute the present fauna. Hence it is reasonable to think that both hills and forests of the mountains play a great role in the formation of barriers as well as in speciation. Most of the endemic species have narrow geographic distribution and are more susceptible to extinction due to natural and anthropogenic changes in the environment. The endemic Odonata fauna of India is largely concentrated in four global biodiversity hotspots i.e., the Western Ghats, Western Himalaya, Indo Burmese (includes Andaman Islands) and Sunda land (includes Nicobar Islands).

The scientific literature on odonate fauna of South Asia is available from 18th Century, but it suffers from lack of digitalization and many of these pioneering works on odonate fauna of India are inaccessible. Moreover, information on odonatological studies in the IHR was not available on a single platform. This article comprises the information on available scientific literature on Odonate fauna of the IHR, particularly the trends in research and gaps in knowledge.

Methods

For preparation of the database on the Bibliography of Odonate Fauna of the IHR, we searched using the search terms “Himalaya”, “Fraser”, “Corbett”, “Leiftinck”, “Kumar”, “Mitra” and name of the six Himalayan States viz., Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh and West Bengal.. All the information were entered in a Microsoft Excel Spread sheet and arranged alphabetically to remove any duplication. All the analyses were carried out in Microsoft Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gaps.

Results and Discussion

The bibliography on Odonatefauna of the IHR includes 139 unique entries covering a period over centuries, starting from 1915 to 2016 (Fig 6.5). We categorized the articles in three distinct ways: A) The first category was based on overall distribution (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, West Bengal-Darjeeling and Jalpaiguridistricts and Arunachal Pradesh), taxonomic revision and new addition to the fauna, where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1900 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the levels of broad subject (ecology and behaviour, taxonomy, evolution, conservation and climate change impact) at which the research was carried out (Fig. 6.6 & 6.7).

Temporal Pattern of Publications:

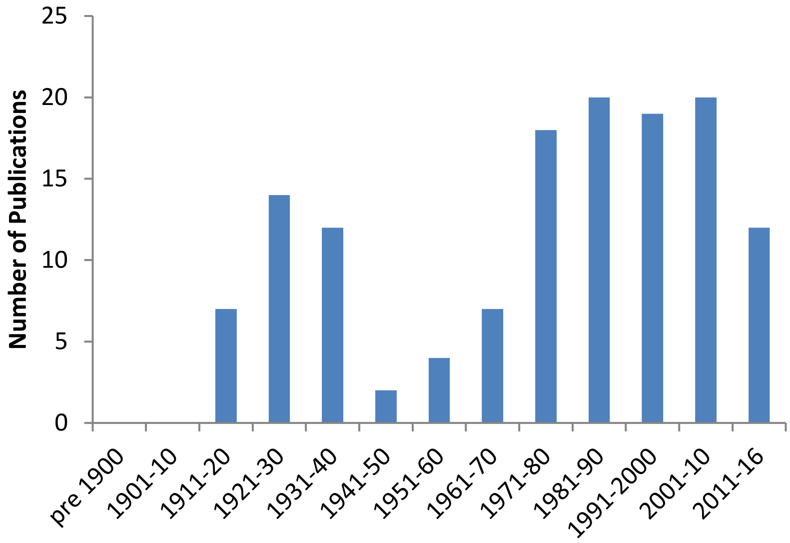


Figure 6.5 Temporal patterns of publications on odonates of Indian Himalayan Region

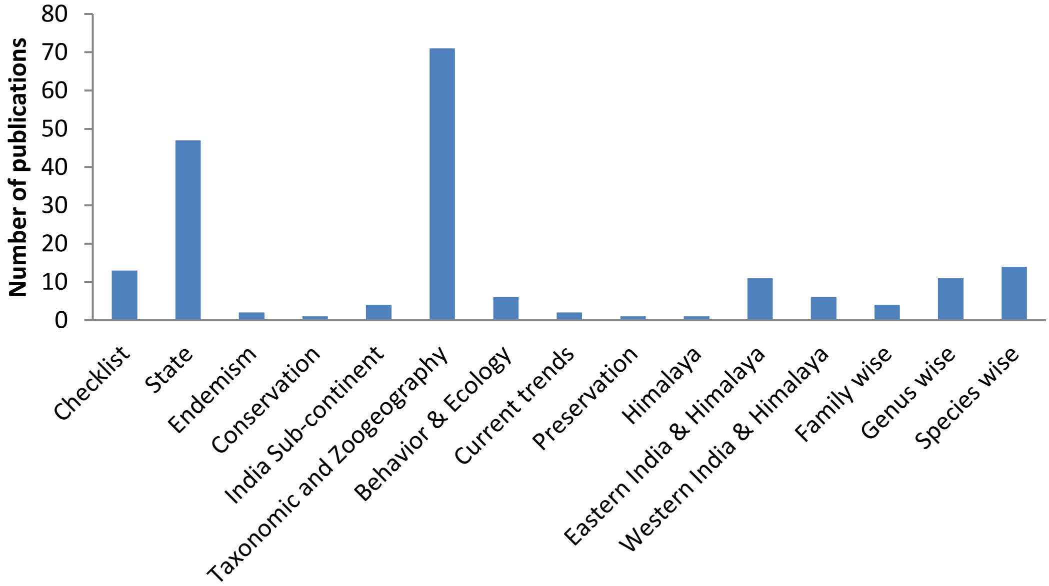


Figure 6.6 Comprehensive classifications of publication on odonates of the Indian Himalayan Region

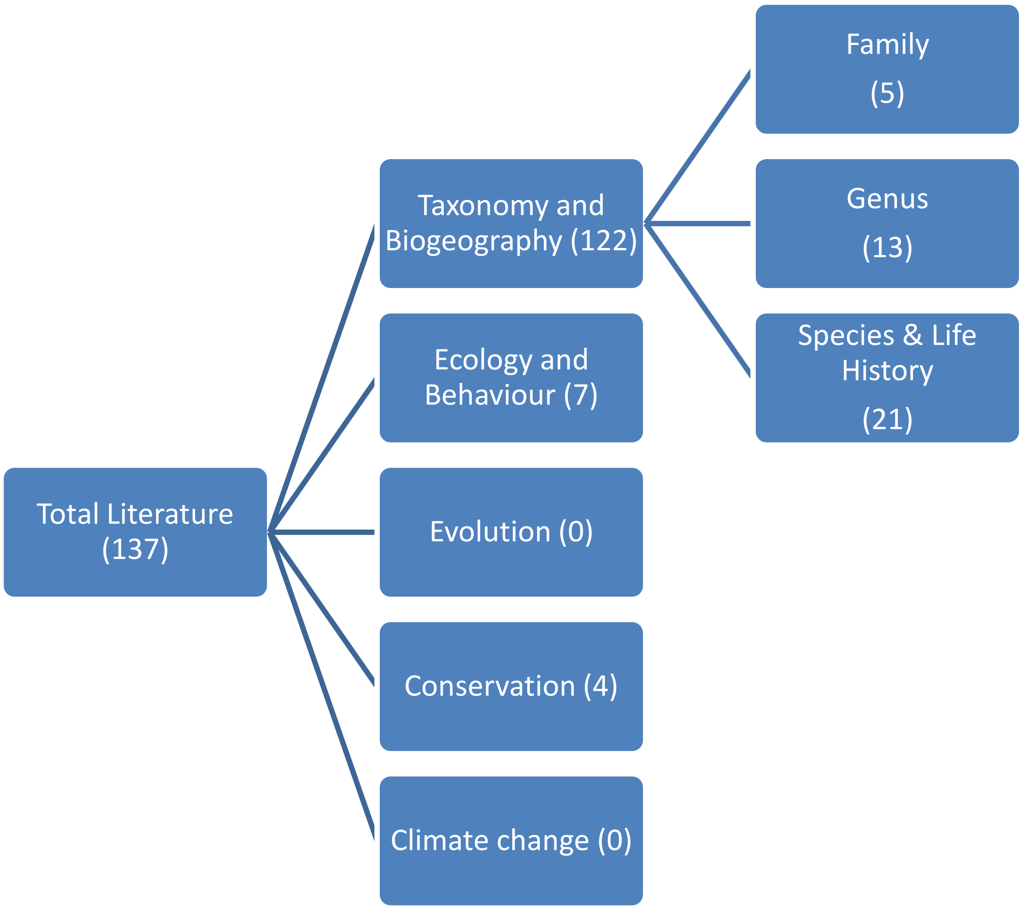


Figure 6.7 Number of publications on odonates of the Indian Himalayan Region in different subject categories

Table 6.1. Subject area, key past research priorities and research gap and future potentialities

Subject Area	Key past research priorities	Research Gap and future priorities
Ecology and Behaviour	Distribution	Proper Distribution map
	Life cycle stages	Taxonomic biases
	Migration pattern	Very less studies
Taxonomy	Morphological Taxonomy	Molecular Taxonomy
		Isolation and Speciation study based on molecular level
		Geometry based morphometry
Evolution	Not studies yet, few hypothesis exist	Should be more study widely considering all levels of study
		Evolution and climate change
Conservation	In few pockets and patches	Should focused on wetland conservation by focusing this taxa as one of the prime
Climate change	Not studies yet but few geomorphic and diurnal changes were noted	Should study Phylogenetic Affinities and Past Climate Distribution of critically endangered and fragmented species population.

In early 19th century, most of the scientific work was based on odonate fauna taxonomic inventory and distribution. But after 1930 the trend of research shifted towards behaviour, ecology and biogeography. But the timing of research was mostly based on individuality(e.g. Laidlaw, Fraser, Asahina, Kumar etc.) (Table 6.1). Due to World War-II, most of the British researchers left the country and overall research in this field suffered for few years.After the war was over, few researchers came back to India and continued their passion towards dragonfly and damselfly. From early 50's Indian field researchers started their quest in Odonatology and brought remarkable contribution since early 60's. However, still there is no such work related to conservation, evolution and climate change in the IHR.

References cited in the chapter are included in the bibliography

Bibliograpy

Butterfly of the Indian Himalayan Region

001. Acharya, B.K.; Chettri, B. (2011). Effects of climate change on birds, herpetofauna and butterflies in Sikkim Himalaya: a preliminary investigation. *In: Arawatia, M.L. and Tambe, S. (eds.)Biodiversity of Sikkim: Exploring and conserving a global hotspot. IPR Department, Govt of Sikkim, Gangtok, India*.424pp.

002. Acharya, B.K.; Vijayan, L. (2011). Butterflies of Sikkim with reference to elevational gradient in species, abundance, composition, similarity and range size distribution.*In: Arawatia, M.L. and Tambe, S. (eds.)Biodiversity of Sikkim: Exploring and conserving a global hotspot. IPR Department, Govt of Sikkim, Gangtok, India.*

003. Acharya, B.K.; Vijayan, L. (2015). Butterfly diversity along the elevation gradient of Eastern Himalaya, India.*Ecological Research*. 30(5): 909-919.

004. Agarwala, B.K.; Choudhury, S.R.; Chaudhury, P.R. (2010). Species richness and diversity of butterflies in urban and natural locations of North-East India.*Entomon*. 35: 87-91.

005. Alfred, J.R.B.; Mehta, H.S. (1998). Fauna of Western Himalaya, Himachal Pradesh.*Zoological Survey of India, Kolkata*.359pp.

006. Antram, C.B. (1924). Butterflies of India.*Thacker, Spink and Co. Calcutta (Kolkata).*226pp.

007. Arora, G.S. (1994). Lepidoptera: Butterflies. *Fauna of Conservation Area 5: Rajaji National Park, Zoological Survey of India*, P. 245-300

008. Arora, G.S. (1997). Lepidoptera: Butterflies. *Fauna of Nanda Devi Biosphere Reserve (Uttaranchal), Conservation Area series, Zoological Survey of India. Calcutta*. 9: 67-88.

009. Arora, G.S.; Chaudhury, M. (1976). Observations on an abnormal *Danaus genutia genutia* (Cramer)(Lepidoptera: Danaidae). *Newsletter of Zoological survey of India*. 2(6): 234-235.

012. Arora, G.S.; Ghosh, S.K.; Chaudhury, M. (1995). Fauna of Western Himalaya (Lepidoptera: Rhopalocera). Zoological Survey of India.*Himalaya Ecosystem Series: Fauna of Western Himalaya Part I Uttar Pradesh*. P. 61-73.

013. Arora, G.S.; Mandal, D.K. (1977). On scientific results of Swiss Zoological Expedition to India.Part I. Butterflies of Garhwal District.*Newsletter of Zoological Survey of India.* 3(4): 229-234.

014. Arora, G.S.; Mehta, H.S.; Walia, V.K. (2005). Insecta: Lepidoptera (Butterflies). IN: Fauna of Western Himalaya (Part 2). *Zoological Survey of India, Kolkata*, P. 157-180.

015. Arora, G.S.; Mehta, H.S.; Walia, V.K. (2009). Handbook on butterflies of Himachal Pradesh.*Zoological Survey of India, Kolkata.*

016. Arora, G.S.; Mondal, D.K. (1973). On the collection of Papilionidae from North-Eastern India especially Assam and Arunachal Pradesh.*Proceedings of the 61st Indian Science Congress*. 3: 146-147.

017. Arora, G.S.; Mondal, D.K. (1981). On the Papilioninae (Papilionidae: Lepidoptera)from Arunachal Pradesh and adjoining areas of Assam North Eastern India. *Records of the Zoological Survey of India,* Occasional Paper 29: 1-65.

018. Athreya, R. (1997). A faunal survey of Namdapha Tiger Reserve, Arunachal Pradesh.*Unpublished Report*.

019. Athreya, R. (2006). Eaglenest Biodiversity Project (2003-2006): Conservation resources for Eaglenest Wildlife sanctuary. *Kaati Trust, Pune*. 189 pp.

020. Avinoff, A. (1916). Butterflies of the Genus Parnassius in the Indian museum.*Records of Indian Museum*. 9: 327-331.

021. Baindur, A. (1993). The Butterflies of Nanda Devi.*Scientific and Ecological Expedition Nanda Devi, 2nd May to 22nd July 1993 (Army Corps of Engineers; WII; Salim Ali Centre for Ornithology and Natural History, WWF India; G.B. Pant Institute of Himalayan Environment and Development, Botanical Survey of India)Army Headquarters, New Delhi.* P. 35-43.

022. Bala, A.; Tara, J.S.; Gupta, M. (2013). Butterflies of family Pieridae reported from Jammu region (Jammu and Kashmir)of India. *International Journal of Interdisciplinary and Multidisciplinary studies*. 1(7): 24-34.

023. Bala, A.; Tara, J.S.; Gupta, M.; Sharma, S.; Zaffar, N. (2014). Biology of the common Castor butterfly Ariadne merione Cramer (Lepidoptera: Nymphalidae)reported from Jammu region of Jammu and Kashmir state. *Journal of Entomology and Zoological Studies.* 2(4): 318-323.

024. Balint, Z.S. (1995). Two new Polyommatus species from the Himalayan region (Lepidoptera, Lycaenidae, Polyommatini).*Annales Historico-Naturales Musei Nationalis Hungarici. Budapest*. 87: 93-102.

025. Bang Hass, O. (1933). Neubeschreibungen und berichtigunges der palaearktischen macrolepidopterenfauna IV.*Entomologische Zeitschrift*.46(24): 261-263.

026. Bernanrdi, G.; de Lesse, H. (1952). Lepidoptera recoltes par A. Barbezat au course de expedition Lyonnaise 1951 aus*Garhwal.* ***Bulletin*** *Bimensuel de la Société Linnéenne de Lyon*. 21(3): 203-255; 21(4): 251-256; 21(5): 256-258; 21(6): 258-259.

027. Betts, F.N. (1950). On a collection of butterflies from the Balipara Frontier Tract and the Subansiri area (Northeran Assam).*Journal of Bombay Natural History Society.* 49(3): 488-502.

028. Bhardwaj, M. (2005). Butterfly diversity assessment in Allain-Duhaingan hydro-electric power project area, Kullu Himachal Pradesh.*World Pheasant Association Report, New Delhi*. 40pp.

029. Bhardwaj, M. (2013). Diversity and structure of butterfly assemblages along an elevational gradient in Tons valley, Western Himalaya.*PhD Thesis, Saurashtra University, Rajkot.*

030. Bhardwaj, M.; Uniyal, V.P. (2009). Assessment of butterflies in montane temperate forest of Allain-Duhaingan catchment in Kullu, Himachal Pradesh, India.*Proposed Hydroelectric Project Site, Survey Report, World Pheasant Association* 135(10): 1357-1366.

031. Bhardwaj, M.; Uniyal, V.P. (2009). Wildlife Survey in Nilang valley of the Gangotri National Park.*Wildlife Survey Report.Wildlife Institute of India, Dehradun*.

032. Bhardwaj, M.; Uniyal, V.P. (2012). Butterflies of Wildlife Institute of India campus, Chandrabani, Dehradun.*Wildlife Institute of India, Dehradun*. 21p.

033. Bhardwaj, M.; Uniyal, V.P. (2013). High altitude butterfly fauna of Gangotri National Park, Uttarakhand: patterns in species, abundance, composition and similarity. *ENVIS BULLETIN: Wildlife and Protected Areas (Uniyal, V.P. and Aseem Srivastava, eds.)vol. 14, Wildlife Institute of India, Dehradun.*

034. Bhardwaj, M.; Uniyal, V.P.; Sanyal, A.K.; Singh, A.P. (2012). Butterfly communities along an elevational gradient in the Tons valley, Western Himalayas: implications of rapid assessment for insect conservation. *Journal of Asia Pacific Entomology*. 15: 207-217.

035. Bhattacharya, D.P. (1985). Fauna of Namdapha: Arunachal Pradesh: a proposed biosphere reserve Insecta: Lepidoptera. Part 1.Papilionidae.*Records of the Zoological Survey of India*. 82(1-4): 73-82.

036. Bhattacharya, D.P. (1985). Fauna of Namdapha: Arunachal Pradesh: a proposed biosphere reserve Insecta: Lepidoptera. Part 2.Nymphalidae.*Records of the Zoological Survey of India.* 82(1-4): 83-97.

037. Bhattacharya, D.P. (1985). Fauna of Namdapha: Arunachal Pradesh: a proposed biosphere reserve Insecta: Lepidoptera. Part 3.Pieridae, Danaidae, Satyridae and Lycaenidae.*Records of the Zoological Survey of India*. 82(1-4): 99-116.

038. Bingham, C.T. (1905). The fauna of British India including Ceylon and Burma butterflies Vol. I.*Taylor and Francis Ltd., London*. 511pp.

039. Bingham, C.T. (1907). The fauna of British India, including Ceylon and Burma, butterflies Vol. II. *Taylor and Francis, London*. 480 pp.

040. Bogtapa, S. (2015). Diversity of butterflies from district Solan, Himachal Pradesh, India.*Journal on New Biological Reports*. 4(2): 139-148.

041. Borang, A.; Bhatt, B.B.; Tamuk, M.; Borkotoki, A.; Kalita, J. (2008). Butterflies of Dihang Biosphere reserve of Arunachal Pradesh, Eastern Himalayas India. *Bulletin of Arunachal Forest Research*. 24: 41-53.

042. Bruna, C.D.; Gallo, E.; Sbordoni, V. (2000). Guide to the Butterflies of the Palearctic region, Satyridae - Part 2, Subfamily Satyrinae, tribe Ypthimini: Argestina, Boeberia, Callerebio, Grumia, Hemadra, Loxerebia, Paralasa, Proterebia. Omnes Artes, Milano. 58 p.

043. Butler, A.G. (1886). On butterflies collected by major Yerbury in western India.*Proceedings of the Zoological Society of London*.P. 355-395.

044. Cantlie, K. (1963). The Lycaenidae portion (except the Arhopala group)of Brigadier Evans' The Identification of Indian Butterflies 1932 (Indian, Pakistan, Ceylon, Burma).*Bombay Natural History Society.*156 pp.

045. Chandel, S.; Kumar, V.; Sharma, B.P.; Patiyal, R. (2013). Butterfly species diversity of Bir-Billing area of Dhauladhar range of Western Himalaya in Northern India.*Journal of Entomology and Zoology Studies*. 1(5): 53-57.

046. Chaturvedi, M. (1981). Some entomological notes from a visit to the Valley of Flowers.*Journal of Bombay Natural History Society*. 78(2): 402-405.

047. D'Abrera, B. (1986). Butterflies of the Oriental Region, Parts I, II and III. *Hill House, Australia.*

048. Das, J.; Parida, P. (2015). Preliminary study of butterfly species variation in FRI campus in accordance to its micro-climatic conditions.*Current Life Sciences*. 1(3): 112-117.

049. Das, R.P.; Saha, G.K.; De, J.K.; Sanyal, A.K. (2012). Diversity and habitat preferences of butterflies in Gorumara National Park, West Bengal, India.*Journal of Research in Biology*. 2: 303-314.

050. Das, S.M.; Malhotra, Y.R.; Duda, P.L. (1964). The Palaearctic elements in the fauna of Kashmir region.*Kashmir Science*. 1(1-2): 100-111.

051. Das, S.M.; Verma, K.D. (1965). The Insects of Kashmir (a special Entomofauna). *Kashmir Science*. 2(1-2): 142-146.

052. De Niceville, L. (1881). A list of butterflies taken from Sikkim in October.*Journal of the Asiatic Society of Bengal*. 50(2): 49-60.

053. De Niceville, L. (1882). The butterflies of India, Burma and Ceylon.*Taylor and Francis, London.*327 pp.

054. De Niceville, L. (1883). Third list of butterflies taken in Sikkim.*Journal of the Asiatic Society of Bengal.* 52(2): 90-100.

055. De Niceville, L. (1885). Fourth list of butterflies taken in Sikkim.*Journal of the Asiatic Society of Bengal*. 54(2): 1-5.

056. De Niceville, L. (1886). The Butterflies of India, Burma and Ceylon Vol.II Nymphalidae, Lemoniidae, Libythaeinae, Nemeobinae.*The Calcutta Central Press Co. Ltd*. 332pp.

057. De Niceville, L. (1890). On new and little known butterflies oriental region. *Journal of Bombay Natural History Society*. 36(3): 269-465.

058. De Niceville, L. (1890). The butterflies of India, Burma and Ceylon Vol. III.(Lycaendae).*The Calcutta Central Press Co. Ltd*. 503pp.

059. De Niceville, L. (1894). Butterflies.*The Gazetter of Sikkim*.pp 116-187.

060. De Niceville, L. (1982). Second list of butterflies taken from Sikkim in October.*Journal of the Asiatic Society of Bengal*. 51(2): 54-66.

061. De Rhe-Philipe, G.W.V. (1903). *Euthalia lepida* from Western Kumaun.*Journal of Bombay Natural History Society*.14: 595.

062. De Rhe-Philipe, G.W.V. (1931). The butterflies of the Simla Hills - Part - III.*Journal of Bombay Natural History Society*. 35: 620-634.

063. De Rhe-Philipe, G.W.V. (1931). The butterflies of the Simla hills.Part I. *Journal of Bombay Natural History Society.* 35: 172-783.

064. De Rhe-Philipe, G.W.V. (1931). The butterflies of the Simla hills. Part II. *Journal of Bombay Natural History Society.* 35: 415-429.

065. Doherty, W. (1886). A list of butterflies taken in Kumaon.*Journal of the Asiatic Society of Bengal*. 55(2): 103-140.

066. Doherty, W. (1886). List of butterflies taken in Kashmir. *Journal of the Asiatic Society of Bengal*. 55(2-3): 103-140.

067. Doherty, W. (1933). The butterflies of Balochistan.*Journal of Bombay Natural History Society*. 36(1): 196-209.

068. Durairaj, P.; Sinha, B. (2015). Review of butterflies (Lepidoptera: Rhopalocera)from Arunachal Pradesh: Conservation status and importance of research in Protected areas. *Zoological Survey of India, Zoology for Future Education and Research*. P. 61-77.

069. Eisner, C.; Weiss, J.C. (1990). Description de *Trois nourvelles* souespeces deParnassius du nord oust del Himalaya et donnees ecologiques sur *P. charltronius* (Gray)(Lepidoptera). *Bulletin de la Societe des Naturalistes*. 68: 8-11.

070. Elwes, H.J. (1882). On a collection of butterflies form Sikkim.*Proceedings of the Zoological Society of London.* 1882: 398-406.

071. Elwes, H.J. (1887). Description of some new Lepidoptera from Sikkim.*Proceedings of the Zoological Society of London.* 3: 444-447.

072. Elwes, H.J.; Moller, O. (1888). A catalogue of the Lepidoptera of Sikkim.*Transactions of Entomological Society of London*. 36(3): 269-465.

073. Evans, B.W.H. (1913). Notes on the Indian Butterflies.*Journal of Bombay Natural History Society*. 22(2): 279-282.

074. Evans, B.W.H. (1913). Notes on the Indian butterflies.*Journal of Bombay Natural History Society.* 22: 761-770.

075. Evans, B.W.H. (1914). A list of butterflies caught by Capt. F.M. Bailey in the S.East Tibet during 1913.*Journal of Bombay Natural History Society*. 23: 532-546.

076. Evans, B.W.H. (1914). Notes on the Indian butterflies.*Journal of Bombay Natural History Society.* 23: 302-310.

077. Evans, B.W.H. (1920). Notes of Indian butterflies.*Journal of Bombay Natural History Society*. 27(1): 86-93.

078. Evans, B.W.H. (1923). The Identification of Indian butterflies Papilionidae, Pieridae. *Journal of Bombay Natural History Society*. 29: 230-260.

079. Evans, B.W.H. (1925). The Identification of Indian butterflies. Part X. *Journal of Bombay Natural History Society.* 30: 610-639.

080. Evans, B.W.H. (1925). The Identification of Indian butterflies - Part VII. *Journal of Bombay Natural History Society*. 30: 610-639.

081. Evans, B.W.H. (1932). The identification of Indian butterflies.*Bombay Natural History Society*.454 pp.

082. Gasse, P.V. (2013). Butterflies of India - annotated checklist. *Retrieved from http://flutters.org.*

083. Ghorai, N.; Sengupta, P. (2014). Altitudinal distribution of Papilionidae butterflies alongwith their larval food plants in the East Himalayan Landscape of West Bengal, India. *Journal of Biosciences and Medicines*. 2(1): 1-8.

084. Ghosh, A.K. (1987). Qualitative analysis of faunal resources of proposed Namdapha Biosphere reserve, Arunachal Pradesh.*Zoological Survey of India, Calcutta*. 129p.

085. Ghosh, S.K.; Chaudhury, M. (1990). New records of Lepidoptera from Arunachal Pradesh, India.*Records of the Zoological Survey of India*, Occasional Paper 86(2): 399-403.

086. Gogoi, M.J. (2012). Butterflies (Lepidoptera)of Dibang valley, Mishmi hills, Arunachal Pradesh, India. *Journal of Threatened Taxa*. 4(12): 3137-3160.

087. Gogoi, M.J.; Bhatt, B.B.; Sarmesh, A. (2015). Notes on the Eastern Common *Polygonia calbum agnicula* Moore, 1872 (Lepidoptera: Myphalidae: Mymphalinae)from Tawang district, Arunachal Pradesh, India. *Journal of Threatened Taxa*. 7(11): 7836-7838.

088. Greeshma, M. (2010). On the presence of *Aglais cashmirensis* Kollar (Nymphalidae)and *Heliophorus sena* Kollar (Lycaenidae)in Rupa, Arunachal Pradesh, India.*Journal of Threatened Taxa*. 2(9): 1165-1166.

089. Gupta, I.J.; Shukla, J.P.N. (1988). Studies on the butterflies of Arunachal Pradesh and adjoining areas, India (Lepidoptera: Acraeidae, Satyridae, Nymphalidae, Riodinidae, and Lycaenidae). *Records of the Zoological Survey of India*, Occasional Paper 109.

090. Hannyngton, F. (1910). List of butterflies from Kumaon.*Excerpted in Peile, H.D. 1937, A Guide to collecting butterflies of India. Staples Press, London.* P. 234-238

091. Hannyngton, F. (1910). The butterflies of Kumaon.Parts 1 and 2.*Journal of Bombay Natural History Society*. 20: 130-142; 361-372.

092. Haribal, M. (1990). Behaviour of the Indian Tortoiseshell butterfly *Aglais (vanessa) caschmirensis* (Kollar)in the Himalaya. *Journal of Bombay Natural History Society*. 87(1): 163-164.

093. Haribal, M. (1992). The Butterflies of Sikkim Himalaya and their Natural History.*Published by Sikkim Nature Conservation Foundation (SNCF), Gangtok, Sikkim*.217 pp.

094. Haribal, M.; Mulla, N.D.; Chaturvedi, N.C. (1988). The butterflies of Sikkim.*Journal of Bombay Natural History Society*. 85(2): 271-280.

095. Home, W.M.L. (1938). Some notes on butterflies and big game in Kashmir. *Journal of Bombay Natural History Society*. 40(1): 49-55.

096. Jamdar, N. (1992). On the migration of the large Cabbage White Butterfly Pieris brassicae in Kashmir.*Journal of Bombay Natural History Society*. 88(2): 297-298.

097. Jiju, J.S. (2011). Assessment of Pollinator diversity in Navdanya Organic Farm, Dehradun, Uttarakhand.*M.Sc. dissertation. Forest Research Institute (Deemed)University, Dehradun.*

098. Joshi, P.C.; Arya, M. (2007). Butterfly communities along altitudinal gradients in a protected forest in the Western Himalayas India.*Natural History Journal of Chulalongkorn University*. 7(1): 1-9.

099. Joshi, P.C.; Kumar, K.; Arya, M. (2008). Assessment of insect diversity at an altitudinal gradient in Pindari forests of Western Himalaya, India. *Asia Pacific Journal of Entomology.* 11(1): 5-11.

100. Karimbumkara, S.N; Goswami, R.; Roy, P.K. (2016). A report of False Tibetan Cupid *Tongeia pseudozuthus*Huang, 2001 (Lepidoptera: Lycaenidae)from the upper Dibang Valley, Arunachal Pradesh - an addition to the Indian butterfly fauna. *Journal of Threatened Taxa*. 8(6): 8927-8929.

101. Katayama, T. (1986). Notes on *Pazala glycerion* (Gray)with description of a new subspecies from North-West India. *Gekkan-Mushi*. 203: 8-9.

102. Kehimkar, I. (2008). The Book of Indian Butterflies. *Bombay Natural History Society*, *Mumbai*. 487 pp.

103. Khan, M.R.; Bashir, I.K.; Malik, I.A.; Mir, A. (2004). Biodiversity of butterflies from districts Poonch and Sudhnoti, Azad Kashmir. *Asian Journal of Plant Sciences*. 3(5): 556-560.

104. Khan, Z.H.; Raina, R.H.; Dar, M.A.; Ramamurthy, V.V. (2011). Diversity and distribution of butterflies from Kashmir Himalayas. *Journal of Insect Science*. 24(1): 45-55.

105. Kittur, S.; Padmawathe, R.; Uniyal, V.P.; Sivakumar, K. (2006). Some observation on butterflies of Simbalbara Wildlife Sanctuary, Himachal Pradesh.*Indian Forester*. 132(12a): 116-122.

106. Kumar, A.; Kumar, P. (1998). Lepidoptera: Butterflies of Panchachuli.*Multidimensional Expedition, Panchachuli, 25th April to 31st May, Army H.Q. New Delhi*. P.77-78.

107. Kumar, C. (2013). Status of the Genus Spalgis Moore with taxonomic notes on the type species, Spalgis epeus (Westwood)in the Indian Himalaya. *Halteres.* 4: 53-58.

108. Kumar, P. (2008). Handbook on common butterflies of Uttarakhand. *Zoological Survey of India, Kolkata*. 136 pp.

109. Kumar, P.; Devi, R.; Mattu, V.K. (2016). Diversity and abundance of butterfly fauna (Insecta: Lepidoptera)of Subalpine area of Chanshal valley of District Shimla (Himachal Pradesh). *Journal of Entomology and Zoology Studies*. 4(4): 243-247.

110. Kumar, P.; Gupta, S.K. (2004). Insecta: Lepidoptera: Rhopaloceran. *IN: Kumar, A. and Gupta, S.K.(ed.)Some selected fauna of Govind Pashu Vihar, Zoological Survey of India. Conservation Area Series*. 18: 9-20.

111. Kumar, P.; Thakur, S. (2014). Study on faunal diversity of butterflies in Triveni Mahadev (Himachal Pradesh). *Journal of Entomology and Zoology Studies*. 2(5): 58-62.

112. Kumar, R. (2009). Biosystematics and ecological studies on butterflies from Himachal Pradesh. *Ph.D. thesis, H.P. Universtiy, Shimla, India*. 288 pp.

113. Kumar, R.; Mattu, V.K. (2014). Diversity of butterflies (Lepidoptera Insecta)from Balh valley (District Mandi in Himachal Pradesh)India. *Asian Journal of Advanced Basic Science*. 2(3): 66-70.

114. Kunte, K. (2008). Range extension of the Wavy Maplet *Chersonesia intermedia* (Nymphalidae, Lepidoptera)from Pakke Tiger Reserve, Arunachal Pradesh, India. *Journal of Bombay Natural History Society*. 105(1): 108-109.

115. 115.Kunte, K. (2015). A new species of Hypolycaena (Lepidoptera: Lycaenidae)from Arunachal Pradesh, North Eastern India. *The Journal of Research on the Lepidoptera*. 48: 21-27.

116. Lang, A.M. (1868). Notes on Lepidoptera from Gulmarg in Cashmere. *Entomologist Monthly Magazine.*5: 33-37.

117. Larsen, T.B. (1987). Butterflies in India. *Oxford University press, New Delhi*.

118. Leslie, G.A.; Evans, B.W.H. (1903). The butterflies of Chitral. *Journal of Bombay Natural History Society.* 14(4): 666-678.

119. Lesse, H. (1952). Lepidopteres recoltes par a. Barbezat Au cours de. 'expedition Lyonaise 1951 aus*Garhwal.* ***Bulletin*** *Bimensuel de la Société Linnéenne de Lyon*. 21(3): 203-259.

120. Limboo, N. (2014). *Papilio xuthus* Linn (Lepidoptera: Papilionidae)- a new record for India. *Journal of Bombay Natural History Society*. 111(3): 238-239.

121. Mackinnon, P.W.; De Niceville, L. (1897). A list of the butterflies of Mussoorie in the Western Himalayas and neighbouring regions. *Journal of Bombay Natural History Society*. 11: 205-221; 368-389; 585-605.

122. Malik, S. (2009). An Assessment of butterfly diversity and vegetation composition around Auli Bugyal, Joshimath, Uttarakhand. *M.Sc. dissertation. Institute of Environmental Studies, Kurukshetra University, Kurukshetra*.

123. Mandal, D.K. (1984). Account of the Indian Tons Valley Expedition 1972 with an annotated list of species and redescription of *Colias electo fieldi* Menetries (Order Lepidoptera)from the Indo-Palaearctic Region. *Records of the Zoological Survey of India, Occasional Paper;* 57: 1-31.

124. Mandal, D.K. (1985). Notes on the Papilionidae of Arunachal Pradesh, North-East India. *Pap. Int.* 1(4): 76-81.

125. Mani, M.S. (1962). Introduction to high altitude entomology. Insect life above the timber-line in the North-West Himalaya. *Methuen and Co. Ltd. London*. 302 pp.

126. Mani, M.S. (1974). Ecology and Biogeography in India *Dr. W. Junk, Publishers, The Hague*, 773 pp.

127. Mani, M.S. (1986). Butterflies of Himalayas. *Oxford and IBH Publishing, New Delhi*. 181 pp.

128. Mani, M.S.; Singh, S. (1961). Entomological survey of Himalaya. Part - XXVI. A contribution to our knowledge of the geography of the high altitude insects of the nival zones from the North-West Himalaya - Part 1. *Journal of Bombay Natural History Society*. 58 (2): 387-406.

129. Mani, M.S.; Singh, S. (1961). Entomological survey of Himalaya - Part-XXVI. A contribution to our knowledge of the geography of the High altitude insects of the nival zones from the North-West Himalaya. Part-2. *Journal of Bombay Natural History Society*. 58(3): 724-748.

130. Mani, M.S.; Singh, S. (1962). Entomological survey of Himalaya. Part - XXVI. A contribution to our knowledge of the geography of the high altitude insects of the nival zones from the North-West Himalaya. Part 3. *Journal of Bombay Natural History Society.* 59(1): 77-99.

131. Mani, M.S.; Singh, S. (1962). Entomological survey of Himalaya - Part-XXVI. A contribution to our knowledge of the geography of the High altitude insects of the nival zones from the North-West Himalaya - Part-4. *Journal of Bombay Natural History Society*. 59(2): 360-381.

132. Mani, M.S.; Singh, S. (1962). Entomological survey of Himalaya. Part-XXVI. A contribution to our knowledge of the geography of the High altitude insects of the nival zones from the North-West Himalaya - Part-5. *Journal of Bombay Natural History Society*. 59(3): 843-861.

133. Mani, M.S.; Singh, S. (1963). Entomological survey of Himalaya. Part - XXVI. A contribution to our knowledge of the geography of the high altitude insects of the nival zones from the North-West Himalaya - Part 6. *Journal of Bombay Natural History Society*. 60(1): 160-172.

134. Marshall, G.F.L.; de Niceville, L. (1883). Butterflies of India, Burma and Ceylon. Vol.I.Nymphalidae (Danainae, Satyrinae, Elymniinae, Morphinae, Acraeinae). *The Calcutta Central Press Co. Ltd*. 327 pp.

135. Mehta, H.S.; Sharma, R.M.; Mitra, B.; Thakur, M.S. (2003). Preliminary study on the butterflies of Himachal Pradesh as flower visitors and pollinators. *Annalsof Entomology*. 21(1-2): 1-3.

136. Mehta, H.S.; Thakur, M.S.; Sharma, R.M.; Mattu, V.K. (2002). Butterflies of Pong Dam Wetland, Himachal Pradesh. *Bionotes*. 4(2): 37.

137. Mondal, D.K. (1992). On a collection of Lepidoptera from Neora valley and vicinity, West Bengal, India. *Records of the Zoological Survey of India*. 92(1-4): 23-40.

138. Mondal, D.K.; Ghosh, H.C. (1967). A record of *Delias sanaca perspicua* Fruhstorfer (Lepidoptera: Pieridae)from India. *Journal of Bombay Natural History Society*. 64(1): 129.

139. Moore, F. (1857). A catalogue of the Lepidopterous insects in the Museum of the Hon. East India Co. in Horsfield and Moore. *Cap. Lep. Ins. Mus. East. India Coy*. 1: 1-278.

140. Moore, F. (1874). List of diurnal Lepidoptera collected in cashmere territory. *Proceedings of the Zoological Society, England*. P. 263-274.

141. Moore, F. (1899). Lepidoptera indica. Vol. IV. Rhopalocera. Family Nymphalidae. *Sub Families Nymphalinae (Continued), groups limenitina, Nymphalina, and Argynnina. Reeve and Co., London*. 260 pp.

142. Moore, F. (1901). Lepidoptera indica. Vol. V. Rhopalocera. Family Nymphalidae. Sub Families Nymphalinae (Continued), groups Melitaeina and Eurytelina. Sub - families Acraeinae, Pseudergolinae, Calinaginae, and Libytheinae. Family Riodinidae. Sub Family Nemeobiinae. Family Papilionidae. Sub Families Parnassiinae, Thaidinae, Leptocircinae, and Papilioninae. *Reeve and Co., London*. 248 pp.

143. Moore, F. (1903). Lepidoptera indica. Vol. VI. Rhopalocera. Family Papilionidae. Sub-family Papilioninae (Continued), Family Pieridae. Sub. family Pierinae*. Reeve and Co., London.* 240 pp.

144. Naro, T.; Sondhi, S. (2013). Sighting of Bath White *Pontia daplidice* moorei Rober,1907 (Lepidoptera: Pieridae: Pierinae: Pierini)from Arunachal Pradesh and Nagaland, India. *Journal of Threatened Taxa*. 5(7): 4122-4124.

145. Ollenbach, O.C. (1930). Butterfly collecting grounds at Mussoorie (U.P.). *Journal of Bombay Natural History Society*. 34: 836-840.

146. Pajni, H.R.; Rose, H.S.; Walia, V.K. (2006). Butterflies of North-West India - Part 1. *Atma Ram and sons, Chandigarh, India*. 115 pp.

147. Pandav, B.; Vasudevan, K.; Adhikari, B.S.; Sivakumar, K.; Uniyal, V.P. (2004). Monitoring the changes in Biological diversity after relocation of Gujjars in Rajaji-Corbett Conservation Area. *Annual Progress Report 2003-2004. Wildlife Institute of India, Dehradun*. 16 pp.

148. Pathania, P.C.; Kumari, A. (2009). A primary report on Rhopalocera diversity (Lepidoptera)from district Una of Himachal Pradesh, India. *Biological Forum - An International Journal.* 1(2): 80-88. 15.

149. Pathania, P.C.; Kumari, A. (2011). Some notes on Rhopaloceran diversity of Himachal Pradesh. *Halteres.* 3: 71-78.

150. Peile, H.D. (1937). A guide to collecting butterflies of India. *Staples Press, London*, 523 pp.

151. Qureshi, A.A. (2010). Diversity and bioecological studies of butterflies of Kashmir Himalaya. *Ph.D. thesis, University of Kashmir, Srinagar*.

152. Qureshi, A.A.; Ahmad, R.; Dar, M.A.; Tahir, S.I.; Bhagat, R.C. (2013). Butterfly fauna of Gulmarg, Kashmir, J and K State. *IOSR Journal of Agriculture and Veterinary Science*. 2(5): 40-45.

153. Qureshi, A.A.; Bhagat, R.C. (2013). A survey of host plants of Pieridae (Rhopalocera: Lepidoptera)with some new records from Kashmir Valley. *Indian Journal of Entomology*. 75(3): 217-224.

154. Qureshi, A.A.; Bhagat, R.C. (2015). Observations on distribution and biology of *Aglais cashmirensis* Kollar (Indian Tortoiseshell)(Lepidoptera: Nymphalidae)from Kashmir Valley, Jammu and Kashmir (India). *Munis Entomology and Zoology*. 10(1): 131-143.

155. Qureshi, A.A.; Bhagat, R.C.; Bhat, D.M. (2014). Diversity of butterflies (Lepidoptera: Papilionoidea and Hesperoiidea)of Dachigam National Park, Jammu and Kashmir, India. *Journal of Threatened Taxa*. 6(1): 5389-5392.

156. Qureshi, A.A.; Bhagat, R.C.; Pathania, P.C. (2013). Rhopalocera diversity (Lepidoptera)of district Kupwara from Jammu and Kashmir State (India). *Biological Forum - An International Journal*. 5(1): 100-106.

157. Qureshi, A.A.; Bhat, D.M.; Bhagat, R.C.; Azim, M.N. (2013). Study on butterflies (Lepidoptera: Rhopalocera)of campus of University of Kashmir, Srinagar, Jammu and Kashmir State. *IndianJournal of Applied and Pure Biology*. 28(2): 165-170.

158. Racheli, T.; Cotton, A.M. (2009). Guide to the butterflies of the Palearctic Region, Papilionidae - Part 1. Subfamily Papilioninae Tribes Leptocircini, Teinopalpini. *Omnes Artes, Milano*. 69pp.

159. Radhakrishan, C. (1988). On a collection of butterflies from Tippi, West Kameng district, Arunachal Pradesh. *Arunachal Forest News*. 6(2): 45-51.

160. Rai, S.; Bhutia, K.D.; Kunte, K. (2012). Recent sightings of two very rare butterflies, *Lethe margaritae*Elwes, 1882 and *Neptis nycteus* de Niceville, 1890 from Sikkim, eastern Himalaya India. *Journal of Threatened Taxa*. 4(14): 3319-3326.

161. Robinson, G.S.; Ackery, P.R.; Kitching, I.J.; Beccaloni, G.W.; Hernandez L.M. (2001). Host plants of the moth and butterfly caterpillars of the Oriental region. *The Natural History Museum, London and Southdens Sdn Bhd., Kuala Lumpur*.

162. Rose, H.S.; Sharma, N. (1995). Comments of *Junonia hierta* complex alongwith reporting of a new subspecies (Lepidoptera)from West Himalaya. *Actias*. 2(1-2): 63-65.

163. Rose, H.S.; Sharma, N. (1998). Two new species of the Genus Ypthima Huebner from the West and North-West Himalaya, India (Lepidoptera: Papilionoidea: Satyridae). *Geobios* 1(2): 105-112.

164. Rose, H.S.; Sharma, N. (1999). Butterflies of the Genus Ypthima Huebner (Lepidoptera: Rhopalocera)from North Western India. *Zoos' Print.* 14(9): 97-105.

165. Rose, H.S.; Sharma, N. (2000). Further contribution to the taxonomy and distribution of the Genus Lethe huebner (Satyridae: Lepidoptera)from North-West Himalaya. *Entomon*. 25(2): 129-140.

166. Rose, H.S.; Sidhu, A.K. (1994). Lycaenid butterfly diversity of Mussoorie (Uttar Pradesh)along with some comments on Wildlife (Protection)Act, 1972. *Cheetal*. 22(3-4): 10-16.

167. Rose, H.S.; Sidhu, A.K. (1997). Taxonomic and distributional studies on the subfamily Lycaeninae (Lepidoptera: Papilionoidae: Lycaenidae from Western Himalaya. *Biodiversity*. 8(1-2): 61-76.

168. Roy, P.K. (2013). *Callerebia dibangensis* (Lepidoptera: Nymphalidae: Satyrinae)a new butterfly species from the Eastern Himalaya, India. *Journal of Threatened Taxa*. 5(13): 4725-4733.

169. Sarma, K.; Kumar, A.; Devi, A.; Mazumdar, M.; Krishna, M.; Mudoi, P.; Das, N. (2012). Diversity and habitat association of butterfly species in foothills of Itanagar, Arunachal Pradesh, India. *CIB Tech Journal of Zoology*. 1(2): 67-77.

170. Sebastian, J.; Pachoni, A.K. (2012). Some observations on butterflies of Pakke Tiger Reserve, Arunachal Pradesh. *Indian Forester*. 138(10): 897-901.

171. Sengupta, P.; Banerjee, K.K.; Ghorai, N. (2014). Seasonal diversity of butterflies and their larval food plants in the surroundings of upper Neora valley National Park, a sub-tropical broad leaved hill forest in the Eastern Himalayan landscape, West Bengal, India. *Journal of Threatened Taxa*. 6(1): 5327-5324.

172. Sevastopulo, D.G. (1938). The early stages of Indian Lepidoptera. *Journal of Bombay Natural History Society*. 40(1): 391-408.

173. Sevastopulo, D.G. (1940). The early stages of Indian Lepidoptera. Part V. Rhopalocera. *Journal of Bombay Natural History Society*. 42: 28-44.

174. Sevastopulo, D.G. (1940). The early stages of Indian Lepidoptera. Part - VI. Rhopalocera. *Journal of Bombay Natural History Society.* 42: 283-294.

175. Sevastopulo, D.G. (1944). The early stages of Indian Lepidoptera - Part XI Rhopalocera. *Journal of Bombay Natural History Society*. 44(1-2): 78-87.

176. Sevastopulo, D.G. (1944). The early stages of Indian Lepidoptera. Part-XII. Rhopalocera. *Journal of Bombay Natural History Society*. 44(1-2): 415-425.

177. Sevastopulo, D.G. (1946). The early stages of Indian Lepidoptera - Part XV Rhopalocera. *Journal of Bombay Natural History Society*. 46: 253-269.

178. Sevastopulo, D.G. (1946). The early stages of Indian Lepidoptera - Part-XVI Heterocera. *Journal of Bombay Natural History Society*. 46: 413-430.

179. Sevastopulo, D.G. (1947). The early stages of Indian Lepidoptera - Part XVIII. *Journal of Bombay Natural History Society.* 47(1-2): 26-43.

180. Sevastopulo, D.G. (1947). The early stages of Indian Lepidoptera - Part-XIX. *Journal of Bombay Natural History Society.* 47(1-2): 197-219.

181. Sevastopulo, D.G. (1973). The food plants of Indian Rhopalocera. *Journal of Bombay Natural History Society.* 70: 156-183.

182. Sharma, K.L.; Kumar, R. (2015). Diversity of butterflies in Renuka lake and its vicinity of Himachal Pradesh. *International Journal of Science and Research*. 4(9): 1628-1634.

183. Sharma, N. (2005). Life history of *Pontia daplidice* moorei (Rober)(Lepidoptera: Pieridae)from Himachal Pradesh, India. The Journal of the Lepidopterist's Society. 59(3): 170-71.

184. Sharma, R.M. (2007). Butterflies from Simbalbara Wildlife Sanctuary, Himachal Pradesh. *Bionotes*. 9(1): 20-21.

185. Shull, E.M. (1958). My highest catch of butterfly species in a single day (4th June, 1957 Mussoorie, India). The Journal of the Lepidopterist's Society. 11: 167-168.

186. Shull, E.M. (1962). Over one hundred butterfly species caught in a single day (3rd June, 1961)at Mussoorie, India.The Journal of the Lepidopterist's Society. 16: 143-145.

187. Sidhu, A.K. (2011). Changing biodiversity scenario in the Himalayan ecosystem: Mussorrie Uttarakhand, India as revealed by the study of blue butterflies (Lycaenidae). *Journal of Threatened Taxa*. 3(2): 1559-1563.

188. Sidhu, A.K.; Chandra, K.; Palot, J. (2012). Observations on the status and diversity of butterflies in the fragile ecosystem of Ladakh (J and K). *Records of the Zoological Survey of India*. 112: 101-112.

189. Singh, A.P. (1999). New Forest, Dehradun India: A unique man made habitat for butterflies in the lower Western Himalayas. *Indian Forester*. 125(9): 913-922.

190. Singh, A.P. (2005). Initial colonization of Red Pierrot butterfly, *Talicada nyseus nyseus* Guerin (Lycaenidae)in the lower Western Himalayas: an indicator of the changing environment. *Current Science*. 89: 41-42.

191. Singh, A.P. (2005). Recent records on the distribution, seasonality and occurrence of Redspot butterfly, *Zesius chrysomallus*űHűbner from the lower Western Himalaya. *Journal of Bombay Natural History Society*. 102(2): 238-239.

192. Singh, A.P. (2006). Range extension of Brown Gorgon butterfly, *Meandrusa gyas gyas* westwood into Kedarnath Musk Deer Reserve, Western Himalayas: A lesser known species from North-East India. *Indian Forester*. 132(12a): 187-189.

193. Singh, A.P. (2007). A new butterfly species of the Genus Ypthima Hűbner (Nymphalidae: Satyrinae)from Garhwal Himalaya, India. *Journal of Bombay Natural History Society*. 104(2): 191-194.

194. Singh, A.P. (2008). Butterflies of Renuka Wildlife Sanctuary, Sirmaur District, Himachal Pradesh, India.*Indian Forester*. 134(10): 1326-1338.

195. Singh, A.P. (2009). Butterflies of Kedarnath Musk Deer Reserve, Garhwal Himalaya, India. *Journal of Threatened Taxa*. 1(1): 37-48.

196. Singh, A.P. (2010). Butterflies of India. *Om books International, India*. 184 pp.

197. Singh, A.P. (2013). Rediscovery of the Empress, *Sasakia funebris* Leech (Lepidoptera: Nymphalidae: Nymphalinae: Apaturini)after 88 years in India. *Journal of Threatened Taxa*. 5(10): 4514-4516.

198. Singh, A.P.; Bhandari, R.S. (2006). New Additions to the butterflies of Dehra Dun Valley, the Lower Western Himalayas. *Indian Forester*. 132(6): 767-769.

199. Singh, A.P.; Pandey, R. (2004). A model for estimating butterfly species richness of areas across the Indian subcontinent: species proportion of Papilionidae as an Indicator. *Journal of Bombay Natural History Society*. 101: 79-89.

200. Singh, A.P.; Singh, R. (1998). Butterflies of *Quercus leucotrichophora, Cedrus deodara*Forest. *Indian Forester.* 124(8): 646-657.

201. Singh, A.P.; Sondhi, S. (2016). Butterflies of Garhwal, Uttarakhand, Western Himalaya, India. *Journal of Threatened Taxa*. 8(4): 8666-8697.

202. Singh, R.P. (2015). Recent report Dark Himalayan Oakblue *Arthopala rama* Kollar, 1848 (Lepidoptera:Papilionoidea: Theclinae)from Tenga valley, Arunachal Pradesh, India. *Journal of Threatened Taxa*. 7(15): 8296-8298.

203. Singh, S. (1963). Entomological survey of Himalaya - Part XXIV. Fourth and final annotated check-list of the insects from the North-West (Punjab)Himalaya. *Agra University Journal of Research*. 12: 363-393.

204. Singh, V.; Banyal, H.S. (2012). Diversity and ecology of mammals in Kalatop-Khajjiar Wildlife Sanctuary, district Chamba (Himachal Pradesh), India. *International Journal of Science and Nature.* 3: 125-128.

205. Singh, V.; Banyal, H.S. (2013). Insect fauna of Khajjiar lake of Chamba district, Himachal Pradesh, India. *Pakistan Journal of Zoology*. 45: 1053-1061.

206. Smetacek, P. (1993). *Neptis cartica*Moore (Lep.; Nymph.)in U.P. Himalaya. *Journal of Bombay Natural History Society*. 90: 527-528.

207. Smetacek, P. (1995). A new altitudinal and range record for the Copper Flash butterfly *Rapala pheretimus* Hew. (Lyc.). *Journal of Bombay Natural History Society*. 92: 127-128.

208. Smetacek, P. (2001). Resolution of the controversial western limit of the range of *Delias acalis* God.(Lep.: Pier). *Journal of Bombay Natural History Society*. 98: 298-300.

209. Smetacek, P. (2002). The Genus Pontia Feb. (lep. Pier.)in the Kumaon Himalaya. *Journal of Bombay Natural History Society.* 99: 224-231.

210. Smetacek, P. (2004). Descriptions of new Lepidoptera from the Kumaon Himalaya. *Journal of Bombay Natural History Society*. 101: 269-276.

211. Smetacek, P. (2006). Some distasteful Asian Papiloninae (Papilionidae).*The Journal of the Lepidopterist's Society.* 60(2): 82-85.

212. Smetacek, P. (2007). Author's response to Technical comment.*The Journal of the Lepidopterist's Society*. 61(1): 121-122.

213. Smetacek, P. (2007). Checklist of South Asian Skipper butterflies (Lepidoptera: Hesperiidae), *Bionotes*. 9(1): 13-17.

214. Smetacek, P. (2010). *Ypthima kedarnathensis* A.P. Singh (Lepidoptera: Nymphalidae: Satyrinae)from the Kumaon Himalaya. *Journal of Threatened taxa*. 2(13): 1390-1391.

215. Smetacek, P. (2011). A review of West Himalayan Neptini (Nymphalidae). *The Journal of the Lepidopterist's Society*65(3): 153-161.

216. Smetacek, P. (2011). Detrimental effects of low atmospheric humidity and forest fire on a community of Western Himalayan butterflies. *Journal of Threatened Taxa*. 3(4): 1694-1701.

217. Smetacek, P. (2011). Four new Lycaenid records from the Kumaon Himalaya. *Journal of Threatened Taxa*. 3(2): 1555-1558.

218. Smetacek, P. (2011). On the anomalous altitudinal distribution of the West Himalayan Trodini and Papilionini (Papilionidae). *The Journal of the Lepidopterist's Society*. 65(2): 126-132.

219. Smetacek, P. (2012). A new subspecies of *Mycalesis suaveolens* Wood-Mason and de Niceville (Lepidoptera: Nymphalidae: Satyrinae)from the Western Himalaya, India. *Nachrichten des Entomologichen Vereins Apollo*. 32(3-4): 105-108.

220. Smetacek, P. (2012). Butterflies (Lepidoptera Papilionoidea and Hesperoidea)and other protected fauna of Jones estate, a dying watershed in the Watershed in the Kumaon Himalaya.*Journal of threatened Taxa*. 4(9): 2857-2874.

221. Smetacek, P. (2015). The Papilionid butterflies of the Indian Subcontinent. *Butterfly Research Centre and Indian Publishing, New Delhi*. 120p.

222. Sondhi, S.; Karmakar, T.; Sondhi, Y.; Jhaveri, R.; Kunte, K. (2016). Rediscovery of *Calinaga aborica* Tytler, 1915 (Lepidoptera: Nymphalidae: Calinaginae)from Arunachal Pradesh, India. *Journal of Threatened Taxa.* 8(3): 8618-8622.

223. Sondhi, S.; Kunte, K. (2014). Butterflies and moths of Pakke Tiger Reserve. *Titli Trust (Dehradun)and Indian Foundation for Butterflies (Bengaluru).* 202p.

224. Sondhi, S.; Kunte, K. (2016). Butterflies (Lepidoptera)of the Kameng Protected area complex, Western Arunachal Pradesh, India. *Journal of Threatened Taxa*. 8(8): 9053-9124.

225. Sondhi, S.; Roy, P.K. (2013). Sightings of *Gonepteryx amintha thibetana* Nekrutenko, 1968 (Lepidoptera: Pieridae: Cokiadinae)from Arunachal Pradesh, India an addition to Indian butterfly fauna erroneously placed in Southeastern Tibet earlier. *Journal of Threatened Taxa*. 5(12): 4687-4692.

226. South, R. (1913). A list of butterflies collected by Captain F.M. Bailey in Western China, South-Eastern Tibet, and the Mishmi Hills, 1911. *Journal of Bombay Natural History Society*. 22(2): 345-365.

227. South, R. (1913). A list of butterflies collected by F. M. Bailey in western China, South Eastern Tibet and the Mishmi Hills, 1911. *Journal of Bombay Natural History Society*. 22(2): 598-615.

228. Stempffer, H. (1952). Lepidopteres recoltes par A. Barbezat au cours del' expedition Lyonnaise 1951 *Garhwal.* ***Bulletin*** *Bimensuel de la Société Linnéenne de Lyon*. 21(11): 181-184.

229. Swinhoe, C. (1893). A list of the lepidoptera of the Khasia hills. Part I. *Transactions of the Entomological Society of London*. 41: 267-330.

230. Swinhoe, C. (1896). New species of Lepidoptera from Khasia Hills.*Annals and Magazine of Natural History, including Zoology, Botany and Geology.* 17(6): 357-363.

231. Swinhoe, C. (1905). Lepidoptera Indica. Vol. VII. Rhopalocera. Family Pieridae Sub Family Pierinae (Continued), Family Lycaenidae. Sub-Families Gerydinae, Lycaenopsinae and Everinae. *Reeve and Co., London*. 286 pp.

232. Swinhoe, C. (1910). Lepidoptera Indica. Vol. VIII. Rhopalocera. Family Lycaenidae. Sub-Families Lycaeninae, Plebeinae, Lampidinae, Chrysophaninae, Poritiinae, Amblypodiinae, Curetinae, Liphyrinae, Ruralinae. *Reeve and Co., London*. 293 pp.

233. Swinhoe, C. (1911). Lepidoptera Indica. Vol. IX. Rhopalocera. Family Lycaenidae (Continued), Sub-Families Celaenorrhinae, Hesperiinae, Pamphilinae, Astictopterinae, Suastinae, Erionotinae, Matapinae, Notocyptinae, Plastingiinae, Erynninae. *Reeve and Co., London.* 278 pp.

234. Swinhoe, C. (1912). Lepidoptera Indica. Vol. X. Rhopalocera. Family Hesperiidae (Concluded). Sub-families Celaenorrhinae, Hesperiinae, Pamphilinae, Astictopterinae, Suastinae, Erionotinae, Matapinae, Notocryptinae, Plastingiinae, Erynninae. *Reeve and Co., London*. 364 pp.

235. Talbot, G. (1939). The fauna of British India including Ceylon and Burma. Butterflies. Vol. I., *Taylor and Francis ltd, London*. 600 pp.

236. Talbot, G. (1947). The fauna of British India including Ceylon and Burma Butterflies. Vol. II., *Taylor and Francis ltd., London*. 506 pp.

237. Talukdar, S.; Sarma, H.N. (2010). A Preliminary Survey of butterfly diversity in selected districts in the Western Part of Arunachal Pradesh India. *Indian Forester*. 136(10): 1353-1360.

238. Tewari, R.; Rawat, G.S. (2013). Butterfly fauna of Jhilmil Jheel Conservation Reserve, Haridwar, Uttarakhand, India. *Biological Forum - An International Journal*. 5(2): 22-26.

239. Thakur, M.L.; Mattu, V.K. (2010). The role of butterfly as flower visitors and pollinators in Shiwalik Hills of Western Himalayas. *Asian Journal of Experimental Biological Sciences*. 1: 822-825.

240. Thakur, M.S. (2011). Studies on Lepidopteran (Rhopalocera: Butterfly)diversity in Himachal Pradesh of the Western Himalaya. *Asian Journal of Animal Science*. 6(2): 198-202.

241. Thakur, M.S.; Mehta, H.S.; Mattu, V.K. (2002). Butterflies of Kalatop Khajjiar Wildlife Sanctuary, Himachal Pradesh. *Zoos' Print* 17: 909-910.

242. Thakur, M.S.; Mehta, H.S.; Mattu, V.K. (2006). Distributional records of butterflies (Lepidoptera: Rhopalocera)from Pin Valley National Park, Himachal Pradesh. Ann. For. 14(1): 83-85.

243. Thakur, S.; Bhardwaj, S. (2012). Butterflies of Nature Awareness Centre Trambri, Mandi Himachal Pradesh. *Indian Forester*. 138(10): 887-890.

244. Thomas-Glover, J.W. (1936). Butterflies and moths from Chinese Turkistan. *Journal of Bombay Natural History Society.* 39: 756-768.

245. Thombre, D.; Kehimkar, I. (2015). Blue glassy tiger *Ideopsis similis persimilis* (Moore 1879)- first record for India from Namdapha National Park, Arunachal Pradesh. *Journal of Bombay Natural History Society*. 112(1): 38-39.

246. Uniyal, V.P. (1996). High altitude Insect Study in Great Himalayan National Park: A Conservation Approach. *Himalayan Paryavaran, Environment Protection Society, Darjeeling*. 4(1): 102-103.

247. Uniyal, V.P. (1999). Yellow Swallowtail Butterfly *Papilio machaon* (Lepidoptera: Papilionidae)from Great Himalayan National Park Himachal Pradesh. *Annals of Forestry*. 7(2)301-302.

248. Uniyal, V.P. (2002). Nanda Devi Expedition.*Wildlife Institute of India, Dehradun, India*. 17 pp.

249. Uniyal, V.P. (2004). Butterflies of Nanda Devi National Park: A world Heritage Site. *Indian Forester.* 130(7): 800-804.

250. Uniyal, V.P. (2007). Butterflies in the Great Himalayan Conservation Landscape in Himachal Pradesh, Western Himalaya. *Entomon*. 32(2): 119-127.

251. Uniyal, V.P Kumar, N. (1997). Food preference of the Yellow Coster Butterfly *Pareba vesta* (Nymphalidae Lepidoptera)in the Great Himalayan National Park, Himachal Pradesh. *Zoos' Print* 12(5): 7-8.

252. Uniyal, V.P.; Bhardwaj, M.; Bhargav, V. (2009). Diversity and status of prominent insect groups following gujjar relocation in the Chilla Wildlife Sanctuary, Rajaji National Park, India. *IN: Vasudevan, K. et al. Monitoring the changes in biological diversity after relocation of gujjars in Rajaji-Corbett Conservation area. Final Technical report. Wildlife Institute of India. Dehradun*. 122 pp.

253. Uniyal, V.P.; Bhardwaj, M.; Sanyal, A.K. (2013). An assessment of entomofauna for management and conservation of biodiversity in Gangotri Landscape. *Final Project report. Wildlife Institute of India, Dehradun.*

254. Uniyal, V.P.; Bhargav, V. (2007). Assessment of butterflies in Bir Shikargarh Wildlife Sanctuary, Haryana. *Tigerpaper*. 34(3).

255. Uniyal, V.P.; Mathur, P.K. (1998). Diversity of butterflies in the Great Himalayan National Park, Western Himalaya. *Indian Journal of Forestry*. 21(2): 150-155.

256. Uniyal, V.P.; Mehra, B.S. (1996). Preliminary observation on the Diversity of Butterflies (Lepidoptera: Insecta)in high altitude Grazing Pasture in Great Himalayan National Park. *Zoos' Print* 11(9): 7-11.

257. Uniyal, V.P.; Singh, S.K. (1996). A preliminary study of the ecological relationship of High altitude flowering plants and Insects in the Tirthan Valley of the Great Himalayan National Park. *Indian Bee Journal*. 58(3): 137-339.

258. Uniyal, V.P.; Sivakumar, K.; Padmawathe, R.; Kittur, S.; Bhargav, V.; Bhardwaj, M.; Dobhal, R. (2007). Ecological study on Tiger beetles (Cicindelidae)as indicator for the biodiversity monitoring in Shivalik landscape. *Wildlife Institute of India, Dehradun*.

259. Varshney, R.K. (1977). Index Rhopalocera Indica. An index on the local lists of butterflies from India and neighbouring countries. *Records of the Zoological Survey of India*. 73: 159-178.

260. Varshney, R.K. (1980). Revised nomenclature for taxa in Wynter-Blyth's book on the butterflies of the Indian region. *Journal of Bombay Natural History Society*. 76: 33-40.

261. Varshney, R.K. (1985). Revised nomenclature for taxa in Wynter-Blyth's book on the Butterflies of the Indian region-II. *Journal of Bombay Natural History Society*. 82: 309-321.

262. Varshney, R.K. (1990). Revised Nomenclature for Taxa in Wynter-Blyth's book on the Butterflies of Indian region III. *Journal of Bombay Natural History Society*. 53-61.

263. Varshney, R.K. (1993). Index Rhopalocera Indica. Part III. Genera of butterflies from India and neighbouring countries (Lepidoptera: (a)Papilionidae, Pieridae and Danaidae). *Oriental Insects*. 27: 347-372.

264. Varshney, R.K. (1994). Index Rhopalocera indica - Part III. Genera of butterflies from India and neighbouring countries (Lepidoptera: (B)Satyridae, Nymphalidae, Libytheidae and Riodinidae). *Oriental Insects*. 28: 151-198.

265. Varshney, R.K. (1997). Index Rhopalocera indica-Part III. Genera of butterflies from Indian and neighbouring countries (Lepidoptera: (C)Lycaenidae). *Oriental Insects*. 31: 83-138.

266. Varshney, R.K. (2010). Bharat ki Titliyan (Butterflies of India). *Zoological Survey of India, Kolkata.* 195 pp.

267. Varshney, R.K. (2010). Genera of Indian Butterflies. *Published by Nature Books India, New Delhi*. 186 pp.

268. Varshney, R.K.; Chanda, S.K. (1971). Butterflies of North-Eastern India. *Indian Museum Bulletin.* 6(1): 28-53.

269. Venkatesh, V. (2016). Reporting the occurrence of the Variegated Plushblue *Flos adriana* (Lepidoptera: Lycaenidae: Theclinae)from Garhwal, Uttarakhand extending its known range.*Journal of Threatened Taxa.* 8(5): 8829-8830.

270. Virkar, P.S. (2008). Documentation of baseline information of floral and faunal diversity in two selected fenced areas of Dhanaulti Reserve Forest, Mussoorie Forest Division, Uttarakhand. *M.Sc. dissertation. Department of Environmental Sciences, University of Pune.*

271. Watson, E.Y. (1897). Hesperiidae indicae: being a reprint of descriptions of the Hesperiidae of India, Burma, and Ceylon. *Madras Staff corps, vest and company, Mount Road, Madras*. 161 pp.

272. Wiswanathan, G.; Poornima, R.; Singh, H. (2004). Comparative study of biodiversity of butterflies between Bangalore and Jammu region. *IN: Kumar, A. (ed.)Biodiversity and Environment. APH Publishing, New Delhi.* P. 207-219.

273. Wynter-Blyth, M.A. (1940). A list of the butterflies of Simla hills. *Journal of Bombay Natural History Society.* 41: 716-741.

274. Wynter-Blyth, M.A. (1942). A list of butterflies of Simla hills. *Journal of Bombay Natural History Society*. 42: 448.

275. Wynter-Blyth, M.A. (1943). A list of butterflies of Simla hills. *Journal of Bombay Natural History Society.* 43: 672-673.

276. Wynter-Blyth, M.A. (1945). A list of the butterflies of Simla hills. *Journal of Bombay Natural History Society.* 45: 256-257.

277. Wynter-Blyth, M.A. (1945). A List of the butterflies of Simla Hills. *Journal of Bombay Natural History Society*. 46: 735-736.

278. Wynter-Blyth M.A. (1957).Butterflies of the Indian region, Today and Tomorrow's Printers and publishers, New Delhi. 523 pp.

Bibliography

Odonata of the Indian Himalayan Region

001. Asahina, S. (1960). Notes on the relationships between Himalayan and Japanese insect fauna.*Journal of Bengal Natural History Society.*31: 69-75.

002. Asahina, S. (1967). A revision of the Asiatic species of *Ceriagrion* (Odonata: Agrionidae). *Japanese Journal of Zoology.*15: 225-334.

003. Asahina, S. (1978). A new and some known species of Odonata from Kashmir (Insecta). *Senckenbergiana Biol*. 59(1-2): 115-120.

004. Asahina, S. (1978). A remarkable new damselfy allied to Bayadera (Odonata: Euphaeidae). *Proceedings Japan Society of Systematic Zoology*. 14: 43-46.

005. Asahina, S. (1981). A revision of the Himalayan Dragonflies the Genus *Cephalaeschna* and its allies (Odonata: Aeshinidae). *Bull. Natn. Sci. Mus.* 7(2): 57-77.

006. Asahina, S. (1984). Assamese and Burmese Coeliccia species in the collection of Dr. Schmidt (Odonata: Platycnemidae). *Transactions Shikoku Entomological Society*. 16(4): 1-9.

007. Asahina, S. (1985). Contribution to the taxonomic knowledge of the Megalestes species of Continental South Asia (Odonata: Synlestidae). *Cho Cho*. 8(10): 2-18.

008. Asahina, S. (1985). Further contribution to the taxonomy of South Asiatic Coeliccia species (Odonata: Platycnemididae). *Cho Cho*. 8(2): 2-13.

009. Asahina, S. (1991). A taxonomic revision of the *Ischnurarufostigma* group of Southeast, Asia.*Tombo*. 34(1-4): 2-22.

010. Asahina, S. (1994). Records of Gomphid dragonflies recently collected by Japanese Entomologists from Nepal and Darjeeling district.*Tombo*. 37(1-4): 2-17.

011. Atkinson, E.T. (1974). Fauna of the Himalayas containing species of KumaonGarhwal, Nepal and Tibet.*Cosmo publications, Delhi*.

012. Babu, R. (2011). New distributional record of Coenagrionids (Odonata: Zygoptera: Coenagrionidae)from Himachal Pradesh, India. *Records of the Zoological Survey of India.* 111(4): 73-77.

013. Babu, R.; Mitra, T.R. (2011). A record of *Gomphidia t-nigrum*Selys from Himachal Pradesh, India (Anisoptera: Gomphidae). *Notul.Odonatol*. 7(8): 75-76.

014. Babu, R.; Nandy, S. (2009). A comparative review of three closely related Calicnemia species - *C pulverulansselys*, *C. imitanslieftinck* and *C. sudhaae*Mitra (Odonata: Zygoptera: Platycnimadae). *Records of the Zoological Survey of India.* 109(3): 79-84.

015. Babu, R.; Srinivasan, G. (2016). On the distribution of *Aeshnapetalura* Martin, 1908 (Odonata: Anisoptera: Aeshnidae)in the Indian Subcontinent. *Journal of Threatened Taxa.*8(7): 9034-9037.

016. Babu, R.; Subramanian, K.A.; Nandy, S. (2013). Endemic odonates of India.*Records of the Zoological Survey of India*; *Occasional paper no*. *347*. 60P.

017. Bhargava, R.N. (1989). On a collection of Odonata from West Kameng district, Arunachal Pradesh.*Indian Odonatology.*2: 45-46.

018. Bhasin, G.D. (1953). A systematic catalogue of the main identified entomological collection at the Forest Research Institute, Dehradun Part 12 - Order Odonata. *Indian Forest Leaflet*. 121(3): 63-79.

019. Bhasin, G.D.; Roonwal, M.L. (1953). Odonata.*IN: A Systematic catalogue of the main identified entomological collections at the Forest Research Institute, Dehradun*. P. 9-29.

020. Bisht, R.S.; Das, S.M. (1988). Observations on the population ecology of aquatic insects in two coldwaterKumaon lakes with reference to abiotic factors.*Records of the Zoological Survey of India.* 85(1); 131-142.

021. Cafri, S.D.; Centina, P.; Terzani, F. (1983). Odonatireccoltinel Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh.*G. It. Ent*. 1: 261-264.

022. Chandra, K. (2011). Insect diversity of Sikkim, India *IN: Arrawatia, M.L. and Tambe, S. (eds). Biodiversity of Sikkim - exploring and conserving a hotspot. Published by Information and Public relations.* P. 181-206.

023. Chandra, M. (1983). Additions to the Odonata fauna of district Solan, Himachal Pradesh.*Fraseria*. 5: 17-18.

024. Davies, D.A.L.; Tobin, P. (1984). The dragonflies of the World: a systematic list of extant species of Odonata. Vol. I. *Soc. Internat. Odonatol.Rapid. Comm. (Suppl.)No. 3*. 127pp.

025. Davies, D.A.L.; Tobin, P. (1985). The dragonflies of the World: a systematic list of extant species of Odonata. Vol. II. *Soc. Internat. Odonatol.Rapid. Comm. (Suppl.)No. 5*. 151p.

026. Fraser, F.C. (1919). Description of four new Indian Odonata. *Records of Indian Museum.*16: 451-455.

027. Fraser, F.C. (1920). Notes on Indian Dragonflies.*Records of Indian Museum.*19: 31-33.

028. Fraser, F.C. (1921). Indian dragonflies Part 10.*Journal of Bombay Natural History Society.*27: 693-691.

029. Fraser, F.C. (1922). Appendix to F.F. Laidlaw's paper, a list of the dragonflies from the Indian empire with special reference to the collection of the Indian Museum Part V. *Records of Indian museum*. 24: 415-426.

030. Fraser, F.C. (1922). Indian dragonflies Part 14.*Journal of Bombay Natural History Society.*28: 899-910.

031. Fraser, F.C. (1923). Indian dragonflies Part 15.*Journal of Bombay Natural History Society.*29: 36-47.

032. Fraser, F.C. (1923). Indian dragonflies Part 17.*Journal of Bombay Natural History Society.*29: 659-680.

033. Fraser, F.C. (1924). A survey of the Odonata (Dragonfly)fauna of Western India with special remarks on the genera Macromia and Idionyx and description of thirty new species with Appendix I and II.*Records of Indian Museum.*26(5): 423-522.

034. Fraser, F.C. (1924). Indian dragonflies Part 18.*Journal of Bombay Natural History Society.*29: 982-1006.

035. Fraser, F.C. (1926). A revision of genus *Zygonyxselys*.*Journal of Bombay Natural History Society.*31: 762-769.

036. Fraser, F.C. (1926). A revision of the genus *Idionyxselys*.*Records of Indian Museum.*28: 195-207.

037. Fraser, F.C. (1926). Indian dragonflies Part 28.*Journal of Bombay Natural History Society.*31: 408-426.

038. Fraser, F.C. (1927). Description of twenty new Indian dragonflies.*Records of Indian Museum.*29: 63-90.

039. Fraser, F.C. (1928). Indian dragonflies Part 29.*Journal of Bombay Natural History Society.*32: 450-459.

040. Fraser, F.C. (1931). Additions to the survey of the Odonata (Dragonfly)fauna of Western India, with description of nine new species.*Records of Indian Museum.*33: 443-474.

041. Fraser, F.C. (1932). Indian dragonflies - Part 39.*Journal of Bombay Natural History Society.*35: 646-656.

042. Fraser, F.C. (1933). Additions to the dragonfly (Odonata)fauna of India with description of new species.*Journal of Bombay Natural History Society.*36: 460-468.

043. Fraser, F.C. (1933). Indian dragonflies, Part 41.*Journal of Bombay Natural History Society.*36: 607-617.

044. Fraser, F.C. (1933). The Fauna of British India including Ceylon and Burma: Odonata, Vol. 1 *Taylor and Francis Ltd. London*. 423pp.

045. Fraser, F.C. (1934). Indian dragonflies Part 42.*Journal of Bombay Natural History Society.*37: 553-572.

046. Fraser, F.C. (1934). The fauna of British India including Ceylon and Burma: Odonata, Vol. 2 *Taylor and Francis Ltd. London*. 398p.

047. Fraser, F.C. (1935). New Oriental dragonflies (Order: Odonata). *Records of Indian Museum.*37: 321-333.

048. Fraser, F.C. (1936). The Fauna of British India including Ceylon and Burma: Odonata, Vol. 3. *Taylor and Francis Ltd. London*. 461pp.

049. Fraser, F.C. (1939). Additions to the family Corduliidae including descriptions of two new species and a new genus (Order: Odonata). *Proceedings Royal Entomological Society, London*. 8: 91-94.

050. Fraser, F.C. (1946). *Hylaeothemisindica* a new species of Oriental Libelluline (Order: Odonata). *Proceedings Royal Entomological Society, London (B).* 15: 97-100.

051. Fraser, F.C. (1953). Notes on the family Gomphidae with description of a new species and the females of another (Order :Odonata). *Proceedings Royal Entomological Society, London (B)*. 22: 189-194.

052. Garrison, R.W.; Von, N.E.; O Brien', M.F. (2003). An annotated list of the name bearing types of species-group names in Odonata preserved in the University of Michigan Museum of Zoology. *Occasional Paper Museum Zoology, University of Michigan no. 736*. 73p.

053. Ghosh, A.K.; Sengupta, T. (1982). Insect collection, Preservation and study (Handbook). *Zoological Survey of India*. 65p.

054. Hamalainen, M. (1989). Odonata from Dehradun Valley (Uttar Pradesh, India)with notes on synonomy of some West Himalayan species.*Odonatologica*. 18(1): 13-20.

055. Hamalainen, M. (1989). Systematic notes on some species of the genus *Mortonagrion* (Zygoptera: Coenagrionidae). *Indian Odonatology.*2: 1-14.

056. Khaliq, A. (2002). Potential of Dragonflies as Bio-control agents of Insect pest of Rice.*IN: Current trends in Odonatology, Daya Publishing House, Delhi*. 207p.

057. Kiauta, B. (1972). Scientific results of the Yugoslaco, 1969, Himalayan expedition.*Odonata. Biol. Vest*. 20: 109-119.

058. Kumar, A. (1973). Description of the last instar larvae of Odonata from the Dehradun valley (India)with notes on Biology I. (Suborder Zygoptera).*Oriental Insects.* 7(1): 23-61.

059. Kumar, A. (1973). Description of the last instar larvae of Odonata from the Dehradun valley (India)with notes on Biology (Suborder :Anisoptera). *Oriental Insects*. 7(1): 291-331.

060. Kumar, A. (1973). Descriptions of the last instar larvae of Odonata from the Dehradun valley (India)with notes on biology I. (suborder Zygoptera). *Oriental Insects*. 7(1): 83-118.

061. Kumar, A. (1978). Some field notes of Odonata around a fresh water lake in Western Himalayas (Renuka, Himachal Pradesh). *Journal of Bombay Natural History Society.*74: 506-510.

062. Kumar, A. (1982). An annotated list of Odonata of Himachal Pradesh.*Indian Journal of Physical and Natural Sciences*. 2: 55-59.

063. Kumar, A. (1984). Hitherto unknown female of *Burmagomphussilvalikensis* Laidlaw (Odonata: Gomphidae). *Ann. Ent*. 2(2): 49-52.

064. Kumar, A. (1995). Odonata.*IN: Fauna of Western Himalaya*. *Zoological Survey of India.Kolkata.* P. 25-33.

065. Kumar, A. (2002). Current trends in Odonatology.*Daya Publishing House, Delhi*. 207p.

066. Kumar, A. (2005). Odonata.*IN: Fauna of Western Himalaya - Part 2.Zoological Survey of India, Kolkata*. P. 75-98.

067. Kumar, A.; Juneja, D.P. (1976). The Odonata of Renukalake, Western Himalaya: (Himachal Pradesh). *Newsletter for Zoological Survey of India*. 2: 95-96.

068. Kumar, A.; Khanna, V. (1983). A review of the taxonomy and ecology of Odonata larvae from India.*Oriental Insects*. 17(1): 125-157.

069. Kumar, A.; Mitra, A. (1998). Odonata diversity of Sahastradhara (Sulphur springs)Dehradun, India with notes on their habitat ecology.*Fraseria*. 5(1-2): 37-45.

070. Kumar, A.; Prasad, M. (1981). Field Ecology.Zoogeography and taxonomy of the Odonata of the Western Himalayan India.*Records of the Zoological Survey of India.Occasional Paper*. P. 201-218.

071. Lahiri, A.R. (1979). New Records of Odonata from Tripura and Arunachal Pradesh.*Proceedings of the Zoological Society, Calcutta.* 30(1-2): 45-59.

072. Lahiri, A.R. (1979). Odonata (Insecta)from different states of NorthEastern India. *Oriental Insects*. 13(1-2): 119-132.

073. Lahiri, A.R. (1985). Odonata.*IN: Fauna of Namdapha, Arunachal Pradesh*.*Records of Zoological Survey of India.* 82: 61-67.

074. Lahiri, A.R. (2003). On a new species of the genus *Bayaderaselys* (Odonata: euphaeidae)from India with notes on its Indian perspectives. *Records of the Zoological Survey of India.* 100(3-4): 39-42.

075. Lahiri, A.R.; Cinha, C. (1991). A review of Indian Cholorophidae (Insecta: odonata)with additional notes on taxonomy and distribution for some species and description of a new subspecies. *Records of the Zoological Survey of India.* 89(1-4): 247-268.

076. Lahiri, A.R.; Sandhu, R.; Walia, G.K. (2007). *Gyancanthapalampurica* sp. nov.from Northern Himachal Pradesh, India (Odonata : Aeshnidae). *Records of the Zoological Survey of India.* 107(3): 45-49.

077. Lahiri, A.R.; Sinha, C. (1991). A review of Indian Chlorophidae (Insecta: Odonata)with additional notes on taxonomy and distribution of some species and description of a new subspecies. *Records of the Zoological Survey of India.* 89(1-4): 257-268.

078. Laidlaw, F.F. (1915). Notes on Oriental dragonflies in the Indian Museum no.3.*Records of Indian Museum.*11: 387-391.

079. Laidlaw, F.F. (1916). Notes on Indian Odonata.*Records of Indian Museum.*12: 129-136.

080. Laidlaw, F.F. (1917). A list of dragonflies recorded for the Indian empire with special reference to the collection of the Indian Museum Part II The family Agrionidae. *Records of Indian Museum.*13: 321-348.

081. Laidlaw, F.F. (1917). A list of the dragonflies recorded from the Indian empire with special reference to the collection of the Indian museum part I. The family Calopterygidae.*Records of Indian Museum.*13: 23-40.

082. Laidlaw, F.F. (1919). A list of dragonflies recorded from the Indian Empire, with special reference to the collection of the Indian Museum Part II. The family Agrionidae. B. The legions Argia and Agrion. *Records of Indian Museum.*16: 169-195.

083. Laidlaw, F.F. (1922). A list of the dragonflies recorded from the Indian empire with special reference to the collection of the Indian Museum, Part V. The subfamily Gomphinae.*Records of Indian Museum.*24: 367-426.

084. Laidlaw, F.F. (1924). Notes on Oriental dragonflies of the Genus *Aciagrion*.*Proceedings of the United States National Museum.* 66(10): 1-9.

085. Laidlaw, F.F. (1950). A survey of the Chlorocyphidae (Odonata: Zygoptera)with diagnoses of proposed new genera and description of a new geographical subspecies. *Transactions of the Royal Entomological Society of London*. 101(8): 257-280.

086. Lieftinck, M.A. (1984). Further notes on the specific characters of *Calicnemia* Strand, with key to the males and remarks on some larval forms (Zygoptera: Platycnemididae). *Odonatologica.* 13(3): 351-375.

087. Mitra, A. (1999). Two new Odonata record from the Western Himalaya, India (Anisoptera: Macrodiplactidae, Libellulidae).*Notul.Odonatol*. 5(3): 39.

088. Mitra, A. (2010). *Burmagomphushasimaricus*.*The IUCN Red List of Threatened Species. eT1673464A6334569*.

089. Mitra, A.; Dow, R.; Subramanian, K.A.; Sharma, G. (2010). The status and distribution of dragonflies and damselflies (Odonata)of the Eastern Himalaya*. IN: Allen, D.J., Mollur, S. and Daniel, B.A. (eds). The status and distribution of freshwater biodiversity in the Eastern Himalaya, IUCN, Cambridge, U.K. and Gland, Switzerland*. P. 54-66.

090. Mitra, T.R. (1994). Observations on the habits and habitats of adult dragonflies of Eastern India with special reference to fauna of West Bengal.*Records of the Zoological Survey of India.*Occ. Pap no. 166. 40p.

091. Mitra, T.R. (1995). Taxonomic status of four Odonata species described by D.N. Sahni from Western Himalaya.*Journal of Bengal Natural History Society.*14: 71-72.

092. Mitra, T.R. (2002). Endemic Odonata of India.*Records of the Zoological Survey of India.* 100(3-4): 189-199.

093. Mitra, T.R. (2002). Geographical distribution of Odonata (Insecta)of Eastern India.*Memoirs of the Zoological Survey of India*. 19(1): 1-208.

094. Mitra, T.R. (2003). Fauna of Sikkim - Insecta :Odonata. Zoological Survey of India.*State Fauna Series; 9, Fauna of Sikkim (part 2).* P. 125-164.

095. Mitra, T.R. (2006). Handbook of common Indian Dragonflies (Insecta :Odonota). *Zoological Survey of India*. 124p.

096. Mitra, T.R.; Babu, R. (2010). Revision of Indian species of the families Platycnemidae and Coenagrionidae (Insecta: Odonata: Zygoptera), Taxonomy and Zoogeography. *Records of the Zoological Survey of India*; *occasional paper no. 315*.

097. Mitra, T.R.; Lahiri, A.R. (1974). Notes on the distribution of some dragonfly species (Odonata: Anisoptera)of Bengal. *The Entomologist's Record and Journal of Variation*. 86: 73-74.

098. Mitra, T.R.; Lahiri, A.R. (1975). A new species of *Gynacantharambur*, 1842 (Odonata: Aeshinidae)from India. *The Entomologist's Record and Journal of Variation.* 87: 148-149.

099. Nair, M.V. (2011). Dragonflies and Damselflies of Orissa and Eastern India.*Wildlife Organization, Forest and Environment Department, Government of Orissa*. 252pp.

100. Nair, M.V.; Subramanian, K.A. (2014). A new species of *Agricnemisselys* 1869 (Zygoptera: Coenagrionidae)from Eastern India with redescription of *Agriocnemiskeralensis* Peter, 1981. *Records of the Zoological Survey of India.* 114(4): 669-679.

101. Navas, R.P.L. (1934). Insectos de la India. Quinta Serie. Revista Academia Ciencias*Zaragoza*. 17: 29-33.

102. Nesemann, H.; Shah, R.D.T.; Shah, D.N. (2011). Key to the larval stages of common Odonata of Hindu Kush Himalaya, with short notes on habitats and ecology.*Journal of Threatened Taxa.*3(9): 2045-2060.

103. Prasad, M. (1976). Odonata of district Kangra (Himachal Pradesh).*Records of the Zoological Survey of India.* 71: 95-119.

104. Prasad, M. (1997). Further additions to the Odonata fauna of Arunachal Pradesh, Eastern India.*Opusc*.*Zool. Flumin*. 154: 1-6.

105. Prasad, M. (1998). Odonata.*IN: Faunal diversity in India*. *Zoological Survey of India, Kolkata.*P. 172-178.

106. Prasad, M. (2002). Odonata diversity in Western Himalya India.*IN: Kumar, A.(ed.)Current Trensds in Odonatology. Daya Publishing House, Delhi.* P. 221-254.

107. Prasad, M.; Ghosh, S.K. (1984). A note on the Odonata (Insecta)from Sikkim, India.*Journal of Bombay Natural History Society.*80: 435-438.

108. Prasad, M.; Mondal, S.B. (2010). Insecta: Odonata. *IN: Fauna of Uttarakhand (Part II)Insects. State Fauna Series 18.Zoological Survey of India, Kolkata, India*. P. 18-27.

109. Prasad, M.; Singh, A. (1994). Fauna of Conservation Areas 5.Rajaji National Park: Odonata. *Zoological Survey of India*. P. 195-215.

110. Prasad, M.; Sinha, C. (2010). Insecta :Odonata : Anisoptera. *IN: Fauna of Uttarakhand (Part II)Insects*. *State Fauna Series 18.Zoological Survey of India, Kolkata, India*. P. 29-52.

111. Prasad, M.; Varshney, R.K. (1995). A checklist of the Odonata of India including data on larval studies.*Oriental Insects*. 29(1): 385-428.

112. Ram, R.; Prasad, M. (1999). On a collection of Odonata from Arunachal Pradesh, India.*Records of the Zoological Survey of India.* 97: 113-132.

113. Sahni, D.N. (1964). Survey of insect fauna of Nainital, Odonata (Anisoptera).*Agra University Journal of Research*. 13(2): 89-98.

114. Sahni, D.N. (1965). Studies on Odonata (Anisoptera)of Nainital.*Indian Journal of Entomology*. 27(2): 277-289.

115. S ahni, D.N. (1965). Studies on Odonata (Zygoptera)of Nainital.*Indian Journal of Entomology*. 27(2): 205-216.

116. Sahni, D.N. (1972). Studies on the Odonata of Kumaon Pt. II Suborder Anisoptera.Family Libellulidae (Contd.) *Bulletin of Entomology*. 11(2): 121-130.

117. Sahni, D.N. (1972). Studies on the Odonata of Kumaon Part I suborder Anisoptera, Family Libellulidae.*Bulletin of Entomology*. 11: 37-54.

118. Sahni, D.N. (1972). Studies on the Odonata of Kumaon Part II.Suborder Zygoptera.*Bulletin of Entomology*. 12(2): 60-84.

119. Sangal, S.K.; Kumar, A. (1970). Studies on the taxonomy of larvae of Doon valley Odonata: 1. *Crocothemisservilia* (Drury)and *Bradinopygageminata* (Rambur)(family Libellulidae). *Journal of Natural History.* 4(1): 33-38.

120. Sangal, S.K.; Kumar, A. (1970). Studies on the taxonomy of larvae of Doon valley Odonata. II. *Anaxguttatus* (Burmeister); 4. *Anaximmaculifrons*Rambur (family Arshnidae).*Journal of Natural History*. 4(3): 305-313.

121. Sharma, I.; Dhanze, R. (2012). Evaluation of macrobenthic fauna in hill stream environment of Western Himalaya, India.*Journal of Threatened Taxa.*4(9): 2875-2882.

122. Singh, A.; Prasad, M. (1976). Odonata of Doon valley - 1 Anisoptera.*Records of the Zoological Survey of India.* 70: 21-38.

123. Singh, O.T.; Chakravarty, J.; Varatharajan, R. (2010). Entomofauna of Kane Wildlife Sanctuary, Arunachal Pradesh, NorthEastern India.*Journal of Threatened Taxa.*2(13): 1392-1400.

124. Singh, S. (1963). Entomological survey of Himalayas Part XXVI, final annotated checklist of insects from North-West (Punjab)Himalayas.*Agra University Journal of Research.* 12: 363-393.

125. Singh, V.; Bayal, H.S. (2013). Odonate fauna of Khajjiar Lake (Mini Switzerland of Chamba district of Himachal Pradesh).*The Bioscan*. 8(1): 281-287.

126. Sinha, C.; Chakraborty, P. (1996). *Aciagrionapproximans* (Selys)(Insecta: Odonata: Coenagrionidae)a new record from West Bengal, India. *Science and Culture*.62: 258.

127. Srivastava, V.D.; Sinha, C. (1993). Odonata.*IN: Fauna of West Bengal, State Fauna Series no. 3 (Part 4)*. P. 51-168.

128. St. Quentin, D. (1936). Libellenausdem district Darjeeling nebstBeschreibungeinerneuenChlorogomphus*Art. Knowia*. 15: 102-105.

129. Steinmann, H. (1997). World Catalogue of Odonata Vol. II Anisoptera. Das TierreichTeilband 110. *Verlag Walter de Gruyter, Berlin.*

130. Subramanian, K.A. (2009). A checklist of Odonata of India.*Zoological Survey of India*. 36p.

131 Subramanian, K.A.; Sivaramakrishnan, K.G. (2007). Aquatic insects for biomonitoring freshwater ecosystems - a methodology manual.*Ashoka Trust for Research in Ecology and Environment, Bangalore, India*. 31p.

132. Takhelmayum, K.; Gupta, S. (2011). Distribution of aquatic insects in Phumdis (floating island)of Loktaklake, Manipur, Northeastern India. *Journal of Threatened Taxa.*3(6): 1856-1861.

133. Takhelmayum, K.; Gupta, S. (2014). Odonata larvae of KeibulLamjao National Park, Manipur, North-Eastern India.*Journal of Threatened Taxa.*6(6): 5858-5863.

134. Tsuda, S. (1991). A distributional list of World Odonata.*Osaka Pref., Japan*. 362p.

135. Uniyal, V.P.; Mitra, A.; Mathur, P.K. (2000). Dragonfly fauna (Insecta :Odonata)in Great Himalayan National Park, Western Himalaya. *Annals of Forestry*. 8(1): 116-119.

Author Index

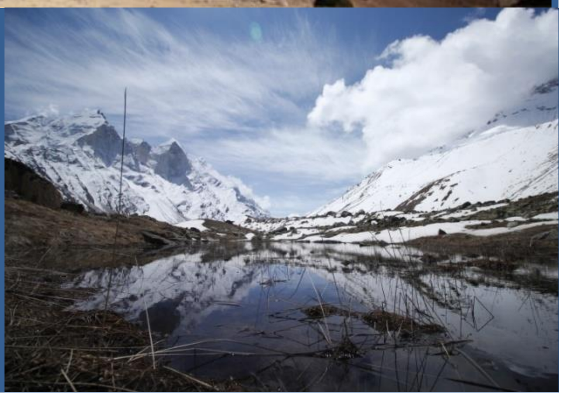
Butterfly

Author Index

Odonata

07

Soil Nematodes of the Indian Himalayan Region



Bibliography on the Soil Nematodes of the Indian Himalayan Region

Priyanka Kashyap, Manish Bhardwaj and Virendra Prasad Uniyal

Introduction

The nematodes are ubiquitous found everywhere on this earth, even in uninhabitable habitats from hot spring, ice to deep ocean trenches. Some of them are the parasites of agricultural and horticultural crops, invertebrates and vertebrates. A majority of them are free living in the soil or marine, or freshwater and some are predaceous. Nematodes occur in a wide range of habitats which is uncomparable by any other metazoan group. About 0.1-1.0 million marine nematodes may be found per Sq.m. Roughly it has been estimated that out of 500,000 nematode species over the world; approximately 80,000 nematode species may be existing in India. Nematode have huge expected number of species, only some species in thousands are known till date from all over the world. In India, considerable work has been done on animal nematodes but the work on plant and soil nematodes started late. The first plant parasitic (root-knot) nematode was reported by Barber (1901) from tea gardens of southern India.

Soil nematodes act as a good biological agent in the management of plant parasitic nematodes. There has been a prominent increase in the use of nematodes in environmental studies as it provides easy detection of change in decomposition pathways and soil functioning at an early stage resulting in soil health status, ultimately act as a bio indicator for climate change. Certain nematodes take part in maintaining natural balance in the soil while a few are good experimental animals in the basic research on nutrition, physiology, genetics, etc. A few families like Rhabditidae, Cephalobidae etc may be considered as indicator species. Nematodes can be used for determining pollution and other types of aquatic disturbances as nematodes can ingest heavy metals and other pollutants settled in the sediments. They can be used for determining pollution and other types of disturbances.

The great diversity of life forms, evolved as a result of variation in climatic conditions and topography which is distributed in a variety of habitat types ranging from tropical's to rainforest; temperate forest and alpine grasslands in Himalaya. In India history of nematode research is too young and this it is not possible to compare the present state of the art with the past. The first vertebrate nematode was recorded in 1855 while the first plant nematode in 1901. We compiled a bibliographic database of studies on soil nematodes conducted in Indian Himalayan Region.

Methods: Data was searched using the search terms Himalaya, soil nematodes and name of the six Himalayan States such as Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh on internet, library of zoological survey of India, Dehradun and its e-publications. All the information were entered in the Microsoft Excel Spreadsheet and arranged alphabetically to remove any duplication. All the analyses were carried out in Microsoft Excel to determine the trend of research over the decades, the emphasised areas and the knowledge gap.

Result and Discussion: The bibliography on micro fauna of Indian Himalayan Region includes 209 unique entries covering years starting from 1956 to 2016. We categorized the articles in three distinct ways: A) The first category was based on parts of 5 Himalayan States (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh) where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1956 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the levels of broad subject (ecology and behaviour, taxonomy, evolution, conservation and climate change impact) at which the research was carried out.

Entries based on 5 Himalayan states of Indian Himalayan Region

Most no studies are from Jammu and Kashmir (Fig. 7.1) followed by Himachal Pradesh. Least number of studies was reported from Arunachal Pradesh and Sikkim.

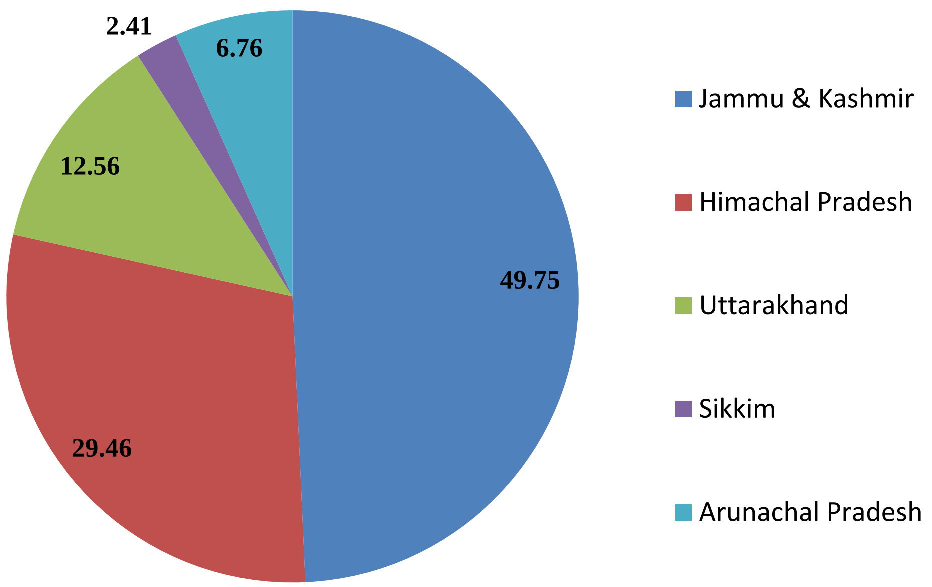


Figure 7.1 State wise distribution of publications

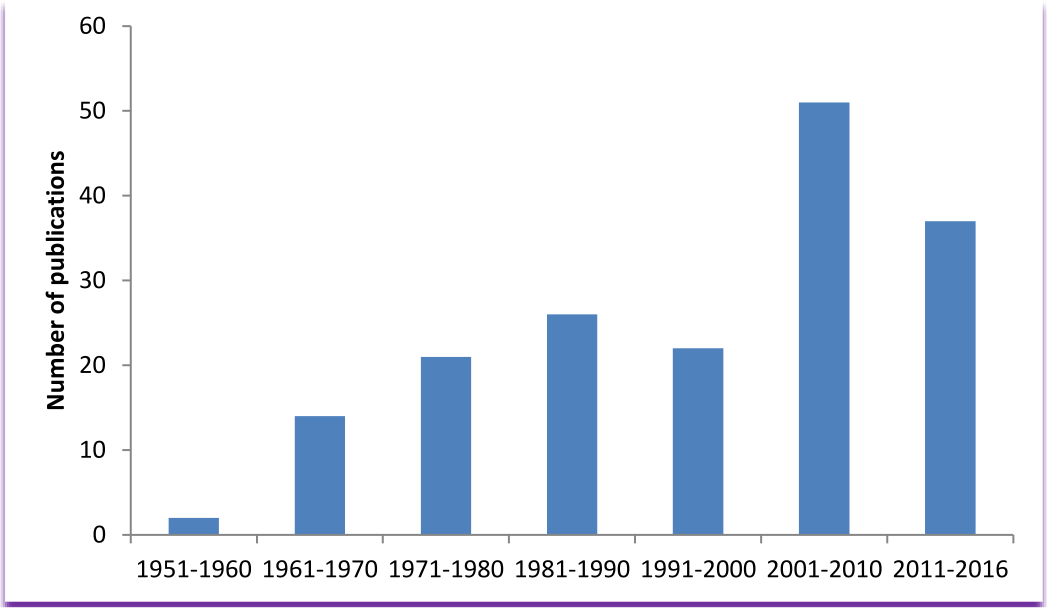


Figure 7.2 Temporal pattern of publications on nematodes of Indian Himalayan Region

The results show that there is an increase in nematode research during last decades. However, it is observed that there was a drop during the period from 1991-2000 (Figure 7.2).

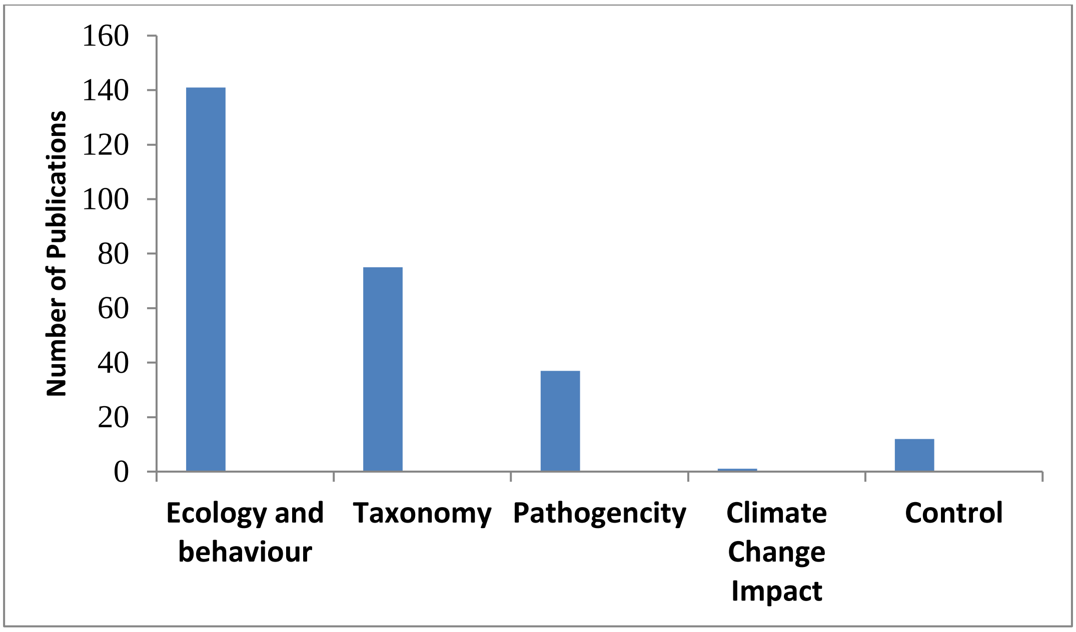


Figure 7.3 Number of publications on nematodes of the Indian Himalayan Region in different subject categories

Studies grouped based on subject focus

Based on the subject focus of the research the publications were categorized based on the levels of broad subject (ecology and behaviour, taxonomy, pathogencity, climate change impact and control) in Indian Himalayan region (Figure 7.3).

Research Gaps and Future Priorities

It is observed that most of the studies are result of random surveys in most of the states of IHR. Moreover, these studies are attempts to identify the important nematode pests of agricultural crops which show that considerable work has been done on nematodes residing in agricultural fields and studies on nematodes from forest ecosystems are very meagre. There is an increase in number of studies on nematodes during last decades which may be attributed to the fact that there is advancement in technology during this period. It is also observed that most of the work has been conducted on plant-parasitic nematodes while there are very few studies on bacteriovors, fungivores and omnivores nematodes. There are a large number of studies on ecology and behaviour theme followed by taxonomy, pathogenicity and their control. Studies on themes like genetics, climate change are needed.

References cited in the chapter are included in the bibliography

Bibliography

Nematodes of the Indian Himalayan Region

001. Abbas, A.; Waliullah, M.I.S. (2010). Prevelance of plant parasitic nematodes in *Gladiolushortulans* L. in and around Srinagar, Kashmir.*Indian Journal of Nematology*. 40(2): 179-183.

002. Abid, H. (2013). Studies on Taxonomy of nematodes of the Order *Mononchida* in Jammu division of Jammu and Kashmir State India.*Synopsis of Ph.D. submitted to Baba Gulam Shah Badshah University, Rajouri*. 13p.

003. Adekunle, O.; Kulshrestha, S.; Prasad, R.; Hallan, V.; Raikhy, G.; Verma, N.; Ram, R.; Kumar, S.; Zaidi, A.A. (2006). Plant parasitic and vector nematodes associated with Asiatic and Oriental hybrid lilies. *Bioresource Technology*. 97(3): 364-371.

004. Ahmad, F.; Siddiqui, M.A. (2009). Management of root-knot nematode, *Meloidogyne incognita* in tomato.*Pakistan Journal of Nematology*. 27(2): 369-373.

005. Ahmad, M.; Jairajpuri, M.S. (1979). Nematodes from high altitude in India. VIII. *Pungentusclavatus* n. sp. with a key to species of the Genus *Pungentus(Nematoda: Dorylaimida)*. *Revue de Nematologie*. 2(2): 185-189.

006. Ahmad, W.; Baniyamuddin, M.; Mushtaq, P. (2009). Some new and known species of the subfamily *Lordellonematinaesiddiqi*, 1969 (*Qudsianematidae: Dorylaimida*). *Nematology*. 11(5): 769-792.

007. Akhtar, Y.A.; Ahmad, W.; Jairajpuri, M.S. (1996). Two new species of *Dorylaimida* (Nematoda)from Kashmir valley, India.*Records of the Zoological Survey of India*. 94(1): 87-92.

008. Ali, S.S.; Jairajpuri, M.S.; Coomans, A. (1974). Nematodes from high altitude in India. IV. Two New species of *Belondiridae* Thorne, 1939, (*Dorylaimida*). *Nematologica*. 19: 498-507.

009. Anwar, M.; Riaz, A.; Haque, I.U.M.; Mughal, S. (2013). Occurrence and pathogenicity of common scab and soft rot potato in Azad Jammu and Kashmir (Pakistan). *Pakistan Journal of Phytopathology*. 25(1): 15-22.

010. Askary, T. (2014). Distribution of phytonematodes associated with stone and nut fruits in Kashmir valley, India. *Journal of Applied Horticulture*. 16(2): 136-140.

011. Askary, T.; Banday, S.; Iqbal, U. (2012). Plant parasitic nematode diversity in pome, stone and nut fruits.*In: Agroecology and Strategies for Climate Change-Sustainable Agriculture*. 8: 237-268.

012. Askary, T.; Mir, M.; Banday, S. (2013). Population dynamics of plant parasitic nematodes associated with Pome fruits. *Annals of Plant Protection Sciences*. 21(1): 157-159.

013. Baniyamuddin, M. (2005). Studies on nematode diversity of the natural forests in Arunachal Pradesh.*Department of zoology, Aligarh Muslim University*.

014. Baniyamuddin, M.; Ahmad, W. (2006). Description of *Longidorusdimorphicaudatus* sp. *N. (Nematoda: Dorylaimida)*from Arunachal Pradehsh, India. *NematologiaMediterranea*. 34: 89-92.

015. Baniyamuddin, M.; Ahmad, W. (2006). New and known species of *Dorylaimidae(Nematoda: Dorylaimida)*from Arunachal Pradesh, India. *Nematology*. 8(4): 491-510.

016. Baniyamuddin, M.; Ahmad, W. (2007). Some new and known species of *Dorylaimoidea (Dorylaimida: Nematoda)*from natural forest of Arunachal Pradesh, India. *Journal of Nematode Morphology and Systematics*. 10(1): 75-95.

017. Baniyamuddin, M.; Ahmad, W. (2009). *Paratimmusprovulvatus* gen nov. , sp. nov.*(Dorylaimida: Mydonomidae)*from Natural forests in Arunachal Pradesh, India.*Journal of Natural History*. 43(37-38): 2357-2363.

018. Baniyamuddin, M.; Tomar, V.V.S.; Ahmad, W. (2007). Functional diversity of soil inhabiting nematodes in natural forests of Arunachal Pradesh, India.*NematologiaMediterranea*. 35: 109-121.

019. Baqri, Q. (1991). Contribution to the fauna of Sikkim. Nematodes associated with citrus from Sikkim, India. *Records of the Zoological Survey of India, Occasional Paper 128*. 103pp.

020. Baqri, Q.; Ahmad, N. (2000). Qualitative and quantitative studies of plant and soil inhabiting nematodes associated with rice crop in Sikkim, India. *Records of the Zoological Survey of India*. 98(1): 137-148.

021. Baqri, Q.H.; Bohra, P. (2005). Plant and soil nematodes.Zoological Survey of India - *Fauna of Western Himalaya (Part 2)*.pp. 23-37.

022. Baqri, Q.H.; Jairajpuri, M.S. (1974). Nematodes of high altitudes in India. V. Five new species of the *Genus Enchodelus* Thorne, 1939 *(Dorylaimida).Nematologica*. 20: 131-146.

023. Baqri, Q.H.; Jairajpuri, M.S. (1975). Nematodes of high altitude of India. VI. *Enchodelusthornei* sp. n. and relationship of the Genera *Enchodelus, Oonaguntus* and *Malekus*. *Indian Journal of Nematology*. 5(2): 185-188.

024. Bhagat, R.C. (2008). Nematodes (Animal and plant parasitic)and Parasitic Leeches.*In: Biodiversity of Parasite Fauna-Jammu, Kashmir and Ladakh Himalayas (Book)*. pp. 51-59.

025. Bhagat, R.; Khajuria, M. (2008). Efficacy of biopesticides and insecticides in controlling maize cutworm in Jammu.*Journal of Biological Control*. 22(1): 181-190.

026. Bhardwaj, A.K.; Sharma, P.L.; Phunchog, S. (1972). Root knot nematode (*Meloidogyne*spp.)infestation on tomato in Solan area of Himachal Pradesh.*Indian Journal of Nematology.* 2: 197-198.

027. Bhat, I.A. (2016). Studies on Plant parasitic nematodes of some vegetables and medicinal plants of Kashmir with special reference to damage and management.*Ph.D. Thesis, University of Kashmir.*

028. Bhat, O.; Kaul, V. (1994). Influence of soil temperature on the population behaviour of root-knot nematode, *Meloidogyne incognita* in a tomato field. *Annals of Plant Protection Science*. 2(1): 28-29.

029. Chandel, Y.S. (1995). Occurrence of plant paratisitic nematodes with tea in Himachal Pradesh.*Current Nematology*.6: 79.

030. Chandel, Y.S.; Kumar, S. (2010). An analysis of nematode problems in green house cultivation in Himachal Pradesh and avoidable losses due to *Meloidogyne incognita* in Tomato.*Indian Journal of Nematology*. 40(2): 198-203.

031. Chaturvedi, Y. (2003). Nematodes.*Zoological Survey of India - State Fauna Series 9: Fauna of Sikkim Part 5*. pp. 45-70.

032. Dangwal, L.; Singh, A. (2011). Common weeds of Kharif crops of block Sunderbani district Rajouri (Jammu and Kashmir). *Pakistan Journal of Weed Science*. 17(1): 9-15.

033. Das, J.; Das, A.K. (2000). Prevalence of root knot nematodes on vegetable crops in Assam and Arunachal Pradesh.*Indian Journal of Nematology*. 30(2): 244-245.

034. Das, J.; Rao, P.V.L.; Das, A.K.; Singh, B. (1991). Prevalence of root-knot nematodes in Assam and Arunachal Pradesh.*Indian Journal of Hill Farming*. 4: 67-68.

035. Das, S.K. (2015). Integrated nematode management in Chickpea against *Meloidogyne incognita* - a view point.*Universal Journal of Agricultural Research*. 3(5): 145-149.

036. Deysarkar, S.R.; Sen, D. (2008). On four new nematode species of the Genus *DiplotriaenaRailliet* and Henry, 1909, from Uttarakhand, India.*Records of the Zoological Survey of India.* 108(4): 105-112.

037. Fotedar, D.N.; Handoo, Z.A. (1974). Two new species of Helicotylenchus Steiner (*HopololaiminaeHematoda*)from Kashmir.*Journal of Science, University of Kashmir*. 2(1): 55-62.

038. Fotedar, D.N.; Handoo, Z.A. (1977). *Aerotylenchussafroni*n.ge., n. sp. (*Nematoda: Tylenchida*)from Kashmir. *Indian Journal of Nematology*. 7(2): 145-147.

039. Fotedar, D.N.; Handoo, Z.A. (1978). A revised scheme of classification to order *Tylenchida* Thorne, 1949 (Nematoda).*Journal of Science, University of Kashmir*. 3: 55-82.

040. Fotedar, D.N.; Kaul, V. (1982). Plant parasitic nematodes associated with various crops of Kashmir. *Kashmir University Research Journal*. 2: 26-31.

041. Fotedar, D.N.; Kaul, V. (1984). *Tylenchusandrassyi*sp.nov.(*Nematoda: Tylenchinae*)from Kashmir.*Journal of Helminthology*. 35(1): 43-46.

042. Fotedar, D.N.; Kaul, V. (1985). On some species of the Genus *Helicotylenchus* Steiner, 1945 (*Hoplolaimidae: Nematoda*), common plant parasitic nematodes in Kashmir, India. *IndianJournal of Nematology*. 15(1): 9-13.

043. Fotedar, D.N.; Mahajan, R. (1971). On a new species of Genus *Tylenchorhynchus* Cobb. 1913 (*Nematoda: Tylenchorhynchidae*)from Kashmir, India. *Kasmir Science*. 8(1): 120-122.

044. Fotedar, D.N.; Mahajan, R. (1972). A new species of the Genus *Basiria*Siddiqi, 1954 from around the roots of Brassica oleracea in Kashmir.*Proc. Indian Science Congress, Part III*.P. 430.

045. Fotedar, D.N.; Mahajan, R. (1972). Two new nematodes species (*Nothotylenchidae*)from Kashmir.*Indian Journal of Nematode*. 2(2): 169-172.

046. Fotedar, D.N.; Mahajan, R. (1973). On two species of the Genus *Basiria*Siddiqi, 1959 (*Nematoda: Psilenchinae*)from Kashmir, India. *Indian J. Zool*. 1(1): 49-52.

047. Fotedar, D.N.; Mahajan, R. (1974). Four new species of Genus *Helicotylenchus* Steiner, 1945 (*Nematoda: Hoplolaiminae*)from India. *Rivista di Parassitologia*. 35(2): 119-124.

048. Gardezi, S. (2006). Studies on the application of fungi and bacteria controlling insect pests in Azad Jammu and Kashmir, Pakistan.*Archives of Phytopathology and Plant Protection*. 39(1): 49-67.

049. Gupta, D.K.; Srivastava, L.S. (1990). Preliminary observations on the occurrence of root knot nematodes of some vegetable crops in Sikkim. *Indian Journal ofMycology and Plant Patholo*gy 20: 271-272.

050. Handoo, Z.A.; Fotedar, D.N. (1974). Two new species of *Helicotylenchus* Steiner, 1945 (*Hoplolaiminae: Nematoda*)from Kashmir, India. *Journal of Science, University of Kashmir*. 2(1-2): 56-62.

051. Hussain, A.; Tahseen, Q.; Khan, R.; Jairajpuri, M.S. (2004). Description of two new species of *Myctolaimus* Cobb, 1920 (*Nematoda: Cylindrocorporidae*)from Northern India. *Journal of Nematode Morphology and Systematics*. 6(2): 95-102.

052. Jain, R.K.; Bhatti, D.S. (1983). Chemical control of *Meloidogynejavanica* in tomato through nursery bed treatment.*IN: Third Nematology Symposium, Himachal pradesh Agricultural University, Solan, India*. pp. 37-38.

053. Jairajpuri, M.S. (1963). Two new species of the Genus *Criconemoides* Taylor, 1936 (*Nematoda: Criconematidae*)from North India.*Nematologica*. 9(3): 381-385.

054. Jairajpuri, M.S. (1964). On *Pratylenchidaecrenicauda* Winslow, 1958 (*Nematoda: Pratylenchinae*)from Srinagar (Kashmir,), India. *Current Science*. 33(11): 339.

055. Jairajpuri, M.S. (1965). *BasiriaKashmirensis* n. sp. (*Nematoda: Tylenchida*)from India. *Labdev Journal of Science and Technology*. 3(1): 23-25.

056. Jairajpuri, M.S.; Baqri, Q.H. (1973). Namatodes of high altitudes in India I.Four new species of *Tylenchida*.*Nematologica*. 19: 19-30.

057. Jairajpuri, M.S.; Coomans, A. (1977). Nematodes from high altitude of India. VII. Aquatidesdeconicki sp. n. (*Dorylaimida, Nematoda*). *Indian Journal of Nematology*. 5: 243-246.

058. Jairajpuri, M.S.; Siddiqi, A.H. (1963). A new and known species of the Genus *Tylencholaimellus* M.V. Cobb, 1915 (*Nematoda: Dorylaimoidea*)from India with a key to its species with key to its species. *Zeitschrift fur Parasitenkunde*. 22(6): 489-494.

059. Jairajpuri, M.S.; Siddiqui, A.H. (1963). On *Psilenchusneoformis* n. sp. *(Nematoda: Tylenchida*)from Solan, H.P., North India. *Current Science*. 32: 318-319.

060. Jairajpuri, M.S.; Siddiqui, A.H. (1963). On three new species of the Genus *Criconemoides* Taylor, 1936 (*Nematoda: Criconematidae*)from North India. *Zeitschrift fur Parasitenkunde*. 23: 34-347.

061. Jauhari, R.K.; Lal, M. (2001). Effect of soil moisture on the population of migratory nematode *Pratylenchuspenetras* (Cobb, 1917)(*Nematoda: Hoplolamidae*)on tea plantations in Doon valley. *Journal of Parasitology and Applied Animal Biology*. 10: 1-8.

062. Kaul, V. (1984). Seasonal fluctuation of phytonematodes in two fruit nurseries in Kashmir.*Indian Journal of Helminthology*. 37(1): 4-11.

063. Kaul, V. (1984). Studies on the plant-parasitic Nematodes in Kashmir.*Ph.D. Thesis, P.G. Deptartment. of Zoology, Faculty of Science, University of Kashmir, Srinagar, Kashmir, (J&K).*pp. 247.

064. Kaul, V. (1987). Two new species in the super-family *Hopolaimoidea* (Nematode)from Kashmir.*Giobios New Report*. 6: 162-164.

065. Kaul, V. (1998). Plant-Nematology in Jammu and Kashmir: Aspects and prospects. In: Trivedi, P.C. (ed.), Phytonematology in India. *CBS Publishers and Distributors, Daryaganj, New Delhi*. pp. 18-22.

066. Kaul, V.; Fotedar, D.N. (1987). Morphometric variability in *Helicotylenchuserythrinae* (Emmermann)1904 Golden 1956. *Giobios New Report*. 6: 138-142.

067. Kaul, V.; Waliullah, M.I.S. (1989). A new species of *Pratylenchus*Micotetzky, 1922 (*Pratylenchidae: Nematoda*)from Kashmir. *Indian Journal of Nematology*. 19(1): 66-69.

068. Kaul, V.; Waliullah, M.I.S. (1995). *Tylenchorhynchusoryzae*sp. n. (*Tylenchorhynchidae: nematoda*)from Kashmir, India. *Annals of Plant Protection Sciences* 3(2): 155-157.

069. Kaur, D.; Sharma, N.; Kalia, D. (1989). Nematodes associated with ginger (*Zingiberofficinale* Rose.)in Himachal Pradesh. *Indian Journal of Hill Farming*. 2(1): 49-51.

070. Khan, E.; Siddiqi, A.H. (1964). *Criconemalaterale* n. sp. (*Nematoda: Criconematidae*)from Srinagar, Kashmir. *Nematologica*. 9(4): 584-586.

071. Khan, M. (2000). Occurrence of root-knot nematode (*Meloidogyne incognita*)and other plant parasitic species on Kiwi fruit (*Actinidia delicious*Chev.)in Himachal Pradesh.*Indian Journal of Nematology*. 30(2): 245.

072. Khan, M.L. (2003). Race identification of *Meloidogyne incognita* infecting fruit and vegetable crops in Himachal Pradesh.*Indian Journal of Nematology*. 33: 79-80.

073. Khan, M.L.; Verma, A.K. (2002). High altitude nematodes with special reference to Horticulture and Forestry.*In: Nematode Diversity*. edt, by M.S. Jairajpuri.

074. Khan, M.; Sharma, G. (1990). Effect of temperature and moisture on population fluctuation of nematodes in an apple orchard.*Indian Journal of Nematology*. 20(1): 1-13.

075. Khera, S. (1970). *Dorygasterkashmirensis* ng., n. sp. (*Dorygasteridae* n. fam.: *Dorylaimoidea: Nematoda*)from India. *ZoologischerAnzeiger*. 184(5-6): 434-437.

076. Khera, S.; Chaturvedi, Y. (1977). Nematodes from tea plantations of Dehradun, India.*Zoological Survey of India*. 72: 125-152.

077. Kulshrestha, S.; Hallan, V.; Raikhy, G. (2005). Reverse transcription polymerase chain reaction-based detection of Arabis mosaic virus and Strawberry latent ringspot virus in vector nematodes. *Current Science*. 89(10): 1759-1762.

078. Kumar, S.; Chandel, Y.S. (2009). Community analysis of Myceliophagous nematodes associated with commercially cultivated mushrooms in Himachal Pradesh. *Plant Disease Research*. 24(2): 178-181.

079. Kumar, S.; Chandel, Y.S.; Sharma, P.K. (2010). Community analysis of major plant parasitic nematodes associated with rice in Himachal Pradesh. *Oryza*. 47(3): 231-236.

080. Kumar, S.; Khanna, A.S.; Chandel, Y.S.; Rana, V.K.; Jandaik, S. (2010). Damage potential of *Aphelenchoidesswarupi* and *Aphelenchusavenae* in Milky mushroom, *Calocybeindica*.*NematologiaMediterranea*. 38(1): 7-12.

081. Lone, G.; Zaki, F. (2013). Report of dagger nematode *Xiphinemaamericanum* (Cobb, 1913)(*Dorylaimida: Longidoroidea*)from rhizosphere of apple trees in Kashmir (India). *SKUAST Journal of Research*. 15(2): 137-140.

082. Lone, G.; Zako, F.; Waliullah, M.I.S. (2012). Report of *Xiphinema index* Thorne and Allen, 1950 (*Dorylaimida: Longidoroidea*)associated with neglected Apple Orchards of Baramulla, Kashmir, India. *Indian Journal of Nematology*. 42(1): 71-74.

083. Mahajan, R. (1970). Effects of light on the survival of *Hoplolaium* sp., the soil nematodes surrounding the roots of *Zea mays* in Kashmir.*Indian Journal of Helminthology*. 22(1): 36-40.

084. Mahajan, R. (1971). A preliminary report on the occurrence of plant-parasitic and soil nematodes in Jammu and Kashmir State. *Kashmir Science*. 8(12): 115-119.

085.

086. Mahajan, R. (1972). On two soil nematodes, *Discolaimoidesindicum*sp.nov.and*Pungentusjuglensis*sp.na.from around roots of *Juglansregia* in Kashmir. *Journal of Helminthology*. 46(2): 161-165.

087. Mahajan, R. (1972). Studies on the soil and plant parasitic nematodes in Kashmir.*Ph.D. Thesis, Department of Zoology, Faculty of Science.University of Kashmir, Srinagar, Kashmir.*

088. Mahajan, R. (1973). Two new nematodes, *Tylenchuskashmirensis* n. sp. (Tylenchidae)and *Dorylaimodespari* n. sp. (Dorylaimoididae)from Kashmir, India.*Rivista di Parassitologia.* 34(3): 201-204.

089. Mahajan, R.; Fotedar, D.N. (1972). Studies on the soil and plant nematodes in Kashmir.*University of Kashmir Digital Repository*.

090. Makhnotra, A.K. (1998). Occurrence and distribution of plant nematodes in ginger in Himachal Pradesh.*Indian Journal of Nematology*. 28: 87-89.

091. Mir, R.; Shah, A.; Zargar, S.; Vaid, S.; Hussain, A. (2014). Molecular Comparison of four populations of *Bursillamonhystera* (Andrassy, 1976)(Nematoda: Rhabditidae)using Randomly Amplified Polymorphic DNA. *International Journal of Nematology*. 24(2): 29-34.

092. Mishra, P.; Jayaprakash, A. (1980). A record of *Meloidogyne incognita* on potato crop in Arunachal Pradesh, India.*Journal of Nematology*.10: 255.

093. Mukherjee, T.D. (1960). Chemical control of root knot nematodes parasitic on tea seedlings in North-East India.*Trop. Agric. Trinc*. 43: 335-340.

094. Mukhopadhyay, A.K.; Roy, K. (2006). Community analysis of major plant parasitic nematodes associated with vegetable crop in Eastern and North-Eastern India. *International Journal of Nematology*. 16(2): 194-199.

095. Mukhopadhyay. M.E. (1970). Nematodes associated with fruit trees and vegetable crops in Himachal Pradesh. *Agricultural* ***Research Journal. (Punjab Agriculture University)*** . 7: 656-658.

096. Munshi, N.A.; Dar, G.H.; Amman-ullah, A.S.; Dar, G.H. (2001). Report on occurrence of some mushroom nematodes in Jammu and Kashmir. *Applied Biological Research (CAAS, Shalimar, Kashmir).*3: 64.

097. Mushtaq, P. (2006). Some new and known species of the family *Qudsianematidae* (*Nematoda: Dorylaimida*)from Jammu and Kashmir, India. *Journal of Nematode Morphology and Systematics*. 9(2): 153-178.

098. Mushtaq, P. (2006). Studies on nematodes of the family *Aulolaimoididae* (*Nematoda: Dorylaimida*)with descriptions of five new species. *Nematology*. 8(5): 761-780.

099. Mushtaq, P. (2007). Three new and one known species of the Genus *Enchodelus* Thorne, 1939 (Nematoda: Dorylaimida)from India. *Nematology*. 9(5): 679-692.

100. Mushtaq, P.; Ahmad, W. (2006). Five new and two known species of Dorylaimidae (Nematoda)from Jammu and Kashmir State, India.*International Journal of Nematology*. 16(1): 19-34.

101. Mushtaq, P.; Ahmad, W. (2006). Three new and a known species of the genus *Eudorylaimus* Andrassy, 1959 (*Qudsianematidae: Dorylaimida*)from India. *Journal of Nematode Morphology and Systematics*. 9(1): 11-25.

102. Mushtaq, P.; Mahboobi, A. (2015). Some studies on soil nematode fauna of Jammu and Kashmir. *Aligarh Muslim University (Ph.D. Thesis).*

103. Mushtaq, P.; Naz, T.; Ahmad, W. (2007). Descriptions of new and known species of the superfamily *Tylencholaimoidea* (*Nematoda: Dorylaimida*)from Jammu and Kashmir, India. *Journal of Nematode Morphology and Systematics*. 10(1): 11-29.

104. Nazar, N.; Mahmood, T. (2011). Morphological and molecular characterization of selected Artemisia species from Rawalakot, Azad Jammu and Kashmir.*ActaPhysiologiaePlantarum*. 33(2): 625-633.

105. Negi, S.; Kalia, D.; Walia, K. (2009). Community analysis of plant parasitic nematodes associated with rhizosphere of Chir pine nurseries and pine trees in natural forests of Himachal Pradesh, India. *Indian Journal of Nematology*. 39(2): 182-1872009.

106. Nehru, R.K.; Bhagat, K.S.; Koul, V. (2005). Nematode fauna associated with Citrus rhizosphere in Jammu and Kashmir. *Annals of plant protection Sciences*. 13(2): 524-525.

107. Nirula, K.K.; Bassi, K.K. (1963). Golden nematode survey in Northern India.*Indian Potato Journal.* 5:52-53.

108. Pandey, A.; Namgyal, D. (2007). Major insect pest associated with forest plantations in cold arid region, Ladakh of Jammu and Kashmir. *Journal of Entomological Research*. 31(2): 155-162.

109. Pant, R.P.; Das, M.; Khan, M.R.; Pun, K.B.; Medhi, R.P. (2012). Association of an ectoparasitic nematode - *Helicotylenchusmicrocephalus*, with poor growth of Cymbidium hybrids in Sikkim.*Indian Phytopathology*. 65(2): 196-197.

110. Prasad, B. (1918). Contributions to the anatomy of aquatic Diptera - Larval and pupal stages of an Indian Chaoborus and Dixa.*Records of Indian Museum*. 1593): 153-158.

111. Prasad, K.S.K. (1986). Prevalence and intensity of root-knot nematode infection on potato in Himachal Pradesh, India.***International Nematology Network*** *Newsletter.* 3: 13-15.

112. Raina, R. (1966). *Longidorusrenejii* sp. nov.(*Nematoda: Longidoridae*)from Srinagar, Kashmir.*Indian Journal of Entomology*. 28 (4): 438-441.

113. Raj, B.; Nirula, K.K. (1970). Soil treatment for the control of root knot nematode on Potato (*Solanumtuberosum* L.).*Indian Journal of Agricultural Science*. 40(10): 878-882.

114. Rajan; Lal, A. (2005). On the non-occurrence of *Ditylenchusdipsaci* in India.*EPPO Bulletin*. 35(1): 37-41.

115. Ram, R. (1983). Ecological studies on the root-knot nematode (Meloidgyne species)in Garhwal hills. *Garhwal University (Ph.D. Thesis).*

116. Rautela, A.S.; Malhotra, S.K. (1984). Nematode fauna of high altitude avian hosts in Garhwal Himalayan ecosystems.*The Korean Journal of Parasitology*. 22(2): 242-247.

117. Rawat, V.S. (1999). Studies on predatory soil nematodes of order Mononchida in Garhwal region. *Garhwal University (Ph.D. Thesis).*

118. Rizvi, A.N. (2007). Nematoda: plant and soil nematodes, faunal diversity Western Doon Shiwaliks. *Zoological Survey of India*. 10: 5-12.

119. Rizvi, A.N. (2008). Community analysis of soil inhabiting nematode in natural sal forest of Dehradun, India.*International Journal of Nematology*. 18(2): 181-190.

120. Rizvi, A.N. (2008). Plant and soil nematodes.*In: Fauna of Conservation Areas 35: Fauna of Corbett Tiger Reserve* 35: 119-123.

121. Rizvi, A.N. (2009). Diploscapter Sp.(Nematoda: Rhabditida) associated with Termites: First report from India. *Annals of Forestry*. 17(1): 157-159.

122. Rizvi, A.N. (2010). First record of three species of soil nematodes of the suborder Cephalobina from Ladakh region, Jammu and Kashmir, India.*Journal of Threatened Taxa.* 2(11): 1286-1290.

123. Rizvi, A.N. (2010). Nematoda: Plant and Soil Nematodes. *Fauna of Uttarakhand, State Fauna Series, Zoological Survey of India*. 19(3): 81-166.

124. Rizvi, A.N. (2010). Nematodes associated with insect pests and soil of teak and sal forest of Dehradun, Uttarakhand, India. *Records of the Zoological Survey of India, Occasional paper no. 317.* 141p.

125. Rizvi, A.N. (2010). Soil nematode fauna of Ladakh.*Envis Newsletter, Zoological Survey of India.* 16(1-2): 15-16.

126. Rizvi, A.N.; Bhandari, R.S. (2008). New records of Rhabditid nematodes in frass of bark beetles from India.*Indian Journal of Nematology*. 38(2): 181-185.

127. Rizvi, A.N.; Bhutia, P.T. (2009). Some bacterivorous nematodes from Uttarakhand, India.*Records of the Zoological Survey of India*. 109(4): 79-86.

128. Rizvi, A.N.; Mehta, H.S. (2009). Significance of trophic diversity of soil nematodes.Annals of Forestry. 17(2): 369-373.

129. Rizvi, A.N.; Srivastava, S. (2013). Diversity and abundance of bacterivore and fungivore nematodes in mango orchards of Dehradun (Uttarakhand), India.*Trends in Biosciences*. 6(6): 850-853.

130. Saha, M.; Lal, M.; Singh, M. (2002). Description of Two new nematode species *Geomonhysteraauvilis* N. Sp. (*Monhysterida: Monhysteridae*)and *Longidorellaxesua* N. Sp. (*Dorylaimida: Nordidae*)from North India with a compendium of Geomonhystera spp. *Annals of Plant Protection Sciences*. 10(1): 121-127.

131. Sen, D.; Gantait, V.V.; Banerjee, S. (2014). Free Living and Plant Parasitic Soil Nematodes (Orders Dorylaimida and Tylenchida)of Himachal Pradesh India. *Records of the Zoological Survey of India*. 114(3): 379-390.

132. Seth, A.; Sharma, N.K. (1986). Five new species of the Genus Aphelenchoides (Nematoda: Aphelenchida)infesting mushroom in Northern India. *Journal of Nematology*. 16: 205-215.

133. Sethi, C.; Swarup, G. (1968). Plant parasitic nematodes of North-Western India I.The Genus Tylenchorhynchus.*Nematologica*. 14(1): 77-88.

134. Shah, A.; Ahmad, R. (2013). Molecular comparison of five populations of *Mesorhabditisspiculigera* (Steiner, 1936)(Nematoda: Rhabditidae)using randomly amplified polymorphic DNA. *International Journal of Nematology*. 23(2): 155-160.

135. Shah, A.; Vaid, S. (2015). Description of *Sclerorhabditiesminiata* n. sp. and First Description of Male of *Diploscaptercoronatus* Cobb, 1913 (Nematoda: Rhabditidae). *Journal of Nematology*. 47(28): 153-158.

136. Shah, A.; Vaid, S.; Hussain, A.; Ahmad, R. (2015). Description of *Distorhabditispoonchiana* n. gen., n. sp. (Nematoda: Rhabditidae)from Jammu and Kashmir, India. *Journal of Nematology*. 47(4): 381-385.

137. Sharma, G. (1990). Distribution pattern of *Meloidogyne incognita* and *Tylenchorhynchusmashhoodi* in apple orchards of Himachal Pradesh.*Haryana Journal of Horticultural Sciences*. 19(1-2): 86-88.

138. Sharma, G.; Bajaj, B. (1998). Effect of inter-cropping bell-pepper with ginger on plant parasitic nematode populations and crop yields.*Annals of Applied Biology*. 133(2): 199-205.

139. Sharma, G.; Bhatia, M. (2002). Effect of cultural practices on nematode populations and yield of frech beans.*NematologiaMediterranea*. 30: 23-25.

140. Sharma, G.C. (1991). Yield losses in plum (Prunusdomestica)due to nematodes. *Current Nematology*. 2(2): 171-174.

141. Sharma, G.C. (1998). Spatial distribution of nematodes in plum orchard.*J. Pest Management in Horticulture Ecosystem*. 4: 120-125.

142. Sharma, G.C. (1999). Management of nematodes in peach orchards.*J. Pest Management in Horticulture Ecosystem*. 5: 38-41.

143. Sharma, G.C. (2001). Impact of different soil components on the infestation potential of *Meloidogyneincognita* in French Bean. *Indian Journal of Agricultural Science*. 71(8): 535-537.

144. Sharma, G.C.; Bhatia, M. (2004). Impact of sowing time on the nematode populations and assessment of avoidable yield losses to the crop due to their infestation.*Indian Journal of Nematology*. 34(1): 90-92.

145. Sharma, G.C.; Kashyap, A.S. (2004). Effect of intercropping on the nematode populations and yield of peach.*Indian Journal of Horticulture*. 61: 273-285.

146. Sharma, G.C.; Kashyap, A.S. (2004). Studies on the population dynamics of phytoparasitic nematodes in kiwi fruit.*Indian Journal of Nematology*. 34(1): 87-88.

147. Sharma, G.C.; Khan, M.L. (1995). Effect of NPK fertilizers on *Meloidogyne incognita* infestation and growth parameters in Tomato.*Indian Journal of Nematology*. 25(2): 147-149.

148. Sharma, G.C.; Rastogi, K.B.; Shukla, Y.R.; Khan, M.L. (1995). Reaction of cucumber varieties to root-knot nematode.*Annals of Agric. Res*. 16(10): 33-35.

149. Sharma, G.C.; Sen, S. (2015). Status of plant parasitic nematodes in apple orchards of Himachal Pradesh.*International Journal of Farm Sciences*. 5(3): 171-178.

150. Sharma, G.C.; Sharma, N.K. (1987). Effect of initial inoculum levels and muliplication potential *Paratylenchusprunii* on Peach.*Indian Journal of Nematology*. 17(2): 211-213.

151. Sharma, G.C.; Sharma, N.K. (1988). Effect of environmental temperature on the population buildup of *Paratylenchusprunii* in peach rhizosphere.*Indian Phytopathology*. 41: 469-470.

152. Sharma, G.C.; Sharma, N.K. (1988). Effect of *Paratylenchusprunii* and *Meloidogyne incognita* on Peach seedlings.*NematologiaMediterranea*. 16: 117.

153. Sharma, G.C.; Sharma, N.K. (1989). Spatial distribution of *Paratylenchusprunii* in peach rhizosphere.*Him. J. Agric. Res*. 15(2): 99-100.

154. Sharma, G.C.; Sharma, N.K. (1990). Distribution of three important nematode species in the rhizosphere of plum trees.*Indian Journal of Horticulture*. 47(2): 207-209.

155. Sharma, G.C.; Sharma, N.K. (1992). Efficacy of some pesticides against pin nematode on peach.*Indian Journal of Hill Farming*. 5(2): 127-128.

156. Sharma, G.C.; Sharma, N.K.; Khan, E. (1986). Two new species of genus *Paratylenchus*Micoletzky, 1922 (*Nematoda: Paratylenchinae*)from Himachal Pradesh, India. *Indian Journal of Nematology*. 16: 231-235.

157. Sharma, G.C.; Thakur, B.S.; Kashyap, A.S. (2005). Impact of NPK fertilizers on the nematode populations and yield of plum (*Prunussalicina* var. santarosa).*ActaHorticulturae*. 696: 433-436.

158. Sharma, G.C.; Thakur, B.S.; Kashyap, A.S. (2006). Impact of NPK fertilizers on the nematode populations and yield of plum (*Prunussalicina* var. santarosa).*Indian Journal of Horticulture.* 63(4):450-452.

159. Sharma, G.S.; Sharma, N.K.; Khan, M.L. (1988). Plant parasitic nematodes of plum (*Prunusdomestica*)in Himachal Pradesh, India.*Indian Journal of Horticulture*. 45: 355-358.

160. Sharma, N. (2013). Studies of Nematodes Associated with Okra. *International Journal of Scientific and Research.* 3(7): 1-4.

161. Sharma, N.K.; Kaur, J. (1986). Nematodes associated with temperate fruit crops in Himachal Pradesh. *In: Chadha, T.R., Bhutani, V.P., Jaul, J.L. (eds). Advances in Research on temperate fruit.Solan, Himachal Pradesh, India.Dr. Y.S. Parmar University of Horticulture and Forestry*. P. 359-362.

162. Sharma, N.; Kaur, D. (1987). Parasitism of root-knot nematode, Meloidogyne sp. on apple in Himachal Pradesh.*Indian Journal of Hill Farming*. 1(1): 69.

163. Sharma, P. (2008). Studies on the distribution and population dynamics of certain plant parasitic nematodes in some agro-ecological conditions in district Kangra (H.P.).*Garhwal University (Ph.D. Thesis)*.

164. Sharma, P.; Kiran, S. (2009). Effect of soil types on nematode population (s)in Kangra valley (Himachal Pradesh).*International Journal of Agricultural Sciences*. 5(2): 443-444.

165. Sharma, V. (2011). Diversity of terrestrial nematodes in Uttarakhand.*Journal of Experimental Zoology, India*. 14(2): 572-582.

166. Sharma, V. (2014). New records of nematodes (*Nematoda :Dorylaimida*)from Govind Wildlife Sanctuary, Uttarakhand, India. *Journal of Academia and Industrial Research*. 3(7): 337-342.

167. Sharma, V.; Dubey, A. (2015). Nematode fauna of Rajaji National Park, with first record of *Granonchulussubdecurrens*Coetzz, 1966 (*Mononchida: Mylonchulidae*)from India. *Agriculture, Forestry and Fisheries*. 4(1): 1-6.

168. Siddiqi, M.R. (1963). Four new species of the genus Tylenchusbastian, 1865 (Nematoda)from North India.*Zeitschrift fur Parasitenkunde*. 23: 170-180.

169. Singh, S. (1977). Isolation of an Entomophilic nematode from potato cutworms.*Current Science*.46: 454-455.

170. Singh, V.; Gupta, R. (2011). First report of *Meloidogynejavanica* on ginger and *Meloidogyne incognita* on coriander in Jammu and Kashmir (India).*Journal of Horticultural Sciences.* 6(6): 74-75.

171. Singh, V.K. (2009). Occurrence of root know nematode, *Meloidogyne incognita* on Carrot in Jammu. *Indian Journal of Nematology*. 39(2): 245.

172. Singh, V.K. (2009). Root knot nematode, *Meloidogyenejavanica* on citrus in Jammu.*Indian Journal of Nematology*.39: 240.

173. Singh, V.K. (2012). Root-knot nematode, *Meloidogynejavanica* of strawberry - a new host record from India.*Indian Phytopathology*. 65(2): 211.

174. Singh, V.K.; Kalha, C.S.; Kaul, V. (2007). New record of root-knot nematode, *Meloidogynegraminicola* infecting rice in Jammu.*Indian Journal of Nematology*.37: 94.

175. Singh, V.K.; Koul, V.; Kalha, C.S.; Singh, P.; Singh, V.B.; Verma, V.S. (2008). New record of root-knot nematode, *Meloidogyne incognita* infecting lentil in Jammu.*Journal of Research, SKUAST.* 7(2): 267-268.

176. Singh, V.K.; Singh, H.V.; Satyapriya; Singh, P. (2016). New record of root-knot nematode caused by *Meloidogyne incognita* infecting berseem in J and K, India.*Range Management and Agroforestry*.31: 154.

177. Singh, V.K.; Singh, V.B.; Verma, V.S.; Singh, P. (2012). Record of root-knot nematode, *Meloidogynejavanica* on Papaya and *Meloidogyne incognita* on banana in Jammu.*Indian Journal of Nematology*. 42: 83-102.

178. Singh, V.K.; Singh, V.B.; Zalpuri, L. (2012). Survey, pathogenic effect and management of root-knot nematode *Meloidogyne incognita* on Okra.*Indian Journal of Nematology*. 42: 161-168.

179. Sirohi, A.; Singh, K. (2011). Occurrence of Heteroderaavenae in High Altitude of Ladakh Region, India.*Annals of Plant Protection Sciences*. 19(2): 502.

180. Soota, T.D.; Sarkar, S.R.D. (1981). On some nematodes from Solan district, Himachal Pradesh, India.*Records of the Zoological Survey of India*. 79: 169-177.

181. Srivastava, A.; Kaushal, K. (1991). Heteroderazeae at high altitudes in Himachal Pradesh.*Indian Journal of Nematology*. 21(2): 163-164.

182. Srivastava, A.; Jaiswal, R. (2010). Biodiversity of maize cyst nematode, *HeteroderaZeae* in maize-wheat cropping system in Himachal Pradesh.*Annals of Plant Protection Sciences*. 18(1): 282.

183. Srivastava, N. (1999). Studies on plant parasitic and soil nematodes associated with *Litchi chinensis*sonner in district Dehradun. *Garhwal University (Ph.D. Thesis).*

184. Sultan, M.S.; Jairajpuri, M.S. (1978). Nematodes of high altitude of India III.*Helicotylenchusgoldeni* no. sp. (Nematoda: Tylenchida). *Indian Journal of Nematology*. 8(2): 169-171.

185. Sultan, M.S.; Jairajpuri, M.S. (1979). Nematodes of high altitudes in India IX. Descriptions of two new species of Rotylenchus (Nematoda: Tylenchida). *Revue de Nematologie*. 2(2): 191-196.

186. Swarup, G.; Sethi, C. (1968). Plant parasitic nematodes of north-western India. II. The genus Helicotylenchus. *Bulletin of Entomology, Loyola College*. 9(1): 76-80.

187. Tahseen, Q.; Qazi, M.A.; Mustaqim, M.; Ahlawat, S.; Bert, W. (2013). Descriptions of ten known species of the superfamily Monochoidea (Monochida: Nematoda)from North India with a detailed account on their variations. *Zootaxa*. 3646: 301-335.

188. Thakur, N.; Sharma, G.C. (2015). Status of plant parasitic nematodes in ginger fields of Himachal Pradesh. *International Journal of Science, Environment and Technology*. 4(4): 976-979.

189. Thapa, R. (1995). Ecological studies on plant parasitic nematodes, *Paralongidorussali*Siddiqui Hooper and Khan and other nematodes associated with seedlings and trees of Sal (*Shorearobustagaertin*.F.)in natural regeneration areas of Dehra Dun. *Garhwal University (Ph.D. Thesis).*

190. Thirumalachar, M.J. (1951). Root-knot nematode on potato tubers in Shimla.*Current Science.* 20(4): 104.

191. Vaid, S.; Shah, A. (2014). Diversity of soil inhabiting nematodes in Dera Ki Gali forest of Poonch district, Jammu and Kashmir, India.*International Journal of Nematology*. 24(1): 1-6.

192. Vaish, S.; Ahmed, S.; Prakash, K. (2012). First documentation on status of barley diseases from the high altitude cold arid Trans-Himalayan Ladakh region of India.*Journal of Wheat Protection Crop Protection*.4(2).

193. Vashisth, S.; Chandel, Y.S.; Chandel, R.S. (2015). Distribution and occurrence of entomopathogenic nematodes in Himachal Pradesh.*Journal of Entomological research*. 39(1): 71-76.

194. Verma, R.R.; Singh, H.R. (1983). Distribution and host records of root-knot nematode, meloidogyne spp. in Garhwal Hills.*Indian Journal of Nematology*. 13(2): 234.

195. Waliullah, M.I.S. (1992). Nematodes associated with vegetables crops in the Kashmir Valley, India. *NematologiaMediterranea*. 20(1): 47-48.

196. Waliullah, M.I.S. (2005). Nematodes associated with Kiwi (*Actinidiadeliceous*Chev.)in Kashmir Valley, India. *Indian Journal of Nematology*. 35(2): 227.

197. Waliullah, M.I.S.; Bhat, M. (1990). Occurrence of mixed population of PratylenchusFilipjev, 1936 on potato (*Solanumtuberosum* L.)in Srinagar, Kashmir.*Indian Journal of Nematology*. 20(2): 239-241.

198. Waliullah, M.I.S.; Kaul, V. (1997). Nematodes associated with cherry plant in Kashmir valley. *Indian Journal of Nematology*. 27(2): 237.

199. Waliullah, M.I.S.; Kaul, V.; Zaki, F.A. (1991). The rice-root nematode, Hirschmanniella sp. in Jammu and Kashmir.*Giobios New Report*. 10: 175-176.

200. Waliullah, M.I.S.; Masoodi, M.; Kaul, V. (1993). Population behaviour of nematodes associated with strawberry (*Fragariavesca* L.)in Srinagar, Kashmir. *Current Nematology*. 4(1): 41-44.

201. Wasim, A.; Jairajpuri, M.S. (1986). *Baqriellaqaiseri*gen. n. sp.n.(Nematoda: Dorylaimida)from Mussorri hills, India.*Indian Journal of Nematology*. 16: 231-235.

202. Yadav, A.; Khajuria, J.; Raina, A. (2006). Seasonal prevalence of gastrointestinal parasites in sheep and goats of Jammu.*Journal of Veterinary Parasitology*. 20(1): 65-68.

203. Yasmin, A.; Ahmad, W.; Jairajpuri, M.S. (1994). Two new species of Dorylaimida (Nematoda)from Kashmir valley, India.*Bulletin Zoological Survey of India*. 94: 87-92.

204. Z aki, F.A.; Kaul, V.; Waliullah, M.I.S. (1993). Crop losses estimation in tomato and potato caused by plant-parasitic nematodes in Kashmir.*Indian Journal of Nematology*. 23(1): 101-104.

205. Zaki, F.A.; Mir, A.A. (1994). First record of the ear cockle nematode (*Anguinatritici* on wheat in Ladkah.*Indian Journal of Nematology*. 24: 228-229.

206. Zaki, F.; Mantoo, M. (2003). Plant parasitic nematodes associated with temperate fruits in Kashmir valley, India.*Pest Management and Economic Zoology*. 11(1): 97-101.

207. Zalpuri, L. (2010). General survey of plant parasitic nematodes associated with Citrus plants in Jammu region. *M.PhilDisseratation, Department of Zoology, University of Jammu.*

208. Zalpuri, L.; Tara, J.; Singh, V. (2013). Plant parasitic nematodes associated with citrus plantations in Jammu region. *Indian Journal of Nematology*. 43(2): 217-219.

209. Zalpuri, L.; Tara, J.; Singh, V. (2013). Prevalence of plant parasitic Nematodes (Citrus species)in various villages of Jammu region.*International Journal of Scientific and Research Publications*. 3(6): 1-3.

Author Index

Nematodes

08

Microflora (lichens, fungi and bacteria) of the Indian Himalayan Region

Bibliography on microflora (lichens, fungi and bacteria) of the Indian Himalayan Region

Pamela Bhattacharya, Sonam Priyadarshani, Devendra Kumar, Ishwari Datt Rai, GautamTalukdar and Gopal Singh Rawat

Introduction

Microflora plays a fundamental role in the biogeochemical cycle of the earth, therefore maintaining balance of the basic support system of life. Microorganisms are beneficial in increasing the soil fertility and plant growth as they are involved in several biochemical transformation and mineralization activities in soils. Lichen, fungi and bacteria are pioneer in the initial process of soil formation and ecosystem development. In the process of ecological succession these are primary colonizer of inorganic system or bare rock, secrete acids and initiate process of soil formation. They are important indicator of the ecosystem health and important for monitoring change in their surroundings. Soil fungi and bacteria play a key role in many essential processes such as organic matter decomposition and elemental release by mineralization. The vast metabolic diversity of soil microbes means their activities drive or contribute to the cycling of all major elements (e.g. C, N, P), and this cycling affects the structure and the functions of soil ecosystems as well as the ability of soils to provide services to people. In this chapter we compiled bibliography of the available literature on the microflora in the Indian Himalayan Region (IHR). We presented a brief about the coverage of studies along the Himalayan zone, trends of the publication from earliest available data and coverage in terms of the taxonomy, ecology and other relevant fields. The chapter is divided in to 3 taxa specific section followed by bibliography.

Methods

Web search engines such as Google Scholar, Scopus and Web of Knowledge were used using the keywords and terms Himalaya, name of the Himalayan states including terms like microflora, microorganisms, soil bacterial/microbial diversity,lichen, bacteria and fungi. Old literature was extracted from the subject websites such as www.botanicus.org, www.archive.org, www.biodiversityheritagelibrary.org etc. Literatures were collected on various aspects of studies onlichenfrom Lichenology Laboratory and Library of CSIR-National Botanical Research Institute (NBRI), Lucknow. All information were entered in Microsoft excel spreadsheet and organized into different categories such as literature available from six Himalayan States; their publication dates and subject focus of the research. The publications were categorized based on the broad subject of research such as taxonomy, ecology, genetics/genomics, conservation, and climate change. All analyses were carried out in excel spreadsheet to determine the trend of research over the decades, the emphasized research areas and knowledge gap.

1. LICHEN

Lichens, the mutualistic association of an alga (microalgae/cyanobacteria) and fungus are the most successful symbiotic relationship in nature. This peculiar association of the two symbionts makes lichens one of the most unique organisms on the earth, capable of inhabiting the extreme environmental condition and pioneer habitats. Lichens are most effective and reliable indicators of ecosystem functioning, environmental conditions and are sensitive to a wide variety of environmental stressors like habitat destruction, air pollution and climate change. They are various in growth forms such as crustose, foliose, squamulose, leprose, fruticose and dimorphic-squamulose, and grow on almost all kind of substrates with greater predominance in tropical, subtropical and temperate regions where diversity varies along the environmental gradients. In India the pioneer work on lichen was carried by the European botanists, the sporadic collections were sent to European countries for study. Detailed account of these studies has been published by D.D. Awasthi (Father of Indian Lichenology) (1965) in his publication "Catalogue of lichens' from India, Nepal, Pakistan and Ceylon". Previously, Singh (1964) enumerated 947 species of lichen in his publication "*Lichens of India*", but this publication was not much valuable than D.D. Awasthi (1965). During the last sixty years, a number of work published on various aspect of lichens by Indian and foreign lichenologists. Four institutions are mainly responsible for the present development and wealth of lichen in India, *viz*., Department of Botany, Lucknow University, Lucknow; Botanical Survey of India; Agarkar Research Institute, Pune and CSIR-National Botanical Research Institute, Lucknow.

The Indian Himalayan region (IHR) exhibits abundant variety and luxuriant growth of subtropical-temperate-alpine lichens (Upreti 1998). The lichens form dominant terrestrial vegetation in higher alpine habitats in the Himalaya. The higher alpine habitats in the Himalaya also exhibit dominant terrestrial vegetation of lichens together with other herbaceous plants (Upreti 1998). Though lichens have great ability to survive in harsh environment but aremost sensitive to microclimatic changes, thus theyact as a natural sensor and successfully utilized asbiological indicator of air quality and climatechange studies. Quaraishi (1928) was probably the first Indian who recorded 35 species of lichens near Mussoorie in western Himalaya. In IHR different studies during last two decades were mainly performed by Lichenological Laboratory of CSIR-NBRI, Lucknow.

The scientific literature on lichens of Indian Himalaya Region is available from dated back to mid 18th Century. Most of the studies in IHR were accomplished by CSIR-NBRI, Lucknow; Lucknow University and Botanical Survey of India. However, information on lichenological studies in IHR was not available on single platform. The present article comprises the information on available scientific literature on lichens of Indian Himalayan Region, particularly the trend of research with time and the knowledge gap.

Result and Discussion

The bibliography on lichen wealth of Indian Himalayan Region includes 309 unique entries covering a period of almost two centuries, starting from 1876 to 2016. We categorized the articles in three distinct ways: A) The first category was based on parts of six Himalayan States (Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh) where the studies were carried out. B) The second category was based on their publication dates, in which the studies were grouped in 10-year intervals from 1876 to 2016; this enabled us to see the research trends and patterns. C) The third category was based on the subject focus of the research; the publications were categorized based on the levels of broad subject e.g. air pollution & climate change, Biochemistry and physiology, diversity and distribution, floristics, molecular biology, new records, new species, economic importance, ecology and lichenometry at which the research was carried out.

Geographic Distribution of Publications

Figure 8.1 shows that most of the publications on lichens were from Uttarakhand (156; >40%), when compared to other states of IHR. Only 54 studies were available on lichens in Himachal Pradesh and Jammu and Kashmir, respectively. This could be possible inaccessible hilly terrain at northern range. In Eastern Himalaya, Sikkim (16%) stands highest number of studies and publication on lichens than Arunachal Pradesh (15%). The rugged, hilly, and largely inaccessible terrain,which is cut by many rivers and streams originatingfrom higher Himalaya, has made lichen surveys in the eastern Himalayan region extremely difficult.

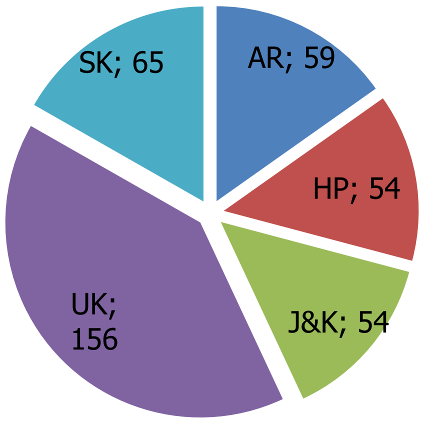


Figure 8.1 Percentage graphical representation of published work covering different aspects of lichen studies in five different states of Indian Himalaya. AR (Arunachal Pradesh); HP (Himachal Pradesh), J&K (Jammu and Kashmir); UK (Uttarakhand) and SK (Sikkim)

Temporal Pattern of Publications

With regard to the number of studies (Figure 8.2), only five articles had been published until the 1950. The increasing trend in publishing articles in the recent years, indicate the increased scientific efforts given on the lichen in IHR region. Indeed more than half of the studies were published from 2001 onwards. During the relevant period (2001-2016), the majority of these studies have been published in the national, international and regional journal covering different aspect of studies on lichens. Only five works were published as Ph.D. thesis, out of 309 citations presented in this chapter.

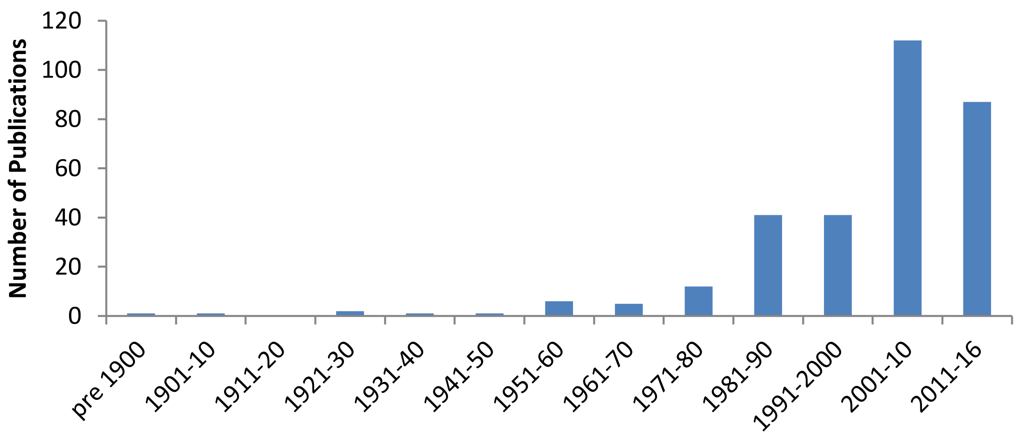


Figure 8.2 Temporal pattern of published work for lichens of Indian Himalayan region.

Publication by subject focus

Publications were categorized according to the broad subject of the study and subdivided in to following themes. The articles covering one or more categorized subject/focus areas e.g. new species as well as new generic record for country/region were treated as two different subject covered in one article (Fig. 8.3)

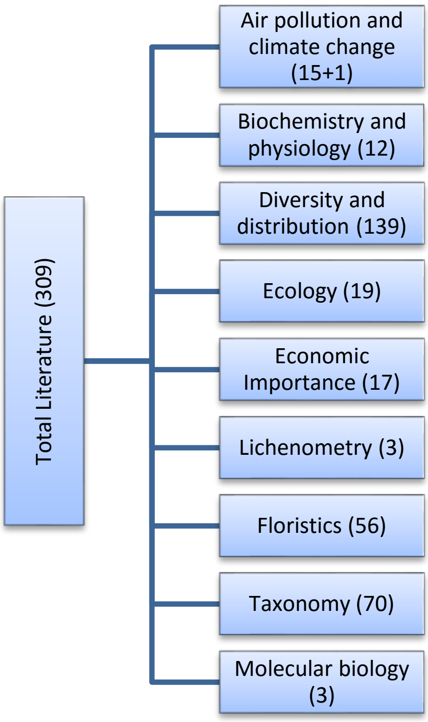


Figure 8.3 Publication on lichens by subject focus in IHR.

2. FUNGI

Fungi are one of the most important functional group of soil microbes and perform essential roles in the functioning of the ecosystem (Hawksworth et al. 1996; Sharma et al., 2015).Fungi live, multiply and die or disintegrate in the soil, as well play a pivotal role in nutrient cycling and thus they provide rich organic matter. Fungi are useful as indicators of environmental changes or disturbances resulting from natural or anthropogenic causes, such as elevated carbon dioxide levels and global warming (Sharma et al., 2015).In India, studies on fungal diversity in relation to habitat, climate and altitudinal gradient is rare (Pandey et al. 2006, Satish et al. 2007).This bibliography comprises the available studies fungi in Indian Himalayan Region, particularly the trend of research with time and the knowledge gap.

Result and Discussion

The bibliography on soil fungi of IHR includes 114 unique entries covering a period of almost 6 decades, starting from 1966 to 2016. We categorized the articles in three distinct ways: A) Parts of eight Himalayan states where the studies were carried out (Table 8.1). B) Their publication dates, in which the studies were grouped in 10-year intervals from 1966 to 2016; this enabled us to see the research trends and patterns. C) The subject focus of the research e.g. ecology, ethnomycolgy, taxonomy, biochemical analysis, climate change on which the research was carried out.

Table 8.1 State wise distribution of publications

State	No. of publications	Himalayan zone,IHR	No. of publications
Uttarakhand	47	Western Himalaya	9
Himachal Pradesh	21	Western Himalaya	4
Jammu & Kashmir	19	North-western Himalaya	2
Sikkim	8	Central Himalaya	2
West Bengal	3	Central Himalaya	
Arunachal Pradesh	1	Eastern Himalaya	

Temporal Pattern of Publications

Globally, there have been studies on soil fungi focusing effect of environmental changes apart from ecology, taxonomy and pathogenicity, biochemical analysis. But in Indian Himalayan region there has been studies on ecology, ethnomycology, taxonomy and biochemical analysis. Temporal trend on publication shows that an increasing trend of publication over years with maximum being between 2011-2016 and least between 1961-1980 (Fig 8.4).The majority of publication between 2011-2016 focuses on diversity and distribution, new records of fungal species from different parts of IHR.

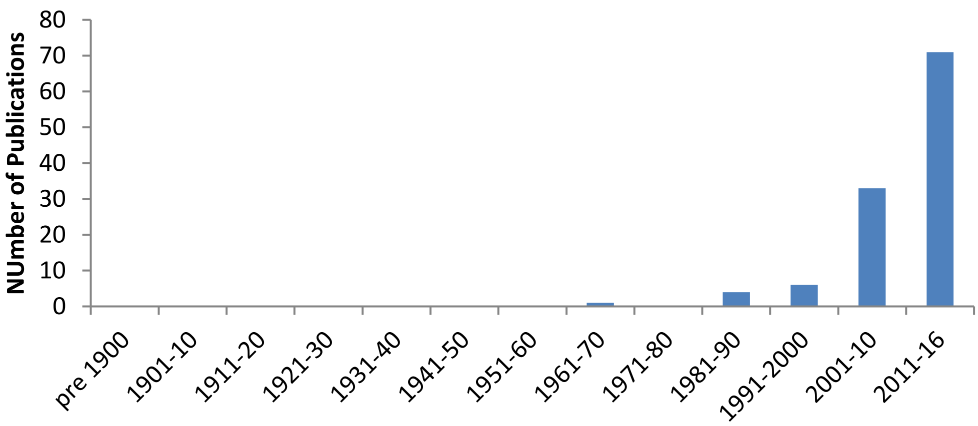


Figure 8.4 Temporal pattern of publication on soil fungi of Indian Himalayan Region

Publication by subject focus

The broad subject areas of publication are ecology, taxonomy, biochemical analysis, ethanomycology and climate change. Publications dealing with ecology mainly comprise functional, stress and community ecology. Taxonomic studies comprise isolation and characterization of soil fungi. Not a single study has been found on climate change (Fig. 8.5).

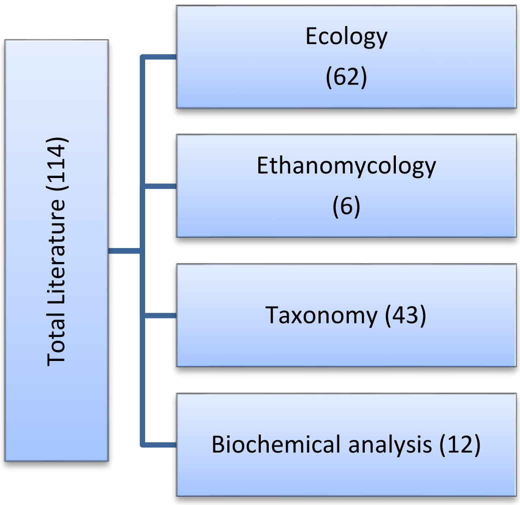


Figure 8.5 Publication on Fungi by subject focus in IHR.

3. BACTERIA

Bacterial communities are the most abundant group of microorganisms present in soil. They play important role in bio-geochemical processes such as nutrient cycling, soil organic matter decomposition, nitrogen formation, soil structure formation (Prosser, 2007), and maintain required soil health for plant and microbial growth (Hill et al., 2000). Investigation of soil bacterial diversity in extreme environments has gained major attention globally due to their unique functional properties (Madigan, 2000). Indian Himalayan region (IHR) is a large reservoir of soil bacterial species. However, information on soil bacteria from this region is relatively sparse in comparison to other floral and faunal taxa. Previous studies on soil bacteria in IHR have mainly focused on isolation and identification of species from cold regions, agricultural fields and hot springs with characteristic properties beneficial for nutrient cycling, agriculture and biotechnological applications. Notable species identified include psychrotolerant phosphate solubilizing *Pseudomonas* spp. (Pandey et al., 2006; Vyas et al., 2009; Selvakumar et al., 2011), psychrotolerant plant growth promoting *Pseudomonas* spp. (Mishra et al., 2008; Selvakumar et al., 2009; Selvakumar et al., 2011; Suyal et al., 2014), *Rhizobium* sp. (Mishra et al., 2011), *Acinetobacter* sp. (Gulati et al., 2009), *Exiguobacterium* spp. (Kasana and Yadav, 2007; Selvakumar et al., 2010) and *Pantoea* sp. (Selvakumar et al., 2008), psychrotolerant*Serratia*sp (Tariq and Prabakaran 2010), stress tolerant *Bacillus* sp. (Das and Dangar 2008), fluorescent Pseudomonads sp. (Arora et al., 2008; Showkat et al., 2012; Sharma et al. 2014) and *Actinomycetes* spp. with antimicrobial properties (Kaur et al. 2008).

Bacterial diversity and functions across various land use and land cover classes such as agricultural lands, forest types, alpine meadows and hot springs in IHR have received fairly recent attention. Some studies have focused mainly on photoautotrophic Cyanobacteria a group known to be the first colonizer of mountain soil (Belnap and Lange, 2001). Microhabitats such as Neoproterozoic limestone, alpine meadows and glacial forelands, lakes and hot springs have been explored to determine Cyanobacterial role in nutrient availability for pioneer vascular plant growth (Venkatachala and Kumar, 1997; Chaudhary and Kumar, 2006; Pandey, 2010; Khare et al., 2010; Bhardwaj et al., 2011, Řeháková et al., 2011; Chowdhary et al., 2013; Singh et al., 2014; Singh and Yadvinder et al., 2015; Čapková et al., 2016). Analysis of western Himalayan hot spring bacterial diversity has revealed thermotolerant species with industrially important characteristics (Kumar et al., 2014; Verma et al., 2015; Pandey et al., 2015). Recently cultivable bacterial diversity in the eastern zone was studied for microbial biodiversity conservation for first time in the IHR (Lyngwi et al., 2013; Bhattacharjee et al., 2014; Joshi et al., 2015). Although there has been focus on soil bacterial diversity and conservation, less attention has been given to understand the impact of changing climate on functional aspects of bacterial communities in the IHR.

Recently, several authors have reported new species of bacteria from IHR, *viz*, a tetrathionate-oxidizing bacterium*Tetrathiobacter kashmirensis* (Ghosh et al., 2005), novel *Actinobacterium* species isolated from cold regions *Rhodococcus kroppenstedtii* and *Kocuria himachalensis* (Mayilraj et al., 2006), a novel bacterial antagonist *Exiguobacterium acetylicum* strain 1P (Selvakumar et al., 2009), a Psychrophilic species *Janthinobacterium lividum* MMPP4 (Suman et al., 2015), a thermophile *Thermus parvatiensis* RLT sp. nov (Dwivedi et al., 2015). A psychrotolerant novel bacterium *Arthrobacter* sp. ERGS1, with prospective cold active industrial enzymes was reported from eastern Himalaya (Kumar et al., 2015).

The scientific literature on Himalayan soil bacteria is scantily available from dated back to late 19th century. A recently developed web based microbial database “NEMiD” provides information on cultivable soil bacterial diversity of eastern Himalayan region (Bhattacharjee et al., 2014). However, information on soil bacterial studies in entire IHR has not been compiled comprehensively. This chapter is an attempt to collate all published literature on soil bacteria in IHR. It highlights the trend of research with time and the knowledge gaps.

Results and Discussion

The bibliography on soil bacteria of Indian Himalayan Region includes 218 unique entries covering a period starting from 1992 to March 2016. The analysis reveals that existing literarture on soil bacterial research has mostly been published from western Himalayan states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand (50, 58, 86 studies respectively) (Table 8.2, Figure 8.2). Eastern Himalayan states have shown growing research interest in soil bacteria in last 8 years (Table 8.1, Figure 8.2). However, it is only recently (last 6 years) soil bacterial research has rapidly increased in the entire IHR compared to the past

(Table 8.2, Figure 8.6). This indicates that exploration of soil bacterial diversity from diverse ecological niches in the IHR is a very recent research area in comparison to other floral and faunal taxa.

Table 8.2 Available references on soil bacteria from six Himalayan states from 1990 till 2016.

Time period	No of literature published from six Himalayan states						Total in each interval
	J&K	HP	UK	WB	SK	AR	
1990 – 1995			2				**2**
1996 – 2000	1		1				**2**
2001 – 2005	1	2	3				**6**
2006 – 2010	5	16	25	2	1		**49**
2011 – 2016	43	40	55	5	11	12	**166**
Total literature	**50**	**58**	**86**	**7**	**12**	**12**	

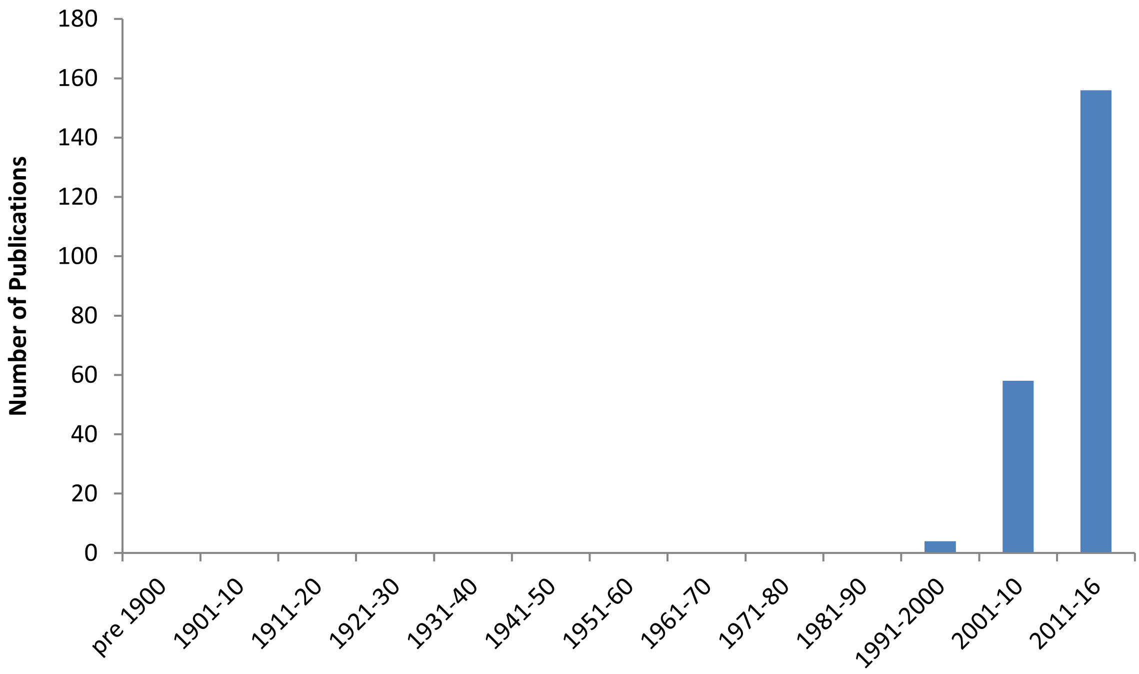


Figure 8.6 Temporal pattern of publication on soil bacteria of Indian Himalayan Region

Thematic coverage

Major subject focus on soil bacterial research has been on applied and functional research, taxonomy, ecology, bacterial genetics/genomics and biodiversity conservation (Fig. 8.7). Applied and functional research include investigation of soil bacterial diversity in different ecological niches along altitudinal gradients for isolation and identification of biotechnologically and agriculturally potential strains and novel species (Kasana and Yadav, 2007; Duraipandiyan et al., 2010; Bharti et al., 2010; Saba et al., 2012; Sharma et al., 2014; Kshetri et al., 2015). Biotechnological applications include identification of new pharmaceutical products (Kaushik and Chauhan, 2008), characterization of new industrially significant enzymes (Nawani and Kaur, 2007; Joseph et al. 2012; Rahul et al. 2013; Yadav et al. 2015) and new organisms that carry out novel processes (Kaur et al., 2008; Sharma et al. 2016). Many of the bacterial species identified from agricultural fields have displayed enhanced plant growth promoting activities (Mishra et al., 2008; Gusain et al., 2015).

Several bacterial communities from agricultural lands, hot springs, high altitude regions have been analysed for molecular markers such as 16S rRNA and nifH genes, for novel species identification, taxonomy/diversity analysis and conservation purpose (Singh et al. 2010; Salwan et al., 2010; Shivaji et al. 2011; Kumar et al., 2012; Rajwar et al., 2014; Yadav et al. 2015; Čapková et al. 2016; Soni et al., 2016). Genetic variability of functionally significant bacterial species have been analysed for molecular characterization (Sharma et al. 2005; Vyas et al., 2009; Verma et al. 2014). Some bacterial genomes have been sequenced from novel species isolated from extreme environments for better insight into their novel properties, such species are *Arthrobacteralpinus* ERGS4: 06, a yellow pigmented bacterium tolerant to cold and radiations (Kumar et al. 2016), *Chryseobacteriumpolytrichastri* ERMR1: 04, a psychrotolerant bacterium with cold active proteases (Kumar et al. 2015), *Arthrobacter* sp. ERGS1: 01, a putative novel bacterium with prospective cold active industrial enzymes (Kumar et al. 2015) and cellulase-producing psychrotrophic*Paenibacillus* strain, IHB B 3415 (Dhar et al. 2015).

Ecological studies conducted so far include bacterial population dynamics, impact of seasonal changes and degrees of slopes and aspect on bacterial population, effect of alien invasive plant species on bacterial species, impact of different land use and crop rotation, environmental interaction and survival strategies of bacterial communities (Shail et al. 1997; Chaudhary and Kumar, 2006; Das and Dangar, 2008; Selvakumar et al. 2009; Rasool and Nazima, 2011; Reshi et al., 2013; Arunkumar et al., 2013; Pandey, 2013; Singh et al., 2014; Swer et al., 2014; Solaiman et al. 2015). Although focus have been made to understand soil bacterial ecology in this region, limited attention has been given to understand the response of soil bacterial communities to changing climatic variables (Table 8.3). In order to address the threats of climate change in the IHR, it is essential to conduct long term research focused on soil bacterial community responses to changing temperature and precipitation across major eco-climatic regions and habitats.

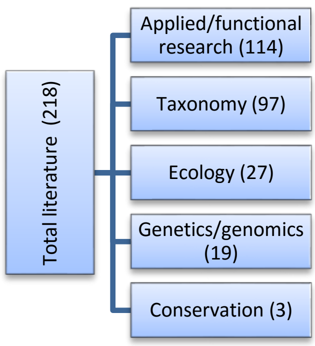


Figure 8.7 Number of publications on soil bacteria in different subject focus in IHR.

Table 8.3 The key past and future research priorities based on the current assessment

Subject Area	Key past research priorities	Research Gap and future priorities
Applied and functional research	Species functional characterization Agriculturally important function characterization Industrially important enzymes characterization Method development	Bacterial processes involved in key greenhouse gases production, such as carbon dioxide emission from soil organic carbon degradation, methane production from wetlands and nitrous oxide from agricultural lands, requires much attention. These processes contribute as well as respond rapidly to climate change (Singh et al., 2010). Characterization of bacterial enzymes involved in these processes will provide better understanding of climate change impacts in IHR.
Taxonomy	Species isolation, identification and characterization Phylogenetic classification	Research focused at phylogenetic classification and characterization of bacterial communities with respect to changing temperature and precipitation in climate sensitive regions will provide valuable insights into microbial indicators of climate change (Allen et al., 2011).
Ecology	Species distribution Survival strategies Population dynamics Environmental interaction	Future research aimed at soil bacterial population dynamics, community composition, distribution and function under changing climatic variables in the IHR will provide indepth understanding of soil bacterial responses to environmental change (Evans et al., 2014).
Bacterial genetics / genomics	Genetic diversity Genome sequencing	Genome sequencing and genetic diveristy analysis of bacterial species in climate sensitive ecological niches in the IHR will improve mechanistic understanding of climate change impacts on bacterial regulation of ecological processses (Singh et al., 2010).
Conservation	Diversity conservation Cryo-preservation	Isolation and cryo-preservation of soil bacterial species from extreme climate sensitive region of IHR will help us in conserving species with unique properties.
Impact of climate change on bacterial communities	No studies conducted	–

References cited

Chaudhary, P., Joshi, N., & Bora, M. 2016. Seasonal Variation in Mycoflora Population in Subtropical Forest Soil of Uttarakhand, India.*Int. J. Curr. Microbiol. App. Sci*, *5*(1), 654-666.

Hawksworth ,D.L.2001. The magnitude of fungal diversity: the 1.5 million species estimate revisited. Mycological Research.105: 1422- 1432.

Olson, R. K., Schoeneberger, M. M. and Aschmann, S. G. 2000.An ecological foundation for Temperate Agroforestry. In: North American Agroforestry, An Integrated Science and Practice, Eds. H. E. Garrett, W. J. Rietveld and R. F. Fisher, pp. 31-61, Wisconsin, USA: American Society of Agronomy, Madison

Pandey A, Trivedi P, Chaurasia B, Palini LMS. 2006 – Soil microbial diversity from the Himalaya, Need for documentation and conservation. NBA Science Bulletin 5, 28–60.

Rane, G., &Gandhe, R.V. 2006. Seasonal distribution of soil fungi from forest soils of jalagaon district, Maharashtra. *Zoos Print Journal*, *21*(9), 2407-2409.

Satish N, Sultana S, Nanjundiah V. 2007 – Diversity of soil fungi in a tropical deciduous forest in Madumalai, Southern India. Current Science 93, 669–677.

Sharma, D., Gosai, K., Dutta, J., Arunachalam, A., &Shukla, A. K. 2015.Fungal diversity of twelve major vegetational zones of Arunachal Himalaya, India.*Current Research in Environmental & Applied Mycology*, *5*(2), 101-119.

Allen, D. E.; Singh, B.P.; Dalal.R.C. 2011. Soil health indicators under climate change: A review of current knowledge. Soil Health and Climate Change.Springer Berlin Heidelberg.25-45.

Belnap, J.; Lange, O. 2001. Biological soil crusts: structure, function and management. Springer Verlag, Berlin.

Evans, S. E.; Wallenstein, M.D. 2014. Climate change alters ecological strategies of soil bacteria. Ecology letters. 17(2) : 155-164.

Hill, G.T.; Mitkowski, N.A.; Aldrich-Wolfe, L.; Emele, L.R.; Jurkonie, D.D.; Ficke, A.; Maldonado-Ramirez, S.; Lynch, S.T.; Nelson, E.B. 2000. Methods for assessing the composition and diversity of soil microbial communities.Applied Soil Ecology.15 : 25-36.

Madigan, M. T. 2000. Extremophilic bacteria and microbial diversity. Annals of the Missouri Botanical Garden. 87(1) : 3-12.

Prosser, J. 2007. Microorganisms cycling soil nutrients and their diversity. JD vanElsas, JK Jansson& JT Trevors (eds), in: Modern soil microbiology. 2nd edn, Books in soils, plants, and the environment. CRC Press, Boca Raton, FL.

Singh, B. K.; Bardgett, R. D.; Smith, P.; Reay, D. S. 2010. Microorganisms and climate change: terrestrial feedbacks and mitigation options. Nature Reviews Microbiology. 8(11): 779-790.

For other references in the text please refer bibliography section of respective taxa

Bibliography

Lichen of the Indian Himalayan Region

1. Ahti, T.; Dixit, P.K.; Singh, K.P.; Sinha, G.P. (2002). *Cladonia singhii* and other new reports of *Cladonia* from the Eastern Himalayan Region of India. *The Lichenologist.*34(4): 305-310.
2. Ahti, T.; Upreti, D.K. (2004). Two new species of *Cladonia* (Lecanorales)from the Himalaya. *Biblioth. Lichenol.* 88: 9-14.
3. Ahti, T.; Upreti, D.K.; Nayaka, S. (2007). *Cladonia lutescens*, a new lichen species from the Himalayas. *Mycotaxon.* 101: 25-27.
4. Akhtar, P. (1981). The Lichen genus *Lempholemma* in India.*Biological Memoirs.* 6: 78-80.
5. Akhtar, P.; Awasthi, D.D. (1980). Thelichen genus *Collema* in India.*Biological Memoirs.* 5(1): 13-29.
6. Anna, V.; Lyudmyla, D.; Rai, H.; Upreti, D.K. (2013). Photobiont Diversity of Soil Crust Lichens Along Substrate Ecology and Altitudinal Gradients in Himalayas: a Case Study from Garhwal Himalaya. *Terricolous Lichens in India: Volume 1: Diversity Patterns and Distribution Ecology.* p. 73.
7. Asahina, Y. (1966). Lichens. *IN: Hara (ed.). The flora of Eastern Himalayas. Univ. Tokyo.* P. 592-605.
8. Awasthi, D.D. (1957). On new lichens from the Himalayas-I. *Proceedings of the Indian Academy of Science.* 45: 129-139.
9. Awasthi, D.D. (1960). Contributions to the lichen flora of India and Nepal-I The genus*Physcia* (Ach.)Vain. *Journal of Indian Botanical Society.* 39(1): 1-21.
10. Awasthi, D.D. (1960). Contributions to the lichen flora of India and Nepal-II. The genus*Anaptychia* Korb.*Journal of Indian Botanical Society.* 39(3): 415-442.
11. Awasthi, D.D. (1961). Some foliose and fruticose lichens from Assam and North-East Frontier Agency of India. *Proceedings of the Indian Academy of Science.*54B(1): 22-44.
12. Awasthi, D.D. (1963). Some noteworthy additions to the lichen flora of India and Nepal.*Univ. of Colorado Stud., Ser. in Biol.* 10: 28-36.
13. Awasthi, D.D. (1973). On Species of *Anaptychia* and *Heterodermia* from India and Nepal. *Geophytology.* 3: 113-116.
14. Awasthi, D.D. (1975). Lichen flora of Pindari Glacier valley. *Geophytology.* 5: 178-185.
15. Awasthi, D.D. (1976). Lichen genus *Parmelia* in India. I-Subgenera *Parmelia* and Amphigymnia.*Biological Memoirs.* 1: 155-229.
16. Awasthi, D.D. (1980). *Pyxine* in India. *Phytomorphology.* 30: 359-379.
17. Awasthi, D.D. (1981). Lichen genus *Parmelia* in India. II. Subgenera *Xanthoparmelia* and *Melanoparmelia*. *Indian Journal of Forestry.* 4(3): 198-204.
18. Awasthi, D.D. (1982). Lichen genus *Cetraria* in India and Nepal. *Bulletin of the Botanical Survey of India.* 24: 1-27.
19. Awasthi, D.D. (1984). Lichen genus Hypogymnia and Menegazzia from India and Nepal. *Kavaka.* 12: 87-97.
20. Awasthi, D.D. (1985). Lichen genus *Coccocarpia* from India. *Kavaka.* 13: 83-86.
21. Awasthi, D.D. (1986). Macrolichen Taxa of Teloschistaceae from India. *Proceedings of the Indian Academy of Science.* 96: 87-97.
22. Awasthi, D.D. (1987). A new position for *Platysma thomsonii* Stirton. *J.Hattori Bot. Lab.* 63: 367-372.
23. Awasthi, D.D. (1988). A key to the macrolichens of India and Nepal. *J.Hattori Bot. Lab.* 65: 207-302.
24. Awasthi, D.D.; Ahti, T. (2007). A compendium of the macrolichens from India, Nepal and Sri Lanka. *Bishen Singh and Mahendra Pal Singh, Dehradun, India.* 580 pp.
25. Awasthi, D.D.; Akhtar, P. (1977). The genus *Leptogium* (sects. Mallotium) in India. *Norweg. J. Bot.* 24: 59-71.
26. Awasthi, D.D.; Akhtar, P. (1979). The genus *Leptogium* (sects. *Leptogium*, *Leptogiopsis* and *Homodium*)in India. *Geophytology.* 8: 189-204.
27. Awasthi, D.D.; Awasthi, G. (1985). Typification of *Usnea compressa* Taylor. *The Lichenologist.* 17: 309-311.
28. Awasthi, D.D.; Dange, K. (1978). Additions to the Lichen flora of India - V. *Nat. Acad. Sci. Letters.* 1(1): 11-13.
29. Awasthi, D.D.; Joshi, M. (1977). Macrolichens of Mussoorie Hills, Uttar Pradesh. *Geophytology.* 7: 91-97.
30. Awasthi, D.D.; Joshi, M. (1978). Contribution to the lichen flora of Chakrata Hills, Uttar Pradesh, India. *Indian Journal of Mycological Research.* 16: 269-278.
31. Awasthi, D.D.; Joshi, M. (1982). Lichen genus *Peltigera* from India and Nepal. *Kavaka.* 10: 47-62.

32. Awasthi, D.D.; Mathur, R. (1987). Species of the lichen genera *Bacidia, Badimia Fellhanera* and *Mycobilimbia* from India. *Proceedings of the Indian Academy of Science.* 97(6): 481-442.

33. Awasthi, D.D.; Singh, K.P. (1970). A note on lichens from Kashmir, India. *Current Science.* 39: 441-442.

34. Awasthi, D.D.; Singh, K.P. (1978). The lichen flora in the environs of Gangotri and Gomukh, India. I - The macrolichens. *Indian Journal of Forest Research.* 1: 138-146.

35. Awasthi, D.D.; Singh, S.R. (1977). The lichen genus *Rhizocarpon* (Ram.)Th. Fr. in India. *Kavaka.* 5: 49-58.

36. Awasthi, D.D.; Srivastava, P. (1989). Lichen genera *Brigantiaea* and *Letrouitia* from India. *Proceedings of the Indian Academy of Science.* 99(3): 165-177.

37. Awasthi, D.D.; Srivastava, P. (1993). New Species of *Pertusaria* (lichenized fungi)from India. *Bryologist.* 96(2): 210-215.

38. Awasthi, D.D.; Tewari, R. (1987). Lichen genus *Ochrolechia* from Indian subcontinent. *Kavaka.* 15(1-2): 23-27.

39. Awasthi, D.D.; Upreti, D.K. (1985). Lichen genus *Dermatocarpon* in India. *Journal of Economic and Taxonomic Botany.* 7(1): 7-12.

40. Awasthi, G. (1982). Lichen genus *Evernia* in India. *Bull. Bot. Surv. India.* 24: 96-99.

41. Awasthi, G.; Awasthi, D.D. (1985). Lichen genera *Alectoria, Bryoria* and *Sulcaria* from India and Nepal. *Candollea.* 40: 305-320.

42. Babiah, P.S.; Upreti, D.K.; John, S.A. (2015). Assessment of fungicidal potential of lichen *Heterodermia leucomelos* (L.)Poelt against pathogenic fungi. *Current Research in Environmental and Applied Mycology.* 5(2): 92-100.

43. Babington, M.C. (1952). Lichens Himalayensis: being an enumeration of the lichens collected in the Himalaya mountains by Captain R. Strachey of the Bengal Engineers and J.E. Winterbottom Esqr. F.L.S. during the years 1847-1848. *Hooker's Journ. Bot.* 4: 243-252.

44. Bajpai, R.; Nayaka, S.; Upreti, D.K. (2011). Distribution of lichens on four trees in east and south districts of Sikkim. *BIOZONE International Journal of Life Science* 3(1-2): 406-419.

45. Bajpai, R.; Shukla, V.; Upreti, D.K.; Semwal, M. (2014). Selection of suitable lichen bioindicator species for monitoring climatic variability in the Himalaya. *Enviornmental Science and Pollution Research.* 21(19): 11380-11394.

46. Baniya, C.B.; Ghimire, G.P.S.; Kattel, B.; Upreti, D.K. (1999). Key to the species of lichens from Shivapuri (Kathmandu)and Sikles (Kaski). *Scientific World.* 1(1): 52-56.

47. Bhatia, K.K. (1957). Some observations on the lichen communities of the Western Himalayas. *Bull. Bot. Soc. Univ. Sagar.* 9(1-2): 36-39.

48. Bisht, S.; Sharma, S.; Kumar, V.; Kumar, M.; Bisht, S.S.; Nautiyal, B.P. (2014). Assessment of antimicrobial efficacy of secondary metabolites of lichen species from Uttarakhand temperate Himalayas, India. *Journal of Natural Products.* 7: 168-176.

49. Biswas, K. (1956). Lichens. *In: K. Biswas and R. N. Chopara, Common Medicinal Plants of Darjeeling and the Sikkim Himalayas, Calcutta.* 97-98 pp.

50. Charak, S.; Sheikh, M.A.; Raina, A.K.; Upreti, D.K. (2009). Ecological impact of coal mines of lichens: A case study at Moghla coal mines Kalakote (Rajouri), J. and K. *Journal of Applied and Natural Science* 1(1): 24-26.

51. Chatterjee, S.; Singh, J.; Acharya, A.; Jha, A.B.; Prasad, R. (2011). Setting Standards for Sustainable Harvest of Wild Medicinal Plants in Uttarakhand: A Case Study of Lichens. *Community-Based Biodiversity Conservation in the Himalayas,* P. 101.

52. Chaujar, R.K. (2006). Lichenometry of yellow *Rhizocarpon geographicum* as database for the recent geological activities in Himachal Pradesh. *Current Science.* 90(11): 1552-1554.

53. Chopra, G.L. (1934). Lichens of the Himalayas. *Punjab Univ. Press, Lahore Co. Ltd.*

54. Czeczuga, B.; Obermayer, W.; Upreti, D.K.; Sharma, L.R. (1996). Carotenoids in Lichens in various regions of the Himalaya. *J.Hattori Bot. Lab.* 80: 323-330.

55. Divakar, P.K.; Misra, S.; Upreti, D.K. (2004). Parmelioid lichens in India: a revisionary study. *Bishen Singh and Mahendra Pal Singh, Dehradun, India.*

56. Divakar, P.K.; Sinha, G.P.; Upreti, D.K.; Elix, J.A. (2001). A new species of *Myelochroa* and new records in the lichen family Parmeliaceae (Ascomycotina)from Sikkim. *Mycotaxon.* 79: 247-251.

57. Divakar, P.K.; Upreti, D.K. (2001). A new species of *Myelochora* and new records in the lichen family parmeliaceae (Ascomycotina)from Sikkim, India. *Mycotaxon.* 29: 247-251.

58. Divakar, P.K.; Upreti, D.K. (2002). Revision of the genus *Xanthoparmelia* (Vain.)Hale from India. *Nova Hedwigia.* 75: 507-523.

59. Divakar, P.K.; Upreti, D.K. (2003). Additional notes and new records on the lichen genus *Hypotrachyna* (Parmeliaceae)from India. *Mycotaxon.* 86: 67-76.

60. Divakar, P.K.; Upreti, D.K. (2003). New species and new records of *Parmotrema* (Parmeliaceae)from India. *The Lichenologist.* 35(1): 21-26.

61. Divakar, P.K.; Upreti, D.K. (2005). A new species in *Melanohalea* (Parmeliaceae, Ascomycotina)and new lichen records from India. *The Lichenologist.* 37(6): 511-517.

62. Divakar, P.K.; Upreti, D.K. (2005). Parmelioid lichens in India (a revisionary study). *Bishen Singh and Mahendra Pal Singh, Dehradun, India.*

63. Divakar, P.K.; Upreti, D.K. (2006). Notes on some new records and new species of cetrarioid lichens from India. *Bot. J. Linn. Soc.* 150(2): 249-251.

64. Divakar, P.K.; Upreti, D.K.; Sinha, G.P.; Elix, J.A. (2003). New species and records in the lichen family Parmeliaceae (Ascomycotina)from India. *Mycotaxon.* 88: 149-154.

65. Dubey, U.; Upreti, D.K.; Rout, J. (2007). Lichen flora of along town, West Siang district, Arunachal Pradesh. *Phytotaxonomy.* 7: 21-26.

66. Dudgeon, W. (1923). Succession on ephiphytes in the *Quercus incana*forest at Landour, Western Himalaya. *Journal of Indian Botanical Society.* 3: 159-161.

67. Gaur, R.D. (2008). Traditional dye yielding plants of Uttarakhand, India. *Natural Product Radiance.* 7(2): 154-165.

68. Goni, R.; Raina, A.K.; Magotra, R.; Sharma, N. (2014). Lichen flora of Jammu and Kashmir State, India: An updated checklist. *Tropical Plant Research.* 2(1): 64-71.

69. Goni, R.; Raina, A.K.P.; Magotra, R. (2013). Lichen diversity in Nandini Wildlife Sanctuary, Jammu (J and K). *Phytotaxonomy.* 13: 106-108.

70. Goni, R.; Sharma, N. (2015). Addition to lichen flora of Jammu and Kashmir, India. *Tropical Plant Research.* 2(2): 78-81.

71. Gupta, P.; Sinha, G.P. (2015). A new species of Acanthothecis (lichenized Ascomycetes)from India. *Journal on New Biological Reports.* 4(2): 103-105.

72. Gupta, S.; Khare, R.; Rai, H.; Upreti, D.K.; Gupta, R.K.; Sharma, P.K.; Srivastava, K.; Bhattacharya, P. (2014). Influence of macro-scale environmental variables on diversity and distribution pattern of lichens in Badrinath valley, Western Himalaya. *Mycosphere.* 5(1): 229-243.

73. Haq, M.U.; Reshi, Z.A.; Upreti, D.K.; Sheikh, M.A. (2012). Lichen wealth of Jammu and Kashmir - A promising plant source for Bioprospection. *Life Science Journal.* 9(14): 926-929.

74. Haq, M.U.; Zafar, A.R.; Nayaka, A.; Sheikh, M.A. (2013). New additions to lichen biota of Jammu and Kashmir, India. *Phytotaxonomy.* 13: 84-87.

75. Hussan, A.; Bhat, G.A.; Sheikh, M.A. (2013). Assessment of Environmental Quality in Harwan Area of Srinagar district (J and K), using lichens as bio-indicators. *International Journal of Current Research and Review.* 5(5): 1.

76. Hussan, A.; Sheikh, M.A.; Rahim, A. (2013). Effect of air pollution on diversity and distribution of Lichens in Pampore industrial area of Jammu and Kashmir. *International Journal of Current Trends in Research.* 2(1): 151-155.

77. Jagadeesh Ram, T.A.M.; Sinha, G.P.; Singh, K.P. (2009). New species and new records of *Crypthothecia* and *Herpothallon* (Arthoniales)from India. *The Lichenologist.* 41(6): 605-613.

78. Jagtap, V.; Tripathi, M.; Joshi, Y. (2013). First report on the occurrence of Plasticolous lichens from Uttarakhand, India. *Journal of Applied and Natural Science* 5(2): 342-344.

79. Jorgensen, P.M. (2004). More, new Asian Species in the lichen genus *Fuscopannaria*. *The Lichenologist.* 36(3-4): 207-2012.

80. Joshi, M.; Awasthi, D.D. (1982). The Lichen family Stictaceae in India and Nepal.*Biological Memoirs.* 7: 165-190.

81. Joshi, S. (2010). Diversity of lichens in Pindari and Milam region of Kumaun Himalayas. *Ph.D. Thesis, Kumaun University, Nainital.*

82. Joshi, S.; Upreti, D.K. (2010). Lichenometric studies in vicinity of Pindari glacier in the Bageshwar district of Uttarakhand, India. *Current Science.* 99(2): 231-235.

83. Joshi, S.; Upreti, D.K.; Punetha, N. (2007). Lichen flora of Munsyari, Khalia Top and Kalamuni in Pithoragarh district of Uttarakhand. *Phytotaxonomy.* 7: 50-55.

84. Joshi, S.; Upreti, D.K.; Punetha, N. (2008). Change in lichen flora of Pindari glacier valley, Uttarakhand (India), during the last three decades. *Ann. For.* 16(1): 168-169.

85. Joshi, S.; Upreti, D.K.; Punetha, N.; Nayaka, S. (2012). Lichenometry: A technique to date natural hazards. *Earth Science India.* 5(2): 1-16.

86. Joshi, Y. (2008). Morphotaxonomic studies on lichen family Teloschitaceae from India. *Ph.D. Thesis, Kumaun University, Nainital.*

87. Joshi, Y. ; Upreti, D.K.; Das, P. (2011). Lichen diversity assessment in Pindari glacier valley of Uttarakhand, India. *Geophytology.* 41(1-2): 25-41.

88. Joshi, Y.; Chandra, K.; Tripathi, M. (2014). A new species of Heterodermia (Ascomycota, Physciaceae)from India, along with a new record and range extension of lichenized fungi in India. *Phytotaxa.* 170(1): 49-52.

89. Joshi, Y.; Nayal, S.; Tripathi, M.; Bisht, K.; Upreti, D.K. (2015). Distribution and diversity of lichenized fungi colonizing Jageshwar group of temples. Almora, Uttarakhand.*Proceedings of the National Academy of Sciences, Indian Section B: Biological Sciences.* 85(2): 545-554.

90. Joshi, Y.; Ram, T.J.; Singh, P.; Sinha, G.P. (2014). *Caloplaca indica*, a new lichenized Ascomycetes (Teloschistaceae)from Eastern Himalaya, India. *Nat. Acad. Sci. Letters.* 37(6): 517-519.

91. Joshi, Y.; Tripathi, M. (2013). *Byssoloma subdiscordans* (Nyl.)P. James: Distributional range and its habitat preference in Indian subcontinent. *Journal of Applied and Natural Science* 5(2): 375-377.

92. Joshi, Y.; Tripathi, M.; Bisht, K.; Upreti, D.K. (2014). Current Distributional Status of *Remototrachyna adducta* (Nyl.)Divakar, and *A. crespo* in India. *Nat. Acad. Sci. Letters.* 37(4): 397-399.

93. Joshi, Y.; Tripathi, M.; Divakar, P.K.; Upreti, D.K. (2014). A note on the occurrence of *Xanthoparmelia saxeti* (Stizenb.)Amo, A. Crespo, Elix and Lumbsch in India. *Webbia.* 69(1): 137-139.

94. Joshi, Y.; Tripathi, M.; Jinnah, Z.; Bisht, K.; Upreti, D.K. (2016). Host specificity of epiphytic macrolichens: a case study of Jageshwar forest (Uttarakhand)India. *Tropical Ecology.* 57(1): 1-8.

95. Joshi, Y.; Upreti, D.K. (2007). *Caloplaca awasthii*, a new lichen species from India. *Bot. J. Linn. Soc.* 155(1): 149-152.

96. Joshi, Y.; Upreti, D.K. (2007). New species and new records of the lichen genus Caloplaca from India. *The Lichenologist.* 36(6): 505-508.

97. Joshi, Y.; Upreti, D.K. (2008). Sorediate and isidiate species of the lichen genus *Caloplaca* (Ascomycetes, Teloschistaceae)from India. *Nova Hedwigia.* 86(1-2): 259-272.

98. Joshi, Y.; Upreti, D.K.; Das, P. (2011). Lichen biodiversity across elevational gradient in Pindari glacier valley of Uttarakhand, India. *Journal of Functional and Environmental Botany.* 1(2): 122-132.

99. Joshi, Y.; Upreti, D.K.; Sati, S.C. (2009). *Caloplaca himalayana*, a new epiphytic lichen from the Indian subcontinent *The Lichenologist.* 41(3): 249-255.

100. Karakoti, N.; Bajpai, R.; Upreti, D.K.; Nayaka, S. (2013). Lichen flora of Govind Wildlife Sanctuary in Uttarkashi district , Uttarakhand, India. *Geophytology.* 44(1): 41-48.

101. Khan, S.I.; Raina, A.K.; Upreti, D.K. (2010). Enumeration and distribution of lichens in Surankote, district Poonch, J. and K. (India).11(3): 27-31.

102. Khare, R.; Rai, H.; Upreti, D.K.; Dubey, U.; Gupta, R.K. (2010). Occurrence of rare, crustose lichen, *Ophioparma ventosa* (Ophioparmaceae, lichenized Ascomycota), from alpine regions of Arunachal Pradesh, India. *Feddes Repertorium.* 121: 184-188.

103. Khare, R.; Upreti, D.K.; Nayaka, S.; Gupta, R.K. (2009). Diversity of Soil Lichens in India. *In: Soil Microflora. Gupta, R.K., Kumar, M. and Vyas, D. (Eds.). Daya Publishing House, New Delhi.*

104. Kholia, H.; Mishra, G.K.; Upreti, D.K.; Tiwari, L. (2011). Distribution of lichens on fallen twigs of *Quercus leucotrichophora* and *Quercus semecarpifolia* in and around Nainital city, Uttarakhand, India. *Geophytology.* 41(1-2): 61-73.

105. Kholia, H.; Mishra, G.K.; Upreti, D.K.; Tiwari, L. (2012). Diversity and Distribution of Lichens in and around Nainital City (Uttarakhand)India. *Indian Forester.* 138(5): 443-448.

106. Kumar, B. (2008). Estimation of dry Mass of epiphytic lichens in a temperate forest of Garhwal Himalaya, India. *Nature and Science.* 6(4): 71-75.

107. Kumar, B. (2008). Lichen Species distribution, cover and fall in *Quercus semecarpifolia* (JE Smith)forest in Garhwal Himalayas. Ph.D. Thesis, Garhwal University.

108. Kumar, B. (2009). Assessment of lichen species in a temperate region of Garhwal Himalaya, India. *The Journal of American Science.* 5(4): 107-112.

109. Kumar, B. (2009). Lichen-moss harvesting practices and their marketing strategy in Uttarakhand, India. *New York Science Journal.* 2(4): 24-30.

110. Kumar, B. (2009). Lichens resource use pattern and its socio-economic status in temperate region of Garhwal Himalaya, India. *Nature and Science.* 7(2): 101-106.

111. Kumar, B.; Tewari, L.M.; Kholia, H. (2011). Diversity of Potential lichens on Banj oak twigs in Banlekh forest of district Champawat, Kumaun Himalaya. *Report and Opinion.* 3(1): 151-154.

112. Kumar, B.; Upreti, D.K. (2008). An Account of lichens of fallen twigs of three Quercus species in Chopta forest of Garhwal Himalayas, India. *Ann. For.* 16(1): 92-98.

113. Kumar, B.; Upreti, D.K.; Singh, S.P.; Tiwari, A. (2009). Seasonal pattern of lichen fall from trees in an evergreen *Quercus Semecarpifolia* forest of Garhwal Himalaya, India. *Nature and Science.* 7(3): 8-12.

114. Kumar, J.; Dhar, P.; Tayade, A.B.; Gupta, D.; Chaurasia, O.P.; Upreti, D.K.; Arora, R.; Srivastava, R.B. (2014). Antioxidant capacities, phenolic profile and cytotoxic effects of saxicolous lichens from trans-Himalayan cold desert of Ladakh. *Plos ONE.* 9(6): e98696.

115. Kumar, J.; Khare, R.; Rai, H.; Upreti, D.K.; Tayade, A.; Hota, S.; Chaurasia, O.P.; Srivastava, R.B. (2012). Diversity of lichens along altitudinal and land use gradients in the trans-Himalayan cold desert of Ladakh. *Nature and Science* 10(4): 1-9.

116. Kumar, J.; Rai, H.; Khare, R.; Upreti, D.K.; Dhar, P.; Tayade, A.B.; Chaurasia, O.P.; Srivastava, R.B. (2014). Elevational controls of lichen communities in Zanskar valley, Ladakh. a Trans Himalayan cold desert. *Tropical Plant Research.* 1(2): 48-54.

117. Kumar, V.; Naik, B.; Kumar, V.; Kumar, S.; Singh, D.; Aslam, M. (2014). Evaluation of antibacterial and anti-oxidant activity of some lichens of Uttarakhand. *American Journal of Current Biology.* 11(1): 1-8.

118. Lai, B.; Upreti, D.K. (1995). Ethnobotanical notes on three Indian lichens. *The Lichenologist.* 27(01): 77-79.

119. Makhija, U.; Patwardhan, P.G. (1988). The Lichengenus*Laurera* (Family Trypetheliaceae)in India.*Mycotaxon.* 31: 565-590.

120. McCune, B.; Divakar, P.K.; Upreti, D.K. (2012). *Hypogymnia* in the Himalayas of India and Nepal.*The Lichenologist.* 44(05): 595-609.

121. Mishra, G.K. (2011). Distribution and ecology of lichens in Kumaun Himalayas Uttarakhand. *Ph.D. Thesis. Kumaun University.*

122. Mishra, G.K.; Joshi, S.; Upreti, D.K.; Punetha, N.; Dwivedi, A. (2010). Enumeration of lichens from Pithoragarh district of Uttarakhand, India. *Geophytology.* 39(1-2): 23-39.

123. Mishra, G.K.; Upreti, D.K. (2014). Accumulation of heavy metals in foliose lichens growing in industrial area of Udham Singh Nagar, Uttarakhand, India. *International Journal of Current Research and Academic Review*. 2(10): 48-54.

124. Mishra, G.K.; Upreti, D.K. (2014). An enumeration of lichens from the Bageshwar district of Kumaun Himalaya, Uttarakhand, India. International *Journal of Current Microbiology and Applied Science.* 3(11): 420-435.

125. Mishra, G.K.; Upreti, D.K. (2015). Altitudinal distribution of cetrarioid lichens in Govind Wildlife Sanctuary, Garhwal Himalaya, Uttarakhand, India. *Geophytology.* 45(1): 9-19.

126. Mishra, G.K.; Upreti, D.K.; Nayaka, S.; Haridash, B. (2011). New taxa and new report of *Phyllopsora* (lichenized Ascomycotina)from India. *Mycotaxon.* 115: 29-44.

127. Mishra, G.K.; Upreti, D.K.; Nayaka, S.; Punetha, N. (2012). An enumeration of lichens from Udham Singh Nagar district of Uttarakhand with *Bacidia delicata* as new record for India. *Phytotaxonomy.* 12: 105-108.

128. Nag, P.; Rai, H.; Upreti, D.K.; Nayaka, S.; Gupta, R.K. (2011). Epiphytic lichens as indicator of land-use pattern and forest harvesting in a community forest in west Nepal. *Botanica Orientalis-Journal of Plant Science*. 8: 24-32.

129. Nagarkar, M.B.; Patwardhan, P.G. (1981). Notes on some lichens from North-East India-III: Pyrenocarpous lichens. *Biovigyanam.* 7: 131-136.

130. Nagarkar, M.B.; Patwardhan, P.G. (1982). Notes on some lichens from North-East India-III: genus*Graphis*. *Biovigyanam.* 8: 125-131.

131. Nayaka, S.; Upreti, D.K. (2006). *Chroodicus himalayanus*, a new species from India. *Mycotaxon.* 98: 247-251.

132. Nayaka, S.; Upreti, D.K.; Khare, R. (2010). Medicinal Lichens of India. *In: Drugs from Plants (Ed. P.C. Trivedi). Avishkar Publishers, Distributors, Jaipur*. P. 1-38.

133. Nayaka, S.; Upreti, D.K.; Lumbsch, T.L. (2006). Two new *Lecanora* species from India. *The Lichenologist.* 38(5): 421-424.

134. Nayaka, S.; Upreti, D.K.; Punjani, B.; Dubey, U.; Rawal, J. (2010). New records and notes on some interesting lichens of family Roccellaceae from India. *Phytotaxonomy.* 10: 127-133.

135. Nayaka, S.; Upreti, D.K.; Yadav, V. (2002). An enumeration and new records of lichens from Sirmaur district, Himachal Pradesh (H.P.), India. *Phytotaxonomy.* 2: 49-63.

136. Nayaka, S.; Yadav, V.; Srivastava, R.; Upreti, D.K. (2002). An enumeration and new records of lichen from Solan district, Himachal Pradesh, India.*Biological Memoirs.* 28(1): 25-33.

137. Nayaka, V.; Ranjan, S.; Saxena, P.; Pathre, U.V.; Upreti, D.K.; Singh, R. (2009). Assessing the vitality of Himalayan lichens by measuring their photosynthetic performances using chlorophyll fluorescence technique. *Current Science* 97(4): 538-545.

138. Negi, H.R. (1999). Lichen Community Ecology. *In: Biology of Lichens. (Eds. K. G. Mukherji, B.P. Chamola, D. K. Upreti and R.R. Upadhyay)Aravali Book International, New Delhi.* P. 17-28.

139. Negi, H.R. (2000). Spatial patterns of biodiversity of lichens. *Journal of Indian Inst. Sci.* . 80: 571-589.

140. Negi, H.R.; Gadgil, M. (1996). Patterns of distribution of macrolichens in western parts of Nanda Devi Biosphere Reserve. *Current Science* 71(7): 568-575.

141. Negi, H.R.; Upreti, D.K. (2000). Species diversity and relative abundance of lichens in Rumbak catchment of Hemis National Park in Ladakh. *Current Science.* 78(9): 1105-1112.

142. Obermayer, W. (1997). Studies on Lethariella with special emphasis on the chemistry of the subgenus *Chlorea.Biblioth. Lichenol.* 68: 45-66.

143. Pandey, A.; Mishra, R.K.; Tiwar, A.K.; Kumar, A.; Bajaj, A.K.; Dikshit, A. (2013). Management of cosmetic embarrassment caused by *Malassezia* spp. with fruticose lichen *Cladia* using phylogenetic approach. *Biomed Research International* 2013.

144. Pandey, V.; Upreti, D.K.; Pathak, R.; Pal, A. (2002). Heavy metal accumulation in lichens from the Hetauda Industrial area Narayani Zone, Makwanpur district, Nepal. *Environmental Monitoring and Assessment* 73: 221-228.

145. Pant, G.; Awasthi, D.D. (1989). Claiciales from India and Nepal. *Biovigyanam*. 15(1): 3-27.

146. Pant, G.; Awasthi, D.D. (1989). Lichen genus *Catillaria* s. lat. In India. *Proceedings of the Indian Academy of Science.* 94(4): 369-384.

147. Pant, G.; Awasthi, D.D. (1993). The Lichen genus*Diploschistes* in India and Nepal. *The Lichenologist.* 25(1): 33-50.

148. Pant, G.; Awasthi, D.D. (1999). Lichen genus*Stereocaulon* in India and Nepal. *In: Mukerji et al. (eds.)Biology of Lichens. Aravali Books International, New Delhi.* P. 249-281.

149. Pant, G.; Awasthi, D.D. (2003). Lichen genus*Ramalina* in India and Nepal. *Indian Journal of Forestry.* 26(3): 299-316.

150. Pant, G.; Upreti, D.K. (1993). The Lichens genus*Diploschistes* in India and Nepal. *The Lichenologist.* 25(1): 33-50.

151. Pant, G.; Upreti, D.K. (1999). Lichen genus *Stereocaulon* in India and Nepal. *In: K. G. Mukerji, B. P. Chamola, D.K. Upreti and R. K. Upadhyay (Eds.). Biology of Lichens. Aravali Books International, New Delhi.* P. 249-281.

152. Pant, V. (2002). Biodiversity of lichens in botanical hot spots of Pithoragarh district, Uttaranchal. *Ph.D. Thesis, Kumaon University, Nainital.*

153. Patwardhan, P.G.; Nagarkar, M.B. (1982). Three interesting species of macrolichens from North-East India. *Current Science.* 51(10): 527-528.

154. Pinokiyo, A.; Singh, K.P. (2006). New species and new record of Foliicolous lichenized fungi from Sikkim (India). *Mycotaxon.* 97: 57-61.

155. Pinokiyo, A.; Singh, K.P.; Borthakur, S.K. (2004). Foliicolous species of *Porina* (Lichens)from Arunachal Pradesh, India. *Indian Journal of Forestry.* 27(4): 407-416.

156. Pinokiyo, A.; Singh, K.P.; Singh, J.S. (2006). Leaf-colonizing lichens: their diversity, ecology and future prospects. *Current Science.* 90(4): 509-518.

157. Pinokiyo, A.; Singh, K.P.; Singh, J.S. (2008). Diversity and distribution of lichens in relation to altitude within a protected biodiversity hot spot, north-east India. *The Lichenologist.* 40(01): 47-62.

158. Prasher, I.B.; Jakhal, A.; Pusalkar, P. (2008). A survey and enumeration of lichen flora in and around Gangotri and Gomukh (Garhwal Himalaya). *Journal of Indian Botanical Society.* 87(1-2): 28-36.

159. Qureshi, A.A. (1928). Lichens of the Western Himalayas. *Proceedings of 15th Indian Science Congress.* 228p.

160. Rahim, A.; Raina, A.K.; Hussan, A. (2013). Lichen diversity of Kargil town and its adjoining areas, J. and K. *International Journal of Current Research and Review.* 5(14): 1-4.

161. Rai, H.; Gupta, R.K.; Upreti, D.K.; Nag, P. (2014). Distribution Pattern of terricolous lichens in Garhwal Himalayas (Chopta-tungnath Tract)with reference to morphological and environmental variables.*In: Diversity of Lower Plants, Rajan Kumar Gupta and Mukesh Kumar (Eds.), I. K. International Publisher, New Delhi, India.* P. 264-278.

162. Rai, H.; Khare, R.; Baniya, C.B.; Upreti, D.K.; Gupta, R.K. (2015). Elevational gradients of Terricolous lichen species richness in the Western Himalaya. *Biodiversity and Conservation*. 24(5): 1155-1174.

163. Rai, H.; Khare, R.; Gupta, R.K.; Upreti, D.K. (2011). Terricolous lichens as indicator of anthropogenic disturbances in a high altitude grassland in Garhwal (Western Himalaya), India. *Journal of Plant Science*. 8: 16-23.

164. Rai, H.; Khare, R.; Nayaka, S.; Upreti, D.K. (2013). The influence of water variables on the distribution of terricolous lichens in Garhwal Himalayas. *Uttar Pradesh Biodiversity Board.* P. 75-82.

165. Rai, H.; Khare, R.; Upreti, D.K. (2014). Lichenological studies in India with reference to terricolous lichens. *In: Terricolous lichens in India, Springer New York.* P. 1-20.

166. Rai, H.; Nag, P.; Upreti, D.K.; Gupta, R.K. (2010). Climate Warming Studies in Alpine Habitats of Indian Himalaya, using Lichen based Passive Temperature enhancing System. *Nature and Science.* 8(12): 104-106.

167. Rai, H.; Upreti, D.K.; Gupta, R.K. (2012). Diversity and distribution of terricolous lichens as indicator of habitat heterogeneity and grazing induced trampling in a temperate-alpine shrub and meadow. *Biodiversity and Conservation*. 21: 97-113.

168. Ram, J.T.A.M.; Sinha, G.P. (2010). Some additions to the lichen flora of Himalaya from Darjeeling and Sikkim. *Geophytology.* 40: 21-28.

169. Ram, J.T.A.M.; Sinha, G.P. (2011). A new species and a new record of *Herpothallon* (Lichenized ascomycota). *Mycotaxon.* 116(1): 313-316.

170. Rana, K.; Nayaka, S.; Shukla, P.; Upreti, D.K. (2015). Notes on Occurrence of Fruticose Lichens in Joram Top, Ziro Valley, Arunachal Pradesh with 10 New Records to the State. *International Journal of Science and Research*. 4(12): 1999-2003.

171. Rani, M.; Bajpai, R.; Karakoti, N.; Upreti, D.K. (2013). Quantitative assessment of atmospheric elements and their interaction with transplanted lichen *Pyxine cocoes* (Sw.)Nyl. *Journal of Environmental Science and Technology*. 1(1): 8-14.

172. Rani, M.; Shukla, V.; Upreti, D.K.; Rajwar, G.S. (2011). Periodical monitoring with lichen, *Phaeophyscia hispidula* (Ach.)Moberg in Dehradun city, Uttarakhand, India.*The Environmentalist*. 31(4): 376-381.

173. Rasanen, V. (1950). Lichens Novi, VI. *Arch. Soc. Zool. Bot. Fenn. Vanamo*. 5(1): 25-32.

174. Rawat, S.; Upreti, D.K. (2014). Macrolichen biomass in Nanda Devi Biosphere Reserve, Chamoli district , Uttarakhand, India. *Geophytology.* 44(2): 155-167.

175. Rawat, S.; Upreti, D.K.; Singh, R.P. (2009). Lichen flora of Mandal and adjoining localities towards Ukhimath in Chamoli district of Uttarakhand. *J. Phytol. Res*. 22(1): 47-52.

176. Rawat, S.; Upreti, D.K.; Singh, R.P. (2011). Estimation of epiphytic lichen litter fall biomass in three temperate forests of Chamoli district, Uttarakhand, India. *Tropical Ecology.* 52(2): 193-200.

177. Rawat, S.; Upreti, D.K.; Singh, R.P. (2013). Lichen Flora of Niti Area from Garhwal Himalaya, Uttarakhand. *Nature and Science.* 11)9): 103-105.

178. Rout, J.; Dubey, U.; Upreti, D.K. (2010). Ethnobotanical utilization of *Leptogium denticulatum*(a foliose lichen)in Arunachal Pradesh, India. *Ethnobotany.* 22:136-137.

179. Roy, S.; Tripathi, A. M.; Rana, T.S.; Mishra, G.; Baleshwar; Nair, K.N.; Upreti, D.K. (2016). Corrigendum: Plant barcoding of a wildlife sanctuary across a wide climatic zone, Uttarakhand, India. *Genome.* 59(999): 1-1.

180. Saklani, A.; Upreti, D.K. (1992). Folk uses of some lichens in Sikkim. *Journal of Ethnopharmacology*. 37: 229-233.

181. Sati, S.C.; Joshi, S. (2011). Antibacterial activity of the Himalayan lichen *Parmotrema nilgherrense* extracts. *British Microbiology Research Journal.* 1(2): 26-32.

182. Schubert, R.; Klement, O. (1966). Beitrage zur Flechtenflora van Nord und Mittel Indian. *Nova Hedwigia.* 11: 1-73.

183. Sharma, S.; Raina, A.K.; Upreti, D.K. (2014). A preliminary study on lichen diversity of Kailash and its environs, Bhaderwah, J. and K.*Environment Conservation Journal.* 15(1-2): 191-193.

184. Sheikh, M.A.; Raina, A.K.; Hussan, A. (2013). A preliminary observation of lichen flora in three districts of Jammu and Kashmir.*International Journal of Current Research*. 5(4): 966-968.

185. Sheikh, M.A.; Upreti, D.K.; Raina, A.K. (2006). An enumeration of lichens from three districts of Jammu and Kashmir, India. J. *Appl. Biosci.* 32(2): 189-191.

186. Sheikh, M.A.; Upreti, D.K.; Raina, A.K. (2006). Lichen diversity in Jammu and Kashmir, India. *Geophytology.* 36(1-2): 69-85.

187. Sheikh, M.A.; Upreti, D.K.; Raina, A.K. (2009). Lichen flora of Surinsar-Mansar Wildlife Sanctuary, Jammu and Kashmir. *Journal of Applied and Natural Science* P. 79-81.

188. Shukla, P.; Bajpai, R.; Singh, C.P.; Sharma, N.; Upreti, D.K. (2015). Lichen diversity in alpine regions of eastern Sikkim with respect to long term monitoring programme of Indian Space Research Organization. *Geophytology.* 45(1): 57-62.

189. Shukla, P.; Kumari, R.; Patel, D.K.; Upreti, D.K. (2016). Characterization of the diversity of mycosporine-like amino acids in lichens from high altitude region of Himalaya. *Amino Acids.* 48(1): 129-136.

190. Shukla, P.; Upreti, D.K. (2007). Heavy metal accumulation in *Phaeophyscia hispidula* enroute to Badrinath, Uttaranchal, India. *Environmental Monitoring and Assessment.* 131: 365-369.

191. Shukla, P.; Upreti, D.K. (2007). Lichen diversity in and around Badrinath, Chamoli district (Uttarakhand.). *Phytotaxonomy.* 7: 78-82.

192. Shukla, P.; Upreti, D.K. (2007). Physiological response of the Lichen *Phaeophyscia hispidula* (Ach.)Essl., to the urban environment of Pauri and Srinagar (Garhwal), Himalayas, India. *Environmental Pollution.* 150(3): 295-299.

193. Shukla, P.; Upreti, D.K. (2008). Effect of metallic pollutants on the physiology of lichen, *Pyxine subcinerea* Stirton in Garhwal Himalayas. *Environmental Monitoring and Assessment.* 141: 237-243.

194. Shukla, P.; Upreti, D.K. (2011). Changing lichen diversity in and around urban settlements of Garhwal Himalayas due to increasing anthropogenic activities. *Environmental Monitoring and Assessment.* 174: 439-444.

195. Shukla, P.; Upreti, D.K.; Nayaka, S. (2005). Enumeration of lichens in Khirsu Forest Park, Pauri Garhwal. *Phytotaxonomy.* 5: 32-34.

196. Shukla, P.; Upreti, D.K.; Tewari, L.M. (2014). Lichen genus Usnea (Parmeliaceae, Ascomycota)in Uttarakhand, India. *Current Research in Environmental and Applied Mycology.* 4(2): 188-201.

197. Shukla, P.; Upreti, D.K.; Tewari, L.M. (2015). Ecological role and conservational aspects of Lichenized Ascomycetes *Usnea* sensu lato, in Uttarakhand, India. *Uttar Pradesh Biodiversity Board* P. 113-115.

198. Shukla, V.; Patel, D.K.; Bajpai, T.; Semwal, M.; Upreti, D.K. (2016). Ecological implication of variation in the secondary metabolites in Parmelioid lichens with respect to altitude. *Enviornmental Science and Pollution Research.* 23(2): 1391-1397.

199. Shukla, V.; Patel, D.K.; Upreti, D.K.; Yunus, M. (2012). Lichens to distinguish urban from industrial PAHs. *Environmental Chemistry Letters.* 10(2): 159-164.

200. Shukla, V.; Patel, D.K.; Upreti, D.K.; Yunus, M.; Prasad, S. (2013). A comparison of metallic contents in lichen *Pyxine subcinerea*, its substratum and soil. *International Journal of Environmental Science and Technology*. 10: 37-46.

201. Shukla, V.; Upreti, D.K.; Bajpai, R.; Yunus, M. (2014). Spatial distribution of metallic content in Himalayan ecosystem monitored using lichens. *Water, Air, and Soil Pollution.* 225(2): 1-6.

202. Shukla, V.; Upreti, D.K.; Nayaka, S. (2006). Heavy metal accumulation in lichens of Dehradun city, Uttaranchal, India. *Indian Journal of Environmental Sciences*. 10(2): 165-169.

203. Shukla, V.; Upreti, D.K.; Patel, D.K.; Tripathi, R. (2010). Accumulation of polycyclic aromatic hydrocarbons in some lichens of Garhwal Himalayas, India. *International Journal of Environment and Waste Management.* 5(1-2): 104-113.

204. Shukla, V.; Upreti, D.K.; Patel, D.K. (2012). Physiological attributes of lichen, *Phaeophyscia hispidula* in heavy metal rich sites of Dehra Dun, India. *Journal of Environmental Biology.* 35: 1051-1055.

205. Shukla, V.; Upreti, D.K.; Patel, D.K.; Yunus, M. (2013). Lichens reveal air PAH fractionation in the Himalaya. *Environmental Chemistry Letters.* 11(1): 19-23.

206. Singh, A. (1982). Observations on some Pyrenocarpous lichens-1. *Nova Hedwigia.* 36: 237-239.

207. Singh, A. (1982). Three new species of the lichen genus *Anthracothecium* from Eastern Himalayas (India). *Feddes Repertorium.* 93: 67-69.

208. Singh, A. (1986). On the occurrence of a rare lichen from India. *Current Science.* 55(4): 198-200.

209. Singh, A.; Upreti, D.K. (1984). The lichen genus*Endocarpon* from India. *Candollea.* 39: 539-548.

210. Singh, A.; Upreti, D.K. (1986). Lichen genus*Pleurotheliopsis* from the Indian Subcontinent. *Geophytology.* 16(1): 261-263.

211. Singh, A.; Upreti, D.K. (1999). Lichen genus*Anthracothecium* from Indian subcontinent. *In: Mukerji et al. (eds.)Biology of Lichens. Aravali Books International, New Delhi.* P. 343-386.

212. Singh, J.; Upreti, D.K.; Bajpai, R.; Singh, R.P.; Dubey, A. (2008). Effect of altitudinal changes on photosynthetic pigment concentration in some cryptogames. *J. Ecophysiol. Occup. Hlth*. 8: 107-110.

213. Singh, K. P.; Jagadeesh Ram, T.A.M.; Sinha, G.P. (2009). *Erythrodecton* G. Thor (Lichenized ascomycetes), A new generic record for India. *Indian Journal of Forestry.* 32(2): 335-336.

214. Singh, K.K.; Upreti, D.K.; Kumar, K. (2000). Ethnobotanical notes on some lesser known Himalayan lichens. *British Lichen Society Bulletin.* 86: 36-38.

215. Singh, K.P. (1999). Lichens of eastern Himalayan region. *IN:Biology of Lichens. (KG Mukerji, BP Chamola, DK. Upreti and RK Upadhyay, eds).* P. 153-204.

216. Singh, K.P.; Bujarbarua, P.; Pinokiyo, A.; Dixit, P.K. (2004). A preliminary account of the lichens from Mehao Wildlife Sanctuary, Arunachal Pradesh, India. *Indian Journal of Forestry.* 27(3): 273-278.

217. Singh, K.P.; Chandra, S. (2007). Three new records of lichen family Physciaceae from India. *Indian Journal of Forestry.* 30(2): 245-246.

218. Singh, K.P.; Pinokiyo, A. (2003). Foliicolous lichens and their diversity in north-east India. *Proc. Natl. Acad. Sci. India.*B73(II): 177-185.

219. Singh, K.P.; Pinokiyo, A. (2004). Four foliicolous lichens new to India flora. *Geophytology.* 33(1-2): 119-121.

220. Singh, K.P.; Pinokiyo, A. (2008). New taxa of foliicolous lichens from eastern India. *The Lichenologist.* 40(01): 23-29.

221. Singh, K.P.; Pinokiyo, A.; Upreti, D.K. (2005). Pyrenocarpous lichens from Arunachal Pradesh, India. *Phytotaxonomy.* 5: 134-139.

222. Singh, K.P.; Singh, P. (2012). A new species of Pyrgillus from India. *The Lichenologist.* 44(06): 773-776.

223. Singh, K.P.; Singh, P. (2012). Genus*Pyrgillus* Nyl. (Lichenized Ascomycota: Pyrenulaceae)in India. *Taiwania.* 57(4): 391-395.

224. Singh, K.P.; Sinha, G.P. (1997). Lichen diversity of the Eastern Himalaya and its conservation. *In:Himalayan Microbial Diversity, Part 2, (Recent Researches in Ecology, Environment and Pollution).* 11:349-359.

225. Singh, K.P.; Sinha, G.P. (2010). Indian Lichens: an annotated checklist. *Botanical Survey of India, Kolkata.*

226. Singh, K.P.; Sinha, G.P.; Bujarbarua, P. (2004). Endemic lichens of India. *Geophytology.* 33 (1-2): 1-16.

227. Singh, K.P.; Swarnlatha, G. (2009). Some new combinations in lichen family Graphidaceae. *Indian Journal of Forestry.* 32(1): 179-180.

228. Singh, K.P.; Swarnlatha, G. (2011). A note on Graphidaceous lichens from Arunachal Pradesh, India. *Indian Journal of Forestry.* 34: 353-360.

229. Singh, K.P.; Upreti, D.K. (1986). On the species of *Cladonia* from Arunachal Pradesh and Manipur, India. *Geophytology.* 16(1): 113-118.

230. Singh, K.P.; Upreti, D.K.; Pinokiyo, A. (2006). Species of *Pyrenula* from Arunachal Pradesh, India. *Phytotaxonomy.* 6: 84-92.

231. Singh, K.P.; Wadhwa, B.M.; Singh, G.P. (1989). Species of *Hypotrachyna* (Lichenized ascomycotina)from North East India. *In: M. L. Trivedi, B. S. Gill and S.S. Saini (eds.)Plant Science Research in India, Today and Tomorrow's Printer and Publisher, New Delhi.* P. 107-113.

232. Singh, N.; Bajpai, R.; Mahar, K.S.; Tiwari, V.; Upreti, D.K.; Rana, T.S. (2014). ISSR and DAMD markers revealed high genetic variability within *Flavoparmelia caperata* in Western Himalaya (India). *Physiology and Molecular Biology of Plants* 20(4): 501-508.

233. Singh, P.; Singh, K.P. (2014). *Cyphelium inquinans* (Sm.)Trev. (Lichenized: Ascomycota): A new record for India. *Check List*. 10(1): 178-179.

234. Singh, P.; Singh, K.P.; Bhatt, A.B. (2013). New species and new records of Thelotremoid Graphidaceae (Lichenized Ascomycota)from Arunachal Pradesh (India). *Taiwania.* 58(4): 246-250.

235. Singh, P.; Singh, K.P.; Bhatt, A.B. (2015). Diversity and distribution of microlichens in the state of Arunachal Pradesh, Eastern Himalaya, India. *Check List.* 11(6): 1807.

236. Singh, S.R. (1999). Ecology and distribution of lichen genera *Buellia* and *Diplotomma* in India, Nepal and Sri Lanka. *In: Mukerji et al. (eds.)Biology of Lichens. Aravali Books International, New Delhi.* P. 222-247.

237. Singh, S.R.; Awasthi, D.D. (1981). The Lichen genus*Buellia* in India.*Biological Memoirs.* 6(2): 169-196.

238. Singh, S.R.; Awasthi, D.D. (1990). Lichen genus*Diplotomma* from India and Nepal. *Geophytology.* 19(2): 173-181.

239. Singha, S.N.; Biswas, M. (2011). Evaluation of antibacterial activity of some lichen from Ravangla, Sikkim, India. *International Journal of Pharma and Bio Sciences.* 2(4): 23-28.

240. Sinha, G.P. (1999). Lichens of Sikkim. Biology of Lichens. *(KG Mukerji, BP Chamola, D K. Upreti, and R. K. Upadhyay, eds.*). P. 205-224.

241. Sinha, G.P. (2004). Addition to the lichen flora of India from Sikkim. *Bull. Bot. Surv. India.* 45(1-2): 221-224.

242. Sinha, G.P. (2004). Macrolichens of Kanchendzonga Biosphere Reserve, Sikkim. *Geophytology.* 45(1-2): 35-38.

243. Sinha, G.P.; Chauhan, A.S. (1996). Lichen Flora of Sikkim: Some new generic records. *Himalayan Paryavaran.* 41: 75-78.

244. Sinha, G.P.; Chauhan, A.S. (1998). Lichen diversity in Sikkim. *In: S.C. Rai, R.C. Sundriyal and Eklabya Sharma (eds.)Sikkim: Prespective for planning and Development, Sikkim. Science Society, Gangtok and Bishen Singh Mahendra Pal Singh, Dehradun.* P. 233-240.

245. Sinha, G.P.; Chauhan, A.S. (2002). The lichen genus*Cladonia* P. Browne in Sikkim. *In: A. P. Das (ed.)Perspective of Plant Biodiversity, Bishen Singh Mahendra Pal Singh, Dehradun.* P. 185-212.

246. Sinha, G.P.; Elix, J.A. (2003). A new species of *Hypogymnia* and a new record in the lichen family Parmeliaceae (Ascomycota)from Sikkim, India. *Mycotaxon.* 87: 81-84.

247. Sinha, G.P.; Jagadeesh Ram, T.A.M. (2011). Lichen diversity in Sikkim Biodiversity of Sikkim. Biodiversity of Sikkim. *Exploring and Conserving a Global Hotspot*. 87: 81-84.

248. Sinha, G.P.; Singh, K.P. (1990). A new species of *Phyllobathelium* (lichens)from Arunachal Pradesh, India. *Geophytology.* 20(2): 164-165.

249. Sinha, G.P.; Singh, K.P. (2005). Macrolichens of Sikkim. *Botanical Survey of India, Kolkata.*

250. Sinha, G.P.; Singh, K.P.; Wadhwa, B.M. (1994). Studies on the lichen genus*Parmotrema* Massal, From North East India. *Journal of Economic and Taxonomic Botany.* 18(1): 61-69.

251. Solan, S.; Mehta, K.A.; Magotra, R. (2010). A catalogue of lichens of Ramnagar Wildlife Sanctuary, Jammu and Kashmir. *Phytotaxonomy.* 10: 134-138.

252. Srinivasulu, Y.; Dar, S.; Rathore, M.S.; Kour, R.; Dhar, A.; Sahaf, K.A. (2014). Studies on Lichens Occurring on Mulberry Varieties under Temperate Climatic Conditions of Kashmir. *Indian Horticulture Journal*. 4(2): 122-123.

253. Srivastava, R.; Yadav, V.; Upreti, D.K.; Nayaka, S. (2004). An enumeration of lichens from Shimla district, Himachal Pradesh. *Geophytology.* 33(1-2): 29-34.

254. Srivastava, R.; Yadav, V.; Upreti, D.K.; Sharma, N. (2004). Lichen flora of Bilaspur, Hamirpur and Una districts of Himachal Pradesh. *Phytotaxonomy.* 4: 11-18.

255. Srivastava, R.; Yadav, V.; Upreti, D.K.; Nayaka, S. (2006). Lichen flora of Lahul and Spiti district , Himachal Pradesh. *Phytotaxonomy.* 6: 61-68.

256. Stirton, J. (1879). New rare lichens from India and the Himalayas. *Proc. Phil. Soc. Glasgow*., 11: 306-322.

257. Strachey, R. (1906). Catalogue of the Plants of Kumaon and the adjacent portions of Garhwal and Tibet. *Based on collection by Strachey and Winterbottom during 1846-49 Revised and splemented by J. F. Duthie., London, Lavell Reev* P. 269.

258. Tewari, V.; Upreti, D.K. (2007). Some additions to the Graphidaceous lichen flora of India. *Ann. For.* 15(1): 91-96.

259. Tewari, V.; Upreti, D.K. (2008). New record and a new combination of lichen genus*Platygramme*Fee (Graphidaceae)from India. *Indian Journal of Forestry.* 31(3): 457-460.

260. Thell, A.; Randlane, T.; Karnefelt, I.; Xiang-Qun, G.; Saag, A. (1995). The lichen genus*Allocetraria* (Ascomycotina, Parmeliaceae). *In: Daniels et al. (eds.)Flechten Follmann, University of Cologne, Cologne, Germany*. P. 353-370.

261. Tiwari, P.; Rai, H.; Upreti, D.K.; Trivedi, S.; Shukla, P. (2011). Antifungal Activity of a common himalayan foliose lichen *Parmotrema tinctorum* (Despr. ex Nyl.)Hale. *Nature and Science.* 9(9): 167-171.

262. Tiwari, P.; Rai, H.; Upreti, D.K.; Trivedi, S.; Shukla, P. (2011). Assessment of antifungal activity of some Himalayan foliose lichens against plant pathogenic fungi. *American Journal of Plant Science*s. 2: 841-846.

263. Upreti, D.K. (1985). Lichen genus*Cladia* from India and Nepal. *Journal of Economic and Taxonomic Botany.* 7(3): 722-724.

264. Upreti, D.K. (1985). Studies on lichen genus Baeomyces from India. *Journal of Economic and Taxonomic Botany.* 7(3): 722-724.

265. Upreti, D.K. (1987). Key to the species of lichen genus*Cladonia* from India and Nepal. *Feddes Repertorium.* 98(7-8): 469-473.

266. Upreti, D.K. (1988). A new species of lichen genus*Phylliscum* from India. *Current Science.* 57: 906-907.

267. Upreti, D.K. (1990). Lichen genus*Pyrenula* in India: I *Pyrenula subducta* spore type. *J.Hattori Bot. Lab.* 68: 269-278.

268. Upreti, D.K. (1991). Lichen genus*Pyrenula* from India. The species with spores of *Pyrenula brunnea* type. *Bulletin de la Societe Botanique de France, Lettres Botaniques* 138(3): 241-247.

269. Upreti, D.K. (1992). Lichen genus*Pyrenula* from India VII. *Pyrenula mastophora* spore type. *Feddes Repertorium.* 103(3-4): 279-296.

270. Upreti, D.K. (1994). Notes on Corticolous and Saxicolous species of *Porina* from India with *Porina subhibernica*sp.nov.*TheBryologist.* 97(1): 73-79.

271. Upreti, D.K. (1995). Loss of diversity in Indian lichen flora. *Environmental Conservation.* 22(04): 361-363.

272. Upreti, D.K. (1997). Diversity of the Himalayan Lichens. *In: S. C. Sati, J. Saxena and R. C. Dubey (Eds.). Himalayan Microbial Diversity (Part 2). Recent Researches in Ecology, Environment and Pollution. Today and Tomorrow's Printers and Publishers, New Delhi.* P. 339-347.

273. Upreti, D.K. (1997). Notes on corticolous, K+yellow species of *Lecanora* in India. *Feddes Repertorium.* 108 (3-4): 256-262.

274. Upreti, D.K. (1997). Notes on saxicolous species of the *Lecanora subfusca* group in India. *Bryologist.* 101(2): 256-262.

275. Upreti, D.K. (2001). Himalayan lichens and their exploitation *In: P. C. Pandey and S. S. Samant (Eds.). Plant diversity of the Himalaya. Gyanodaya Prakashan, Nainital.* Pp. 95-100.

276. Upreti, D.K.; Aptroot, A. (1996). *Lithothelium himalayense*, A new Pyrenocarpous Lichen from India. *The Lichenologist.* 28(1): 89-100.

277. Upreti, D.K.; Bajpai, R.; Nayaka, S. (2015). Lichenology: Current Research in India. *IN: Plant Biology and Biotechnology: Volume I: Plant Diversity, Organizational Function and Improvement (Eds. B. Bhadur, M.V. Rajan, L. Sahijram and K.V. Krishnamrti); Springer India, New Delhi.* 263-280p.

278. Upreti, D.K.; Budel, B. (1990). Lichen genera *Heppia* and *Peltua* in India. J. *Hattori Bot. Lab.* 68: 279-284.

279. Upreti, D.K.; Chatterjee, S. (1997). Notes on some Indian species of *Lecanora* s. str. with a dark hypothecuim. *Feddes Repertorium.* 108(7-8): 575-582.

280. Upreti, D.K.; Chatterjee, S. (1998). Lichen genus*Lecanora* subgenus *Placodium* in India. *Feddes Repertorium.* 109(3-4): 279-289.

281. Upreti, D.K.; Chatterjee, S. (1999). A Preliminary survey of lichens from Corbett National Park. *Journal of Bombay Natural History Society*. 96(1): 88-92.

282. Upreti, D.K.; Chatterjee, S. (1999). Distribution of lichens of *Quercus* and *Pinus* trees in Pithoragarh district, Kumaon Himalayas-India. *Tropical Ecology.* 40(1): 41-49.

283. Upreti, D.K.; Chatterjee, S. (2000). Distribution of lichens on *Quercus* and *Pinus* trees in Almora district, Kumaon Himalayas-India. *Geophytology.* 28(1-2): 41-49.

284. Upreti, D.K.; Chatterjee, S. (2002). Lichen genus*Porpidia* in India. *Geophytology.* 30 (1-2): 99-101.

285. Upreti, D.K.; Chatterjee, S. (2002). The lichen genus*Aspicilia* Massal. (Lecanorales)in India. *Phytotaxonomy.* 2: 1-10.

286. Upreti, D.K.; Chatterjee, S. (2004). Lichen genus*Tephromela* in India. *Geophytology.* 32(1-2): 47-52.

287. Upreti, D.K.; Chatterjee, S.; Divakar, P.K. (2004). Addition to the lichen flora of Sikkim, India. *In: Vistas in Palaeobotany and Morphology: Evolutionary and Environmental Perspectives, Professor D.D. Pant memorial Volume, ed. P. C. Srivastava.* Pp. 329-338.

288. Upreti, D.K.; Chatterjee, S.; Divakar, P.K. (2004). Lichen flora of Gangotri and Gomukh areas of Uttaranchal, India. *Geophytology.* 34(1-2): 15-21.

289. Upreti, D.K.; Divakar, P.K. (2003). Distribution of lichens in Corbett Tiger Reserve, Uttaranchal. *Journal of Economic and Taxonomic Botany.* 27: 1043-1060.

290. Upreti, D.K.; Divakar, P.K. (2008). Notes on some interesting macrolichens from India. *Nova Hedwigia.* 83(3-4): 525-528.

291. Upreti, D.K.; Divakar, P.K.; Nayaka, S. (2003). Notes on species of the lichen genus*Phyllopsora* in India.*Biblioth. Lichenol.* 86: 185-191.

292. Upreti, D.K.; Divakar, P.K.; Nayaka, S. (2005). Notes on some Indian Pannariaceous Lichens. *Nova Hedwigia.* 81(1-2): 97-113.

293. Upreti, D.K.; Dubey, U.; Nayaka, S. (2011). A new isidiate species of *Hemithecium* Trevis.(Ascomycota, Graphidaceae)from India. *The Lichenologist.* 43(05): 483-485.

294. Upreti, D.K.; Joshi, S. (2010). Lichen wealth of Uttarakhand and its role in economy of the state. *In: Singh M. and Paliwal, A.K. (Editors)Advancement Science and Technology, Jagdamba Publishing Company, New Delhi*. 95-106.

295. Upreti, D.K.; Joshi, S.; Nayaka, S. (2010). Chemistry of common dye yielding lichens of India. *ENVIS Forestry Bulletin.* 38(1-2): 122-133.

296. Upreti, D.K.; Joshi, S.; Nayaka, S.; Joshi, S. (2010). New records of squamulose lichens from western Himalaya. *Geophytology.* 38(1-2): 85-91.

297. Upreti, D.K.; Mishra, G.K.; Nayaka, S. (2013). New records of lichen genera *Agonimia* and Baeomyces (Ascomycota)from India. *Geophytology.* 43(1): 69-73.

298. Upreti, D.K.; Nayaka, S. (2000). An enumeration of lichens from Himachal Pradesh. *In: Recent Trends in Botanical Researches, Chauhan, D.K. (ed.). Botany Department, Allahabad University, Allahabad.* Pp. 15-31.

299. Upreti, D.K.; Nayaka, S. (2006). *Anisomeridum calciccolum* sp. nov. and further new records of Pyrenocarpous lichens from India. *The Lichenologist.* 38: 231-233.

300. Upreti, D.K.; Nayaka, S. (2006). Notes on some species of the lichen genus*Lecidea* from India. *Mycotaxon.* 95: 323-330.

301. Upreti, D.K.; Nayaka, S. (2006). *Schadonia indica*, a new corticolous species from tropical India. *Mycotaxon.* 97: 275-278.

302. Upreti, D.K.; Nayaka, S.; Yadav, V. (2003). Notes on some leprose and sterile crustose lichens of India. *Phytotaxonomy.* 3: 75-78.

303. Upreti, D.K.; Negi, H.R. (1996). Folk use of *Thamnolia vermicularis* (Swartz.)Ach. in Schaerer in Lata village of Nanda Devi Biosphere Resreve. *Ethnobotany.* 8: 83-86.

304. Upreti, D.K.; Negi, H.R. (1998). Lichen flora of Chopta-Tunganath, Garhwal Himalayas, India. *Journal of Economic and Taxonomic Botany.* 22(2): 273-286.

305. Upreti, D.K.; Negi, H.S. (1995). Lichens of Nanda Devi Biosphere Reserve, Uttar Pradesh, India. I.*Journal Economic and Taxonomic Botany.* 19(3): 627-636.

306. Upreti, D.K.; Pant, V.; Divakar, P. K. (2001). Distribution of lichens in Askot Sandev Botanical Hot Spot of Pithoragarh district, Uttar Pradesh.*Phytotaxonomy.* 1: 40-45.

307. Upreti, D.K.; Pant, V.; Divakar, P. K. (2002). Exploitation of lichens from Pithoragarh district, Uttaranchal.*Ethnobotany.* 14: 60-62.

308. Upreti, D.K.; Ranjan, M. (1988). A note on some macrolichens from Thimphu district Bhutan.*Jour. Rec. Adv. Sci.* 3(1): 426-432.

309. Upreti, D.K.; Singh, A. (1988). The Lichen genus*Parmentaria* from India subcontinent. *Candollea.* 43(1): 109-121.

Author Index

Lichen

Bibliography

Bacteria of the Indian Himalayan Region

01. Agarwal, P.K.; Rai, S.K.; Agarwal, S.; Chandra, H. (2013). Study of genotypic diversity of Rhizobia from legume crops and its application as a bioinoculant in sustainable agricultural development. *Asian J. Exp. Biol. Sci.* 4(3): 437-441.

02. Agrawal, R.; Satlewal, A.; Verma, A. (2015). Characterization of plant growth promoting *Rhizobacteria* (PGPR): a perspective of conventional versus recent techniques. IN: Heavy Metal Contamination of soils. *Springer International Publishing*. P. 471-485.

03. Ahmad, N.; Johri, S.; Abdin, M.Z.; Qazi, G.N. (2009). Molecular characterization of bacterial population in the forest soil of Kashmir, India. *World Journal of Microbiology and Biotechnology.* 25(1): 107-113.

04. Ambardar, S.; Sangwan, N.; Manjula, A.; Rajendhran, J.; Gunasekaran, P.; Lal, R.; Vakhlu, J. (2014). Identification of bacteria associated with underground parts of *Crocus sativus* by 16S rRNA gene targeted metagenomic approach. *World Journal of Microbiology and Biotechnology.* 30(10): 2701-2709.

05. Ambardar, S.; Vakhlu, J. (2013). Plant growth promoting bacteria from *Crocus sativus* rhizosphere. *World Journal of Microbiology and Biotechnology.* 29(12): 2271-2279.

06. Arora, N.K.; Kharel, E.; Oh, J.H.; Kang, S.C.; Maheshwari, D.K.; Kharel, E.; Oh, J.H.; Kang, S.C.; Maheshwari, D.K. (2008). Diverse mechanisms adopted by fluorescent Pseudomonas PGC2 during the inhibition of *Rhizoctonia solani* and *Phytophthora capsici*. *World Journal of Microbiology and Biotechnology.* 24(4): 581-585.

07. Arunkumar, K.; Singh, R.D.; Patra, A.K.; Sahu, S.K. (2013). Probing of microbial community structure, dehydrogenase and soil carbon in relation to different land uses in soils of Ranichauri (Garhwal Himalayas). *Int. J. Curr. Microbiol Appl. Sci*. 2(11): 325-338.

08. Arunkumar, R.D.S.; Patra, A.K.; Sahu, S.K.; Sopan, B.; Bhople, M.A.K.; Nimje, A. (2015). Impact of canopy and seasonal dynamics on oak and pine soil microbial community composition and other biological indicators in Garhwal Himalayas. *Eco. Env. and Cons.* P. S213-S223.

09. Arvind, G.; Sood, S.; Rahi, P.; Thakur, R.; Chauhan, S.; Chawla, I. (2011). Diversity analysis of diazotrophic bacteria associated with the roots of tea (*Camellia sinensis* O. Kuntze). *Journal of Microbiology and Biotechnology.* 21(6): 545-555.

10. Arya, M.; Joshi, G.K.; Gupta, A.K.; Kumar, A.; Raturi, A. (2015). Isolation and characterization of thermophilic bacterial strains from Soldhar (Tapovan hot spring in Central Himalayan region, India. *Annals of Microbiology.* 65(3): 1457-1464.

11. Baba, A.; Sheikh, T.A.; Hamid, B. (2014). Functional diversity of culturable phosphate solubilizing fluorescent Pseudomonads. *Indian Journal of Agicultural Research.* 48(6): 472-479.

12. Bafana, A. (2013). Diversity and metabolic potential of culturable root-associated bacteria from Origanum vulgare in sub-Himalayan region. *World Journal of Microbiology and Biotechnology.* 29(1): 63-74.

13. Baghela, V.S.; Tripathia, R.D.; Ramteke, P.W.; Gopale, K.; Dwivedial, S.; Jaind, R.K.; Raia, U.N.; Sigha, S.N. (2005). Phychrotrophic proteolytic bacteria from cold environment of Gangotri glacier, Western Himalaya, India. *Enzyme and Microbial Technology.* 36(5): 654-659.

14. Balasubramanian, D.; Arunachalam, K.; Arunachalam, A.; Das, A.K. (2013). Effect of water Hyacinth (*Eichhornia crassipes*) Mulch on soil microbial properties in lowland rainfed rice based agricultural system in Northeast India. *Agricultural Research.* 2(3): 246-257.

15. Bar, G.H.; Bandh, S.A.; Kamili, A.N.; Nazir, R.; Bhar, R.A. (2013). Comparative analysis of different types of Bacterial colonies from the soils of Yusmarg forest, Kashmir valley, India. *Ecological Balkanica*. 5(1).

16. Bhardwaj, K.N.; Kainthola, A.; Tiwari, S.C. (2011). Reassessment of taxonomic diversity of cyanobacteria in microbial mats and physicochemical characteristics of Badrinath thermal spring, Garhwal Himalaya, India. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences.* 81: 235-241.

17. Bharti, A.; Kumar, V.; Gusain, O.; Bisht, G.S. (2010). Antifungal activity of actinomycetes isolated from Garhwal region. *Journal of Sci. Engg. and Tech. Mgt.* 2: 2.

18. Bhatia, A.; Ali, M.; Sahoo, J.; Madan, S.; Pathania, R.; Ahmed, N.; Kazmi, A.A. (2012). Microbial diversity during rotary drum and window pile composting. *Journal of Basic Microbiology.* 52(1): 5-15.

19. Bhatia, A.; Madan, S.; Sahoo, J.; Ali, M.; Pathania, R.; Kazmi, A.A. (2013). Diversity of bacterial isolates during full scale rotary drum composting. *Waste Management.* 33(7):1595-1601.

20. Bhatia, S.; Batra, N.; Pathak, A.; Green, S.J.; Joshi, A.; Chauhan, A. (2015). Metagenomic evaluation of bacterial and archaeal diversity in the geothermal hot springs of Manikaran, India. *Genome Announcements.* 3(1): e01544-14.

21. Bhattacharjee, K.; Banerjee, S.; Joshi, S.R. (2012). Diversity of *Streptomyces* spp. in Eastern Himalayan region - computational RNomics approach to phylogeny. *Bioinformation.* 8: 548-554.

22. Bhattacharjee, K.; Joshi, S.R. (2014). NEMiD: A web based curated microbial diversity database with geo-based plotting. *PlosOne.* 9.4: 394088.

23. Bisht, A.; Singh, U.P.; Pandey, N.N. (2014). Comparative study of seasonal variation in bacterial flora concomitant with farm raised fingerlings of *Cyprinus carpio* at Terai region of Uttarakhand. *Journal of Environmental Biology*. 35(2): 363.

24. Bisht, S.C.; Joshi, G.K.; Mishra, P.K. (2013). Cryotolerance strategies of Pseudomonads isolated from the rhizosphere of Himalayan plants. *SpringerPlus.* 2(1): 667.

25. Bisht, S.; Mishra, P.K.; Joshi, G.K. (2013). Genetic and functional diversity among root-associated psychrotophic Pseudomonad's isolated from the Himalayan plants. *Archives of Microbiology*. 195(9): 605-615.

26. Bora, T.C.; Dekabaruah, H.P.; Saikia, N.; Sarma, A.; Bezbaruah, R.L.; Saikia, R.; Bordoloi, R. (2011). Bioprospecting microbial Diversity from North East Gene Pool. *Journal of Biological and Environmental Sciences*. P. 446-450.

27. Capkova, K.; Hauer, T.; Rehakova, K.; Dolezal, J. (2016). Some like it high. Phylogenetic diversity of high elevation cyanobacterial community from biological soil crusts of Western Himalaya. *Microbial Ecology.* 71(1: 113-123.

28. Chakraborty, B.N.; Chakraborty, U.; Saha, A.; Sunar, K.; Dey, P.L. (2010). Evaluation of phosphate solubilizers from soils of North Bengal and their diversity analysis. *World Journal of Agricultural Sciences.* 6(2): 195-200.

29. Chaudhury, M.K.; Kumar, M. (2006). Population dynamics of the Cyanobacterial flora in the foothills of Garhwal Himalayas. *Glimpses of Cyanobacteria.* P. 271.

30. Choudhary, K.K.; Singh, R.K. (2013). Cyanobacterial diversity along altitudinal gradient in Eastern Himalayas of India. *Journal of Alga Biomass Utilization*. 4(2): 53-58.

31. Das, J.; Dangar, T.K. (2007). Diversity of *Bacillus thuringiensis* in the rice field soils of different ecologies in India. *Indian Journal of Microbiology.* 47(4): 364-368.

32. Das, J.; Dangar, T.K. (2008). Microbial population dynamics, especially stress tolerant *Bacillus thuringiensis*, in partially anaerobic rice fields soils during post harvest period of the Himalayan island, brackish water and coastal habitats of India. *World Journal of Microbiology and Biotechnology.* 24(8): 1403-1410.

33. De, D.; Mukhopadhyay, A. (2011). A new strain of Entomopathogenic *Bacillus* of the Tea pest, *Eterusia magnifica* (Butl.)(Zyganiidae: Lepidoptera) from Darjeeling foothills region of India. *Journal of Agricultural Science and Technology.* 4(1):

34. Debnath, R.; Saikia, R.; Sarma, R.K.; Yadav, A.; Bora, T.C.; Handique, P.J. (2013). Psychrotolerant antifungal Streptomyces isolated from Tawang, India and the shift in chitinase gene family. *Extremophiles.* 17(6): 1045-1059.

35. Debnath, S.; Patra, A.K.; Ahmed, K.; Kumar, S.; Dwivedi, B.S. (2015). Assessment of microbial biomass and enzyme activities in soil under temperate fruit crops in north-Western Himalayan region. *Journal of Soil Science and Plant Nutrition.* 15(4): 848-866.

36. Deopa, P. (2013). Studies on soil bacterial diversity of Himachal Pradesh using 16S and nifH gene and soil enzymes activities. *Ph.D. thesis.*

37. Devi, U.; Saini, A.K. (2015). Current scenario of research on plant growth promoting microbes in Himachal Pradesh. *Envis Bulletin Himalayan Ecology*. 23: 55.

38. Dhar, H.; Swarnkar, M.K.; Gulati, A.; Singh, A.K.; Kasana, R.C. (2015). Draft genome sequence of a cellulose producing psychrotrophic *Paenibacillus* strain IHB B 3415, isolated from the cold environment of the Western Himalayas, India. *Genome Announcements.* 3(1): e01581-14.

39. Duraipandian, V.; Sasi, A.H.; Islam, V.H.; Valanarasu, M.; Ignacimuthu, S. (2010). Antimicrobial properties of actinomycetes from the soil of Himalaya. *Journal de Mycologie Medicale/Journal of Medical Mycology*. 20(1): 15-20.

40. Dwivedi, V.; Kumari, K.; Gupta, S.K.; Kumari, R.; Tripathi, C.; Lata, P.; Garg, N. (2015). *Thermus parvatiensis* RLT sp. nov. isolated from a hot water spring, located atop the Himalayan ranges at Manikaran, India. *Indian Journal of Microbiology.* 55(4): 357-365.

41. Gangwar, P.; Alam, S.I.; Bansod, S.; Singhl, L. (2009). Bacterial diversity of soil samples from the Western Himalayas, India. *Canadian Journal of Microbiology*. 55(5): 6564-577.

42. Gangwar, P.; Alam, S.I.; Singh, I. (2011). Metabolic characterization of cold active *Pseudomonas, Arthrobacter, Bacillus* and *Flavobacterium* spp. from Western Himalayas. *Indian Journal of Microbiology.* 51(1): 70-75.

43. Ghosh, W.; Bagchi, A.; Manda, S.; Dam, B.; Roy, P. (2005). *Tetrathiobacter kashmirensis* gen. nov., sp. nov., a novel mesophilic, neutrophilic, tetrathionate-oxidizing, factutatively chemolithotrophic betaproteobacterium isolated from soil from a temperate orchard in Jammu and Kashmir, India. *International Journal of Systematic and Evolutionary microbiology.* 55(5): 1779-1787.

44. Giri, K.; Suyal, D.C.; Mishra, G.; Pandey, S.; Kumar, R.; Meena, D.K.; Rai, J.P.N. (2015). Biodegradation of Isoproturon by *Bacillus pumilus* k1 isolated from foothills agroecosystem of North West Himalaya. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences.* P. 1-10.

45. Goyari, S.; Devi, S.S.; Kalita, M.C.; Talukdar, N.C. (2014). Population, diversity and characteristics of cellulytic microorganisms from the Indo-Burma biodiversity hotspot. *SpringerPlus.* 3(1): 700.

46. Gulati, A.; Vyas, P.; Rahni, P.; Kasana, R.C. (2009). Plant growth promoting and rhizosphere competent Acinetobacter rhizosphaerae strain BIHB 723 from the cold deserts of the Himalayas. *Current Microbiology.* 58(4): 371-377.

47. Guleria, S.; Sharma, K.; Walia, A.; Chauhan, A.; Shirkot, C.K. (2014). Population and functional diversity of phosphate solubilizing bacteria from apricot (*Prunus armerniaca*) of mid and high regions of Himachal Pradesh. *Population.* 9(4): 1435-1443.

48. Guleria, S.; Walia, A.; Chauhan, A.; Shirkot, C.K. (2014). Genotypic and phenotypic profile of alkalophile proteolytic *Bacillus* sp. associated with rhizosphere of apple trees in Trans-Himalayas. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences.* P. 1-11.

49. Guleria, S.; Walia, A.; Chauhan, A.; Shirtkot, C.K. (2015). Purification and characterization of detergent stable alkaline protease from *Bacillus amyloliquefaciens* SP1 isolated from apple rhizosphere. *Journal of Basic Microbiology.*

50. Gupta, P.; Manjula, A.; Rajendhran, J.; Gunasekaran, P.; Vakhlu, J. (2016). Comparison of metagenomic DNA extraction methods for soil sediments of high elevation Puga hot springs in Ladakh, India to explore bacterial diversity, Geomicrobiology. *Geomicrobiology.*

51. Gupta, P.; Vakhlu, J. (2015). Culturable bacterial diversity and hydrolytic enzymes from Drass, a cold desert in India. *African Journal of Microbiology Research.* 9(31): 1866-1876.

52. Gusain, Y.S.; Kamal, R.; Mehta, C.M.; Singh, U.S.; Sharma, A.K. (2015). Phosphate solubilizing and indole - 3- acetic acid producing bacteria from the soil of Garhwal Himalaya aimed to improve the growth of rice. *Journal of Environmental Biology*. 36(1): 301.

53. Ishaq, F.; Khan, A. (2011). Isolation, identification and comparative study of fungal and bacterial strains found in organic and inorganic soils of different agricultural fields. *Recent research in science and technology.* 3(11): 30-36.

54. Islam, V.H.; Babu, N.P.; Pandikumar, P.; Ignacimuthu, S. (2011). Isolation and characterization of putative probiotic bacterial strain Bacillus amyloliquefaciens from North East Himalayan soil based on in vitro and in vivo functional properties. *Probiotics and Antimicrobial Proteins.* 3(3-4): 175-185.

55. Jaiswal, P.K.; Thakur, I.S. (2007). Isolation and characterization of dibenzofuran degrading Serrantia marcescens from alkalophilic bacterial consortium of the chemostat. *Current Microbiology.* 55(5): 447-454.

56. Jan, S.; Khan, I.; Dar, G.H.; Kamili, A.N.; Tak, I.U.R. (2015). Ecological and microbiological characteristics of the Jhelum river in Kashmir Himalaya. *African Journal of Microbiology Research.* 9: 20-30.

57. Jehangir, A.; Yousuf, A.R.; Reshi, Z.A.; Tanveer, A.; Ahmad, A. (2012). Comparison of Physical, chemical and microbial properties of soils in a clear cut and adjacent intact forest in North Western Himalaya, India. *International Journal of Soil Science.* 7(3): 71.

58. Johri, B.N. (2004). Genetic diversity of rhizobia islated from medicinal legumes growing in the Sub-Himalayan region of Uttaranchal. *Current Science.* 86(1): 202-207.

59. Joseph, B.; Srivastava, N.; Ramteke, P.W. (2012). Extracellular cold active lipase of *Microbacterium luteolum* isolated from Gangotri glacier, Western Himalaya: isolation, partial purification and characterization. *Journal of Genetic Engineering and Biotechnology.* 10(1): 137-144.

60. Joshi, P.; Bhatt, A.B. (2011). Diversity and function of plant growth promoting Rhizobacteria associated with wheat Rhizosphere in North Himalayan region. *International Journal of Environmental Sciences.* 1(6): 1135-1143.

61. Joshi, P.; Joshi, G.K.; Mishra, P.K.; Bisht, J.K.; Bhatt, J.C. (2014). Diversity of cold tolerant phosphate solubilizing microorganism from North-Western Himalayas. In: Bacterial Diversity in Sustainable Agriculture. *Springer International Publishing*. P. 227-264.

62. Joshi, P.; Tyagi, V.; Bhatt, A.B. (2011). Characterization and rhizobacteria diversity isolated from *Oryza sativa* cultivated at different altitude in North Himalaya. *Advances in Applied Science Research.* 2(4): 208-216.

63. Joshi, S.R.; Banerjee, S.; Bhattacharjee, K.; Lyngwi, N.A.; Koijam, K.; Khaund, P.; Nongkhlaw, F.M. (2015). Northeast microbial database: a web based databank of culturable soil microbes from North East India. *Current Science.* 108(9): 1702.

64. Joshi, S.R.; Bhattacharjee, K.; Banerjee, A.; Bareh, D.A. (2015). Microbial diversity distribution in the lower belt of Eastern Himalaya. *Biodiversity in Tropical Ecosytems.* P. 261-288.

65. Jugran, J.; Joshi, G.K.; Bhatt, J.P.; Shankar, A. (2014). Production and partial characterization of extracelluar protease from *Bacillus* sp. GJP2 isolated from a hot spring. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences.* P. 1-8.

66. Jugran, J.; Rawat, N.; Joshi, G.K. (2015). Amylase production by *Geobacillus* sp. GJAI isolated from a hot springs in Uttarakhand. *Envis Bulletin : Himalayan Ecology*. 23: 21.

67. Kasana, R.C.; Yadav S.K. (2007). Isolation of a psychrotrophic *Exiguobacterium* sp. SKPB5 (MTCC 7803) and characterization of its alkaline protease. *Current Microbiology.* 54(3): 224-229.

68. Katara, J.; Deshmukh, R.K.; Singh, N.; Kaur, S. (2012). Molecular typing of native *Bacillus thuringiensis* isolates from diverse habitats in India using REP-PCR and ERIC-PCR analysis. *The Journal of General and applied microbiology.* 58(2): 83-94.

69. Kaur, M.; Chandel, S.; Singh, B. (2008). Assessment of antimicrobial and proteolytic activity in actinomycetes of rhizospheric soils of medicinal plants (*Melissa officinalis* and *Heracleum candicans*). *Journal of Plant Disease Sciences.* 3(2): 138-143.

70. Kaushik, P.; Chauhan, A. (2008). Antibacterial potential of aqueous and organic extracts of N. Commune: A cyanobacterium. *Vegetos - an International Journal of Plant Research.* 21(1): 77-80.

71. Khare, A.; Kumar, M. (2010). Cyanobacterial biodiversity of Ramnagar Distt Nainital. *Plant archives.* 10(2): 523-530.

72. Khewa, S.; Mukhopadhyay, A. (2012). Characterizing and testing Biocontrol potential of two *Bacillus* strains isolated from the Tea defoliating pest, *Arctornis submarginata* (Walker) (Lepidoptera: Lymantriidae). *Advances in Life Sciences.* 1(2): 114-117.

73. Kshetri, L.; Thounaojam, N.; Pandey, P. (2015). Plant growth promoting Rhizobacteria (PGPR) and their application for sustainable agriculture in North Eastern Region of India. *Envis Bulletin Himalayan Ecology*. 23: 41.

74. Kumar R.; Singh, D.; Swarnkar, M.K.; Singh, A.K.; Kumar, S. (2015). Complete genome sequence of *Arthrobacter* sp. ERGS1: 01 a putative novel bacterium with prospective cold active industrial enzymes isolated from East Rathong glacier in India. *Journal of Biotechnology.* 214: 139-140.

75. Kumar, A.; Bisht, B.S.; Joshi, V.D. (2010). Biosorption of heavy metal by four acclimated microbial species *Bacillus* sp. *Pseudomonas* spp., *Staphylococcus* spp. and *Aspergillus* niger. *Journal of Biological and Environmental Sciences*. 4(12):

76. Kumar, A.; Guleria, S.; Mehta, P.; Walia, P.; Chauhan, A.; Shirtkot, C.K. (2015). Plant growth promoting traits of phosphate solubilizing bacteria isolated from *Hippophae rhamnoides* L. (Sea buckthorn) growing in cold desert Trans-Himalayan Lahul and Spiti regions of India. *Acta Physiologiae Plantarum.* 37(3): 1-12.

77. Kumar, A.; Kumar, A.; Pratush, A. (2013). Phosphate solubilizing bacterial diversity from the Rhizospheric soils of Sub-Temperate region of Himachal Pradesh. *Vegetos - An International Journal of Plant Research.* 26(1): 143-150.

78. Kumar, A.; Rawar, S.; Srivastava, M.; Bhushan, V. (2012). Physico-chemical analysis and isolation of bacteria from water samples of Maharana Pratap Sagar, Kangra district of Himachal Pradesh. *Journal of Applied Sciences in Environmental Sanitation*. 7(3):

79. Kumar, B.; Trivedi, P.; Mishra, A.K.; Pandey, A.; Palni, L.M.S. (2004). Microbial diversity of soil from two hot springs in Uttaranchal Himalaya. *Microbiological research.* 159(2): 141-146.

80. Kumar, G.; Kanaujia, N.; Bafana, A. (2012). Functional and phylogenetic diversity of root associated bacteria of Ajuga bracteosa in Kangra valley. *Microbiological research.* 167(4): 220-225.

81. Kumar, M.; Bhatt, A.B.; Palliwal, G.S. (2015). Cyanobacterial diversity of North-West Sub-Himalayas. *Excel India publishers New Delhi*. 92p.

82. Kumar, M.; Yadav, A.N.; Tiwari, R.; Prasanna, R.; Saxena, A.K. (2014). Deciphering the diversity of culturable thermotolerant bacteria from Manikaran hot springs. *Annals of Microbiology.* 64(2): 741-751.

83. Kumar, M.; Yadav, A.N.; Tiwari, R.; Prasanna, R.; Saxena, A.K. (2014). Evaluating the diversity of culturable thermotolerant bacteria from four hot springs of India. *Journal of Biodiversity Bioprospecting and Development.*

84. Kumar, R.; Singh, D.; Swarnkar, M.K.; Singh, A.K.; Kumar, S. (2015). Genome assembly of Chryseobacterium polytrichastri ERMR1: 04 a psychrotolerant bacterium with cold active proteases, isolated from east Rathong glacier in India. *Journal of Biotechnology.* 214: 139-140.

85. Kumar, R.; Singh, D.; Swarnkar, M.K.; Singh, A.K.; Kumar, S. (2016). Complete genome sequence of *Arthrobacter alpinus* ERGS4: 06 a yellow pigmented bacterium tolerant to cold and radiations isolated from Sikkim Himalaya. *Journal of Biotechnology.* 220:86-87.

86. Kumar, S.; Srivastava, P. (1992). Middle to Late Proterozoic microbiota from the Deoban Limestone, Garhwal Himalaya, India. *Precambrian Research.* 56(3): 291-318.

87. Kumar, S.; Suyal, D.C.; Dhauni, N.; Bhoriyal, M.; Goel, R. (2014). Relative plant growth promoting potential of Himalayan Psychrotolerant *Pseudomonas jesenii* strain MP1 against native *Cicer arietinum* (L.)*Vigna mungo* L. Hepper, *Vigna radiata* (L.)Wilczek, *Cajanus cajan* (L.) Millsp and *Eleusine coracana* (L.) Gaertn. *African Journal of Microbiology Research.* 8(50): 3931-3943.

88. Kumar, V.; Bisht, G.S.; Gusain, O. (2013). Terrestrial actinomycetes from diverse locations of Uttarakhand, India: isolation and screening for their antibacterial activity. *Iranian Journal of Microbiology*. 5(3): 299.

89. Kumari, P.; Kaushik, R.; Tripathi, B.M.; Singh, R.; Saxena, A.K. (2014). Generic and metabolic profiling of Pentachlorophenol utilizing bacteria from agricultural soil irrigated with pulp and paper mill effluent. *Indian Journal of Agicultural Research.* 84(1):

90. Lyngwi, N.A.; Koijam, K.; Sharma, D.; Joshi, S.R. (2013). Cultivable bacterial diversity along the altitudinal zonation and vegetation range of tropical Eastern Himalaya. *Revista de Biologia Tropical.* 61(1): 467-490.

91. Maharana, A.K.; Ray, P. (2013). Isolation and screening of cold active extracellular enzymes producing psychrotrophic bacteria from soil of Jammu city. *Biosci Biotech Res. Asia.* 10(1): 267-273.

92. Maheshwari, D.K.; Agarwal, M.; Dheeman, S. (2014). Trends and prospects of microbial diversity in rhizosphere. In: Bacterial Diversity in Sustainable Agriculture. *Springer International Publishing*. P. 1-22.

93. Mahmood, T.M.; Abbasi, M.K.; Hafee, F.Y. (2008). Characterization and evaluation of *Rhizobium leguminosarum* bv Trifolii nodulating rhizobia isolated from white microbiology. *Annals of Microbiology.* 58(2): 181-188.

94. Malviya, M.K.; Pandey, A.; Sharma, A.; Tiwari, S.C. (2013). Characterization and identification of Actinomycetes isolated from 'fired plots' under shifting cultivation i Northeast Himalayas, India. *Annals of Microbiology.* 63(2): 561-569.

95. Malviya, M.K.; Pandy, A.; Trivedi, P.; Gupta, G.; Kumar, B. (2009). Chitinolytic activity of cold tolerant antagonistic species of *Streptomyces* isolated from glacial sites of Indian Himalaya. *Current Microbiology.* 59(5): 502-508.

96. Maurya, S.S.; Pandey, V.D.; Maurya, J.N. (2014). Biomass, biochemical composition and phycobiliprotein content of some Cyanobacteria isolated from different high altitude habitats of Uttarakhand, India. *Plant archives*. 14(1): 43-50.

97. Mayilraj, S.; Krishnamurthi, S.; Saha, P.; Saini, H.S. (2006). *Rhodococcus kroppenstedtii* sp. nov., a novel actinobacterium isolated from a cold desert of the Himalayas, India. *International Journal of Systematic and Evolutionary Microbiology.* 56(5): 979-982.

98. Mayilraj, S.; Kroppenstedt, R.M.; Suresh, K.; Saini, H.K. (2006). *Kocuria himachalensis* sp. nov. an actinobacterium isolated from the Indian Himalayas. *International Journal of Systematic and evolutionary Microbiology.* 56(8): 1971-1975.

99. Mehta, P.; Walia, A.; Chauhan, A.; Shirkot, C.K. (2013). Plant growth promoting traits of phosphate solubilizing rhizobacteria isolated from apple trees in Trans-Himalayan region of Himachal Pradesh. *Archives of Microbiology*. 195(5): 357-369.

100. Mehta, P.; Walia, A.; Shirkot, C.K. (2015). Functional diversity of phosphate solubilizing plant growth promoting rhizobacteria isolated from apple trees in the Trans-Himalayan region of Himachal Pradesh, India. *Biological Agricuture and Horticulture.* 31(4): 265-288.

101. Mishra, P.K.; Bisht, S.C.; Ruwari, P.; Joshi, G.K.; Singh, G.; Bisht, J.K.; Bhatt, J.C. (2011). Bioassociative effect of cold tolerant *Pseudomonas* sppl and *Rhizobium leguminosarum* - PR1 on iron aquisition, nutrient uptake and growth of lentil (*Lens culinaris* L.). *European Journal of Soil biology.* 47(1): 35-43.

102. Mishra, P.K.; Mishra, S.; Selvakumar, G.; Bisht, S.C.; Bisht, J.K. (2008). Characterization of psychrotolerant plant growth promoting *Pseudomonas* sp. Strain PGERs 17 (MTCC 9000) isolated from North Western Indian Himalayas. *Annals of Microbiology.* 58(4): 561-568.

103. Mishra, T.; Gill, P.K.; Dhaliwal, H.S.; Sharma, A.D.; Ram, G. (2015). Identification of bacterial isolates PCR amplification and in-Silico analysis of Nitroreductase and Rubrerythrin responsive genes from Shilajit. *International Journal of Innovative research and development*. 4(6):

104. Mukhopadhyay, A.; Khewa, S.; De, D. (2010). Exploring the biocontrol potential of naturally occurring bacterial and viral entomopathogens of defoliating lepidopteran pests of tea plantation. *Journal of Biopest*. 3(1): 117-120.

105. Narkhede, S.; Shirkot, C.K.; Narkhede, S.S. (2006). Diversity among *Rhizobium* isolates of *Acacia catechu*. *Journal of Plant Disease Sciences.* 1(2): 152-155.

106. Nawani, N.; Kaur, J. (2007). Studies on lipolytic isoenzyme from a Thermophilic *Bacillus* sp. : production, purification and biochemical characterization. *Enzyme and Microbial Technology.* 40(4): 881-887.

107. Padaria, J.C.; Sarkar, K.; Lone, S.A.; Srivastava, S. (2014). Molecular characterization of cellulose - degrading *Bacillus pumilus* from the soil of tea garden Darjeeling hills, India. *Journal of Environmental Biology*. 35(3): 555.

108. Pallavi, P.; Chandra, S.J.; Reddy, V.K.; Reddy, S.R. (2014). Optimization of cultural parameters for lipase production by *Bacillus subtilis* Y-IVI. *Int. J. Curr. Microbiol Appl. Sci*. 3(12): 194-200.

109. Panda, B.; Rahman, H.; Chatlod, L.R.; Panda, J. (2013). Isolation and characterization of Phosphate solubilizing Bacteria from the soils of Sikkim India. *International Journal of Bioresource and stress management.* 4(2): 255-262.

110. Pandey, A.; Chaudhry, S.; Sharma, A.; Choudhary, V.S.; Malviya, M.K.; Chamoli, S.; Palni, L.M.S. (2011). Recovery of *Bacillus* and *Pseudomonas* spp. from the 'Fired plots' under shifting cultivation in Northeast India. *Current Microbiology.* 62(1): 273-280.

111. Pandey, A.; Dhakar, K.; Sharma, A.; Priti, P.; Sati, P.; Kumar, B. (2015). Thermophilic bacteria that tolerate a wide temperature and pH range colonize the Soldhar (95 C) and Ringigad (80 C) hot springs of Uttarakhand India. *Annals of Microbiology.* 65(2): 809-816.

112. Pandey, A.; Palni, L.M.S.; Jain, N.K.; Rahman, F.; Baker, P. (2008). Tea rhizophere: characteristics features of microbial diversity. *Economic crisis in Tea Industry.* P. 213-220.

113. Pandey, A.; Trivedi, P.; Kumar, B.; Palni, L.M.S. (2006). Characterization of a phosphate solubilizing and antagonistic strain of *Pseudomonas putida* isolated from a sub-alpine location in the Indian Central Himalaya. *Current microbiology.* 53(2): 102-107.

114. Pandey, A.; Trivedi, P.; Kumar, B.; Chaurasia, B.; Palni, L.M.S. (2006). Soil Microbial diversity from the Himalaya: need for documentation and conservation. *NBA Scientific Bulletin.* 5.

115. Pandey, P.K.; Samanta, R.; Yadav, R.N.S. (2015). Plant beneficial endophytic bacteria from the Ethnomedicinal *Mussaenda roxburghii* (Akshap) of Eastern Himalayan Province, India. *Advances in Biology.*

116. Pandey, V.D. (2010). Diazotrophic soil cyanobacteria in Garhwal Himalaya. *Plant archives.* 10(2): 951-954.

117. Pandey, V.D. (2013). Rock dwelling Cyanobacteria: survival strategies and biodeterioration of monuments. *Int. J. Curr. Microbiol Appl. Sci*. 2(12): 519-524.

118. Pandey, A.; Palni, L.M.S. (2004). Tea rhizosphere: microbial diversity, characteristics features and comments on microbial communication in the rhizosphere. *International Journal of Tea Science*. 3(3-4): 285-290.

119. Patel, K.D.; Purani, S.; Ingle, S.S. (2013). Distribution and diversity analysis of *Bacillus thuringiensis* cry genes in different soil types and geographical regions of India. *Journal of Invertebrate pathology*. 112(2): 116-121.

120. Paul, D.; Lade, H. (2014). Plant growth promoting rhizobacteria to improve crop growth in saline soils : a review. *Agronomy for Sustainable Development.* 34(4): 737-752.

121. Pradhan, S.; Srinivas, T.N.R.; Pindi, P.K.; Kishore, K.H.; Begum, Z.; Singh, P.K.; Shivaji, S. (2010). Bacterial biodiversity from Roopkund glacier, Himalayan mountain ranges, India. *Extremophiles*. 14(4): 377-395

122. Rahi, P. (2015). Selection of widespread Genotypes of plant growth promoting bacteria from Lahaul and Spiti in the Western Himalayas for improving Crop productivity. *Ph.D. Thesis.*

123. Rahi, P.; Kapoor, R.; Young, J.P.W.; Gulati, A. (2012). Genetic discontinuity in root nodulating bacteria of cultivated pea in the Indian Trans-Himalayas. *Molecular Ecology.* 21(1): 145-159.

124. Rahul, S.; Awasthi, G.; Kumar, L.; Kamraj, S. (2013). Isolation and characterization of bacteria from soil collected from Himalayan region for the production of Lipase by Solid state fermentation using Tween - 20. *Octa Journal of Environmental Research*. 1(1):

125. Rai, A.K.; Kumar, R. (2015). Potential of microbial bio-resources of Sikkim Himalyan region. *Envis Bulletin Himalayan Ecology*. 23: 99.

126. Rai, R.; Sen, A. (2015). Biochemical characterization of French Bean associated Rhizobia found in North Bengal and Sikkim. *Journal of Academia and Industrial Research.* 4(1): 10.

127. Raibole, M.; Singh, Y.P. (2011). Impact of physico-chemical parameters on microbial diversity: seasonal study. *Current World Environment.* 6(1): 71-76.

128. Rajwar, A.; Sahgal, M. (2014). Genetic diversity of Pseudomonas isolates from grassland and forest soils of Northern Himalayas based on 16S RRNA and Genus Specific Region. *International Journal of Recent Scientific Research*. 5(12): 2304-2309.

129. Rasool, N. (2011). Effect of some alien invasive plant species on soil microbial structure and function. *Ph.D. dissertation, University of Kashmir Srinagar*.

130. Rawat, S. (2015). Bacterial diversity of a sulphur spring in Uttarakhand, India. *Advances in Applied Science Research.* 6(4): 236-244.

131. Rehakova, K.; Chronakova, A.; Kristufek, V.; Kuchtova, B.; Capkova, K.; Scharfen, J.; Dolezal, J. (2015). Bacterial community of cushion plant *Thylacospermum ceaspitosum* on elevational gradient in the Himalayan cold desert. *Frontiers in Microbiology*. 6: 304.

132. Reshi, Z.A.; Manzoor, A.S.; Rasool, N. (2015). Microbial diversity in Kashmir Himalaya: present status and future prospects. *Envis Bulletin Himalayan Ecology*. 23: 15.

133. Reshi, Z.A.; Rasool, N.; Dar, P.A.; Rehman, W.; Shah, M.A. (2013). Impact of invasive alien plant species on aboveground and belowground species diversity in the Kashmir Himalaya, India. *Invasive Plant Ecology*. P. 147.

134. Reyaz, A.L.; Aruleslvi, P.I. (2016). Cloning, characterization and expression of a novel haplotype cry2A type gene from Bacillus thuringiensis strain SWK1 native to Himalayan valley kashmir. *Journal of Invertebrate Pathology*. 136: 1-6.

135. Saba, I.; Qazi, P.H.; Rather, S.A.; Dar, R.A.; Qadri, Q.A.; Ahmed, N.; Shawl, S. (2012). Purification and characterization of a cold active alkaline protease from *Stenotrophomonas* sp. isolated from Kashmir, India. *World Journal of Microbiology and Biotechnology.* 28(3): 1071-1079.

136. Sahay, H.; Babu, B.K.; Singh, S.; Kaushik, R.; Saxena, A.K.; Arora, D.K. (2013). Cold active hydrolases producing bacteria from two different sub glacial Himalayan Lakes. *Journal of Basic Microbiology.* 53(8): 703-714.

137. Salwan, R.; Gulati, A.; Kasana, R.C. (2010). Phylogenetic diversity of alkaline protease producing psychrotrophic bacteria from glacier and cold environments of Lahaul and Spiti, India. *Journal of Basic Microbiology.* 50(2): 150-159.

138. Sangwan, N.; Lambert, C.; Sharma, A.; Gupta, V.; Khurana, J.P.; Lal, R. (2015). Arsenic rich Himalayan hot springs metageonomics reveal genetically novel predator prey genotypes. *Environmental Microbiology Reports.* 7(6): 812-823.

139. Sati, P.; Dhakar, K.; Pandey, A. (2013). Microbial diversity in soil under potato cultivation from cold desert Himalaya, India. *ISRN Biodiversity*.

140. Schopf, J.F.; Tewari, V.C.; Kudryavtsev, A.B. (2008). Discovery of a new Chert-Permineralized microbiota in the Proterozoic Buxa formation of the Ranjit window, Sikkim, Northeast India and its astrobiological implications. *Astrobiology*. 8(4): 735-746.

141. Selvakumar, G.; Joshi, P.; Nazim, S.; Mishra, P.K.; Kundu, S.; Gupta, H.S. (2009). *Exiguobacterium acetylicum* strain 1P (MTCC 8707) a novel bacterial antagonist from the North Western Indian Himalayas. *World Journal of Microbiology and Biotechnology.* 25(1): 131-137.

142. Selvakumar, G.; Joshi, P.; Nazim, S.; Mishra, P.K.; Bisht, J.K.; Gupta, H.S. (2009). Mountain aspect influences the genetic clustering of psychrotolerant phosphate solubilizing Psudomonads in the Uttarakhand Himalayas. *Current Microbiology.* 59(4): 432-438.

143. Selvakumar, G.; Joshi, P.; Nazim, S.; Mishra, P.K.; Bisht, J.K.; Gupta, H.S. (2009). Phosphate solubilization and growth promotion by *Pseudomonas fragi* CS11RH1 (MTCC 8984) a psychrotolerant bacterium isolated from a high altitude Himalayan rhizosphere. *Biologia.* 64(2): 239-245.

144. Selvakumar, G.; Joshi, P.; Suyal, P.; Mishra, P.K.; Joshi, G.K.; Bisht, J.K.; Gupta, H.S. (2011). *Pseudomonas lurida* M2RH3 (MTCC 9245) a psychrotolerant bacterium from the Uttarakhand Himalayas, solubilizes phosphate and promotes wheat seedlings growth. *World Journal of Microbiology and Biotechnology.* 27(5): 1129-1135.

145. Selvakumar, G.; Kundu, S.; Gupta, A.D.; Shouche, Y.S.; Guptal, H.S. (2008). Isolation and characterization of nonrhizobial plant growth promoting bacetria from nodules of Kudzu (*Pueraria thunbergiana*) and their effect on wheat seedling growth. *Current Microbiology.* 56(2): 134-139.

146. Selvakumar, G.; Kundu, S.; Joshi, P.; Nazim, S.; Gupta, A.D.; Mishra, P.K.; Gupta, H.S. (2008). Characterization of a cold tolerant plant growth promoting bacterium *Pantoea dispersa* 1A isolated from a sub-alpine soil in the North Western Indian Himalayas. *World Journal of Microbiology and Biotechnology.* 24(7): 955-960.

147. Selvakumar, G.; Kundu, S.; Joshi, P.; Nazim, S.; Gupta, A.D.; Gupta, H.S. (2010). Growth promotion of wheat seedlings by *Exiguobacterium acetylicum* 1P (MTCC 8707) a cold tolerant bacterial strain from the Uttarakhand Himalayas. *Indian Journal of Microbiology.* 50(1): 50-56.

148. Selvakumar, G.; Panneerselvam, P.; Bindu, G.H.; Ganeshmurthy, A.N. (2015). Pseudomonads: plant growth promotion and beyond. IN: Plant microbes symbiosis: Applied facets. *Springer India.* P. 193-208.

149. Sengupta, N.; Alam, S.I.; Kumar, R.B.; Singh, I. (2011). Diversity and antibiotic susceptibility pattern of cultivable anaerobic bacteria from soil and sewage samples of India. *Infection, Genetics and Evolution*. 11(1): 64-77.

150. Shafi, S. (2012). Bacterial flora of Manasbal Lake, a freshwater ecosystem of Kashmir valley. Ph.D. Thesis, University of Kashmir, Srinagar.

151. Shafi, S.; Kamili, A.N.; Shah, M.A.; Bandh, S.A. (2013). Coliform bacterial estimation: a tool for assessing water quality of Manasbal lake of Kashmir Himalaya. *African Journal of Microbiology Research.* 7(31): 3996-4000.

152. Shafi, S.; Kamili, A.N.; Shah, M.A.; Bandh, S.A. (2015). Isolation, identification and distribution of culturable bacteria in Manasbal Lake, Kashmir Himalaya. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences.* P. 1-6.

153. Shail, S.; Dubey, R.C. (1997). Seasonal changes in microbial community in relation to edaphic factors in two forest soils of Kumaon Himalaya. *IN: Recent researchers in Ecology, Environment and Pollution, New Delhi, India. Today and Tomorrow Printers and Publishers.* P. 381-391.

154. Shanmugam, V.; Ajit, N.S.; Verma, R.; Sharma, V. (2008). Diversity and differentiation among fluorescent pseudomonads in crop rhizospheres with whole cell protein profiles. *Microbiological research.* 163(5): 571-578.

155. Shanmugam, V.; Thakur, H.; Kaur, J.; Gupta, S.; Rajkumar, S.; Dohroo, N.P. (2013). Genetic diversity of *Fusarium* spp. inciting rhizome rot of ginger and its management by PGPR consortium in the Western Himalayas. *Biological control.* 66(1): 1-7.

156. Shanmugam, V.; Verma, R.; Rajkumar, S.; Naruka, D.S. (2011). Bacterial diversity and soil enzyme activity in diseased and disease free apple rhizosphere soils. *Annals of Microbiology.* 61(4): 765-772.

157. Sharma, A.; Gangola, S.; Khati, P.; Kumar, G.; Shrivastava, A. (2016). Novel pathway of Cypermethrin biodegradation in a *Bacillus* sp. strain SG2 isolated from Cypermethrin-contaminated agriculture field 3. *Biotech.* 6(1): 1-11.

158. Sharma, A.; Jani, K.; Schouhe, Y.S.; Pandey, A. (2015). Microbial diversity of the Soldhar hot springs, India assessed by analyzing 16S rRNA and protein coding genes. *Annals of Microbiology.* 65(3): 1323-1332.

159. Sharma, A.; Pandey, A.; Shouche, Y.S.; Kumar, B.; Kulkarni, G. (2009). Characterization and identification of *Geobacillus* spp. isolated from Soldhar hot spring site of Garhwal Himalaya, India. *Journal of Basic Microbiology.* 49(2): 187-194.

160. Sharma, A.; Sandhu, S.S.; Gautam, S.P. (2005). Microbial diversity: opportunities and challenges. Prof. R.C. Rajak's Festschrift volume. *Shree Publishers.*

161. Sharma, D.; Ansari, M.J.; Al-Ghamdi, A.; Adgaba, N.; Khan, K.A.; Pruthi, V.; Al-Waili, N. (2015). Biosurfactant production by *Pseudomonas aeruginosa* DSVP20 isolated from Petroleum hydrocarbon contaminated soil and its physicochemical characterization. *Environmental Science and Pollution Research.* 22(22): 17636-17643.

162. Sharma, M.; Gupta, S.K.; Sharma, T.R. (2005). Characterization of variability in Rhizoctonia solani by using morpholgical and molecular markers. *Journal of Phytopathology.* 153(7-8): 449-456.

163. Sharma, M.P. (2015). Studies on industrially important enzymes and phylogenetic analysis of Thermophiles isolated from Tattapani hot springs. Ph.D. Thesis, Himachal Pradesh.

164. Sharma, S.D.; Sharma, N.C. (2006). Studies on correlations between encomyrrhizal and *Azatobacter* population with growth, yield and soil nutrient status of apple orchards in Himachal Pradesh. *Indian Journal of Horticulture.* 63(4): 379-382.

165. Sharma, S.; Kaur, M.; Prashad, D. (2014). Isolation of fluorescent *Pseudomonas* strain from temperate zone of Himachal Pradesh and their evaluation as plant growth promoting Rhizobacteria PGPR. *The Bioscan*. 9(1): 323-328.

166. Sharna, A. (2010). Anti bacterial effects of metabolites produced by Actinomycetes collected from soil samples from bank of Indian rivers. *Dissertation submitted to Rajiv Gandhi University of Health Sciences.*

167. Shirkot, P.; Verma, A. (2015). Assessment of thermophilic bacterial diversity of thermal springs of Himachal Pradesh. *Envis Bulletin Himalayan Ecology*. 23: 27.

168. Shivaji, S.; Pratibha, M.S.; Sailaja, B.; Kishore, K.H.; Singh, A.K.; Begum, K.H.; Singh, A.K.; Shivaji, S. (2011). Bacterial diversity of soil in the vicinity of Pindari glacier, Himalayan mountain ranges, India using culturable bacteria and soil 16S rRNA gene clones. *Extremophiles.* 15(6): 673-690.

169. Showkat, S.; Murtaza, I. ; Laila, O.; Ali, A. (2012). Biological control of *Fusarium oxysporum* and *Aspergillus* sp. by *Pseudomonas* fluoresces isolated from wheat rhizosphere soil of Kashmir. *Journal of Pharmacy and Biological Sciences.* 1(4): 24-32.

170. Showkat, S.; Murtaza, I.; Bhat, M.A.; Abid, S.; Ali, A. (2014). Hplc based estimation and molecular characterisation of 2, 4-Dapg *Pseudomonas flurescens* isolates of Kashmir. *International Journal of Agriculture and Crop Sciences.* 7(7): 411.

171. Singh, A.K.; Tripathi, B.M.; Sahay, H.; Singh, R.N.; Kaushik, R.; Saxena, A.K.; Arora, D.K. (2010). Biochemical and molecular characterization of thermo-alkali tolerant xylanase producing bacteria from thermal springs of Manikaran. *Indian Journal of Microbiology.* 50(1): 2-9.

172. Singh, D.; Yadav, D.K.; Sinha, S.; Mondal, K.K.; Singh, G.; Pandey, R.R.; Singh, R. (2013). Genetic diversity of iturin producing strains of *Bacillus* species antagonistic to *Ralstonia solanacerarum* causing bacterial wilt disease in tomato. *African Journal of Microbiology Research.* 7(48): 5459-5470.

173. Singh, P.; Fatma, A.; Mishra, A.K. (2015). Molecular phylogeny and evogenomics of Heterocystous cyanobacteria using rbcl gene sequence data. *Annals of Microbiology.* 65(2): 799-807.

174. Singh, P.; Kaushik, M.S.; Srivastava, M.; Mishra, A.K. (2014). Phylogenetic analysis of heterocystous cyanobacteria (subsections IV and V) using highly iterated palindromes as molecular markers. *Physiology and Molecular Biology of Plants.* 20(3): 331-342.

175. Singh, R.D.; Kumar, A.; Patra, A.K.; Sahu, S.K.; Khan, M.A.; Bhople, B.S. (2014). Impact of different land use management on soil enzyme activities and bacterial genetic fingerprints of North-Western Himalayas. *Current World Environment.* 9(3): 728.

176. Singh, R.; Dhawan, S.; Singh, K.; Kaur, J. (2012). Cloning expression and characterization of a metagenome derived thermoactive/thermostable pectinase. *Molecular biology reports.* 39(8): 8353-8361.

177. Singh, S.R.; Zargar, M.Y.; Najar, G.R.; Peer, F.A.; Ishaq, M. (2013). Microbial dynamics, root colonization and nutrient availability as influenced by inoculation of Liquid bioinoculants in cultivars of apple seedlings. *Communications in Soil Science and Plant analysis*. 44(1): 1511-1523.

178. Singh, S.S.; Schloter, M.; Tiwari, S.C.; Dkhar, M.S. (2011). Diversity of community soil DNA and bacteria in degraded and undegraded tropical forest soils of North-Eastern India as measured by ERIC-PCR fingerprints and 16S rDNA-DGGE profiles. *Journal of Biological and environmental Sciences.* 5(15): 183-194.

179. Singh, Y. (2015). Cyanobacterial diversity of cold desert and hot water springs of North Western Himalayas. Ph.D. Thesis.

180. Singh, Y.; Khattar, J.I.S.; Singh, D.P.; Rahi, P.; Gulati, A. (2014). Limnology and Cyanobacterial diversity of high altitude lakes of Lahaul Spiti in Himachal Pradesh, India. *Journal of Biosciences.* 39(4): 643-657.

181. Solaiman, Z.M.; Anawar, H.M. (2015). Rhizosphere Microbes interactions in Medicinal plants. IN: Plant growth promoting Rhizobacteria PGPR) and Medicinal plants. *Springer International Publishing*. P. 19-41.

182. Soni, R.; Goel, R. (2010). Triphasic approach for assessment of bacterial population in different soil systems. *Ekologija.* 56(3-4): 99-104.

183. Soni, R.; Suyal, D.C.; Goel, R. (2011). Metagenomics - a tool for identification and characterization of uncultivated microbial diversity. Ph.D. Thesis, Centre of Advanced Faculty training in plant pathology.

184. Soni, R.; Suyal, D.D.; Sai, S.; Goel, R. (2016). Exploration of nifH gene through soil metagenomes of the Western Indian Himalayas. *Biotech.* 6(1): 1-4.

185. Sood, A.; Pandey, P.; Bisht, S.; Sharma, S.; Gusain, M.P.; Gusain, O.P. (2010). Assessment of bacterial diversity in the Gangetic river system of Uttarakhand, India. *Current Science.* 99(12): 1660-1663.

186. Sood, A.; Sharma, S.; Kumar, V.; Thakur, R.L. (2008). Established and abandoned tea (*Camillia sinensis* L.) rhizosphere: dominant bacteria and their antagonism. *Polish Journal of Microbiology.* 57(1): 71.

187. Srinivas, T.N.R.; Singh, S.M.; Pradhan, S.; Pratibha, M.S.; Kishore, K.H.; Singh, A.K.; Shivaji, S. (2011). Comparison of bacterial diversity in proglacial soil from Kafni glacier, Himalayan Mountain ranges, India with the bacterial diversity of other glaciers in the world. *Extremophiles.* 15(6): 673-690.

188. Subramaniam, B.; Babu, C.R. (1993). Intrinsic antibiotic resistance among rhizobia isolated from sub-tropical Himalayan legumes. *Soil Biology and Biochemistry.* 25(8): 1057-1060.

189. Subramaniam, J.; Satyan, K. (2014). Isolation and selection of fluorescent Pseudomonads based on multiple plant growth promotion traits and siderotyping. *Chilean Journal of Agricultural Research.* 74(3): 319-325.

190. Suman, R.; Sharma, P.; Gupta, S.; Sourirajan, A.; Dev, K. (2015). A Novel Psychrophilic *Janthinobacterium lividum* MMPP4 isolated from Manimahesh lake of Chamba district of Himachal Pradesh India. *Journal of Biochemical technology*. 6(1): 846-851.

191. Sunar, K.; Chakraborty, U.; Chakraborty, B.N. (2014). Exploitation of native microflora of Darjeeling hills for sclerotial rot management and growth promotion in pulses. *Indian Phytopathology*. 67(1): 59=69.

192. Sunar, K.; Dey, P.; Chakraborty, U.; Chakraborty, B.N. (2015). Biocontrol efficacy and plant growth promoting activity of *Bacilus altitudinis* isolated from Darjeeling hills, India. *Journal of Basic Microbiology.* 55(1): 91-104.

193. Suyal, D.C.; Yadav, A.; Shouche, Y.; Goel, R. (2014). Differential proteomics in response to low temperature diazotrophy of Himalayan psychrophilic nitrogen fixing Pseudomonas migulae S10724 strain. *Current Microbiology.* 68(4): 543-550.

194. Suyal, D.C.; Yadav, A.; Shouche, Y.; Goel, R. (2015). Bacterial diversity and community structure of Western Indian Himalayan red kidney bean (*Phaseolus vulgaris*) rhizosphere as revealed by 16S rRNA gene sequences. *Biologia*. 70(3): 305-313.

195. Suyal, D.C.; Yadav, A.; Shouche, Y.; Goel, R. (2015). Diversified diazotrophs associated with the rhizosphere of Western Indian Himalayas native red kidney beans (*Phaseolus vulgaris* L.). *Biotech.* 5(4): 433-441.

196. Swer, H.; Dkhar, M.S. (2014). Influence of crop rotation and intercropping on microbial populations in cultivated fields under different organic amendments. IN: Microbial Diversity and Biotechnology in food security. *Springer India.* P. 571-580.

197. Tariq, A.L.; Prabakaran, J.J. (2010). Molecular characterization of Psychrotrophic Serratis marcescens TS1 isolated from apple garden at Badran Kashmir. *Research Journal of Agriculture and Biological Sciences.* 6(3): 364-369.

198. Tiwari, R.; Nain, P.K.; Singh, S.; Adak, A.; Saritha, M.; Rana, S.; Nain, L. (2015). Cold active Holocellulase cocktail from *Aspergillus niger* SH3: process optimization for production and biomass hydrolysis. *Journal of the Taiwan Institute of Chemical engineers.* 56: 57-66.

199. Tripathi, B.M.; Kumari, P.; Weber, K.P.; Saxena, A.K.; Arora, D.K.; Kaushik, R. (2014). Influence of long term irrigation with pulp and paper mill effluent on the bacterial community structure and catabolic function in soil. *Indian Journal of Microbiology.* 54(1): 65-73.

200. Trivedi, P.; Kumar, B.; Pandey, A. (2006). Conservation of soil microbial diversity associated with two hot spring sites in Uttaranchal Himalaya. *National Academy Science letters.* 29(5-6): 185-188.

201. Trivedi, P.; Pandey, A. (2008). Plant growth promotion abilities and formulation of *Bacillus megaterium* strain B 388 (MTCCC6521) isolated from a temperate Himalayan location. *Indian Journal of Microbiology.* 48(3): 342-347.

202. van Elsas, J.D.; Trevors, J.T.; Jansson, J.K.; Nannipieri, P. (2006). Modern soil microbiology. *CRC press, Boca Raton, FL.*

203. Venkatachala, B.S.; Kumar, A. (1997). Cyanobacterial mats from the Neoproterozoic Vaishnodevi limestone, Jammu and Kashmir. *Current Science.* 73: 83-87.

204. Venkatachalam, S.; Gowdaman, V.; Prabagaran, S.R. (2015). Culturable and culture independent bacterial diversity and the prevalence of cold adapted enzymes from the Himalayan mountain ranges of India and Nepal. *Microbial Ecology.* 69(3): 472-491.

205. Venkatachalam, S.; Solai, R.P. (2015). Comparative assessment of bacterial communities from Himalayan mountains of Nepal and India. *Envis Bulletin Himalayan Ecology*. 23: 9.

206. Verma, A.; Shrikot, P. (2014). Isolation and characterization of thermophilic bacteria in natural hot water springs of Himachal Pradesh. *Bioscan.* 9: 947-952.

207. Verma, P.; Yadav, A.N.; Khannam, K.S.; Panjiar, N.; Kumar, S.; Saxena, A.K.; Suman, A. (2015). Assessment of genetic diversity and plant growth promoting attributes of psychrotolerant bacteria allied with wheat Triticum aestivum from the Northern Hills zones of India. *Annals of Microbiology.* 65(4): 1885-1899.

208. Verma, P.; Yadav, A.N.; Khannam, K.S.; Kumar, S.; Saxena, A.K.; Suman, A. (2016). Molecular diversity and multifarious plant growth promoting attributes of Bacilli associated with wheat *Triticum aestivum* L.) rhizosphere from six diverse agro-ecologial zones of India. *Journal of Basic Microbiology.* 56(1): 44-58.

209. Verma, P.; Yadav, A.N.; Shukla, L.; Saxena, A.K.; Suman, A. (2015). Hydrolytic enzymes production by thermotolerant *Bacillus altitudinis* IARI - MB -9 and *Gulbenkiania mobilis* IARI-MB-18 isolated from Manikaran hot springs. *International Journal of Biological Sciences.* 3(9); 1241-1250.

210. Verma, R.; Naosekpam, A.S.; Kumar, S.; Prasad, R.; Shanmugam, V. (2007). Influence of soil reaction on diversity and antifungal activity of fluorescent Pseudomonads in Crop rhizospheres. *Bioresource Technology.* 98(7): 1346-1352.

211. Vyas, P.; Rahi, P.; Gulati, A. (2009). Stress tolerance and genetic variability of phosphate solubilizing fluorescent *Pseudomonas* from the cold deserts of the Trans-Himalayas. *Microbial Ecology.* 58(2): 425-534.

212. Yadav, A.N. (2015). Cultural diversity and functional annotation of psychroitrophic bacteria from cold desert of Leh Ladakh (India). *World Journal of Microbiology and Biotechnology.* 31(1): 95-108.

213. Yadav, A.N.; Sachan, S.G.; Verma, P.; Saxena, A.K. (2015). Bioprospecting of plant growth promoting Psychrotrophic bacilli from cold desert of North Western Indian Himalayas. *Indian J. Exp. biol.* 54: 142-150.

214. Yadav, A.N.; Sachan, S.G.; Verma, P.; Kaushik, R.; Saxena, A.K. (2015). Cold active hydrolytic enzymes production by psychrotrophic Bacilli isolated from three sub-glacial lakes of NW Indian Himalayas. *Journal of Basic Microbiology.*

215. Yadav, A.N.; Sachan, S.G.; Verma, P.; Saxena, A.K. (2015). Prospecting cold deserts of North-Western Himalayas for Microbial diversity and plant growth promoting attributes. *Journal of Bioscience and Bioengineering.* 119(6): 683-693.

216. Yadav, A.N.; Verma, P.; Kumar, M.; Pal, K.K.; Dey, R.; Gupta, A.; Prasanna, R. (2015). Diversity and phylogenetic profiling of niche-specific Bacilli from extreme environment of India. *Annals of Microbiology.* 65(2): 611-629.

217. Yarzabal, L.A. (2014). Cold tolerant phosphate-solubilizing microorganisms and agriculture development in mountainous regions of the world IN: Phosphate solubilizing microorganisms. *Springer International Publishing*. P. 113-135.

218. Zahid, M.; Abbasi, M.K.; Hameed, S.; Rahim, N. (2015). Isolation and identification of indigenous plant growth promoting rhizobacteria from Himalayan region of Kashmir and their effect on improving growth and nutrient content of maize (*Zea mays* L.). *Frontiers in Microbiology*. 6: 207.

Author Index

Bacteria

Bibliography

Soil Fungi of the Indian Himalayan Region

001. Abraham, S.P.; Kaul, T.N. (1990). Larger fungi from Kashmir – IV. *Folia Geobotanica et Phytotaxonomica*. 25(1): 63-69.

002. Anand, N.; Chowdhury, P.N. (2013). First report on five hitherto unreported macro fungi from Rajouri district of Jammu and Kashmir (J and K) India. *Annals of Biological Research.* 4(5): 62-70.

003. Arora, R.K.; Singh, N.; Singh, R.P. (2013). Characterization of an entomophagus medicinal fungus *Cordyceps sinensis* (Berk.) Sacc. of Uttarakhand, India. *The Bioscan.* 8(1): 195-200.

004. Ashif, M.; Zargar, M.Y.; Lone, S.; Lone, F.A.; Sheikh, F.A. (2012). Influence of microbial inoculants on nutrient uptake of Himalayan Cypress (*Cupressus torulosa*) seedlings under temperate nursery conditions. *International Journal of recent Scientific Research.* 3(12): 1013-1018.

005. Atri, N.S.; Kumari, B.; Upadhyay, R.C. (2014). *Chlorolepiota brunneotincta*: a new species (Agaricaceae) form India. *Turkish Journal of Botany*. 38(2): 370-374.

006. Bargali, K. (2011). Screening of leguminous plants for VAM association and their role in restoration of degraded lands. *Journal of American Science*. 7(1).

007. Beig, M.A.; Dar, G.H.; Ganai, N.A.; Khan, N.A. (2008). Mycorrhizal biodiversity in Kashmir forests and some new records of macrofungi from J. and K. State. *Applied Biological Research*. 10(1-2): 26-30.

008. Bhutia, L.P. (2014). Diversity of AM Fungi Population in Tea plantation of Sikkim and Exploring its Friendly Association with the Plant. *Annals of Plant Sciences.* 3(03): 638-644.

009. Bisht, D.; Pandey, A.; Palni, L.M.S. (2003). Influence of microbial inoculations on *Cedrus deodara* in relation to survival, growth promotion and nutrient uptake of seedlings and general soil microflora. *Journal of Sustainable Forestry*. 17(3): 37-54.

010. Chakravarti, S.K. (2013). Prevalence and distribution of arbuscular mycorrhizal fungi associated with some spices. *Ph. D. Thesis.*

011. Chatli, A.S.; Beri, V.; Sindhu, B.S. (2008). Isolation and characterization of phosphate solubilizing microorganisms from the cold desert habitat of *Salix alba* Linn. in Trans Himalayan region of Himachal Pradesh. *Indian Journal of Microbiology*. 48(2): 267-273.

012. Chaturvedi, S.; Tewari, V.; Sharma, S.; Oehl, F.; Wiemken, A.; Prakash, A.; Sharma, A.K. (2012). Diversity of arbuscular mycorrhizal fungi in Oak-Pine forests and agricultural land prevalent in the Kumaon Himalayan Hills, Uttarakhand, India. *British Microbiology Research Journal*. 2(2): 82.

013. Chaudhary, P.; Joshi, N.; Bora, M. (2016). Seasonal variation in Mycoflora population in subtropical forest soils of Uttarakhand, India. *International Journal of Current Microbiological Applied Sciences.* 5(1): 654-666.

014. Chaurasia, B.; Pandey, A.; Palni, L.M.S. (2005). Distribution, colonization and diversity of arbuscular mycorrhizal fungi associated with central Himalayan rhododendrons. *Forest Ecology and Management.* 207(3): 315-324.

015. Chaurasia, B.; Pandey, A.; Palni, L.M.S. (2005). Occurrence of arbuscular mycorrhizae in the rhizosphere of Himalayan Yew (*Taxus baccata* L. subsp. *wallichiana* (Zucc.) Pilger) -A case Study. *Basic research and Applications of Mycorrhizae. IK International, New Delhi*. 26-35 pp.

016. Dar, G.H.; Ganai, N.A.; Beig, M.A.; Ahanger, F.A.; Safi, T.A. (2010). Biodiversity of macro-fungi from conifer dominated forests of Kashmir, India. *Journal of Mycology and Plant Pathology*. 40(2): 169-171.

017. Das, A.K.; Das, N. (2014). Diversity of mycoflora in conifer forests of Munsiary and its adjoining areas of Uttarakhand, India. *International Journal of Plant, Animal and Environmental Science.*

018. Das, K. (2010). Diversity and conservation of wild mushrooms in Sikkim with special reference to Barsey Rhododendron Sanctuary. *NeBio.* 1(2): 1-13.

019. Das, K. (2013). Boletus rubripes Thiers a new record of wild Mushroom from Sikkim (India). *Taiwania.* 58(2): 136-139.

020. Das, K.; Atri, N.S.; Buyck, B. (2013). Three new species of *Russula* (Russulales) from India. *Mycosphere.* 4(4): 722-732.

021. Das, K.; Chakraborty, D.; Cotter, H.V.T. (2015). *Suillus adhikarii*, a new species from the subalpine Himalaya of India and Nepal associated with Larix. *Phytotaxa.* 219(3): 289-295.

022. Das, K.; Sharma, J.R.; Montoya, L. (2004). *Lactarius* in Kumaon Himalaya 3 : a new species of subgenus Lactifluus. *Mycotaxon.* 90(2): 285-290.

023. Das, K.; Verbeken, A.; Nuytinck, J. (2015). Morphology and phylogeny of four new *Lactarius* species from Himalayas, India. *Mycotaxon.* 130(1): 105-130.

024. Deshmukh, S.K.; Verekar, S.A. (2006). The occurrence of dermatophytes and other keratinophilic fungi from the soils of Himachal Pradesh (India). *Czech Mycology*. 58(1-2): 117.

025. Devi, L.S.; Joshi, S.R. (2012). Antimicrobial and synergistic effects of silver nanoparticles synthesized using soil fungi of high altitudes of eastern Himalaya. *Mycobiology.* 40(1): 27-34.

026. Devi, L.S.; Khaund, P.; Nongkhlaw, F.M.; Joshi, S.R. (2012). Diversity of culturable soil micro-fungi along altitudinal gradient of Eastern Himalaya. *Mycobiology.* 40(3): 151-158.

027. Dhakar, K.; Jain, R.; Tamta, S.; Pandey, A. (2014). Prolonged laccase production by a cold and pH tolerant strain of *Penicillium pinophilum* (MCC 1049) isolated from a low temperature environments. *Enzyme Research*.

028. Dhakar, K.; Pandey, A. (2013). Laccase production from a temperature and pH tolerant fungal strain of *Trametes hirsuta* (MTCC 11397). *Enzyme Research.*

029. Dhakar, K.; Pandey, A. (2015). *Oguakiogira nekubuu* (BFCCU 3617): A Newly Isolated Psychrotolerant Fungus That Produces Enhanced Laccase Under the Influence of Organic Solvents. *Advances in Natural Science*. 8(1): 14-20.

030. Dhakar, K.; Rinu, K.; Joshi, A.; Pandey, A. (2015). Simultaneous production of ligninolytic enzymes by a temperature and pH tolerant strain of *Aspergillus niger* under different cultural conditions. *Indian Journal of Biotechnology*. 14: 81-86.

031. Dhakar, K.; Sharma, A.; Pandey, A. (2014). Cold, pH and salt tolerant *Penicillium* spp. inhabit the high altitude soils in Himalaya, India. *World Journal of Microbiology and Biotechnology*. 30(4): 1315-1324.

032. Dorjey, K.; Kumar, S.; Sharma, Y.P. (2013). Four *Helvella* (Ascomycota: Pezizales: Helvellaceae) species from the Cold desert of Leh, Ladakh, Jammu and Kashmir, India. *Journal of Threatened Taxa*. 5(5): 3981-3984.

033. Garg, A.K. (1966). Isolation of dermatophytes and other keratinophilic fungi from soils in India. *Sabouraudia.* 4(4): 259-264.

034. Gaur, S.; Kaushik, P. (2011). Biodiversity of vesicular arbuscular mycorrhiza associated with *Catharanthus roseus*, Ocimum spp. and *Asparagus racemosus* in Uttarakhand State of Indian Central HImalaya. *International Journal of Botany.* 7(1): 31-41.

035. Gaur, S.; Kaushik, P. (2011). Influence of Edaphic Factors on Distribution of Mycorrhiza Associated with Medicinal Plants in Indian Central Himalaya. *Journal of Biological Sciences.* 11(5): 349-358.

036. Ghildiyal, A.; Pandey, A. (2008). Isolation of cold tolerant antifungal strains of *Trichoderma* sp from glacial sites of Indian Himalayan region. *Research Journal of Microbiology*. 3(8): 559-564.

037. Guleri, S.; Bhandari, B.S.; Saxena, S. (2010). Ecology of Rhizosphere and non Rhizosphere soil mycoflora of forest soils of Dehradun district Uttarakhand. *International Transactions in Applied Sciences.* 2: 69-77.

038. Guleri, S.; Saxena, S.; Bhandari, B.S. (2013). Seasonal variation in the diversity of soil microfungi of some grazing lands of Doon valley of Uttarakhand Himalaya. *Mycopathological Research*. 51(2): 213-223.

039. Guleri, S.; Saxena, S.; Bhandari, B.S.; Verma, N. (2014). Soil mycofloral diversity under wheat cultivation in Doon valley, Uttarakhand. *Mycopathological Research.* 52(2): 245-252.

040. Ishaq, F.; Khan, A. (2011). Isolation, identification and comparative study of fungal and bacterial strains found in organic and inorganic soils of different agricultural fields. *Recent Research in Science and Technology*. 3(11).

041. Itoo, Z.A.; Basharat, Q.; Majeed, S.T.; Andrabi, K.I.; Reshi, Z.A. (2014). Ectomycorrhizal fungal species of Kashmir Himalaya: identification and characterization by ITS analysis. *Brazilian Journal of Botany*. 37(4): 531-542.

042. Itoo, Z.A.; Reshi, Z.A. (2014). Ectomycorrhizal Diversity Associated with *Cedrus deodara* and *Pinus wallichiana* in the Kashmir Himalaya, India. *Pakistan Journal of Biological Sciences.* 17(1): 32.

043. Itoo, Z.A.; Reshi, Z.A.; Andrabi, K.I. (2013). Characterization and identification of *Russula firmula* and *Russula postiana* from Himalayan moist temperate forests of Kashmir. *African Journal of Biotechnology*. 12(23).

044. Joshi, B.B. (2012). Studies on strains of *Trichoderma* spp. from high altitude of Garhwal Himalayan region. *Journal of Environmental Biology*. 33(5): 843.

045. Joshi, S.; Bhatt, R.P.; Stephenson, S.L. (2012). The current status of the family Russulaceae in the Uttarakhand Himalaya, India. *Mycosphere.* 3(4): 486-501.

046. Kumar, A. (2012). Phosphorus and rain Harvested Water Economy through vesicular arbuscular Mycorrhizae (vam) in okra Pea sequence. *Ph.D. Thesis*.

047. Kumar, A.; Singh, S.; Pandey, A. (2009). General microflora, arbuscular mycorrhizal colonization and occurrence of endophytes in the rhizosphere of two age groups of *Ginkgo biloba* L. of Indian Central Himalaya. *Indian Journal of Microbiology.* 49(2): 134-141.

048. Kumar, B.; Trivedi, P.; Mishra, A.K.; Pandey, A.; Palni, L.M.S. (2004). Microbial diversity of soil from two hot springs in Uttaranchal Himalaya. *Microbiological Research.* 159(2): 141-146.

049. Kumar, S.; Sharma, Y.P. (2009). Some potential wild edible macrofungi of Jammu Province (Jammu and Kashmir) India. *Indian Journal of Forestry*. 32(1): 113-118.

050. Kumar, S.; Sharma, Y.P. (2011). Diversity of wild mushrooms from Jammu and Kashmir (India). *IN: Proceedings of the 7th International Conference on Mushroom Biology and Mushroom products (ICMBMP7). Section: Economical and Societal features*. P. 568-577.

051. Kumari, B.; Atri, N.S. (2014). Nutritional and nutraceutical potential of wild edible macrolepiotoid mushrooms of north India. *Int. J. Pharm. Pharm. Sci*. 6: 200-204.

052. Kumari, B.; Atri, N.S.; Upadhyay, R.C. (2012). Culinary Status and Sociobiology of Termitohilous and Lepiotoid Mushroom of North West India. *World Journal of Agricultural Sciences.* 8(4): 415-420.

053. Kumari, D.; Reddy, M.S.; Upadhyay, R.C. (2013). Diversity of cultivable bacteria associated with fruiting bodies of wild Himalayan *Cantharellus* spp. *Annals of Microbiology*. 63(3): 845-853.

054. Kumari, D.; Upadhyay, R.C.; Reddy, M.S. (2011). *Cantharellus pseudoformosus*, a new species associated with Cedrus deodara from India. *Mycoscience*. 52(2): 147-151.

055. Lakhanpal, T.N.; Kumar, S. (1996). Regeneration of cold desert pine of NW Himalayas, India - Preliminary study. *IN: Wild Land Shrub and Arid Land Restoration Symposium - Proceedings. DIANE Publishing*. 102p.

056. Mahajan, S.; Kanwar, S.S.; Sharma, S.P. (2007). Long term effect of mineral fertilizers and amendments on microbial dynamics in an alfisol of Western Himalayas. *Indian Journal of Microbiology.* 47(1): 86-89.

057. Maharana, A.K.; Ray, P. (2003). Screening of Psychrotrophic micro fungi for cold active extracellular enzymes isolated from Jammu city India. *Mycobiology.* 1: 200-208.

058. Mehta, P.; Bharat, N.K. (2013). Arbuscular-mycorrhizal associations with apple plantations of different age groups in Himachal Pradesh. *Indian Phytopathology*. 66(1): 88-92.

059. Mishra, K.K.; Singh, R.P. (2012). Evaluation of indigenous *Ganoderma lucidum* isolates of Uttarakhand for growth and yield. *Journal of Mycology and Plant Pathology*. 42(1): 136.

060. Negi, C.S. (2006). Morels (*Morchella* spp.) in Kumaun Himalaya. *Nat. Prod. Rad.* 5: 306-310.

061. Negi, C.S.; Koranga, P.R.; Ghinga, H.S. (2006). Yar tsa Gumba (*Cordyceps sinensis*): a call for its sustainable exploitation. *The International Journal of Sustainable Development and World Ecology*. 13(3): 165-172.

062. Pala, S.A.; Wani, A.H.; Boda, R.H.; Mir, R.A. (2012). Three hitherto unreported macro-fungi from Kashmir Himalaya. *Pak. J. Bot.* 44(6): 2111-2115.

063. Pala, S.A.; Wani, A.H.; Mir, R.A. (2012). Diversity of macrofungal genus *Russula* and *Amanita* in Hirpora Wildlife Sanctuary, Southern Kashmir Himalaya. *Biodiversitas.* 13(2): 65-71.

064. Paloi, S.; Dutta, A.K.; Acharya, K. (2015). A new species of *Russula* (Russulales) from Eastern Himalaya, India. *Phytotaxa.* 234(3): 255-262.

065. Panda, A.K.; Swain, K.C. (2011). Traditional uses and medicinal potential of *Cordyceps sinensis* of Sikkim. *Journal of Ayurveda and Integrative medicine*. 2(1): 9.

066. Pande, V. (2014). Prospects of Forest management with ectomycorrhizal fungi. *International Journal of Global Science and Research*. 1(1): 1-8.

067. Pandey, A.; Das, N.; Kumar, B.; Rinu, K.; Trivedi, P. (2008). Phosphate solubilizaton by *Penicillium* spp. isolated from soil samples of Indian Himalayan region. *World Journal of Microbiology and Biotechnology*. 24(1): 97-102.

068. Pandey, A.; Mohanty, P.S.; Arya, P.; Rathod, D. (2010). Genetic diversity among the isolates of *Cordyceps sinensis* of Higher Himalayan meadows of India. *International Journal of Science Nat.* 1: 242-245.

069. Pandey, A.; Palni, L.M.S. (1996). The rhizosphere effect of tea on soil microbes in a Himalayan monsoonal location. *Biology and Fertility of Soils.* 21(3): 131-137.

070. Pandey, A.; Palni, L.M.S. (2007). The rhizosphere effect in trees of the Indian Central Himalaya with special reference to altitude. *Applied Ecology and Environmental Research.* 5(1): 93-102.

071. Pandey, A.; Palni, L.M.S.; Bisht, D. (2001). Dominant fungi in the rhizosphere of established tea bushes and their interaction with the dominant bacteria under in situ conditions. *Microbiological Research*. 156(4): 377-382.

072. Pradhan, P.; Dutta, A.K.; Paloi, S.; Roy, A.; Acharya, K. (2016). Diversity and distribution of macrofungi in the Eastern Himalayan ecosystem. *Eurasian Journal of Biosciences.* 10: 1-12.

073. Puttaraju, N.G.; Venkateshaiah, S.U.; Dharmesh, S.M.; Urs, S.M.N.; Somasundaram, R. (2006). Antioxidant activity of indigenous edible mushrooms. *Journal of Agricultural and Food Chemistry.* 54(26): 9764-9772.

074. Rinu, K.; Malviya, M.K.; Sati, P.; Tiwari, S.C.; Pandey, A. (2013). Response of cold tolerant *Aspergillus* spp to solubilization of Fe and Al phosphate in presence of different nutritional sources. *ISRN Soil Science*.

075. Rinu, K.; Pandey, A. (2010). Temperature dependent phosphate solubilization by cold and pH tolerant species of *Aspergillus* isolated from Himalayan soil. *Mycoscience.* 51(4): 263-271.

076. Rinu, K.; Pandey, A. (2011). Slow and steady phosphate solubilization by a psychrotolerant strain of Paecilomyces hepiali (MTCC9621). *World Journal of Microbiology and Biotechnology*. 27(5): 1055-1062.

077. Rinu, K.; Pandey, A.; Palni, L.M.S. (2012). Utilization of Psychrotolerant phosphate solubilizing fungi under low temperature conditions of the mountain ecosystem. *IN: Microorganisms in sustainable agriculture and biotechnology. Springer Netherlands*. P. 77-90.

078. Rinu, K.; Sati, P.; Pandey, A. (2014). *Trichoderma gamsii* (NFCCI 2177): a newly isolated endophytic, psychrotolerant, plant growth promoting, and antagonistic fungal strain. *Journal of Basic microbiology*. 54(5): 408-417.

079. Saikia, P.; Joshi, S.R. (2012). Changes in Microfungal community in Cherrapunji - the Wettest patch on earth as influenced by Heavy rain and soil degradation. *AiM.* 2(4): 456-464.

080. Salar, R.K.; Aneja, K.R. (2006). Thermophilous fungi from temperate soils of northern India. *Agric. Technol*. 2(1): 49-58.

081. Sandhu, D.K.; Singh, S. (1981). Distribution of thermophilous microfungi in forest soils of Darjeeling (Eastern Himalayas). *Mycopathologia*. 74(2): 79-85.

082. Sati, P.; Dhakar, K.; Pandey, A. (2013). Microbial diversity in soil under potato cultivation from cold desert Himalaya. *IDRN biodiversity.*

083. Semwal, K.C.; Stephenson, S.L.; Bhatt, V.K.; Bhatt, R.P. (2014). Mushrooms of the North Western Himalaya, India: a study of indigenous knowledge, distribution and diversity. *Mycosphere*. 5(3): 440-461.

084. Shah, M.A.; Reshi, Z.A. (1987). Phosphorus application in relation to mycorrhizal association of *Anthemis cotula* L., an invasive species in the Kashmir Himalaya, India. *Taxonomic Series: Glomus from Goa*. 29: 8.

085. Shah, M.A.; Reshi, Z.A.; Khasa, D. (2009). Arbuscular mycorrhizal status of some Kashmir Himalayan alien invasive plants. *Mycorrhiza.* 20(1): 67-72

086. Shah, M.A.; Reshi, Z.A.; Rashid, I. (2008). Mycorrhizal source and neighbour identity differently influence *Anthemis cotula* L. Invasion in the Kashmir Himalaya, India. *Applied Soil Ecology*. 40(2): 330-337.

087. Shah, M.A.; Reshi, Z.A.; Rashid, I. (2008). Mycorrhizosphere mediated mayweed chamomile invasion in the Kashmir Himalaya, India*. Palnt and Soil*. 312(1-2): 219-225.

088. Shail, S.; Dubey, R.C. (1997). Seasonal changes in microbial community in relation to edaphic factors in two forest soils of Kumaun Himalaya. *Recent researches in ecology, environment and pollution, New Delhi, India. Today and tommorrows printers and publishers*. P. 381-91.

089. Sharma, D.; Gosai, K.; Dutta, J.; Arunachalam, A.; Shukla, A.K. (2015). Fungal diversity of twelve major vegetational zones of Arunachal Himalaya, India. *Current Research in Environmental and Applied Mycology.* 5(2): 101-119.

090. Sharma, G.; Pandey, R.R.; Singh, M.S. (2011). Microfungi associated with surface soil and decaying leaf litter of *Quercus serrata* in a subtropical natural oak forest and managed plantation in Northeastern India. *African Journal of Microbiology*. 5(7): 777-787.

091. Sharma, K.; Luka, R.S.; Lanjewar, S. (2010). Isolation of soil mycoflora of Gangtok, India. *Current World Environment*. 5(1): 123-125.

092. Sharma, N.; Mahajan, S.; Sharma, N. (2012). Evaluation of different forest wastes of Northern Himalayas as a potential substrate for cellulose production by *Aspergillus niger* F7 and its partial purification. *Journal of Agroaliment Proc. Technol.* 18(4): 324-325.

093. Sharma, S. (2004). Trade of *Cordyceps sinensis* form high altitudes of the Indian Himalaya: conservation and biotechnological priorities. *Current Science.* 86(12): 1614-1619.

094. Sheikh, P.; Dar, G.H.; Beig, M.A.; Kousar, S. (2014). Two hitherto unreported macrofungi from Zabarvan range of Kashmir Himalaya, India. *Carib. J. Sci. Tech.* 2: 399-404.

095. Shilpa, A.S.; Rani, N. (2016). Seasonal fluctuations among the fungal associates of *Rhododendron campanulatum* D.Don. *International Journal of Current Microbiological Applied Sciences*. 5(1): 679-685.

096. Singh, H.P.; Singh, T.A. (1993). The interaction of rockphosphate, Bradyrhizobium, vesicular-arbuscular mycorrhizae and phosphate-solubilizing microbes on soybean grown in a sub-Himalayan mollisol. *Mycorrhiza*. 4(1): 37-43.

097. Singh, J.; Singh, S.; Kumar, A.; Singh, F. (2015). Effects of temperature and pH on mycelial growth of *Ganoderma lucidum* (Leyss ex Fr. Karst). *International Journal of Tropical Agricuture.* 33(2): 1279-1282.

098. Singh, L.; Lakhanpal, T.N. (2000). *Cedrus deodara* root rot disease threat to the Himalayan forestry and environment. *Indian Phytopathology*. 53(1): 50-56.

099. Singh, N.; Pathak, R.; Kathai, A.S.; Rautela, D.; Dubey, A. (2010). Collection of *Cordyceps sinensis* (Berk.) Sacc. in the interior villages of Chamoli district in Garhwal Himalaya (Uttarakhand) and its social impacts. *Journal of American Science*. 6(6): 5-9.

100. Singh, R.; Dhingra, G.S.; Shri, R. (2014). A comparative study of taxonomy, physicochemical parameters, and chemical constituents of *Ganoderma lucidum* and *G. philippii* from Uttarakhand, India. *Turkish Journal of Botany*. 38(1): 186-196.

101. Singh, S.P.; Pande, K.; Upadhyay, V.P.; Singh, J.S. (1990). Fungal communities associated with the decomposition of a common leaf litter (*Quercus leucotriphora* A. Camus) along an elevational transect in the Central Himalaya. *Biology and Fertility of Soils*. 9(3): 245-251.

102. Singh, S.; Pandey, A.; Chaurasia, B.; Palni, L.M.S. (2008). Diversity of arbuscular mycorrhizal fungi associated with the rhizosphere of tea growing in 'natural' and 'cultivated' ecosites. *Biology and Fertility of Soils*. 44(3): 491-500.

103. Singh, Y.; Kaur, M. (2016). Two new species of genus amanita from India. *World Journal of Pharmacy and Pharmaceutical Sciences*. 5(5): 1054-1062.

104. Supriya, G.; Purshotam, K. (2012). Effect of Seasonal Variation on Mycorrhizal Fungi Associated with Medicinal Plants in Central Himalayan Region of India. *American Journal of Plant Sciences*. 2012.

105. Suri, V.K.; Choudhary, A.K.; Chander, G.; Verma, T.S. (2011). Influence of vesicular arbuscular mycorrhizal fungi and applied phosphorus on root colonization in wheat and plant nutrient dynamics in a phosphorus-deficient acid alfisol of western Himalayas. *Communications in soil Science and Plant Analysis*. 42(10): 1177-1186.

106. Tiwari, M.; Singh, S.P.; Tiwari, A.; Sundriyal, R.C. (2003). Effect of symbiotic associations on growth of host *Coriaria nepalensis* and its facilitative impact on oak and pine seedling in the Central Himalaya. *Forest ecology and management.* 184(1): 141-147.

107. Tiwari, R.; Nain, P.K.; Singh, S.; Adak, A.; Saritha, M.; Rana, S.; Nain, L. (2015). Cold active holocellulase cocktail from *Aspergillus niger* SH3: process optimization for production and biomass hydrolysis. *Journal of the Taiwan Institute of Chemical Engineers*. 56: 57-66.

108. Van de Putte, K. ; Nuytinck, J.; Das, K.; Verbeken, A. (2012). Exposing hidden diversity by concordant genealogies and morphology - a study of the *Lactifluus volemus* (Russulales) species complex in Sikkim Himalaya (India). *Fungal Diversity*. 55(1): 171-194.

109. Verma, B.; Reddy, M.S. (2014). *Suillus triacicularis* sp. nov. a new species associated with Pinus roxburghii from North-Western Himalayas, India. *Phytotaxa*. 162: 157-164.

110. Vishwakarma, M.P.; Bhatt, R.P.; Gairola, S. (2011). Some medicinal mushroom of Garhwal Himalaya, Uttarakhand, India. *International Journal of Med. Arom. Plants*. 1(1): 33-40.

111. Vishwakarma, M.P.; Bhatt, R.P.; Joshi, S. (2012). Macrofungal diversity in moist temperate forests of Garhwal Himalaya. *Indian Journal of Science and Technology*. 5(1): 1928-1932.

112. Wani, B.A.; Pala, S.A.; Wani, A.H.; Bhat, M.Y.; Mir, R.A. (2013). Two hitherto unreported macro-fungi from Kashmir; Himalaya. *Bioresearch Bulletin*. 2(2).

113. Watling, R.; Abraham, S.P. (1992). Ectomycorrhizal fungi of Kashmir forests. *Mycorrhiza.* 2(2): 81-87.

114. Yadav, A.; Dubey, R.C.; Yadav, K. (2014). Composite treatment of Ectomycorrhizal fungus Scleroderma bovista with two Mycorrhiza Helper Bacteria augmented Bani Oak (*Quercus leucotrichophora* A. Camus) Growth. *Journal of Pure and Applied Microbiology.* 8(6): 5021-5027.

115. Yadav, A.N.; Sachan, S.G.; Verma, P.; Saxena, A.K. (2015). Prospecting cold deserts of north western Himalayas for microbial diversity and plant growth promoting attributes. *Journal of Bioscience and Bioengineering*. 119(6): 683-693.

Author Index

Soil Fungi

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

Wildlife Institute of India
Chandrabani, Dehradun-248002, India,
Tel.: +91 135 2640111-115, Fax.: +91 135 2640117
Email.: wii@envis.nic.in; envis@wii.gov.in,
Website.: http://wiienvis.nic.in; http://wii.gov.in/envis

XPRESSIONS: 9219552563 | DOC. XPS230916713

प्रकृति रक्षति रक्षिता
Nature Protects if She is Protected

सत्यमेव जयते

NMSHE
Climate Change Programme (CCP)
Department of Science & Technology
Government of India

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

Environmental Information System
INDIA