



A FAUNAL ASSESSMENT
OF NORTH NEGROS NATURAL PARK (NNNP)
NEGROS ISLAND, PHILIPPINES

December 2009



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Photos are taken by Marisol Pedregosa-Hospodarsky and Pavel Hospodarsky

SUMMARY

Negros Island harbours some of the world's endangered species, all of which are West Visayan endemics. These include such highly threatened species as the Visayan warty pig, Visayan spotted deer, Negros shrew, Philippine bare-backed fruit bat, Negros bleeding-heart pigeon, Negros fruit dove, Visayan writhed hornbill, Visayan tarictic hornbill, Negros flame-templed babbler and White-throated jungle flycatcher among others.

The North Negros Natural Park (NNNP) is located in the northern portion of Negros Island and lies north of Mt. Kanlaon. It has a total land area of 80,454.5 hectares but only 16,687 hectares of forest remains. It has one of the most intact forests in the Island. Its forest is a mosaic of secondary and primary lowland, montane and mossy forests.

The survey has employed several field techniques to maximise the number of identified taxa within NNNP namely: MacKinnon Listing, mist netting, harp trapping, non Volant mammals trapping, opportunistic catching of amphibians and reptiles and ethnobiological interview.

The survey had 2 study sites namely, Alipasyao and Patpatao. It has recorded a total of 90 bird species, 37 of which are endemic with 57 endemic subspecies. Six threatened species were listed in the study areas, of which 3 species are Endangered (Visayan tarictic hornbill, White-throated jungle flycatcher and the Flame-templed babbler), 2 species are Vulnerable (Visayan flowerpecker and White-winged cuckoo-shrike) and 1 species is Near-threatened (Philippine needletail). NNNP has a total of 144 bird species recorded to date while Negros Island has about 247 recorded bird species. This results makes 58.3% of birds listed in Negros Island are found in the NNNP.

There were 8 species of bats netted, 5 species are endemic (Philippine pygmy fruit bat, Harpy fruit bat, Philippine tube-nosed fruit bat, Musky fruit bat and Philippine forest roundleaf bat). A thick-thumbed pipistrelle *Glischropus tylopus* that was captured is a new record to the island. This brings to an overall total of 55 mammals listed in the island of Negros. Thirty of the 55 species of terrestrial mammals recorded within the island are found in NNNP. Almost 33% of the 55 species of mammals found in Negros are endemic, whilst NNNP has 37% endemism among the 30 mammalian species recorded in the park.

There are 11 endemic species of amphibians listed in Negros, 7 are Philippine endemic, 3 are Negros-Panay endemic and one Negros endemic. Only eight species of amphibians are recorded in this study. Six species are recorded in the study sites while 2 are observed outside the study areas but within NNNP.

There are 38 endemic species of reptiles listed in Negros, 33 are Philippine endemic, two are Negros-Panay endemic and 3 are island endemics. Eighteen species of reptiles were recorded in this survey.

A total of 200 terrestrial vertebrates are recorded in NNNP to date, 144 are birds, 30 are mammals, 8 are amphibians and 18 are reptiles.

INTRODUCTION

The West Visayan region of central Philippines is a conservation priority in terms of both numbers of endemic species and degrees of threat. The West Visayas or 'Negros-Panay' Faunal Region (Figure 1), which collectively comprises the islands of Masbate, Ticao, Panay, Guimaras, Negros and Cebu, is considered the most threatened and critically important of the several separate faunal regions in the Philippines, since the region has the least remaining forest cover and the highest numbers of severely threatened endemic species and subspecies. Almost all the species' rich lowland forest of Negros island is already gone. Its forest cover has been reduced to less than 4% of the total land area and most of these few remaining forests are located more than 1,000 meters above sea level. The forest cover on Negros exists as tiny patches of montane and mossy rain forest near the tops of the mountains (Heaney et al, 2002). North Negros Natural Park (NNNP) has one of the most intact forests in the Island.

Negros Island harbours some of the world's most endangered species, all of which are West Visayan endemics. These include such highly threatened species as the Visayan Warty Pig (*Sus cebifrons*), Visayan Spotted Deer (*Cervus alfredi*), Negros Shrew (*Crocidura negrina*), Philippine Bare-backed Fruit Bat (*Dobsonia chapmani*), Negros Bleeding-heart Pigeon (*Gallicolumba keayi*), Negros Fruit Dove (*Ptilinopus arcanus*), Visayan Writhed Hornbill (*Aceros waldeni*), Visayan Tarictic Hornbill (*Penelopides panini*), Negros Flame-templed Babbler (*Stachyris speciosa*), and White-throated Jungle Flycatcher (*Rhinomyias albigularis*) among others.

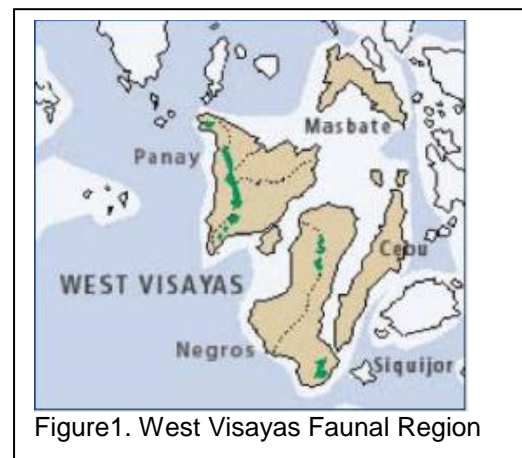
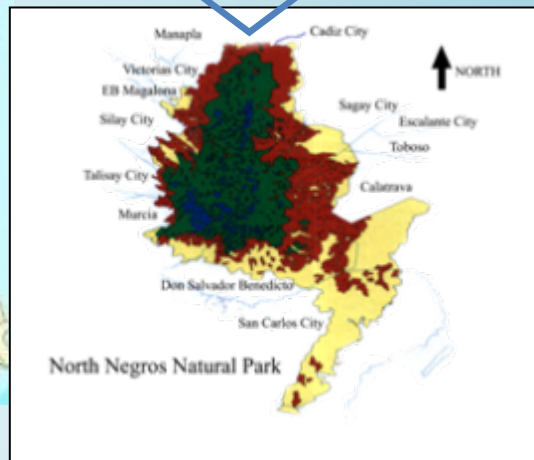


Figure1. West Visayas Faunal Region

The North Negros Natural Park (NNNP) was declared as a protected area by Presidential Proclamation No. 895 on August 15, 2005. It has a total land area of 80,454.5 hectares with remaining forest cover estimated around 22,288 hectares (Figure 2). NNNP has one of the most intact forests in the Island. Its forest is a mosaic of secondary and primary lowland, montane and mossy forests.

The management council of the newly declared protected area NNNP is currently in the process of making a management plan for the park. The results of this survey will form part of the management plan of NNNP. The objectives of this study were the following: 1) to conduct biodiversity survey in North Negros Natural Park, 2) identify the terrestrial vertebrate species in the area, and 3) to determine presence of threatened species and conservation status of the forest.



Negros Island

Figure2. Location map of North Negros Natural Park (NNNP), Negros Island, Philippines

METHODS

Habitat description

Description on the study areas were based on the data gathered from a 20 m x 20 m plot that sampled. All trees with 10 cm diameter at breast height (DBH) or greater within the plot were measured. Identification of trees were based mainly on the local name of the trees, some of the species were identified to the genus and /or species level. Vines, mosses, orchids, ferns and other epiphytes were found in the two study areas.

On the other hand, Hamman *et al.*, 1999 made an inventory of a 1 hectare plot with 500 x 20 m size inside NNNP and had listed about 92 species of trees (Appendix 4).

Alipasyao Study Area



The study area in Alipasyao is located at N 10° 41' 00.9" E 123° 11' 24.7" with elevation ranging from 1,060 to 1,200 meters above sea level. This area has a continuous canopy and undergrowth is composed of ferns, tree ferns, tree saplings, forest litter and in some areas with moss (Fig. 3). The emergent trees recorded in Alipasyao plot are White Lauan, Nato, Tangile, Udling and Bunsilak. The emergent trees has an average height of 42 meters (n=6). The average DBH within the plot is 32.05 cm (n=102). About 30 kinds of trees were recorded namely; Almaciga *Agathis philippinensis*, Almon *Shorea almon*, Angab, Bagalomboi, Bagosantol, Balukanag, Bangkalawag, Batwan *Wrightia calycina*, Batukanag, Bunot bunotan, Bunsilak, Dunot dunot, Haras *Hopea plagata*, Hitanghintang, Kaningag *Cinnamomum mercadoi*, Lakulaku, Lanipga, White Lauan *Anisoptera thurifera*, Mangalomboi, Nato, Pilipili 1 *Canarium asperum*, Pilipili 2 *Canarium villosum*, Red Nato, Salongsalong, Tangile, and about 4 kinds of Udling.

Patpatao Study Area



Figure 4. Patpatao study area, North Negros Natural Park, Negros Island, Philippines

The study area in Patpatao is located at N 10° 41' 07.2" E 123° 11' 04.4" with elevation ranging from 900 to 1,000 meters above sea level. This area has a continuous canopy except in areas where trees fell due to strong storm winds (Fig. 4). Emergent trees recorded are Nato, Tangile *Shorea polysperma*, Udling, Bunsilak and White Lauan, with average height (n=5) of 36 meters. The average DBH of trees in Patpatao plot is 31.37 cm (n=99).



Figure 5. Almaciga tree *Agathis philippinensis* from North Negros Natural Park, Negros Island.



Figure 6. A Balete tree *Ficus* sp. from North Negros Natural Park, Negros Island.

About 34 kinds of trees were listed in Patpatao plot namely; Almaciga *Agathis philippinensis* (Fig. 5), Almon *Shorea almon*, Angad, Ata-ata, Bagtikan *Parashorea malaanonan*, Balete *Ficus* sp. (Fig. 6), Bangkalawag, Batobato *Xanthophyllum excelsum*, Bunsilak, Burar-og, Catmon *Dillenia philippinensis*, Danluga *Shorea contorta*, Balete *Ficus* sp., Haras *Hopea plagata*, Ibo *Pometia pinnata*, Itang itang, Kulukatumbal, Lakulaku, Makadungon, Mala umo', Mindang, Nato, Panubol, Pinyapinya, Salongsalong, Singkosingko, Taguhangin, Talutabako, Tangile *Shorea polysperma*, Taulay, White Lauan *Anisoptera thurifera*, Udling, Udling puti, Udling pula.

Field techniques

Mackinnon List

Bird studies done by the Coral Cay Conservation in some areas of the NNNP have used the Mackinnon List Technique where an observer makes a list of species observed until a predetermined number of species is reached. A species can be recorded only once in each list. This study used the same technique to record the bird species in the NNNP study areas from May 8-28, 2009. A total of 38 Mackinnon lists were completed for the survey with a minimum of 14 species in the list.

Mist netting



Figure 7. A mist net hoisted in Alipasayao, North Negros Natural Park.

Mist-nets with various measurements such as 6 m x 4 m, 8 m x 4 m, 9 m x 4 m and 12 m long x 4 m high were used to capture skulking birds and bats (Fig. 7). Nets were distributed along ridge tops, in the canopy, on the ground and near fruiting trees. Nets were checked regularly to minimize the ecological impact of the survey. Mist nets were opened 24 hrs but were closed when there was continuous precipitation.

A total of 239.16 net days and 232.66 net nights were hoisted from May 8- May 27, 2008, where 1 net day is equivalent to one 6 m x 4 m hoisted for 12 hours or from sunrise to sundown and one net night, from sundown to sunrise. The total field efforts are summarized in Table 1.

Harp trapping

Two Harp traps also known as Tuttle traps were used during the survey (Fig. 8). These were used to catch insectivorous bats and were installed and erected in the narrow forest trails. During the survey, a total of 15 trap days and 15 trap nights were completed.

Non volant mammals trapping

Cage and Victor traps were used to catch non-volant mammals. Traps were set at 5 to 10 meter interval placed on the ground, roots and rock crevices, on logs, on low horizontal branches and other possible pathways.



Figure 8. A harp trap erected at a narrow trail in North Negros Natural Park.

Table 1. Summary of field efforts allocation during the sampling (May 8 – May 28, 2008)

| Study Area | Net days | Net nights | Trap nights | | Harp Trap |
|------------|----------|------------|-------------|--------------|-----------|
| | | | cage traps | Victor traps | |
| Alipasyao | 97.66 | 148.66 | 141 | 120 | 11 |
| Patpatao | 114.50 | 84.00 | 36 | 20 | 4 |
| Total | 239.16 | 232.66 | 177 | 140 | 15 |

Opportunistic catching of amphibians and reptiles

No standard method was used for the reptiles and amphibians. Opportunistic catching was made to identify the species of reptiles and amphibians encountered in the field. The effort allocated for the study of amphibians and reptiles was not quantified.

Interview with the community

Communities in Gawahon, Victorias City; Mambukal, Murcia; Patag, Silay City and the Sibato Indigenous community in Silay were visited. Ethno-biological interviews were facilitated using the focus group discussion.

Field Techniques Training

Some students from De la Salle University in Bacolod City and some volunteers of Negros Forest and Ecological Foundation, Inc – Biodiversity Conservation Center (NFEFI-BCC) underwent the field techniques and species identification training (Fig. 9). The first training was done at NFEFI-BCC in Bacolod City. The second training was done in the field. Volunteer Bantay Bukid Brigade (BBB) members from Barangay Patag had the field techniques and species identification hands-on training in the field (Fig 10). Two forestry students from the West Visayas State University (WVSU) in Iloilo City underwent a week long hands-on training on field techniques and species identification. The two WVSU students were trained by the BBB volunteers who were trained earlier by the team.



Figure 9. Students and NFEFI volunteers' training on field techniques and species identification



Figure 10. Hands-on field techniques training at North Negros Natural Park, Negros Island, Philippines

RESULTS AND DISCUSSION

Birds

Using the MacKinnon Lists Technique, 38 lists were completed for this survey. A total of 90 species of birds were recorded. Sixty-five species were recorded in Alipasyao study area while 68 species were recorded in Patpatao study area. Of the 90 species listed, there are 37 endemic species and 57 endemic subspecies (Table 2). Six threatened species were listed in the study areas, of which 3 species are Endangered (Visayan tarictic hornbill, White-throated jungle flycatcher and the Flame-templed babbler), 2 species are Vulnerable (Visayan flowerpecker and White-winged cuckoo-shrike) and 1 species is Near-threatened (Philippine needletail).



Figure 11. A Besra *Accipeter virgatus* netted at Alipasyao, North Negros Natural Park.

Table 2. Summary of birds recorded in the study areas in North Negros Natural Park using MacKinnon List Technique from May 8-May 28, 2008, Negros Island, Philippines.

| Taxa | Common Name | Alipasyao Study Area and adjacent areas | Patpatao Study Area and adjacent areas |
|---|------------------------------|---|--|
| <i>Haliastur indus</i> | Brahminy kite | X | X |
| <i>Accipeter virgatus</i> | Besra | X | |
| <i>Spilornis cheela holospilus</i> | Crested serpent eagle | X | X |
| <i>Falco peregrinus ernesti</i> | Peregrine falcon | X | X |
| <i>Coturnix chinensis lineata</i> | Blue breasted quail | | X |
| <i>Turnix suscitator nigrescens</i> | Barred buttonquail | | X |
| <i>Gallirallus torquatus torquatus</i> | Barred rail | X | X |
| <i>Treron pompadora canescens</i> | Pompadour pigeon | X | X |
| <i>Phapitreron leucotis nigrorum</i> | White-eared brown dove | X | X |
| <i>Phapitreron amethystina maculipectus</i> | Amethyst brown dove | X | X |
| <i>Ptilinopus occipitalis occipitalis</i> | Yellow-breasted fruit dove | X | X |
| <i>Ptilinopus leclancheri</i> | Black chinned fruit dove | X | X |
| <i>Ducula poliocephala</i> | Pink-bellied imperial pigeon | X | |
| <i>Ducula aenea aenea</i> | Green imperial pigeon | X | X |
| <i>Columba vitiensis griseogularis</i> | Metallic pigeon | | X |
| <i>Macropygia tenuirostris tenuirostris</i> | Philippine Cuckoo-dove | X | X |
| <i>Chalcophaps indica</i> | Emerald dove | X | X |
| <i>Streptopelia chinensis</i> | Spotted dove | | X |

| Taxa | Common Name | Alipasyao Study Area and adjacent areas | Patpatao Study Area and adjacent areas |
|---|---|---|--|
| <i>Geopelia striata</i> | Zebra dove | | X |
| <i>Prioniturus discurus whiteheadi</i> | Blue crowned racquet tail | X | |
| <i>Loriculus philippensis regulus</i> | Colasisi | X | |
| <i>Cuculus pectoralis</i> | Philippine hawk cuckoo | X | |
| <i>Cacomantis merulinus</i> | Plaintive cuckoo | | X |
| <i>Cacomantis variolosus</i> | Brush cuckoo | X | |
| <i>Eudynamys scolopacea</i> | Common Koel | | X |
| <i>Centropus viridis viridis</i> | Philippine coucal | X | X |
| <i>Ninox philippensis centralis</i> | Philippine hawk owl | X | X |
| <i>Batrachostomus septimus menagei</i> | Philippine frogmouth | X | |
| <i>Caprimulgus manillensis manillensis</i> | Philippine nightjar | | X |
| <i>Collocalia mearnsia</i> | Philippine swiftlet | X | X |
| <i>Collocalia esculenta marginata</i> | Glossy swiftlet | X | |
| <i>Collocalia troglodytes</i> | Pygmy swiftlet | X | |
| <i>Mearnsia picina</i> ^{NT} | Philippine needletail ^{NT} | X | |
| <i>Hemiprocne comata major</i> | Whiskered tree swift | | X |
| <i>Actenoides lindsayi moseleyi</i> | Spotted wood kingfisher | X | X |
| <i>Penelopides panini panini</i> ^E | Visayan tarictic hornbill ^E | X | X |
| <i>Megalaima haemacephala</i> | Coppersmith barbet | X | X |
| <i>Dendrocopus maculatus maculatus</i> | Philippine Pygmy woodpecker | X | X |
| <i>Dryocopus javensis philippinensis</i> | White bellied woodpecker | X | X |
| <i>Pitta sordida sordida</i> | Hooded pitta | | X |
| <i>Coracina striata panayensis</i> | Bar bellied cuckoo-shrike | X | X |
| <i>Coracina ostenta</i> ^V | White-winged cuckoo-shrike ^V | | X |
| <i>Lalage nigra</i> | Pied triller | | X |
| <i>Hypsipetes philippinus guimarasensis</i> | Philippine bulbul | X | X |
| <i>Dicrurus balicassius mirabilis</i> | Balicassiao | X | X |
| <i>Oriolus chinensis yamamurae</i> | Black-naped oriole | X | X |
| <i>Corvus macrorhynchus philippinus</i> | Large billed crow | | X |
| <i>Parus elegans albescens</i> | Elegant tit | X | X |
| <i>Sitta oenochlamys oenochlamys</i> | Velvet fronted nuthatch | X | |
| <i>Rhabdornis mystacalis mystacalis</i> | Stripe-headed rhabdornis | X | |
| <i>Dasycrotapha speciosa</i> ^E | Flame-templed babbler ^E | | X |
| <i>Brachypteryx montana brunneiceps</i> | White browed shortwing | X | |
| <i>Copsychus luzonensis superciliaris</i> | White browed shama | X | X |
| <i>Saxicola caprata randi</i> | Pied bushchat | | X |
| <i>Turdus poliocephalus nigrorum</i> | Island thrush | X | X |

| Taxa | Common Name | Alipasyao Study Area and adjacent areas | Patpatao Study Area and adjacent areas |
|--|---|---|--|
| <i>Phylloscopus olivaceus</i> | Philippine leaf warbler | | X |
| <i>Phylloscopus cebuensis cebuensis</i> | Lemon throated leaf warbler | X | |
| <i>Orthotomus castaneiceps rabori</i> | Philippine tailorbird | X | X |
| <i>Rhinomyias albigularis</i> ^E | White throated jungle flycatcher ^E | X | X |
| <i>Muscicapa griseisticta</i> | Grey streaked flycatcher | X | |
| <i>Eumyias panayensis panayensis</i> | Mountain verditer flycatcher | X | X |
| <i>Cyornis rufigastra philippinensis</i> | Mangrove blue flycatcher | X | X |
| <i>Culicicapa helianthea panayensis</i> | Citrine canary flycatcher | X | X |
| <i>Rhipidura javanica nigritorquis</i> | Pied fantail | X | X |
| <i>Rhipidura cyaniceps albiventris</i> | Blue headed fantail | X | X |
| <i>Pachycephala homeyeri</i> | White vented whistler | X | X |
| <i>Motacilla cinerea</i> | Grey wagtail | X | |
| <i>Motacilla alba</i> | White wagtail | X | |
| <i>Anthus novaeseelandiae lugubris</i> | Richard's pipit | | X |
| <i>Anthus hodgsoni</i> | Olive tree pipit | | X |
| <i>Anthus gustavi</i> | Pechora's pipit | | X |
| <i>Artamus leucorhynchus</i> | White breasted woodswallow | | X |
| <i>Lanius schach nasutus</i> | Long tailed shrike | | X |
| <i>Lanius cristatus</i> | Brown shrike | X | X |
| <i>Aplonis panayensis</i> | Asian glossy starling | X | X |
| <i>Sarcops calvus melanonotus</i> | Coleto | X | X |
| <i>Acridotheres cristatellus</i> | Crested myna | | X |
| <i>Antheptes malacensis chlorigaster</i> | Plain throated sunbird | X | X |
| <i>Nectarinia jugularis jugularis</i> | Olive backed sunbird | X | X |
| <i>Nectarinia separata trochilus</i> | Purple throated sunbird | X | X |
| <i>Aethopyga flagrans daphoenonota</i> | Flaming sunbird | X | |
| <i>Aethopyga siparaja magnifica</i> | Crimson sunbird | X | X |
| <i>Dicaeum haematostictum</i> ^V | Visayan flowerpecker ^V | X | X |
| <i>Dicaeum trigonostigma</i> | Orange bellied flowerpecker | X | X |
| <i>Dicaeum pygmaeum pygmaeum</i> | Pygmy flowerpecker | X | X |
| <i>Zosterops nigrorum nigrorum</i> | Yellowish white eye | X | X |
| <i>Zosterops montanus pectoralis</i> | Mountain white eye | X | X |
| <i>Lonchura leucogastra manueli</i> | White bellied munia | | X |
| <i>Lonchura punctulata cabanisi</i> | Scaly breasted munia | | X |

| Taxa | Common Name | Alipasyao Study Area and adjacent areas | Patpatao Study Area and adjacent areas |
|-------------------------|---------------|---|--|
| <i>Lonchura malacca</i> | Chesnut munia | | X |
| | | 65 species | 68 species |

X – species found in both study areas
E - Endangered species = 3
V - Vulnerable species = 2
NT - Near Threatened specie =: 1
Total number of species = 90
Total number of endemic species = 37
Total number of endemic subspecies = 57

There are 49 species that are common to both study area. These are the Brahminy kite, Crested serpent eagle, Peregrine falcon, Barred rail, Pompadour pigeon, White-eared brown dove, Amethyst brown dove, Yellow-breasted fruit dove, Black-chinned fruit dove, Green imperial pigeon, Philippine Cuckoo-dove, Emerald dove, Philippine coucal, Philippine hawk owl, Philippine nightjar, Philippine swiftlet, Whiskered tree swift, Spotted wood kingfisher, Visayan tarctic hornbill, Coppersmith barbet, Philippine Pygmy woodpecker, White-bellied woodpecker, Bar-bellied cuckoo-shrike, Philippine bulbul, Balicassiao, Black-naped oriole, Elegant tit, White-browed shama, Island thrush, Philippine tailorbird, White-throated jungle flycatcher, Mountain verditer flycatcher, Mangrove blue flycatcher, Citrine canary flycatcher, Pied fantail, Blue-headed fantail, White-vented whistler, Brown shrike, Asian glossy starling, Coletto, Plain-throated sunbird, Olive-backed sunbird, Purple-throated sunbird, Crimson sunbird, Visayan flowerpecker, Orange-bellied flowerpecker, Pygmy flowerpecker, Yellowish white-eye and Mountain white-eye.

The species discovery curves of both Alipasyao and Patpatao study areas indicate that discovery of more species is likely to occur as the graph shows an increasing pattern and has not yet reach a plateau (Fig. 12).

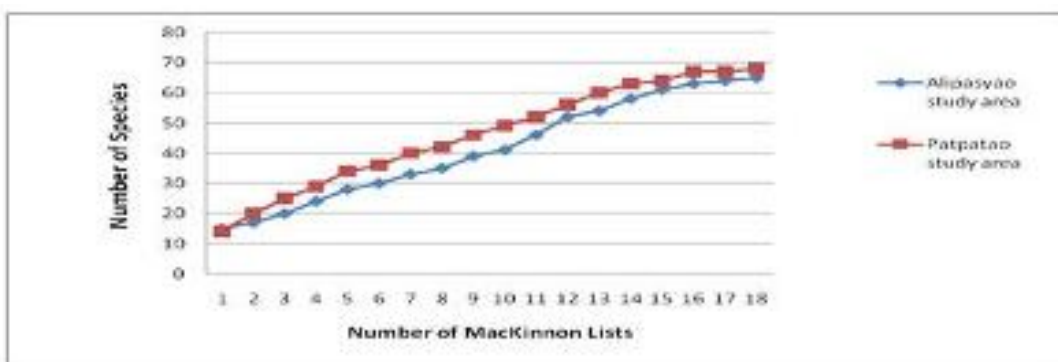


Figure 12. Species discovery curve of Alipasyao and Patpatao study areas

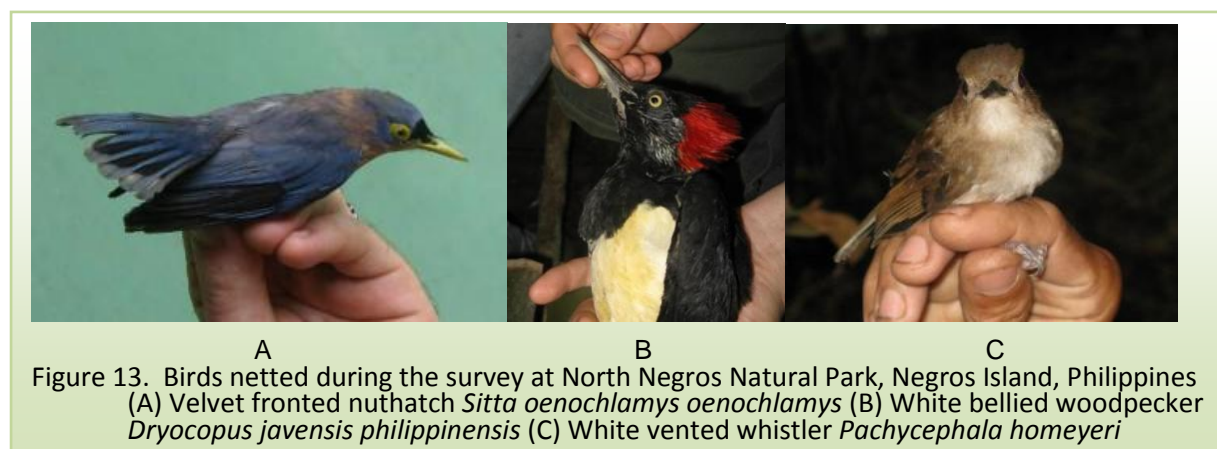
On the other hand, 11 species of birds were mist netted in Alipasyao and Patpatao study areas, 5 species were caught in Alipasyao and 7 species were caught in Patpatao (Table 3). The low netting success was attributed to high precipitation during the conduct of the study. Three species netted (Balicassiao *Dicrurus balicassius*, Philippine bulbul *Hypsipetes philippinus*, and Lemon throated warbler *Pachycephala cebuensis*) were common to both study areas. The Philippine bulbul had the highest netting success in Alipasyao study area and the Blue-headed fantail in Patpatao study area. The most dominant bird species documented in Alipasyao area is the Philippine bulbul followed by the Lemon throated warbler while in Patpatao study area are the Blue headed fantail, followed by the Lemon throated warbler.

Visits to some areas in NNNP such as Gawahon in Victorias City and the Patag Dam Area and Sibato in Silay City, have increased the number of bird species observed within NNNP. There are species in other areas within NNNP that were not observed in the study areas. These were included in the list of birds found in NNNP (Appendix 1). Results of the community interviews were also integrated in the list.

Table 3. List of bird captured in Alipasyao and Patpatao study areas in North Negros Natural Park from May 8-28, 2008.

| Species | Number of individuals captured | |
|-------------------------------|--------------------------------|----------|
| | Alipasyao | Patpatao |
| <i>Accipiter virgatus</i> | 1 | |
| <i>Brachypteryx montana</i> | 1 | |
| <i>Dicrurus balicassius</i> | 2 | 1 |
| <i>Hypsipetes philippinus</i> | 8 | 3 |
| <i>Phylloscopus cebuensis</i> | 3 | 1 |
| <i>Pachycephala homeyeri</i> | | 2 |
| <i>Chalcophaps indica</i> | | 2 |
| <i>Dicaeum trigonostigma</i> | | 1 |
| <i>Dryocopus javensis</i> | | 2 |
| <i>Rhipidura cyaniceps</i> | | 5 |
| <i>Sitta oenochlamys</i> | | 1 |
| Number of individuals caught | 15 | 18 |

NNNP has a total of 144 bird species recorded to date while Negros Island has about 247 recorded bird species. This results makes 58.3% of birds listed in Negros Island are found in the NNNP.



Mammals

The hypothesis by Heaney *et al* (1998) that the colonization success of non-native small non-flying mammals on natural habitats is dependent on the presence of native (and endemic) small non-flying mammals is exemplified by the data from Mt. Guinsayawan, Southern Negros. Only two species of native small non-volant mammals are recorded for the whole island of Negros, the Negros shrew (*Crocidura negrina*) and an undescribed forest mouse (*Apomys* sp. A). These species were collected in Mt. Guinsayawan and were recorded in low numbers in lowland forest and had increased slightly in numbers up to 1400 m a s l whereas the non native species were significantly more dominant all throughout the altitudinal range of Mt. Guinsayawan.

Only two species of rodents were captured in study sites, the Oriental house rat *Rattus tanezumi* and Polynesian rat *Rattus exulans*. In Patpatao study area, one species of insectivore, the Asian house shrew *Suncus murinus* was observed but not captured. This species were reported by Heaney *et al.* (1993) to occur from sea level up to 1650 m a s l in southern Negros.

Scats of the Visayan leopard cat *Prionailurus bengalensis rabori* and civets (Common palm civet *Paradoxurus hermaphroditus* and Malay civet *Viverra zangalunga*) were observed along trails. Civets scats were mostly with seeds while leopard cat scats were found to have more of hairs, shells and sometimes small bones.



Figure 14. Feeding signs and tracks of Visayan warty pig, NNNP

Tracks and feeding signs of the Visayan warty pig *Sus cebifrons* were observed in a ravine adjacent a stream going to Patpatao area (Fig. 14). This area was dominated by a tuber species which is a treat to the warty pigs. The forest guards claimed that the warty pigs eat the tuber of this plant.

The Visayan spotted deer was reported by locals to occur in Patpatao and Alipasyao areas but it was not observed in both study areas during the survey. A few hunters claimed that the deer still occur in the hinterlands of NNNP.

Troops of Long-tailed macaques *Macaca fascicularis* were also observed within NNNP. One troop was observed on a ridge very near the community in Patag, Silay and also one troop was observed in Gawahon, Victorias.

A total of 8 species of bats were netted representing 6 fruit bats and 2 insectivorous bats. The two most frequently netted bats were the Philippine pygmy fruit bat *Haplonycteris fischeri* and the Musky fruit bat *Ptenochirus jagori* (Table 4). Comparing the 2 study areas, Alipasyao has the higher number of species (5 fruit bats and 2 insectivorous bats) as compared to Patpatao (6 fruit bats).



Table 4. List of mammals captured in Alipasyao and Patpatao study areas in North Negros Natural Park from May 8-28, 2008.

| Species | Common Name | Number of individuals captured | |
|---|--|--------------------------------|-----------|
| | | Alipasyao | Patpatao |
| <u>Pteropodidae</u> <i>Cynopterus brachyotis</i> | Common short-nosed fruit bat | 1 | 3 |
| <i>Haplonycteris fischeri</i> | Philippine pygmy fruit bat | 44 | 35 |
| <i>Harpyionycteris whiteheadi</i> | Harpy fruit bat | 4 | 1 |
| <i>Macroglossus minimus</i> | Dagger-toothed flower bat | 3 | 8 |
| <i>Nyctimene rabori</i> | Philippine tube-nosed fruit bat | 0 | 1 |
| <i>Ptenochirus jagori</i> | Musky fruit bat | 29 | 99 |
| <u>Rhinolophidae</u> <i>Hipposideros obscurus</i> | Philippine forest roundleaf bat | 1 | 0 |
| <u>Vespertilionidae</u> <i>Glischropus tylopus</i> | Thick-thumbed pipistrelle | 1 | 0 |
| <u>Muridae</u> <i>Rattus exulans</i> | Oriental house rat | 4 | 2 |
| <i>Rattus tanezumi</i> | Polynesian rat | 6 | 1 |
| Number of individuals caught | | 93 | 150 |

Species in **boldface** are endemic species

Of the 8 species of bats netted, 5 species are endemic (Philippine pygmy fruit bat, Harpy fruit bat, Philippine tube-nosed fruit bat, Musky fruit bat and Philippine forest roundleaf bat). The thick-thumbed pipistrelle *Glischropus tylopus* (Fig. 15) caught in a harp trap in Alipasyao is a new record to the island. The same species was later caught in southern Negros (Carino *et al.*, in prep). This brings to an overall total of 55 mammals listed in the island of Negros (Appendix 2). Thirty of the 55 species of terrestrial mammals recorded within the island are found in NNNP.

Almost 33% (18 species) of the 55 species of mammals found in Negros are endemic, whilst NNNP has 37% (11 species) endemism among the 30 mammalian species recorded in the park.

Amphibians and Reptiles

Philippines has 104 species of amphibians, 79% are endemic and 48 species are threatened (IUCN, 2009). About 18 species of amphibians are recorded in Negros Island (Appendix 3), of which 4 are threatened species. Of the 18 species of amphibians in Negros, 8 are recorded in NNNP, 6 are recorded in the study sites while 2 are observed outside the study areas but within NNNP. These are the Giant South American toad *Bufo marinus*, Giant Philippine woodland frog *Limnonectes visayanus*, Small-headed frog *Occidozyga laevis visayanus*, Rough-backed forest frog *Platymantis corrugatus*, Common forest ground frog *Platymantis dorsalis*, Negros forest frog *Platymantis negrosensis*, Common tree frog *Polypedates leucomystax quadrilineatus* and the Truncate-toed Chorus Frog *Kaloula conjuncta negrosensis*.

There are 11 endemic species of amphibians listed in Negros, 7 are Philippine endemic, 4 are Negros-Panay endemic and one Negros endemic.

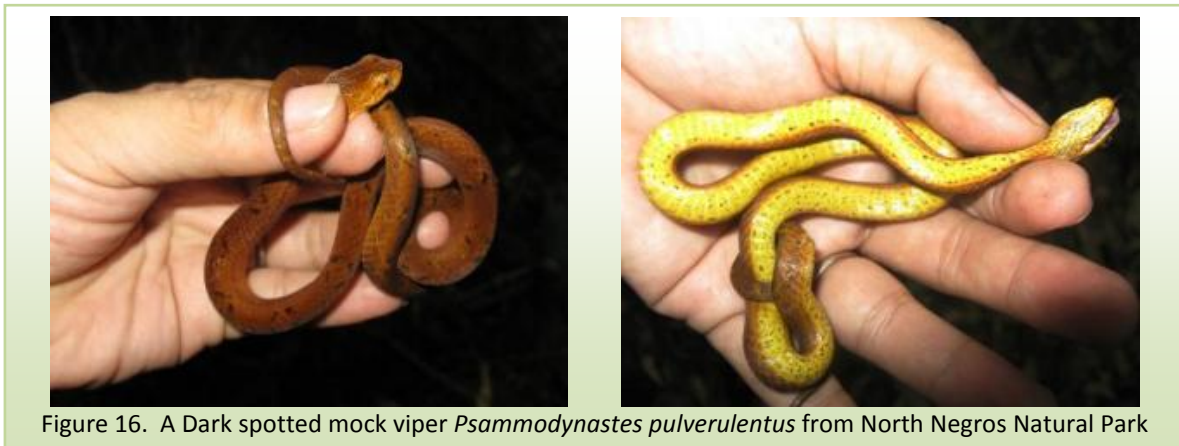


Figure 16. A Dark spotted mock viper *Psammodynastes pulverulentus* from North Negros Natural Park

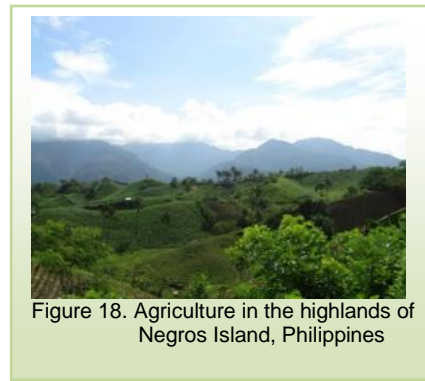
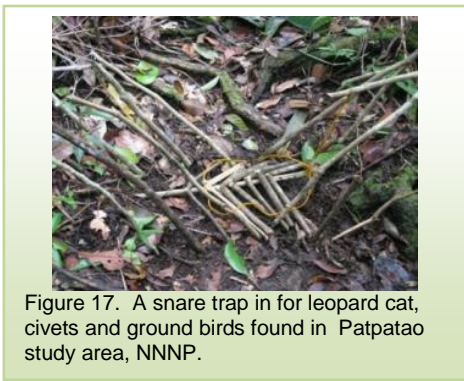
About 71 species of reptiles are recorded in the island of Negros (Appendix 4) and four of which are threatened namely: the Sailfin water lizard, Variable monitor lizard, Malayan freshwater turtle and the Philippine crocodile. Only 18 species were recorded in this survey, 10 species were recorded in the study areas while 8 species are observed outside the study areas but within NNNP. The 18 species of reptiles recorded in NNNP are the following: Common flying lizard *Draco spiloferus*, Dark-spotted anglehead *Gonocephalus sophiae*, Sailfin water lizard *Hydrosaurus postulates*, Flat-bodied house gecko *Cosymbotus platyurus*, Philippine bent-toed gecko *Cyrtodactylus philippinus*, Tender-skinned house gecko *Gehyra mutilate*, Toko Narrow-disked Gecko *Gekko gekko*, Common House Gecko *Hemidactylus frenatus*, Spotted green tree skink *Lamprolepis smaragdina*, Two-striped mabouya *Eutropis multicarinata borealis*, Common mabouya *Eutropis multifasciata*, Steere's Sphenomorphus *Sphenomorphus steerei*, Variable monitor lizard *Varanus nuchalis*, Elongate-headed tree snake *Ahaetulla prasina preocularis*,

Common Wolf Snake *Lycodon aulicus capucinus*, Dark-spotted Mock Viper *Psammodynastes pulverulentus* (Fig. 16), Smooth-scaled Mountain Rat Snake *Zaocys luzonensis* and Reticulated Python *Python reticulatus*.

There are 38 endemic species of reptiles listed in Negros, 33 are Philippine endemic, two are Negros-Panay endemic and 3 are island endemics.

Threats and conservation

Active protection of NNNP has started with the creation of the Bantay Bukid Brigade (BBB), a group of local volunteers who are financially assisted by the provincial government and its local municipality or city. The BBB reports to the Municipal Environment and Natural Resources Officer (MENRO) or City Environment and Natural Resources Officer (CENRO) and coordinates with and sometimes reports directly to the Task Force Ilahas for any apprehensions. Task Force Ilahas is a province-wide police task force formed to fight against illegal logging, hunting, forest products collection and any other illegal activities relating to the environment.



Hunting, poaching, agricultural encroachment and charcoal making are the major threats to the biodiversity of NNNP.

Hunting of Visayan warty pig and Visayan spotted deer were most common in the early 90's mostly for its meat. Captures which were not hurt usually the orphans of the hunter-killed animals were sold to affluent local buyers or to local politicians.

Snares which are installed in small trails were observed within the park (Fig. 17). These snares target the leopard cat, civets and ground birds. It captures one of the forelimbs or hind limbs of the mammals or the tarsus of the ground bird. This is bad news for the all the ground birds including the Negros bleeding-heart pigeon.

Agricultural expansions in the highlands of Negros (Fig. 18) remain a major threat to the overall biodiversity of the island with only 4% forest cover remaining.

Charcoal making has been a livelihood to many in the upland communities. This has become a big industry as the demand for charcoal has increased with the booming barbecue business in major cities of Negros (Fig. 19). With this, illegal cutting of trees inside park has been reported in almost all of the cities and municipalities that comprise NNNP.

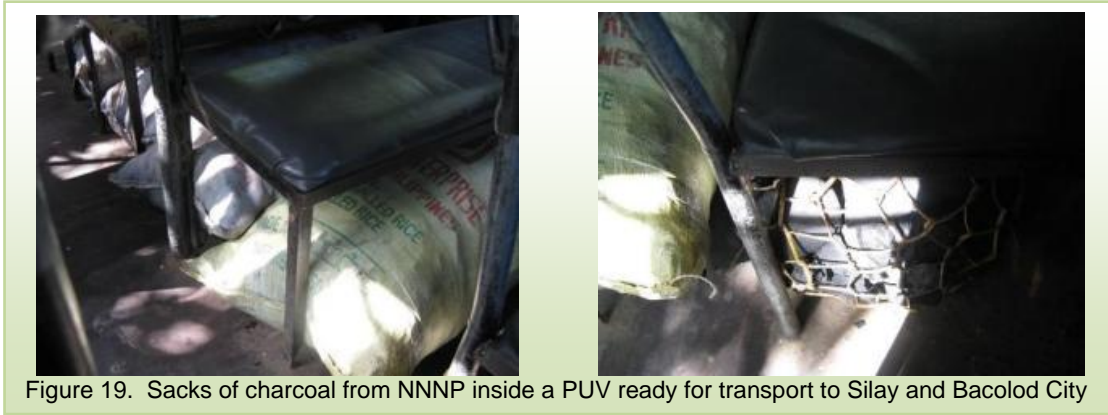


Figure 19. Sacks of charcoal from NNNP inside a PUV ready for transport to Silay and Bacolod City

RECOMMENDATIONS

Conservation education

A massive awareness campaign on biodiversity conservation is very important for Negros to be able to halt the continuing process of habitat loss and other anthropogenic activities that threatens the biodiversity of NNNP and the whole island of Negros.

Conservation education program targeting local community, BBB volunteers and students on the importance of the biodiversity conservation should be done. There should be collaboration among NGOs [Negros Forest and Ecological Foundation, Inc (NFEFI), Philippine Biodiversity Conservation Foundation, Inc (PBCFI), etc] and the government [Provincial Environment and Management Office (PEMO), local government units].

Habitat rehabilitation

There are areas in the park with clearings, forest gaps and forest edges which will need rehabilitation. There is an abundant supply of endemic and / or native wildlings within the park, these wildlings can be use to rehabilitate clearings forest gaps and edges.

Establishment of a native/endemic nursery in strategic locations and involvement of the community in reforestation or rehabilitation projects is encouraged.

Alternative livelihood

Charcoal making is one of the major problems in the park and should be given immediate attention. There has been action from the Department of Environment and Natural Resources,

provincial and some local government in solving this problem such as issuance of permit to cut planted trees in their own land, yet it is difficult to stop this destructive activity as this has become a source of livelihood to many who are dwelling inside and adjacent to the park. With the increasing demand of charcoal in the cities and depleted supply of planted trees for charcoal, more trees inside the park are currently being cut for charcoal.

Alternative livelihood should be given charcoal making communities that are adjacent to the park. A community nursery will be a good project to these communities. This will make people love trees and take care of the forest instead of cutting it for charcoal. Planting materials are sold to all areas within Negros. These will also give local governments and others civic organizations the option of planting endemic/native species in all their reforestation/tree planting projects.

Active Protection

Active protection has been a priority program of the provincial and local government involving the police force and must remain a priority at all times. The creation of the Bantay Bukid Brigade (BBB) by the provincial government which was adapted by the local governments within the NNNP signifies the interest of the government to protect the biodiversity of NNNP. But there is also a constant problem within the system involving the BBB as every time there is a local election and change of officials in the local government, there is also a change of BBB members which needs to be deputized by the DENR. Thus the need to conduct proper training prior to deputation to equip them with the knowledge of the basic forest and wildlife ecology, and the laws governing its utilization, protection and conservation as well as enabling them to enforce the law.

Research

NNNP may still have more terrestrial species of birds, mammals, reptiles and amphibians that have not been recorded in this survey thus a continuous research on the terrestrial vertebrate species as well as invertebrate species should be done. An extensive herpetofaunal inventory is highly recommended to gain more knowledge on the herpetofaunal species richness of NNNP.

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APPENDICES

Appendix 1. Summary list of birds of Negros Island and the birds recorded in North Negros Natural Park (NNNP).

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|-------------------------|-------------|--------------|---------------|------|------------------|
| Little Grebe | Tachybaptus | ruficollis | philippensis | | |
| Tahiti Petrel | Pterodroma | rostrata | rostrata | | |
| Dark-rumped Petrel | Pterodroma | phaeopygia | sandwichensis | | |
| Streaked Shearwater | Calonectris | leucomelas | | | |
| White-tailed Tropicbird | Phaethon | lepturus | dorotheae | | |
| Darter | Anhinga | melanogaster | melanogaster | | |
| Red-footed Booby | Sula | sula | rubripes | | |
| Brown Booby | Sula | leucogaster | plotus | | |
| Great Frigatebird | Fregata | minor | minor | | |
| Lesser Frigatebird | Fregata | ariel | ariel | | |
| Great-billed Heron | Ardea | sumatrana | | | |
| Purple Heron | Ardea | purpurea | manilensis | | |
| Great Egret | Egretta | alba | modesta | | |
| Eastern Reef-Egret | Egretta | sacra | sacra | | |
| Intermediate Egret | Egretta | intermedia | | | |
| Little Egret | Egretta | garzetta | garzetta | | |
| Chinese Pond-Heron | Ardeola | bacchus | | | |
| Malayan Night-Heron | Gorsachius | melanolophus | kutteri | | |
| Japanese Night-Heron | Gorsachius | goisagi | | | |
| Little Heron | Butorides | striatus | carcinophilus | | |
| Cattle Egret | Bubulcus | ibis | coromandus | X | |
| Rufous Night-Heron | Nycticorax | caledonicus | major | X | |
| Schrenck's Bittern | Ixobrychus | eurhythmus | | | |
| Yellow Bittern | Ixobrychus | sinensis | | | |
| Cinnamon Bittern | Ixobrychus | cinnamomeus | | | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|--------------------------|--------------|---------------|---------------|----------|------------------|
| Black Bittern | Dupetor | flavicollis | flavicollis | | |
| Wandering Whistling-Duck | Dendrocygna | arcuata | arcuata | O, Ethno | |
| Philippine Duck | Anas | luzonica | | X, Ethno | V |
| Garganey | Anas | querquedula | | | |
| Osprey | Pandion | haliaetus | haliaetus | X | |
| Oriental Honeybuzzard | Pernis | ptilorhynchus | philippensis | X | |
| | | | orientalis | X | |
| Philippine Honeybuzzard | Pernis | steerei | steerei | X | |
| Black-shouldered Kite | Elanus | caeruleus | hypoleucus | | |
| Brahminy Kite | Haliastur | indus | intermedius | X | |
| Black Kite | Milvus | migrans | lineatus | | |
| White-bellied Sea-Eagle | Haliaeetus | leucogaster | | | |
| Grey-headed Fish-Eagle | Ichthyophaga | ichthyaetus | | | |
| Pied Harrier | Circus | melanoleucos | | | |
| Besra | Accipiter | virgatus | confusus | X | |
| Chinese Goshawk | Accipiter | soloensis | | O | |
| Crested Goshawk | Accipiter | trivirgatus | extimus | O | |
| Grey-faced Buzzard | Butastur | indicus | | | |
| Crested Serpent-Eagle | Spilornis | cheela | holospilus | X | |
| Rufous-bellied Eagle | Hieraaetus | kienerii | formosus | | |
| Changeable Hawk-Eagle | Spizaetus | cirrhatous | limnaeetus | | |
| Pinsker's Hawk-Eagle | Nisaetus | pinskeri | | | |
| Philippine Falconet | Microhierax | erythrognys | erythrognys | | |
| Eurasian Kestrel | Falco | tinnunculus | interstinctus | | |
| Merlin | Falco | columbarius | pacificus | | |
| Eurasian Hobby | Falco | subbuteo | subbuteo | | |
| Oriental Hobby | Falco | severus | severus | O | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|-------------------------|-------------|------------------|--------------|----------|------------------|
| Peregrine Falcon | Falco | peregrinus | ernesti | X | |
| Tabon Scrubfowl | Megapodius | cumingii | pusillus | X, Ethno | |
| Red Junglefowl | Gallus | gallus | philippensis | X, Ethno | |
| Blue-breasted Quail | Coturnix | chinensis | lineata | O, Ethno | |
| Small Buttonquail | Turnix | sylvatica | nigrorum | | |
| Barred Buttonquail | Turnix | suscitator | nigrescens | X | |
| Spotted Buttonquail | Turnix | ocellata | ssp.inn. | | |
| Slaty-breasted Rail | Gallirallus | striatus | striatus | | |
| Barred Rail | Gallirallus | torquatus | torquatus | X | |
| Slaty-legged Crake | Rallina | eurizonoides | eurizonoides | | |
| Baillon's Crake | Porzana | pusilla | pusilla | | |
| Ruddy-breasted Crake | Porzana | fusca | fusca | | |
| White-browed Crake | Porzana | cinerea | ocularis | | |
| Plain Bush-hen | Amaurornis | olivaceus | | O | |
| White-breasted Waterhen | Amaurornis | phoenicurus | javanica | O | |
| Watercock | Gallicrex | cinerea | | | |
| Common Moorhen | Gallinula | chloropus | lozanoi | | |
| Eurasian Coot | Fulica | atra | atra | | |
| Greater Painted-snipe | Rostratula | benghalensis | benghalensis | | |
| Grey Plover | Pluvialis | squatarola | | | |
| Asian Golden-Plover | Pluvialis | fulva | | | |
| Little Ringed-Plover | Charadrius | dubius | dubius | | |
| Kentish Plover | Charadrius | alexandrinus | alexandrinus | | |
| | | | dealbatus | | |
| Lesser Sand-Plover | Charadrius | mongolus | mongolus | | |
| Greater Sand-Plover | Charadrius | leschenaultii | | | |
| Far Eastern Curlew | Numenius | madagascariensis | | | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|------------------------|--------------|----------------|-------------------|-------------|-------------------------|
| Eurasian Curlew | Numenius | arquata | orientalis | | |
| Bar-tailed Godwit | Limosa | lapponica | baueri | | |
| Black-tailed Godwit | Limosa | limosa | melanuroides | | |
| Common Redshank | Tringa | totanus | eurhinus | | |
| Common Greenshank | Tringa | nebularia | | | |
| Green Sandpiper | Tringa | ochropus | | | |
| Wood Sandpiper | Tringa | glareola | | | |
| Marsh Sandpiper | Tringa | stagnatilis | | | |
| Common Sandpiper | Actitis | hypoleucos | | | |
| Terek Sandpiper | Xenus | cinereus | | | |
| Grey-tailed Tattler | Heteroscelus | brevipes | | | |
| Ruddy Turnstone | Arenaria | interpres | interpres | | |
| Swinhoe's Snipe | Gallinago | megala | | | |
| Great Knot | Calidris | tenuirostris | | | |
| Rufous-necked Stint | Calidris | ruficollis | | | |
| Little Stint | Calidris | minuta | | | |
| Long-toed Stint | Calidris | subminuta | | | |
| Curlew Sandpiper | Calidris | ferruginea | | | |
| Broad-billed Sandpiper | Limicola | falcinellus | sibirica | | |
| Red-necked Phalarope | Phalaropus | lobatus | | | |
| Oriental Pratincole | Glareola | maldivarum | | | |
| Black-winged Stilt | Himantopus | himantopus | himantopus | | |
| | | | leucocephalus | | |
| Gull-billed Tern | Gelochelidon | affinis | nilotica | | |
| Black-naped Tern | Sterna | sumatrana | | | |
| Great Crested Tern | Sterna | bergii | cristatus | | |
| Bridled Tern | Sterna | anaethetus | anaethetus | | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|------------------------------|--------------|----------------|---------------|----------|------------------|
| Little Tern | Sterna | albifrons | sinensis | | |
| White-winged Tern | Chlidonias | leucopterus | | | |
| Whiskered Tern | Chlidonias | hybridus | hybridus | | |
| Pompadour Green-Pigeon | Treron | pompadora | canescens | X, Ethno | |
| Pink-necked Green-Pigeon | Treron | vernans | vernans | X, Ethno | |
| White-eared Brown-Dove | Phapitreron | leucotis | nigrorum | X, Ethno | |
| Amethyst Brown-Dove | Phapitreron | amethystina | maculipectus | X, Ethno | |
| Yellow-breasted Fruit-Dove | Ptilinopus | occipitalis | occipitalis | X, Ethno | |
| Black-chinned Fruit-Dove | Ptilinopus | leclancheri | leclancheri | X, Ethno | |
| Negros Fruit-Dove | Ptilinopus | arcanus | | | |
| Pink-bellied Imperial-Pigeon | Ducula | poliocephala | | X, Ethno | |
| Spotted Imperial-Pigeon | Ducula | carola | nigrorum | | V |
| Green Imperial-Pigeon | Ducula | aenea | aenea | X, Ethno | |
| Pied Imperial-Pigeon | Ducula | bicolor | bicolor | | |
| Metallic Pigeon | Columba | vitiensis | griseogularis | X, Ethno | |
| Philippine Cuckoo-Dove | Macropygia | tenuirostris | tenuirostris | X | |
| Island Collared-Dove | Streptopelia | bitorquata | dusumieri | | |
| Spotted Dove | Streptopelia | chinensis | tigrina | X | |
| Zebra Dove | Geopelia | striata | striata | X | |
| Common Emerald-Dove | Chalcophaps | indica | indica | X | |
| Negros Bleeding-heart | Gallicolumba | keayi | | O, Ethno | CE |
| Nicobar Pigeon | Caloenas | nicobarica | nicobarica | | |
| Philippine Cockatoo | Cacatua | haematuropygia | | | CE |
| Blue-naped Parrot | Tanygnathus | lucionensis | salvadorii | X, Ethno | NT |
| Blue-backed Parrot | Tanygnathus | sumatranus | everetti | | |
| Blue-crowned Racquet-tail | Prioniturus | discurus | whiteheadi | X, Ethno | |
| Colasisi | Loriculus | philippensis | regulus | X, Ethno | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|--------------------------|----------------|---------------|----------------|----------|------------------|
| Large Hawk-Cuckoo | Cuculus | sparverioides | sparverioides | | |
| Philippine Hawk-Cuckoo | Cuculus | pectoralis | | X | |
| Oriental Cuckoo | Cuculus | saturatus | saturatus | | |
| Indian Cuckoo | Cuculus | micropterus | micropterus | | |
| Plaintive Cuckoo | Cacomantis | merulinus | merulinus | X | |
| Brush Cuckoo | Cacomantis | variolosus | sepulcralis | X | |
| Gould's Bronze-Cuckoo | Chrysococcyx | aheneus | russatus | | |
| Philippine Drongo-Cuckoo | Surniculus | velutinus | chalybaeus | | |
| Common Koel | Eudynamys | scolopacea | mindanensis | X, Ethno | |
| Lesser Coucal | Centropus | bengalensis | philippinensis | | |
| Philippine Coucal | Centropus | viridis | viridis | X | |
| Grass Owl | Tyto | capensis | amauronota | O, Ethno | |
| Philippine Scops-Owl | Otus | megalotis | nigrorum | O | |
| Brown Hawk-Owl | Ninox | scutulata | randi | O | |
| | | | japonica | | |
| Philippine Hawk-Owl | Ninox | philippensis | centralis | X | |
| Philippine Frogmouth | Batrachostomus | septimus | menagei | X | |
| Grey Nightjar | Caprimulgus | indicus | jotaka | | |
| Philippine Nightjar | Caprimulgus | manillensis | manillensis | X | |
| Savanna Nightjar | Caprimulgus | affinis | griseatus | | |
| Whitehead's Swiftlet | Collocalia | whiteheadi | ssp.inn. | | |
| Philippine Swiftlet | Collocalia | mearnsi | | O | |
| Glossy Swiftlet | Collocalia | esculenta | marginata | X | |
| Pygmy Swiftlet | Collocalia | troglydytes | | X | |
| Philippine Needletail | Mearnsia | picina | | X | NT |
| Purple Needletail | Hirundapus | celebensis | | | |
| Fork-tailed Swift | Apus | Pacificus | pacificus | O | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|-----------------------------|----------------|---------------|----------------|----------|------------------|
| House Swift | Apus | affinis | subfurcatus | | |
| Asian Palm-Swift | Cypsiurus | balasiensis | pallidior | | |
| Whiskered Treeswift | Hemiprocne | comata | major | O | |
| Dollarbird | Eurystomus | orientalis | cyanocollis | O, Ethno | |
| Common Kingfisher | Alcedo | atthis | bengalensis | O, Ethno | |
| Indigo-banded Kingfisher | Alcedo | cyanopecta | nigrirostris | O, Ethno | |
| Variable Dwarf-Kingfisher | Ceyx | lepidus | margarethae | | |
| Stork-billed Kingfisher | Halcyon | capensis | gigantea | | |
| Ruddy Kingfisher | Halcyon | coromanda | bangsi | | |
| White-throated Kingfisher | Halcyon | smyrnensis | gularis | O | |
| Rufous-lored Kingfisher | Halcyon | winchelli | nigrorum | | V |
| White-collared Kingfisher | Halcyon | chloris | collaris | O | |
| Spotted Wood-Kingfisher | Actenoides | lindsayi | moseleyi | X | |
| Blue-throated Bee-eater | Merops | viridis | americanus | O | |
| Blue-tailed Bee-eater | Merops | philippinus | philippinus | O | |
| Tarctic Hornbill | Penelopides | panini | panini | X, Ethno | E |
| Walden's Hornbill | Aceros | waldeni | | O, Ethno | CE |
| Coppersmith Barbet | Megalaima | haemacephala | intermedia | X | |
| Philippine Pygmy Woodpecker | Dendrocopos | maculatus | maculatus | X | |
| White-bellied Woodpecker | Dryocopus | javensis | philippinensis | X | |
| Greater Flameback | Chrysocolaptes | lucidus | xanthocephalus | | |
| Red-bellied Pitta | Pitta | erythrogaster | erythrogaster | O | |
| Hooded Pitta | Pitta | sordida | sordida | X | |
| Plain Martin | Riparia | paludicola | tantilla | | |
| Barn Swallow | Hirundo | rustica | gutturialis | O | |
| Pacific Swallow | Hirundo | tahitica | javanica | | |
| Red-rumped Swallow | Hirundo | daurica | striolata | O | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|----------------------------|--------------|---------------|---------------|------|------------------|
| Singing Bushlark | Mirafra | javanica | mindanensis | | |
| Oriental Skylark | Alauda | gulgula | wolfei | | |
| Bar-bellied Cuckoo-shrike | Coracina | striata | panayensis | X | |
| White-winged Cuckoo-shrike | Coracina | ostenta | | X | V |
| Pied Triller | Lalage | nigra | chilensis | X | |
| Ashy Minivet | Pericrocotus | divaricatus | divaricatus | | |
| Scarlet Minivet | Pericrocotus | flammeus | novus | | |
| Yellow-vented Bulbul | Pycnonotus | goavier | goavier | O | |
| Yellow-wattled Bulbul | Pycnonotus | urostictus | ssp.inn. | O | |
| Philippine Bulbul | Hypsipetes | philippinus | guimarasensis | X | |
| Balicassiao | Dicrurus | balicassius | mirabilis | X | |
| Philippine Oriole | Oriolus | steerii | steerii | | |
| Black-naped Oriole | Oriolus | chinensis | yamamurae | X | |
| Large-billed Crow | Corvus | macrorhynchos | philippinus | X | |
| Elegant Tit | Parus | elegans | albescens | X | |
| Sulphur-billed Nuthatch | Sitta | oenochlamys | oenochlamys | X | |
| Stripe-headed Rhabdornis | Rhabdornis | mystacalis | mystacalis | X | |
| Stripe-breasted Rhabdornis | Rhabdornis | inornatus | rabori | | |
| Flame-templed Babbler | Dasycrotopha | speciosa | speciosa | X | E |
| Negros Striped-Babbler | Stachyris | nigrorum | | O | E |
| White-browed Shortwing | Brachypteryx | montana | brunneiceps | X | |
| Siberian Rubythroat | Luscinia | calliope | | | |
| Oriental Magpie-Robin | Copsychus | sularis | mindanensis | O | |
| White-browed Shama | Copsychus | luzoniensis | superciliaris | X | |
| Pied Bushchat | Saxicola | caprata | randi | X | |
| Blue Rock-Thrush | Monticola | solitarius | philippensis | O | |
| Sunda Ground-Thrush | Zoothera | andromedae | | O | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|-----------------------------------|--------------|---------------|-----------------|------|------------------|
| Island Thrush | Turdus | poliocephalus | nigrorum | X | |
| Eyebrowed Thrush | Turdus | obscurus | | | |
| Golden-bellied Flyeater | Gerygone | sulphurea | simplex | | |
| Arctic Warbler | Phylloscopus | borealis | borealis | X | |
| | | | hylebata | | |
| | | | transbaicalicus | | |
| | | | xanthodryas | | |
| | | | kennicotti | | |
| Philippine Leaf-Warbler | Phylloscopus | olivaceus | | X | |
| Lemon-throated Leaf-Warbler | Phylloscopus | cebuensis | cebuensis | X | |
| Mountain Leaf-Warbler | Phylloscopus | trivirgatus | nigrorum | O | |
| Oriental Reed-Warbler | Acrocephalus | orientalis | | | |
| Streaked Reed-Warbler | Acrocephalus | sorghophilus | | | |
| Tawny Grassbird | Megalurus | timoriensis | tweeddalei | O | |
| Striated Grassbird | Megalurus | palustris | forbesi | O | |
| Gray's Grasshopper-Warbler | Locustella | fasciolata | | | |
| Middendorff's Grasshopper-Warbler | Locustella | ochotensis | | | |
| Philippine Tailorbird | Orthotomus | castaneiceps | rabori | X | |
| Bright-capped Cisticola | Cisticola | exilis | semirufa | O | |
| Zitting Cisticola | Cisticola | juncidis | tinnabulans | O | |
| Oriental Bush-Warbler | Cettia | diphone | canturians | | |
| White-throated Jungle-Flycatcher | Rhinomyias | albigularis | | X | E |
| Ashy-breasted Flycatcher | Muscicapa | randi | | O | V |
| Grey-streaked Flycatcher | Muscicapa | griseisticta | | X | |
| Mountain Verditer-Flycatcher | Eumyias | panayensis | panayensis | X | |
| Narcissus Flycatcher | Ficedula | narcissina | narcissina | | |
| Mugimaki Flycatcher | Ficedula | mugimaki | | | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|-----------------------------|---------------|-----------------|----------------|------|------------------|
| Snowy-browed Flycatcher | Ficedula | hyperythra | nigrorum | O | |
| Little Pied Flycatcher | Ficedula | westermanni | rabori | O | |
| Blue-and-white Flycatcher | Cyanoptila | cyanomelana | cyanomelana | O | |
| Mangrove Blue Flycatcher | Cyornis | rufigastra | philippinensis | X | |
| Citrine Canary-Flycatcher | Culicicapa | helianthea | panayensis | X | |
| Pied Fantail | Rhipidura | javanica | nigritorquis | X | |
| Blue-headed Fantail | Rhipidura | cyaniceps | albiventris | X | |
| Rufous Paradise-Flycatcher | Terpsiphone | cinnamomea | unirufa | | |
| Black-naped Monarch | Hypothymis | azurea | azurea | O | |
| Celestial Monarch | Hypothymis | coelestis | rabori | X | V |
| White-vented Whistler | Pachycephala | homeyeri | winchelli | X | |
| Grey Wagtail | Motacilla | cinerea | robusta | X | |
| Yellow Wagtail | Motacilla | flava | simillima | O | |
| White Wagtail | Motacilla | alba | ocularis | X | |
| Forest Wagtail | Dendronanthus | indicus | | | |
| Richard's Pipit | Anthus | novaeseelandiae | lugubris | X | |
| Olive Tree-Pipit | Anthus | hodgsoni | hodgsoni | X | |
| Pechora Pipit | Anthus | gustavi | gustavi | X | |
| White-breasted Wood-Swallow | Artamus | leucorynchus | leucorynchus | X | |
| Long-tailed Shrike | Lanius | schach | nasutus | X | |
| Brown Shrike | Lanius | cristatus | lucionensis | X | |
| Asian Glossy Starling | Aplonis | panayensis | panayensis | X | |
| Chestnut-cheeked Starling | Sturnus | philippensis | | | |
| Coleto | Sarcops | calvus | melanonotus | X | |
| Crested Myna | Acridotheres | cristatellus | cristatellus | X | |
| Plain-throated Sunbird | Anthreptes | malacensis | chorigaster | X | |
| Olive-backed Sunbird | Nectarinia | jugularis | jugularis | X | |

| Common Name | Genus | Species | Subspecies | NNNP | 2009 IUCN Status |
|---|------------|----------------|--------------|------|------------------|
| Purple-throated Sunbird | Nectarinia | sperata | trochilus | X | |
| Flaming Sunbird | Aethopyga | flagrans | daphoenonota | X | |
| Lovely Sunbird | Aethopyga | shelleyi | bonita | O | |
| Crimson Sunbird | Aethopyga | siparaja | magnifica | X | |
| Striped Flowerpecker | Dicaeum | aeruginosum | aeruginosum | | |
| Bicolored Flowerpecker | Dicaeum | bicolor | viridissimum | O | |
| Visayan Flowerpecker | Dicaeum | haematostictum | | X | V |
| Scarlet-collared Flowerpecker | Dicaeum | retrocinctum | | | V |
| Orange-bellied Flowerpecker | Dicaeum | trigonostigma | dorsale | X | |
| Fire-breasted Flowerpecker | Dicaeum | ignipectus | apo | | |
| Pygmy Flowerpecker | Dicaeum | pygmaeum | pygmaeum | X | |
| Yellowish White-eye | Zosterops | nigrorum | nigrorum | X | |
| Mountain White-eye | Zosterops | montanus | pectoralis | X | |
| Eurasian Tree Sparrow | Passer | montanus | saturatus | X | |
| Green-faced Parrotfinch | Erythrura | viridifacies | | | V |
| Java Sparrow | Padda | oryzivora | | | |
| White-bellied Munia | Lonchura | leucogastra | manueli | X | |
| Scaly-breasted Munia | Lonchura | punctulata | cabanisi | | |
| Chestnut Munia | Lonchura | malacca | jagori | X | |
| Total number of birds in Negros Island: 247 species | | | | | |
| Total number of birds in NNNP: 144 species | | | | | |

The Negros Island bird species list is based on Kennedy, *et al.*, 2000. A Guide to the birds of the Philippines; Dickinson, *et al.*, 1991. The birds of the Philippines, An Annotated check list and this study.

Black font – Resident genus, species or subspecies

Red font – Endemic genus, species or subspecies

Gray font – Introduced genus, species or subspecies

Blue font- Migrant genus, species or subspecies

O – Species observed outside the study area or species previously recorded by other studies but within NNNP

Ethno – Ethnobiological interview

X- species observed in the study area

Critically Endangered (CE) = 3 species

Endangered (E) = 4 species

Vulnerable species (V) = 9 species

Near Threatened (NT) = 2 species

Appendix 2. Summary list of mammals of Negros Island and the mammals recorded in North Negros Natural Park (NNNP).

| Species | Common name | NNNP | 2009 IUCN Status |
|-----------------------------------|----------------------------------|------|------------------|
| Insectivora | | | |
| <i>Crocidura negrina</i> | Negros shrew | | E |
| <i>Suncus murinus</i> | Asian house shrew | X | |
| Chiroptera | | | |
| <i>Acerodon jubatus</i> | Golden crowned flying fox | | E |
| <i>Cynopterus brachyotis</i> | Common short-nosed fruit bat | X | |
| <i>Dobsonia chapmani</i> | Philippine naked fruit bat | | CE |
| <i>Eonycteris robusta</i> | Philippine nectar bat | | NT |
| <i>Eonycteris spelaea</i> | Common nectar bat | X | |
| <i>Haplonycteris fischeri</i> | Philippine pygmy fruit bat | X | |
| <i>Harpyionycteris whiteheadi</i> | Harpy fruit bat | X | |
| <i>Macroglossus minimus</i> | Dagger-toothed flower bat | X | |
| <i>Nyctimene rabori</i> | Philippine tube-nosed fruit bat | X | E |
| <i>Ptenochirus jagori</i> | Musky fruit bat | X | |
| <i>Pteropus hypomelanus</i> | Common island flying fox | X | |
| <i>Pteropus pumilus</i> | Little golden mantled flying fox | X | NT |
| <i>Pteropus vampyrus</i> | Large flying fox | | NT |
| <i>Rousettus amplexicaudatus</i> | Common rousette | | |
| <i>Emballonura alecto</i> | Philippine sheath-tailed bat | | |
| <i>Saccolaimus saccolaimus</i> | Pouched bat | | |
| <i>Taphozous melanopogon</i> | Black bearded tomb bat | | |
| <i>Megaderma spasma</i> | False vampire bat | | |
| <i>Hipposideros ater</i> | Dusky roundleaf bat | | |
| <i>Hipposideros diadema</i> | Diadem roundleaf bat | | |
| <i>Hipposideros obscurus</i> | Philippine roundleaf bat | X | |
| <i>Hipposideros pygmaeus</i> | Philippine pygmy roundleaf bat | | |
| <i>Rhinolophus arcuatus</i> | Arcuate horseshoe bat | X | |
| <i>Rhinolophus inops</i> | Philippine horseshoe bat | | |
| <i>Rhinolophus macrotis</i> | Big-eared horseshoe bat | | |
| <i>Rhinolophus philippinensis</i> | Enormous-eared horseshoe bat | X | |
| <i>Rhinolophus virgo</i> | Yellow-faced horseshoe bat | X | |
| <i>Glischropus tylopus</i> | Thick-thumbed pipistrelle | X | |
| <i>Harpiocephalus harpia</i> | Hairy-winged bat | | |
| <i>Miniopterus australis</i> | Little bent-winged bat | X | |
| <i>Miniopterus schreibersi</i> | Common bent-winged bat | | |
| <i>Miniopterus tristis</i> | Greater bent-winged bat | | |
| <i>Myotis horsfieldii</i> | Common Asiatic myotis | X | |
| <i>Myotis macrotarsus</i> | Philippine large-footed myotis | X | |
| <i>Myotis muricola</i> | Whiskered myotis | | |
| <i>Myotis rufopictus</i> | Orange fingered myotis | | |

| Species | Common name | NNNP | 2009 IUCN Status |
|--|------------------------------|------|------------------|
| <i>Philetor brachypterus</i> | Short winged pipistrelle | | |
| <i>Pipistrellus javanicus</i> | Javan pipistrelle | X | |
| <i>Pipistrellus tenuis</i> | Least pipistrelle | | |
| <i>Scotophilus kuhlii</i> | Lesser Asian house bat | | |
| <i>Chaerophon plicata</i> | Wrinked-lipped bat | | |
| <i>Cheiromeles parvidens</i> | Lesser naked bat | | |
| Primates | | | |
| <i>Macaca fascicularis</i> | Long-tailed macaque | X | |
| Rodentia | | | |
| <i>Apomys sp. A</i> | Western Visayan forest mouse | X | |
| <i>Mus musculus</i> | House mouse | X | |
| <i>Rattus argentiventer</i> | Rice field rat | X | |
| <i>Rattus exulans</i> | Polynesian rat | X | |
| <i>Rattus tanezumi</i> | Oriental house rat | X | |
| Carnivora | | | |
| <i>Prionailurus bengalensis rabori</i> | Visayan leopard cat | X | V |
| <i>Paradoxurus hermaphroditus</i> | Common palm civet | X | |
| <i>Viverra zangalunga</i> | Malay civet | X | |
| Artiodactyla | | | |
| <i>Sus cebifrons</i> | Visayan warty pig | X | CE |
| <i>Cervus alfredi</i> | Visayan spotted deer | X | E |
| Total number of mammalian species recorded in Negros Island (Endemic species) = 55 (18) Total number of mammalian species recorded in NNNP (Endemic species) = 30 (11) Species in red font are endemic species Species in brown font is a new island record | | | |

The Negros island list of mammals is based on Heaney *et al.*, 1998, 2002; Tamblyn *et al.*, 2005 ; and this study.

Appendix 3. List of herpetofauna recorded in Negros Island and the herpetofauna recorded in North Negros Natural Park (NNNP), Philippines.

| SCIENTIFIC NAME | COMMON NAME | NNNP | 2009 IUCN Status |
|--|---------------------------------|-------------|------------------|
| <u>AMPHIBIANS</u> | | | |
| <i>Bufo marinus</i> | Giant South American Toad | O | |
| <i>Fejervarya cancrivora</i> | Asian Brackish Water Frog | | |
| <i>Limnonectes leytensis</i> * | Swamp Frog | | |
| <i>Limnonectes visayanus</i> ** | Giant Philippine Woodland Frog | X | V |
| <i>Occidozyga laevis visayanus</i> * | Small-headed Frog | X | |
| <i>Platymantis corrugatus</i> * | Rough-backed Forest Frog | X | |
| <i>Platymantis dorsalis</i> * | Common Forest Ground Frog | X | |
| <i>Platymantis hazelae</i> * | Hazel's Forest Frog | | EN |
| <i>Platymantis negrosensis</i> ** | Negros Forest Frog | X | EN |
| <i>Platymantis spelaeus</i> *** | Negros Cave Frog | | EN |
| <i>Rana erythraea</i> | Common Green Frog | | |
| <i>Hylarana (=Rana) everetti</i> * | Everett's Frog | | |
| <i>Polypedates leucomystax quadrilineatus</i> | Common Tree Frog | O | |
| <i>Rhacophorus appendiculatus</i> | Rough-armed Tree Frog | | |
| <i>Rhacophorus pardalis pardalis</i> | Gliding Tree Frog | | |
| <i>Kaloula conjuncta negrosensis</i> ** | Truncate-toed Chorus Frog | X | |
| <i>Kaloula picta</i> * | Slender-digit Chorus Frog | | |
| <i>Bronchocela cristatella</i> (<i>Calotes cristatellus</i>) | Indonesian Calotes | | |
| <i>Bronchocela (=Calotes) marmoratus</i> | Philippine Calotes | | |
| <i>Draco spilopterus</i> | Common Flying Lizard | X | |
| <i>Gonocephalus sophiae</i> | Negros forest dragon | X | |
| <i>Hydrosaurus postulatus</i> | Sailfin Water Lizard | X, Ethno | V |
| <i>Dibamus argenteus</i> | Philippine Blind-Earless Lizard | | |
| <i>Dibamus novaeguineae</i> | Blind-Earless Lizard | | |
| <i>Cosymbotus platyurus</i> | Flat-bodied House Gecko | X | |
| <i>Cyrtodactylus annulatus</i> * | Small Bent-toed Gecko | | |
| <i>Cyrtodactylus philippinicus</i> * | Philippine Bent-toed Gecko | O | |
| <i>Gehyra mutilata</i> | Tender-skinned House Gecko | O | |
| <i>Gekko gekko</i> | Toko Narrow-disked Gecko | X | |
| <i>Gekko mindorensis</i> | Mindoro Narrow-disked Gecko | | |
| <i>Hemidactylus frenatus</i> | Common House Gecko | O | |
| <i>Hemidactylus garnoti</i> | Large Hemidactylid Gecko | | |
| <i>Hemiphyllodactylus typus</i> | Small Smooth-scaled Gecko | | |

| SCIENTIFIC NAME | COMMON NAME | NNNP | 2009 IUCN Status |
|---|---|------|------------------|
| <i>Lepidodactylus christiani</i> *** | Negros Broad-tailed Smooth-scaled Gecko | | |
| <i>Lepidodactylus herrei herrei</i> * | White-lined Smooth-scaled Gecko | | |
| <i>Lepidodactylus lugubris</i> | Mangrove Smooth-scaled Gecko | | |
| <i>Luperosaurus cornfield</i> ** | | | |
| <i>Luperosaurus cumingi</i> * | Cuming's Flap-legged Gecko | | |
| <i>Pseudogekko brevipes</i> * | Orange-spotted Smooth-scaled Gecko | | |
| <i>Brahymeles boulengeri taylori</i> * | Common Burrowing Skink | | |
| <i>Brachymeles talinis</i> * | Large Striped Burrowing Skink | | |
| <i>Brachymeles tridactylus</i> * | Negros Three-digit Worm Skink | | |
| <i>Lamprolepis smaragdina</i> | Spotted Green Tree Skink | X | |
| <i>Emoia atrocostata</i> | Gray Swamp Skink | | |
| <i>Lipinia auriculata</i> * | Bronze Slender Tree Skink | | |
| <i>Lipinia pulchellum taylori</i> * | Yellow-striped Slender Tree Skink | | |
| <i>Lipinia rabori</i> * | Black Slender Tree Skink | | |
| <i>Lipinia quadrivittata</i> * | Black-striped Slender Tree Skink | | |
| <i>Eutropis (Mabuya) indeprensa</i> * | Mabouya | | |
| <i>Eutropis (Mabuya) multicarinata borealis</i> | Two-striped Mabouya | X | |
| <i>Eutropis (Mabuya) multifasciata</i> | Common Mabouya | X | |
| <i>Sphenomorphus arborens</i> * | Negros Sphenomorphus | | |
| <i>Sphenomorphus jagori grandis</i> * | Jagor's Sphenomorphus | | |
| <i>Sphenomorphus steerei</i> * | Steere's Sphenomorphus | X | |
| <i>Tropidophorus grayi</i> * | Spiny Waterside Skink | | |
| <i>Varanus nuchalis</i> * | Variable Monitor Lizard | O | NT |
| <i>Acrochordidae granulatus</i> | Small Wart Snake | | |
| <i>Ahaetulla prasina preocularis</i> | Elongate-headed Tree Snake | X | |
| <i>Boiga angulata</i> * | Philippine Blunt-headed Tree Snake | | |
| <i>Calamaria gervaisi iridescens</i> * | Gervais' Worm Snake | | |
| <i>Cerberus (Hurria) rynchops</i> | Dog-faced Water Snake | | |
| <i>Chrysopelea paradisi</i> | Paradise Snake | | |
| <i>Cyclocorus lineatus alcalai</i> * | Northern Triangle-spotted Snake | | |
| <i>Dendrelaphis caudolineatus terrificus</i> * | Lined Slender Arboreal Snake | | |
| <i>Dendrelaphis pictus</i> | Common Bronze-backed Snake | | |
| <i>Dryophiops philippina</i> * | Philippine Dryophiops | | |
| <i>Elaphe erythrura psephenoura</i> * | Common Rat Snake | | |
| <i>Gonyosoma oxycephala</i> * | Arboreal Rat Snake | | |
| <i>Lycodon aulicus capucinus</i> | Common Wolf Snake | O | |

| SCIENTIFIC NAME | COMMON NAME | NNNP | 2009 IUCN Status |
|---|---------------------------------------|------|------------------|
| <i>Oligodon modestum</i> * | Spotted-bellied Short-headed Snake | | |
| <i>Oxyrhabdium leporinum visayanum</i> * | Banded Philippine Burrowing Snake | | |
| <i>Oxyrhabdium modestum</i> * | Non-banded Philippine Burrowing Snake | | |
| <i>Psammodynastes pulverulentus</i> | Dark-spotted Mock Viper | X | |
| <i>Pseudorabdion mcnamarae</i> * | Mcnamara's Burrowing Snake | | |
| <i>Pseudorabdion montanum</i> *** | Mountain Burrowing Snake | | |
| <i>Pseudorabdion oxycephalum</i> * | Negros Light-scaled Burrowing Snake | | |
| <i>Tropidonophis negrosensis</i> | Spotted Water Snake | | |
| <i>Zaocys luzonensis</i> * | Smooth-scaled Mountain Rat Snake | O | |
| <i>Calliophis calligaster gemianulis</i> ** | Barred Coral Snake | | |
| <i>Ophiophagus hannah</i> | King Cobra | | |
| <i>Python reticulatus</i> | Reticulated Python | O | |
| <i>Trimeresurus wagleri</i> | Wagler's Pit Viper | | |
| <i>Rhamphotyphlops brahminus</i> | Brahminy Blind Snake | | |
| <i>Typhlops canlaonensis</i> *** | Canlaon Blind Snake | | |
| <i>Typhlops cumingi</i> | Cuming's Blind Snake | | |
| <i>Typhlops luzonensis</i> * | Luzon Blind Snake | | |
| <i>Cuora amboinensis</i> | Malayan Freshwater Turtle | | V |
| <i>Crocodylus mindorensis</i> * | Philippine Crocodile | | CE |

IUCN - International Union for the Conservation of Nature and Natural Resources

X – Species recorded in the study areas

O – Species recorded within the NNNP

Ethno – Ethnobiological interview

Philippine endemic*

Negros-Panay endemic**

Negros Island endemic***

Appendix 4. List of tree species recorded in North Negros Natural Park by Hamman *et al.*, 1999.

| Family | Species |
|------------------|---|
| Aceraceae | <i>Acer niveum</i> Bl. |
| Actinidiaceae | <i>Saurauia polysperma</i> (Blco.) Merr |
| Anacardiaceae | <i>Semecarpus glauciphyllus</i> Elm. |
| Araliaceae | <i>Schefflera octophyllum</i> (Thunb.) Nakai |
| Araucariaceae | <i>Agathis philippinensis</i> Warb. |
| Burseraceae | <i>Canarium asperum</i> Bth. |
| | <i>Canarium villosum</i> Bth. & Hook |
| Celastraceae | <i>Siphonodon celastrineus</i> Griff. |
| Compositae | <i>Vernonia arborea</i> Buch.-Ham. |
| Cunoniaceae | <i>Caldcluvia celebica</i> (Bl.) Hoogl. |
| | <i>Weinmania camiguinensis</i> Elm. |
| Dilleniaceae | <i>Dillenia philippinensis</i> Rolfe |
| | <i>Dillenia reifferscheidia</i> Elm. |
| Dipterocarpaceae | <i>Parashorea malaanoan</i> (Blco.) Merr. |
| | <i>Shorea contorta</i> Vid. |
| | <i>Shorea almon</i> Foxw. |
| | <i>Shorea polysperma</i> (Blco.) Merr. |
| Elaeocarpaceae | <i>Elaeocarpus cumingii</i> Turcz. |
| | <i>Elaeocarpus</i> sp. 15 |
| Euphorbiaceae | <i>Bischhofia javanica</i> Bl. |
| | <i>Claoxylon brachyandrum</i> Pax & Hofm. |
| | <i>Homalanthus alpinus</i> Elm. |
| | <i>Homalanthus rotundifolius</i> Merr. |
| | <i>Macaranga bicolor</i> Muell.-Arg. |
| | <i>Macaranga tanarius</i> (L.) M.A. |
| | <i>Macaranga</i> sp. 03 |
| | <i>Mallotus molissima</i> (Geisel) A. Shaw |
| Fagaceae | <i>Lithocarpus</i> sp. 17 |
| Guttiferae | <i>Calophyllum blancoi</i> Pl. & Tr. |
| | <i>Garcinia binucao</i> Merr. |
| | <i>Garcinia brevirostris</i> Merr. |
| | <i>Garcinia</i> sp. 22 |
| Icainaceae | <i>Platea excelsa</i> Bl. var. <i>borneensis</i> (Heine) Sleum. |
| Lauraceae | <i>Actinodaphne</i> sp. 01 |
| | <i>Cinnamomum mercadoi</i> |
| | <i>Litsea luzonica</i> F.-Vill. |
| | <i>Litsea quercoides</i> Elm. |
| | <i>Litsea tomentosa</i> Bl. |
| | <i>Litsea</i> sp. 40 |
| Leguminosae | <i>Archidendron clypearia</i> (Jack) Nielsen |

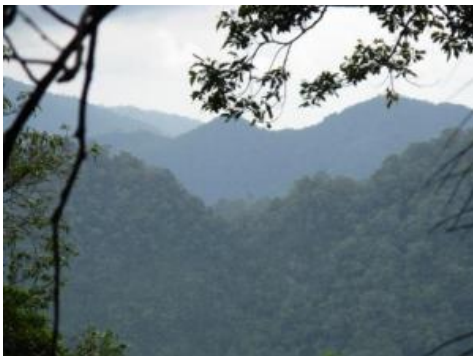
| | |
|---------------|---|
| Loganiaceae | Fagraea ceilanica Thunb. |
| Melastomaceae | Astronia stapfii Kord. |
| | Memecylon brachybotris Merr. |
| | Memecylon cumingii Naud. |
| | Memecylon lanceolatum Blco. |
| | Memecylon sp. 09 |
| Meliaceae | Aglaia rimosa (Bl.) Merr. |
| | sp. 04 |
| Moraceae | Ficus benjamina L. |
| | Ficus congesta Roxb. |
| | Ficus chrysolepis |
| | Ficus heteropleura Bl. |
| | Ficus heteropoda Miq. |
| | Ficus irisana Elm. |
| | Ficus minahassae Miq. |
| | Ficus septica Burm. f. |
| | Ficus ulmifolia Lam. |
| | Ficus variegata Bl. |
| | Ficus sp. 18 |
| | Ficus sp. 19 |
| | Strebus glaber (Merr.) Corner |
| Myristicaceae | Myristica ceylanica A. DC. |
| Myrtaceae | Syzygium garciae (Merr.) Merr. & Perr. |
| | Syzygium gracile (Korth.) Amsh. |
| | Syzygium sp. 27 |
| | Syzygium sp. 67 |
| Podocarpaceae | Podocarpus imbricatus Foxw. |
| Polygalaceae | Xantophyllum discolor Chodat. |
| Rhamnaceae | Alphitonia excelsa (Fenzl) Reiss. ex. End |
| Rosaceae | Prunus fragrans (Elm.) Kalkm. |
| Rubiaceae | Nauclea lanzeolata (Bl.) Merr. var. gracilis Ridsd. |
| | Neonauclea calycina (Bartl.) Merr. |
| | Neonauclea sp. 10 |
| | sp. 02 |
| | sp. 13 |
| Rutaceae | Melicope triphylla (Lam.) Merr. |
| Sapindaceae | Guioa pleuropteris (Bl.) Radlk. |
| | Pometia pinnata J.R. & G. Forst |
| Sapotaceae | Palaquium sp. 85 |
| | Palaquium sp. 33 |
| | Pouteria sp. 30 |
| Saxifragaceae | Polyosma verticilliata Merr. |

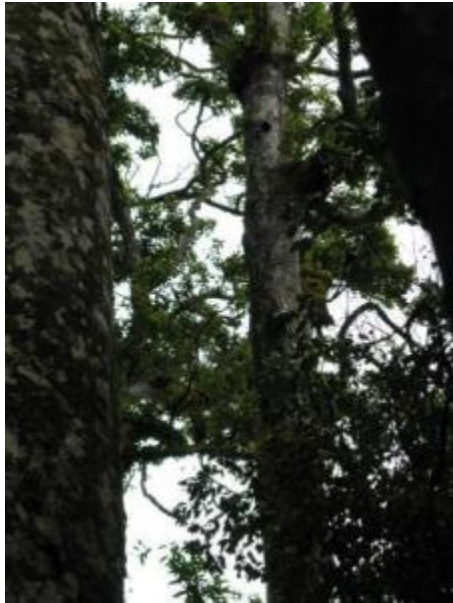
| | |
|---------------|---|
| Staphyliaceae | <i>Turpinia ovalifolia</i> Elm. |
| Symlocaceae | <i>Symplocos cochinchinensis</i> (Lour.) Moore ssp. <i>cochinchinensis</i> var. <i>philippinensis</i> |
| | <i>Symplocos ophirensis</i> Clarke |
| Theaceae | <i>Eurya acuminata</i> D.C. |
| | <i>Ternstroemia megacarpa</i> Merr. |
| Tiliaceae | <i>Microcus stylocarpa</i> (Warb.) Burret |
| | <i>Grewia multiflora</i> Juss. |
| Urticaceae | <i>Dendrocine stimulans</i> (L.f.) Chew |
| | <i>Leucosyke capitellana</i> (Poir.) Wedd. |
| Verbenaceae | <i>Clerodendron brachyanthum</i> Schauer |

ANNEX

Photo-documentation

Plants, Habitats and Landscapes of North Negros Natural Park





Terrestrial vertebrate species of North Negros Natural Park



Platymantis corrugatus



Kaloula conjuncta negrosensis



Platymantis dorsalis



Occidozyga laevis



Dicaeum trigonostigma



Rhipidura cyaniceps



Sitta frontalis



Hypsipetes philippinus



Haplonycteris fischeri



Nyctimene rabori



Harpyionycteris whiteheadi



Ahaetulla prasina prasina



Psammodynastes pulverulentus

Some invertebrate species of NNNP



The team in the field



