

Haribon Foundation & BirdLife International

The State Of Philippine Birds



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The State Of Philippine Birds

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by Don Geoff Tabaranza

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FOREWORD

The Philippines is now on the cusp of becoming a global player in international trade and politics. It is also hoped that the country will play a key global role in the protection of the environment and all its living assets and resources.

Through this landmark publication, *The State of Philippine Birds*, Haribon Foundation and BirdLife International hope to increase not only awareness of the plight of Philippine avifauna but also compassion and empathy for these beautiful yet vulnerable creatures.

As a country, the Philippines is fortunate to be the home of several species of birds that can be considered endemic or found only locally. Recent discoveries of several species have led us only to strive harder to discover and protect the areas where these birds have been sighted. This diversity and wealth in terms of numbers (604 individual species as of 2012, according to Bird Life International) also puts it in a precarious situation, as many of these birds are already classified under various levels of vulnerability and endangerment. Through the destruction of the birds' natural habitat, irreverent poaching, hunting and illegal trade, we at Haribon cannot think but be worried on a daily basis on how we could catch up and help abate these human-directed activities, in order to somehow allow the species to flourish and multiply in the soonest time possible.

Our longstanding partnership with BirdLife International has helped us in attaining this goal. In 1999, a collaborative publication called *Threatened Birds of the Philippines* helped establish baseline information on threatened birds and conservation needs and targets. Fifteen years later, the two organizations affirm their commitment to protect Philippine avifauna with this publication, with the hope that now, more than ever, is the opportune time to assess our attitudes and direct our actions towards more favorable results in order to safeguard these creatures.

May this book remind us that all Philippine birds, of whatever color of feather, sound or birdcall, deserve a place to survive and thrive here on Earth and in our country.


John Philip J. Lesaca
Chair
Haribon Foundation



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FOREWORD

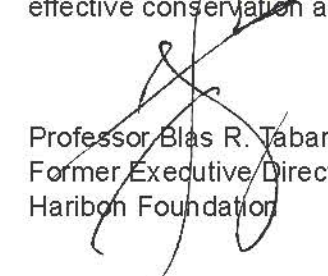
In 1994, during the first BirdLife International's World Conference in Rosenheim, Germany, the importance of the Philippines was somehow highlighted. The BirdLife's *Birds to Watch 1994* book identified the Philippines as the most important country for bird conservation because it ranked highest among the assessed countries in terms of the number of endemic and threatened bird species in the upper two categories of endangerment. Obviously this was not an honor for us and our country, and it behooved BirdLife and Haribon to do something about it. We started working then on the country's Red Data Book (RDB) on birds (N.B. a first for a country, as the previous RDBs were all continental RDBs e.g. RDB of Africa, RDB of Europe.) which was published in 1999 as the *Threatened Birds of the Philippines - the Haribon - BirdLife's RDB*. Identified as the most important threat then was forest loss or the destruction of bird's habitats due to logging, kaingin agriculture etc. made worse by the very low environmental awareness of the people.

Clearly then, the Philippines was in terrible shape environmentally using the birds as the indicators of the health of its natural ecosystems. On account of this recognition by the global community of conservationists, numerous conservation actions had been undertaken by the Philippine government, NGOs and other institutions funded by generous funders from all over. But have we done enough to improve our birds conservation status?

Now, almost two decades after the historic World Conference, publication of *Birds to Watch 1994*, and *Threatened Birds of the Philippines* (1999) we are looking back to see if there are gains we can be proud of. Of course, despite the continuing commercial logging in natural forests coupled with illegal logging and kaingin, we can bashfully claim that we have made modest bits of success here and there. But even before we can say "we've made a difference!", a new but more devastating threat is already upon us --- Climate Change! Many people are already aware of this.

While we have become familiar with the direct impact of forest loss on birds, we don't, as yet, clearly know or understand how climate change will affect the birds status. There is no debate that our birds today on account of climate change face the threat of changing marine ecosystems, rising sea levels, erratic and more nasty storms, unpredictable rains and droughts, changing phenology of plants and novel diseases. But man now seem to be more concerned about how he can save himself in the face of all the calamities and disasters wrought upon him by climate change. Still we need to do something for the birds because they might not survive if we let them alone. At least we must do something about the birds changing or shifting climate envelopes.

This report is simply reminding us that we still have to do more for the birds....more effective conservation actions in the light of compounding threats!


Professor Blas R. Tabaranza Jr.
Former Executive Director
Haribon Foundation



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Message of Support

The Philippines, as a Party to the Convention on Biological Diversity, is prioritizing biodiversity conservation through Presidential Proclamation No. 178, declaring the years 2011-2020 as the National Decade on Biodiversity. The Proclamation enjoins all branches and agencies of the government to initiate activities in promoting the biodiversity decade with the Department of Environment and Natural Resources.

The Philippines, as active party also of the UN Framework Convention on Climate Change and the UN Convention to Combat Desertification - has formulated and developed the following national plan of actions: 1) the National Biodiversity Strategy and Action Plan and its second iteration, the Philippine Biodiversity Conservation Priorities, 2) the National Climate Change Action Plan, and 3) the National Action Plan to Combat Desertification, Land Degradation and Drought. These national plans work in synergy to address cross-cutting concerns on biodiversity, climate change, and land degradation. They integrate actions of key players in society and the government, and contribute to the sustainable development and inclusive growth of the country.

This publication of the State of the Philippine Bird by the Haribon Foundation further contributes to all these national efforts to conserve the Philippine biodiversity. It does not only provide an up to date information about the changing state of Philippine birds, but also motivates and inspires both Filipino and international bird enthusiasts to take part in promoting the welfare of the country's great avian heritage, aptly symbolized by the country's incredible national bird, the Philippine Eagle.

Let this State of the Philippine Birds Report help us achieve our goal of conserving our country's biodiversity; let it save our threatened species of birds from becoming extinct.

Ramon J. P. Paje
Secretary
Department of Environment and Natural Resources



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Message of Support

Diversity of birds in the Philippines is among the highest in the world. There are over 600 birds species described in the Philippines and new discoveries are continuously adding to the list. Alongside being a center of avian diversity, our country is also a biodiversity hotspot in terms of conservation needs due to a high number of species threatened to extinction.

Our feathered Philippine icons play important roles in balancing the ecosystem. They serve as pollinators and seed dispersers, greatly contributing to the regeneration of natural forests, which ensures continuous supply of basic ecosystem services, such as, clean air and water. Birds can also represent a primary focus for economic development through international tourism. They hold the potential for huge international visitation rates through the global birding community. International birding is considered as among the top nature-based activities globally.

As the Philippines develops tourism infrastructure, we must be tenacious in protecting our avian assets to promote our cultural, ecological and national integrity. We have had the opportunity to see the consequences of runaway development resulting in unsustainable environmental practices and climate change. The Philippines, therefore, can make a difference by conserving our natural heritage.

The State of the Philippine Birds provides important information for policy development and better decision making. This book will help raise awareness, appreciation and aid in developing better strategies for the conservation of birds of the Philippines.

Theresa Mundita S. Lim
Director
Biodiversity Management Bureau



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PREFACE

The rich and diverse avian heritage of the Philippines is globally significant. Not only is it highly ranked in terms of bird diversity, it is also well known for the presence of numerous endemic species. However, the endemic birds of the Philippines are currently under extreme pressure from loss of habitat and other threats that increase their risk of extinctions. Not only is the preservation of the Philippines' avian heritage important for a balanced environment, but birds also can serve as aesthetic icons of nature and sustainability. The information in this book is focused on supporting Filipinos and other stakeholders on ways to help plan more effective and inclusive conservation strategies for these species and our future generations.

In 1999, Haribon Foundation and BirdLife International made the first assessment of the threat status of Philippine birds in the book entitled *Threatened Birds of the Philippines*. The Red List established baseline information on threatened birds and conservation needs. More than a decade has passed since then and it is time we update the Philippine birds' current status to bring forward conservation efforts and actions. This report provides current information on the status, threats and conservation status of threatened birds of the Philippines. It includes not only case studies on specific threatened species but also examples and suggestions to create broader participation in Philippine avian conservation.

We hope that the State of the Philippine Birds will increase awareness and understanding of this unique avian biodiversity at many levels—the public, conservation groups and policy makers. This book also identifies major threats or pressures on this rich heritage and provides examples of action oriented solutions for conserving our birds, our heritage and our common global future. The updated information in the book intends to aid government in formulating a more relevant National Biodiversity Strategic Action Plan.

Finally, and perhaps most importantly, this book aims to provide the necessary baseline information that will be useful in tracking progress towards achieving global and national biodiversity conservation targets.



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Special kudos goes to Dr. Arne Jensen who provided significant technical information and magnanimously offered technical advice when the book was near completion.

We are grateful to several Haribon Staff for their steadfast support and assistance with the final production of this book: Kevin Carlo Artiaga, Laurence Robles, Don Geoff Tabaranza, Nove Jun Calawigan, Lira Canals, Noel Resurreccion, Thaddeus Martinez, Astrid Villanueva, Albert Balbutin Jr. and Anabelle Plantilla. In addition, we extend our sincerest thanks and admiration to Professor Blas Tabaranza Jr. for his invaluable advice, support and encouragement and for the insightful foreword which motivated us to see this publication through to its completion. We also thank Dr. Margarita Lavides, Paul Watts, Aubrey Kate Cadangen, Tris Allinson and Deborah Villa who provided editing assistance.

Finally, we are grateful to Rolly Urriza, Klaus Nigge, Rodrigo Galay, Godfrey Jakosalem, Bram Demeulemeester, Peter Widmann, Arthur Quing, Nove Jun Calawigan, Luke Imbong, Kevin Carlo Artiaga, Laurence Robles, John Espiritu, Jean Habitan, Don Geoff Tabaranza, and Rey Sta. Ana who have given us permission to use their photographs.

State: What do we know about Philippine birds?

During the period 2001 to 2012, new birds have been sighted, recorded and described in various habitats across the Philippines. However, the general trend of bird populations inhabiting the numerous and diverse types of habitats around the country, is one of decline. This decline includes both endemic and globally threatened bird species. Pressures such as land use conversion have increased the Philippine avifaunal (bird) communities' risk of extinction with forest and wetland birds experiencing the highest level of threat.

Pressure: Why are Philippine birds declining?

As a country we need to understand the reasons for the decline in avifauna, so that appropriate actions can be taken. Philippine birds are declining due to a synergy of multiple factors, mostly of anthropogenic origin.

The loss of habitat is the major, though not exclusive, threat to Philippine birds found in forests and wetlands. Deforestation in the form of mining, logging and unsustainable practices are key pressures encountered by forest birds. The decline of wetland bird habitats is due to shore reclamations and conversion of wetlands to other uses.

Birds, whether endangered or not, are hunted for food, for sport, or are collected for commercial trade. Regardless of the rationale, unsustainable hunting in itself may lead to extinctions if not altered through awareness and strict regulations.

Agricultural areas with the potential to support many bird species - are poisoned because of indiscriminate use of pesticides and herbicides. In addition, avifauna are often hunted because of a misconception that all birds eat agricultural crops.

Probably one of the most potent threats to Philippine avian diversity is climate change. Increased temperatures may render habitats unsuitable thus, effectively reducing areas for restricted-range birds. While the world as a whole is challenged by looming climate change, the conservation of Philippine birds must be led by a national agenda.

RESPONSE: What has been done?

Why save birds? They are fun to watch, they feed on harmful pests in agricultural areas, they are pollinators and seed dispersers, they are scavengers and they determine environmental health because of their conspicuousness and sensitivity to environmental change. There are extensive information and studies about birds which are easily accessible. The protection of birds is beneficial to an ecosystem as a whole. If a bird species is conserved throughout its range, many other wildlife species will be conserved as well.

Given the 20th century development focus in the Philippines, conservation strategies for birds were not well considered. The conservation of Philippine birds jumped forward within the national agenda with the identification of the Important Bird Areas (IBAs) in the Philippines. IBAs were further developed into Key Biodiversity Areas (KBAs) to incorporate other threatened wildlife aside from birds. This process guided national government agencies, lawmakers, local governments and environmental organizations in prioritizing sites for conservation thus, conserving not just birds but Philippine biodiversity as a whole.

There are now ongoing projects that promote participatory multi-stakeholder approaches that include local government units, indigenous peoples, people's organizations, NGOs, and the private sector. These include the DENR-led UNDP-GEF funded initiatives like the New Conservation Areas in the Philippines Project (NEWCAPP) and the Biodiversity Partnerships Project (BPP). Further, the BirdLife-supported Species Champions and Guardians help prevent the extinction of Critically Endangered birds—for example, Philippine Eagle *Pithecophaga jefferyi* and Cebu Flowerpecker *Dicaeum quadricolor*—through funding and effective conservation actions. Recently, initiatives that focus on scaling up these positive actions and creating a national level conservation strategy have also been undertaken through the conduct of a series of workshops that provide inputs for the formulation of the Philippines' National Biodiversity Strategic Action Plan.

Encouraging Sustainability

- Actively engage local participation in monitoring Important Bird Areas (IBAs) to obtain up-to-date information on the state, threats and conservation actions that are in place for advocacy actions.
- Promote the effective protection of IBAs such as the Zambales Mountain Range, Mt. Siburan in Sablayan Occidental Mindoro, and Central Panay Mountain Range.
- Develop new protected area models, build capacity for effective management of natural resources and assist local government units in critical eco-regions in the Philippines.
- Establish a critical habitat for the conservation and management of globally significant biodiversity in the Central Panay Mountain Range.

Saving Species

- Establish and maintain a nursery of native tree species for forest restoration.
- Facilitate and implement conservation activities in collaboration with partner organizations for selected bird species such as the Cebu Flowerpecker and the Philippine Eagle.
- Conduct purposive surveys to guide policies and actions for threatened bird species such as the Mindoro Bleeding-heart Pigeon *Gallicolumba platenae*, Mindoro Tarctic Hornbill *Penelopides mindorensis*, Mindoro Imperial Pigeon *Ducula mindorensis*, Black-hooded Coucal *Centropus steerii*, Visayan Tarctic Hornbill *Penelopides panini*, Walden's Hornbill *Aceros waldeni* and the Sulu Bleeding-heart Pigeon *Gallicolumba menagei*.

Conserving Sites and Habitats

- Support forest restoration efforts of forest-dependent communities and improve their rural livelihood system in Mangatarem, Pangasinan.
- Restore portions of the Manleluag Spring Protected Landscape in Mangatarem, Pangasinan, and denuded forestlands in Palbong and Batong-buhay in Sablayan, Occidental Mindoro and in Caliraya, Laguna, using rainforestation technology.
- Deepen understanding of local stakeholders on biodiversity, climate change and forest management and build their capacity on forest management and sustainable livelihood technologies.

Empowering people

- Conduct trainings on Environment Conservation specifically on Biodiversity Conservation and Climate Change, Rainforestation, Eco-Leadership through lectures, environmental camps, exhibits and Biodiversity on Wheels.
- Strengthen law enforcement through environmental law orientations and paralegal trainings to raise the awareness on current regulations regarding environmental protection.
- Increase capabilities of people's organizations through organizational and financial management trainings and project development and strategic planning workshops.
- Promote sustainable and environment-friendly livelihood activities such as bio-intensive gardening, organic agriculture and agro-forestry.

Vulnerable Ashy Thrush
by Rodrigo Galay

The Philippines is home to a rich diversity of resident and migrating birds

The Philippines is known for its rich avifaunal diversity. It is home to over 600 species - about 6% of the world's known birds. Almost one third of the species described in the Philippines are endemic proving the country's high rate of avifaunal endemism. Almost the entire country is considered as an Endemic Bird Area because of the high rate of Endemism.

The Philippines is a Megadiverse country

The Philippine archipelago has a land area of 300,000 km² (0.2% of the world's total land mass) of which more than 7% has been declared as Important Bird Areas or IBAs (BirdLife International 2004). IBAs are areas that are important for the conservation of birds in a global scale. The Philippine avifauna accounts for about 6% of the world's bird species (BirdLife International 2004). There are over 600 species of birds in the Philippines and around 200 are country endemics. From 2001 to 2012, new records reported by ornithologists, photographers, and birders add more species in the ever growing checklist of Philippine Birds.



Vulnerable Philippine Duck
by Rodrigo Galay

ENDEMIC BIRD AREAS ARE HOME OF UNIQUE BIRDS

Endemic Bird Areas are home to two or more restricted ranged species while Secondary Areas are those with only one. There are currently 7 Endemic Bird Areas and 3 Secondary Areas in the Philippines. As of this writing, 206 endemic birds in the Philippines have been identified, which are 32.2% of the avifaunal diversity of the country (BirdLife 2012 and IUCN 2012).

Endemic Bird Areas^a and Secondary Areas^b of The Philippines

- Luzon
- Mindoro
- Negros and Panay
- Cebu
- Eastern Visayas and Mindanao
- Palawan
- Sulu Archipelago
- Batanes and Babuyan Islands
- Tablas Romblon and Sibuyan Islands
- Siquijor Island



Many Birds are found only in the Philippines because of its diverse habitats

The Philippines is home to a huge diversity of habitats for birds. As a result, the level of avifaunal endemism in the country is very high.

Overall, the natural habitat seen throughout the country is tropical forest, which include lower and upper montane rainforests, montane pine forests, peat swamp forests and mangrove forests along the coast. Forests are critical for avian conservation in the Philippines, providing birds with food, shelter, nest sites and protection. Forests are also the most important habitat for majority of the threatened birds in the Philippines, many of which are highly dependent on intact forest ecosystems.

There are birds that are confined in certain islands or groups of islands within the archipelago (called restricted-range species). Restricted-range species are good representatives to gauge the well-being of an ecosystem because they are bound by the geographical features of their habitat which makes them easier to monitor.

THE PHILIPPINES IS AN AVIAN DIVERSITY HOTSPOT

Of all the Important Bird Areas in the Philippines
 115 Support Globally Threatened Species
 106 Support Restricted Range Species
 14 Support Congregation of Water Birds
 2 Support Congregation of Sea Birds

Wetlands, stemming from freshwater and saltwater, are numerous in the Philippines. These include lakes, ponds, inland and coastal marshes and swamps and mangrove swamps (DENR-PAWB 2005). Philippine wetlands are used as resting and staging sites for foraging, breeding for local birds; during winter in temperate regions, they also support large flocks of migratory water birds, specifically birds from northeast Asia.

Agricultural areas are also important habitats and serve as a source of food for a large number of birds in the Philippines. They provide crops for foraging and associated invertebrates and small mammals for birds to prey upon, thus sustaining the food source for specific birds to survive even in a highly human-modified ecosystem. Some birds have adapted to living in agricultural areas in the past centuries due to the extensive agricultural processes carried out in the country.



Coppersmith Barbet
by Rey Sta. Ana

New bird species are continuously being discovered

*There are several
new records of
bird sightings in
the Philippines and
experts continuously
discover more.
Numerous species
have been described
since 1999 and splits
in taxonomy mainly
contribute to the
increase in the number
of Philippine Bird
Species.*

A decade of new species

In the past 12 years, there have been several new records of birds in the Philippines. These records increased the total count of Philippine Birds from 572 (Kennedy *et al.* 2000) to 604 (Birdlife International, 2012). The archipelagic nature of the country contributes to the high endemism and rich number of bird species. Strategic planning is needed for the conservation of these new species as well as species that have yet to be discovered.

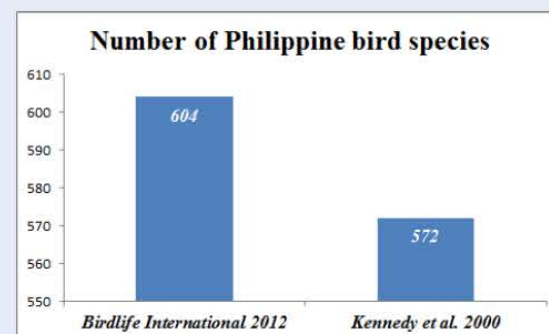
Species splits highly contribute to the increase in the number of bird species in the Philippines. Recent investigations warrant the split of several Philippine bird complex such as Philippine Hawk Owls. The Cebu Hawk Owl and Camiguin Hawk Owl are among the new species suggested to be split from the Philippine Hawk Owl Complex.

Cebu Hawk-owl
by Godfrey Jakosalem



NEW BIRDS SPECIES ARE BEING DISCOVERED

There are several new species recently sighted and identified in the Philippines. Of these, most are the result of the splits in taxonomy while others are new documented records by ornithologists, bird experts, bird watchers and photographers.



Camiguin Hawk-owl

*A recently described
Hawk-Owl endemic to
Camiguin Sur*



Camiguin Hawk-owl
by Bram Demeulemeester

The increase in the number of threatened birds is alarming as the discovery of new endemic bird species continues

New endemic bird species are continuously being discovered in the country. As the number of endemic birds increase, there is a simultaneous increase in the number of threatened birds. Splits in taxonomy would lead to the automatic categorization of the new species to threatened status because they are restricted to their respective range.

Discovery of New Endemic Species

Newly described species comprise the bulk of new records in the country. Rasmussen et al. (2012) recommended that the Philippine Hawk Owl *Ninox philippensis* complex be reconsidered because of the striking differences in morphology and the vocal divergence in hawk-owls found in different islands. It was therefore suggested that the Philippine Hawk Owl be split into eight species. Aside from a taxonomic split proposal for the Philippine Hawk Owls, two new species have also been described: the Camiguin Hawk-owl *Ninox leventisi* and the Cebu Hawk-owl *Ninox rumseyi*. In 2004, Allen et al. (2006) identified a new species of rail, the Calayan Rail *Gallirallus calayanensis* in Calayan Island of Cagayan Province. The Calayan Rail is classified as Vulnerable. Tello et al. (2006) also described a new species of Hanging-parrot *Loriculus camiguinensis* in Camiguin Province.

Prolonged and extensive surveys of islands have updated the distribution records of different birds of the Philippines. Birds that were not previously seen in an area are discovered through these surveys. Allen et al. (2006), for example, documented 97 bird species in Tablas Island in Romblon Province, 23 of which were new discoveries on the island. Five of the recorded species were classified as globally threatened and nearly threatened, namely: Philippine Duck *Anas luzonica* (Vulnerable), Blue-naped Parrot *Tanygnathus lucionensis* (Near Threatened), Mantanani Scops Owl *Otus mantanensis* (Near Threatened), Rufous-lored Kingfisher *Todiramphus winchelli* (Vulnerable) and Streak-breasted Bulbul *Ixos siquijorensis* (Endangered). The new discoveries on the island indicate a 20% increase in the island's known-birds. One species that was previously noted as a resident bird of the island was the Philippine Cockatoo *Cacatua haematuropygia*—considered Critically Endangered. The study was not able to verify the continued survival of the species although some areas were marked by the Philippines' Department of Environment and Natural Resources (DENR) as forests to be surveyed.

Philippine birders have recorded several new sightings of vagrant birds in the country. The Wild Birds Club of the Philippines (WBCP) and bird enthusiasts are among those who document the sightings of these birds in different areas in the Philippines. A notable species sighted by bird enthusiasts is the Dalmatian Pelican *Pelecanus crispus* which was documented in Barangay Imelda, MacArthur, Leyte (Viojan 2009). The said species is considered Vulnerable to extinction and is found in mainland Asia and in East Asia. The East Asian population of the species is threatened by hunting (IUCN 2012). Studies and sightings are continuously being published which contributes to the on-going effort to document the avian diversity of the Philippines.

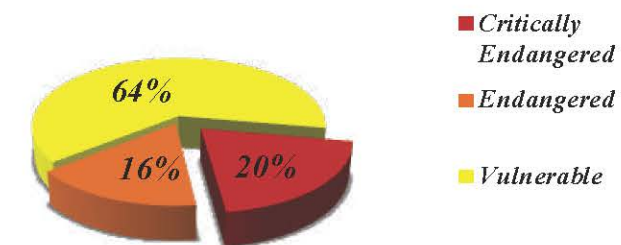


Vulnerable
Palawan Peacock
Pheasant
by Rey Sta. Ana

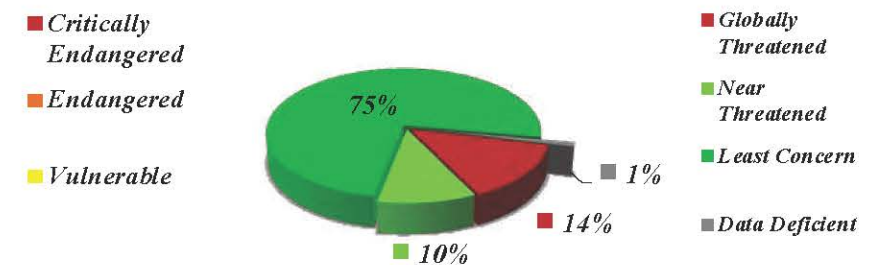
Increase in the number of threatened species

The first assessment of the threat status of birds found in the Philippines was done in 1999. The *Threatened Birds of the Philippines* by Collar et al. (1999) assessed 74 birds that were threatened with extinction of which 59 of them were country endemics, 6 regular visitors, and 9 vagrants. BirdLife International and IUCN have reassessed the threatened birds in the Philippines in 2012 and have identified 84 birds that are threatened with extinction of which 62 are country endemics, 15 are regular visitors, 5 are vagrants and 2 are undetermined.

IUCN Red List Status of Globally Threatened Birds



IUCN Red List Status of Philippine Birds



There is a significant increase in the number of Globally Threatened Species in the Philippines. The comparison of the 1999 and the 2012 list of globally threatened birds shows that 2 birds were added in the Critically Endangered category, 2 in Endangered and 6 species in the Vulnerable category.

The number of threatened birds in the Philippines increased from 74 to 84 in just one and a half decade. There are currently 17 Critically Endangered, 14 Endangered, 53 Vulnerable and 6 Data Deficient species in the Philippines. There are several taxonomic splits that are currently being reviewed by BirdLife International and local experts which would definitely result to the increase in the number of threatened birds in the country. The rise in the number of threatened birds suggests that the natural environment of the Philippines is being modified in a dramatic manner. Immediate but carefully targeted intervention coupled with long term investment and management strategies are needed to prevent further loss of these birds, and overall, biodiversity in the country (Collar et al. 1999). The majority of the birds at risk are forest species, and by far, the most serious and pervasive threat is habitat destruction. Unsustainable hunting and trapping are also contributing factors. The most important intervention for conservation must be the absolute prohibition of human impact on primary lowland forests anywhere in the country (Collar et al. 1999).



Critically Endangered
Philippine Eagle
by J Kahlil Panopio

More bird populations exhibit a decreasing trend because of pressures

There is an increase in the number of bird species which is experiencing population decrease. There is also increasing number of species with unknown population trends as new birds are being discovered.

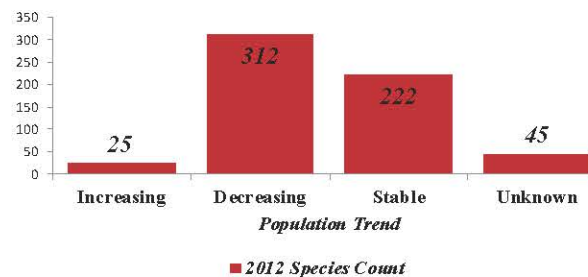
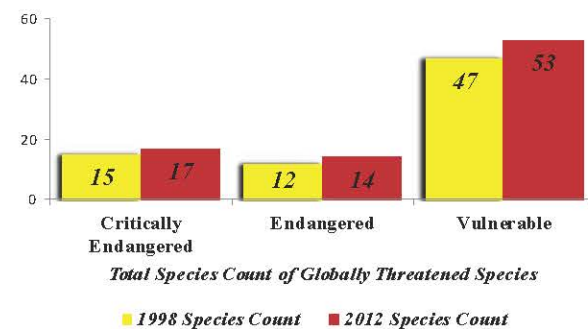
Decline in the population of Philippine birds

The number of species categorized as globally threatened has been slowly increasing over the past ten years. A decade ago, the total count of globally threatened species in the Philippines was 74 (see Appendix) (Collar *et al.* 1999) but recent updates have added 10 more species in the list of globally threatened species in the Philippines (IUCN 2012). Of these 10 species, 2 are Critically Endangered, 2 are Endangered and 6 are Vulnerable.

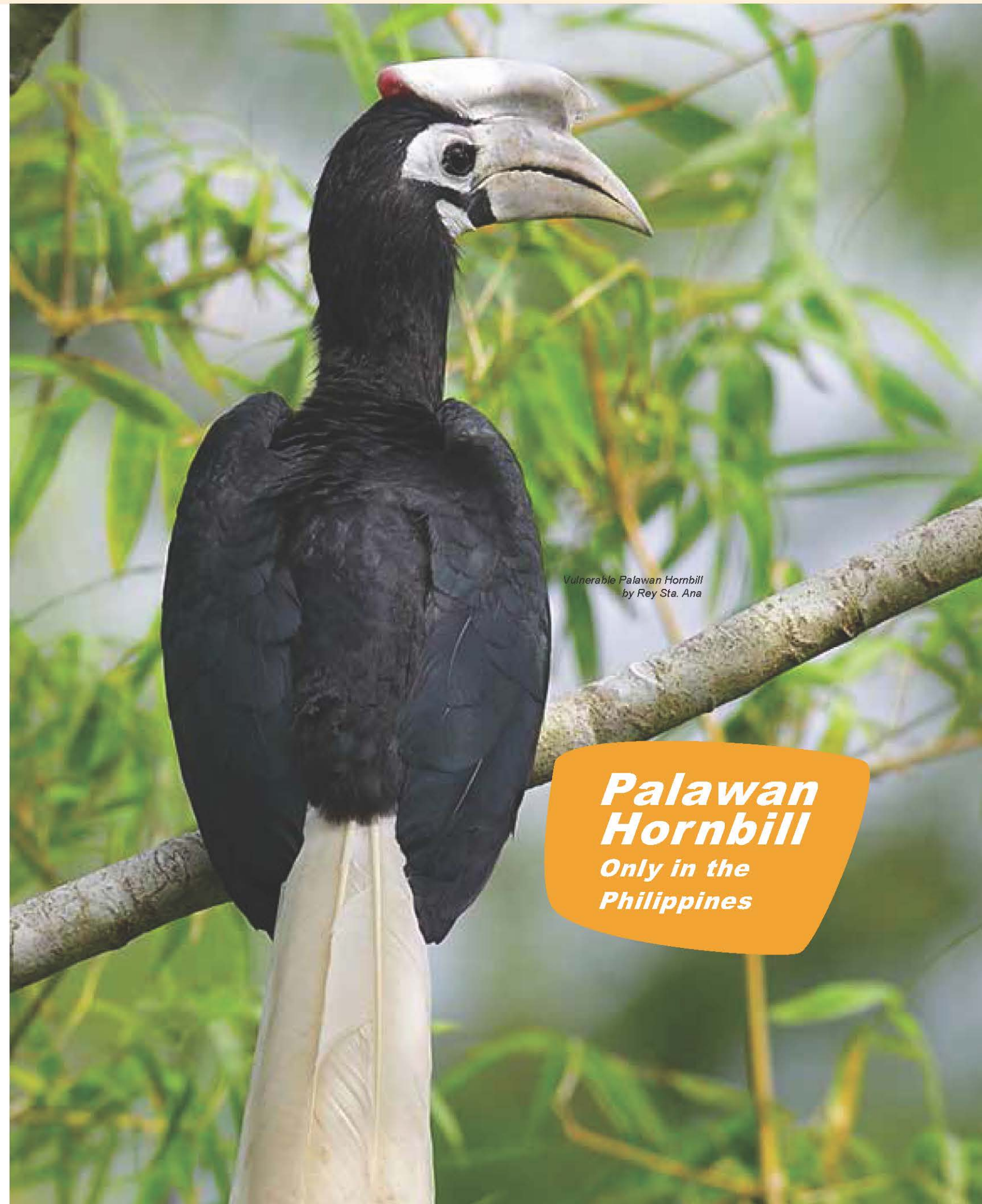
To estimate the changing trend of bird species populations, IUCN has classified them into four categories namely increasing, decreasing, stable and unknown.

Rough estimates made by IUCN (2012) reveal that around 50% of bird species in the Philippines have a decreasing population trend, 35% have a stable population, 10% have an unknown population trend, and 5% have an increasing population trend. The population of newly sighted and recorded birds in the Philippines contributed to the increase in number of species characterized with a decreasing population trend. There is a great need to establish population trends for the new sightings and species records to set baseline data for future monitoring and conservation efforts.

The Apo Myna *Basilornis mirandus* is an example of a species with an unknown population trend (IUCN 2012). Apo Mynas are Near Threatened endemic species with suitable habitats in Daggayan, Mt. Kitangland and Mt. Apo, Mindanao. The population size of the species is not yet quantified but it is described as common at some sites (Collar, *et al.* 1999). The habitats occupied by Apo-Mynas are secure because they are in rugged and inaccessible areas but some logging and clearings for agriculture may have occurred in lower parts of the elevation range. The measurement of population densities or at least the collection of systematic estimates is recommended to further understand this species and provide baseline for monitoring.



More bird populations exhibit a decreasing trend in terms of number and a lot of species have not yet been assessed.



Vulnerable Palawan Hornbill
by Rey Sta. Ana

**Palawan
Hornbill**
*Only in the
Philippines*

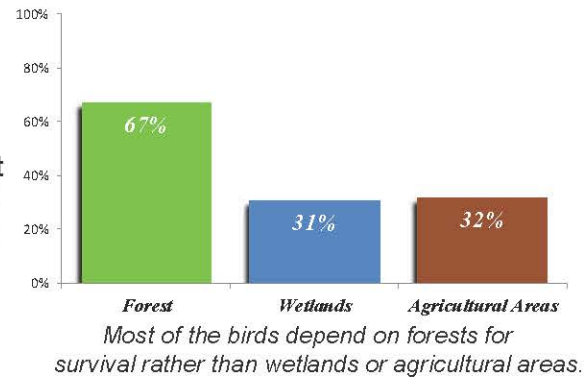
Birds are at risk from all types of Habitat

Birds depend on different types of habitat to survive. Forest is the most common source of food for majority of birds in the country. Wetlands and agricultural fields are also important areas for birds. Forest cover reduction, wetland conversion, agricultural run-offs, and pesticides are threatening birds in forests, wetlands and agricultural areas.

More at-risk forest birds

The natural habitat of most birds throughout the country is tropical forest. Around 67% of Philippine birds spend their life or part of their life in forests (IUCN 2012). Much of the tropical forest in the Philippines has been cleared out.

There are only a few patches of forest in the Philippines that are considered primary or pristine old growth. Based on the current trend in deforestation in the Philippines, forest birds are most at risk because of the number of threats that they encounter. Apart from logging, forest birds face a multitude of threats which include residential, commercial or industrial development, agriculture, aquaculture, mining and energy production, hunting, ecosystem modification, invasive species, pollution and climate change (IUCN 2012). Unless these activities are stopped or at the very least regulated, forest habitats will continue to dwindle and forest birds will face an increasing risk of extinction.



In peril: birds in wetlands

Wetlands are also among the most threatened ecosystem of the Philippines. This is a result of freshwater wetlands being converted for cultivation or drained, and reclamation of coastal wetlands for aquaculture and urban development. Many wetlands and the birds occurring there are also affected by pollution, overexploitation and hunting (BirdLife International 2004). Birds that live in wetlands or spend part of their time in wetlands are about 31% of the Philippine avifauna (WBCP 2009).

The conversion and loss of wetland habitats (including lakes, marshes, mudflats, mangroves and sea grass beds) is unprecedented. Their rates of habitat loss are comparable to those of the forest loss. As examples, in the largest of the Philippines freshwater wetlands, an estimated 50% of the 280,000 hectares of the Liguasan Marsh complex in Mindanao has been converted to rice fields (World Bank 2006), and Candaba Marsh on Luzon, once stretching more than 32,000 hectares, has been fully converted to agricultural lands (Haribon Foundation and BirdLife International 2001, BirdLife International 2004).

The massive decline in natural wetlands in combination with overexploitation and anthropogenic disturbances including hunting and collection of eggs, have contributed to both extirpation of species and dramatic declines in overwintering populations of water birds. Both Spot-billed Pelican *Pelecanus philippensis* and Sarus Crane *Grus antigone* were extirpated before World War II, and lately, in 1995, the last Masked Booby *Sula dactylatra* disappeared from its only known breeding site (Kennedy et al 2000, Jensen 2012). Overwintering populations of 30,000 Garganeys *Anas querquedula* recorded by bird

watchers in Candaba Marsh in the 1980s are now reduced to about 3,000 individuals (WBCP 2005-2010, Kennedy 2000, Jensen 2012, DENR-PAWB2012). Other resident wetland birds such as Woolly-necked Stork *Ciconia episcopus*, Glossy Ibis *Plegadis falcinellus*, Oriental Darter *Anhinga melanogaster* and Beach Thick-knee *Esacus magnirostris* have become extremely rare and they may be the next species to face extirpation.

Despite the grim situation for Philippine wetlands, there are still a large number of mainly smaller wetlands spread along the country's coastline. DENR-PAWB annually organizes counts of water birds in more than 150 wetlands, and 368,000 resident and migratory water birds were recorded in 2012 (DENR-PAWB 2012).

Twenty-eight species of egrets, ducks, shorebirds and terns occur in less than 30 wetlands in numbers of international importance. Seven globally threatened species associated with wetlands occur annually or regularly in the Philippine wetlands including: Christmas Island Frigatebird *Fregata andrewsi*, Chinese Egret *Egretta eulophotes*, Black-faced Spoonbill *Platalea minor*, Far Eastern Curlew *Numenius madagascariensis*, Nordmann's Greenshank *Tringa guttifer*, Great Knot *Calidris tenuirostris* and Streaked Reed-Warbler *Acrocephalus sorghophilus* (Jensen and Tan 2010, WBCP 2005-2010, IUCN 2012).

Adversity in avian biodiversity in agricultural areas

Agricultural areas are ecosystems heavily modified by humans. Although agricultural areas are not naturally occurring, birds have learned to adapt to the man-made ecosystem over time. Birds that depend on agricultural areas compose 37% of the birds in the Philippines as opposed to the 34% of birds dependent on wetland ecosystems (IUCN 2012).

Agricultural birds are threatened because local farmers consider them as pests and food and they are also subjected to hunting for trade. These threats are especially true in the case of the Critically Endangered Philippine Cockatoo which frequents both corn and rice fields. They had been considered by humans as seasonally fluctuating food source in these fields before their numbers declined.

Cattle Egret
by Rey Sta. Ana

Almost all of the Critically Endangered birds in the country are endemics and their conservation is the TOP PRIORITY

Because of the combined effect of pressures to endemic birds of the Philippines, most of the Critically Endangered birds found in the country are endemics such as the Philippine Cockatoo and the Philippine Eagle.

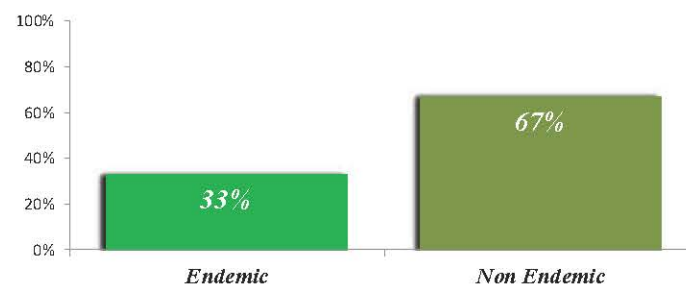
High priority for Critically Endangered endemic birds

Current threats in Philippine forest ecosystems cause endemic avifaunal species to lose their habitat at an alarming rate. It is a universal fact that resources for the preservation of world faunas are very limited; therefore prioritization is a must to save globally threatened birds from extinction. The distribution of threatened birds in the country follows the same pattern across all bird populations, which are uneven across the archipelago. Therefore, prioritization of endemic Philippine birds is first and foremost. The threat of extinction is greater for endemic birds because they can only be found in the Philippines. The high endemism of birds found in the country calls for more effective ways of managing natural resources to conserve these unique creatures.



*Critically Endangered
Philippine Cockatoo
Photo by
Katala Foundation*

Endemic and Non Endemic Birds in the Philippines



Almost one third of all of bird species found in the Philippines is endemic to the country.

CRITICALLY ENDANGERED ENDEMIC FOREST BIRDS

English Common Name	Scientific Name	Distribution in EBAs
• Rufous-headed Hornbill	<i>Aceros waldeni</i>	Negros Panay
• Sulu Hornbill	<i>Anthracoseros montani</i>	Sulu Archipelago
• Philippine Cockatoo	<i>Cacatua haematurus</i>	All EBAs
• Black-hooded Coucal	<i>Centropus steerii</i>	Mindoro
• Cebu Flowerpecker	<i>Dicaeum quadricolor</i>	Cebu
• Negros Bleeding-heart	<i>Gallicolumba keayi</i>	Negros Panay
• Sulu Bleeding-heart	<i>Gallicolumba menagei</i>	Sulu Archipelago
• Mindoro Bleeding-heart	<i>Gallicolumba platenae</i>	Mindoro
• Isabela Oriole	<i>Oriolus isabellae</i>	Luzon
• Philippine Eagle	<i>Pithecophaga jefferyi</i>	Luzon and Mindanao
• Blue-winged Racquet-tail	<i>Prioniturus verticalis</i>	Sulu Archipelago
• Negros Fruit-Dove	<i>Ptilinopus arcanus</i>	Negros Panay

Philippine Eagle

A Critically Endangered Icon of the Philippines



*Critically Endangered
Philippine Eagle
by Klaus Nigge*

Forest destruction and conversion of wetlands cause habitat loss for Philippine Birds

The decrease in the Philippine forest cover because of destruction is astonishing. More than 70% of the original forest cover of the country in the previous century is lost because of forest destruction. Aside from forests, wetland areas are also experiencing a significant decrease because of its conversion to other uses.

Habitat loss: the greatest threat to Philippine birds

Rapid disappearance of the Philippine forests

Forest destruction in the Philippines has been swift and massive. The latest estimates based on 2001-2003 satellite imageries estimated the country's total forest cover at 7.168 million hectares (FMB 2011) down from 20 million hectares a century ago (Ibon Foundation 2000). This forest cover is roughly 24.27% of the country's total land area although only a mere 2.5 million hectares or 8.5% of closed forest (where the ground is less than 40% covered by trees) remain (FMB 2011). For the Philippines to be ecologically sound and able to sustain its ecosystems, the ideal forest cover, or what is fit for its narrow, mountainous terrain, should be 54% of its land area (Sajise *et al.* 1996; Ibon Foundation 2000)

In 54 years (from 1934 to 1988), the Philippines lost 9.8 million ha of forest. The construction of major roads during this period was a very important factor contributing to deforestation. The closer a forest was to roads, the higher the rate of deforestation. Nearly 78% of the 2.1 million ha of forest within 1.5km of roads in 1934 was removed by 1988 (Liu *et al.* 1993). Other major reasons for the country's rapid forest loss are population growth and commercial forest exploitation. Philippine lowland forests have been indiscriminately logged and are now severely fragmented. This is a great threat to Philippine birds especially those that are Globally Threatened because most of them occupy lowland forests. However, upland forests are not exempted from anthropogenic activities such as human settlements especially those areas opened up by logging roads as landless kaingineros (shifting cultivators) are forced to move into marginal areas to find land to grow crops (Mallari *et al.* 2001).



Timber Poaching in Mindoro
by J Kahlil Panopio

Wetlands encroached by Man
by Arthur Quing

Conversion of wetlands to other uses

The Philippines has a rich water bird fauna with over 200 species that can be seen in its wetlands (IUCN 2012). The types of wetlands where these water-birds gather include lakes, rivers, ponds, inland and coastal marshes and swamps, estuaries and mangrove swamps. The total area of freshwater lakes has been estimated at about 114,000 ha, that of swamps and estuaries about 527,000 ha, brackish ponds about 176,000 ha, and human-made reservoirs at 130,000 ha (Davies *et al.* 1990; DENR-PAWB 2005).

Conversion of wetlands can be observed all throughout the Philippines, with mangrove swamps being the most threatened of all the wetlands. Destruction, clearing and illegal cutting of trees in several mangrove swamps in the country is extensive and these are done to pave way for aquaculture and fisheries production. The processes of these economic activities further amplify the situation by making sure that the change will be irreversible due to pollution brought by the indiscriminate use of artificial feeds and overstocking (DENR-PAWB 2005). Moreover, these wetlands are being reclaimed or converted into land uses with perceived higher economic value such as resorts and reclamation areas among others.

The DENR-PAWB (2005) has identified direct and indirect factors that contribute to the loss of wetlands in the Philippines. The direct factors include habitat loss and deterioration, resource use and exploitation, pollution, climate change, introduction of exotic species and disease. The indirect factors are socio economic pressures and some unsustainable environmental policies and regulations. Laguna de Bay, the largest lake in the Philippines, is a good example of the detrimental degradation of wetlands in the country. The lake is state owned while its surroundings are privately owned. Much of the area of the lake is covered with fish pens and the Sierra Madre Mountain Range east of the lake is heavily deforested. Pollution from industrial, domestic and agricultural sources further contributes to the demise of the lake. The water in the lake is turbid due to the synergistic effect of the current threats which prevents the extensive growth of underwater plants. Foraging in this lake is the Brown-banded Rail *Lewinia mirifica* (DENR-PAWB 2005). This species was previously categorized as an Endangered bird (Collar, *et al.* 1999) but the lack of current information on the species prompted IUCN to change its category to Data Deficient in 2000. It is one of the six species of Philippine birds which has insufficient data for assessment.

A survey of wetlands and waterbirds in Cagayan Valley by Van Weerd and Van der Ploeg (2004) resulted in the identification of five wetlands in the area that held substantial numbers of water birds. The Philippine Duck *Anas luzonica* (Vulnerable), Wandering Whistling-duck *Dendrocygna arcuata*, Northern Shoveler *Anas clypeata*, Great Egret *Casmerodius albus*, Ruddy Shelduck *Tadorna ferrugine*, Dunlin *Calidris alpina*, Chinese Egret *Egretta eulophotes* (Vulnerable) were some of the birds that were recorded. Furthermore, Sarus Crane *Grus antigone* and Spot-billed Pelican *Pelecanus philippensis* — known to have occurred in the area were not observed during the survey. This suggests that these species are now extirpated in the Philippines (Van Weerd and Van Der Ploeg 2004).



Kaingin Practice
Photo by Jeanevie Habitan

Hunting of wild birds and the use of pesticides contribute to the demise of Philippine birds

A significant number of endemic birds in the Philippines are being hunted for their value in the wildlife trade. The use of carbofuran as pesticide poisons birds that feed on infected crops and invertebrates.

Exploitation of wild birds

Birds, as well as other animal species, are being hunted for food, as a sport, or being collected for commercial trade. In 2011, a cargo vessel headed to Manila and filled with 100 live Endangered birds, was seized by the Philippine Coast Guard in El Nido, Palawan. The Philippine Coast Guard detachment recovered 71 mynahs, 42 green parrots and 1 Critically Endangered Philippine Cockatoo (Grafilo 2011).

Haribon's "Integrating Forest Conservation with Local Governance Project" noted several birds in their project sites that were threatened by hunting and the wild bird trade. The Colasisi, or the Philippine Hanging Parrot *Loriculus philippensis* and the Mindoro Hornbill *Penelopides mindorensis* have been reported to be threatened by unregulated hunting for the pet trade in Mt. Siburan, Sablayan in Occidental Mindoro (Haribon Foundation 2004).

The Mindanao Bleeding-heart *Gallicolumba crinigera*, Mindanao Writhed Hornbill *Aceros leucocephalus* and the Philippine Cockatoo *Cacatua haematuropygia* are birds threatened by hunting in Loreto on Dinagat Island in Surigao del Norte. The Mindanao Bleeding-heart is a Vulnerable species threatened by extinction not only due to the destruction of its lowland forest habitat but also by hunting because of its popularity as a pet. The Writhed Hornbill which can be found in Dinagat Island is a Near Threatened species whose population has significantly decreased because of over hunting and forest degradation since the 1960s (Haribon PRA, 2001). In 1972, the Philippine Cockatoo was abundant in Dinagat Island but in a 2004 assessment no sightings were reported (Haribon Foundation 2004). This iconic bird has been extensively hunted to be sold as pets and targeted by local farmers who regard them as pests to their harvest. In Janiuay, Iloilo, the endemic and globally threatened Visayan Hornbill *Penelopides panini* found in the Negros-Panay Endemic Bird Area is under threat of extinction due to hunting and habitat loss.



Luzon Bleeding-heart Pigeon
by Nove Calawigan



Bills of Endangered Visayan Hornbill hunted for food
by John Espiritu

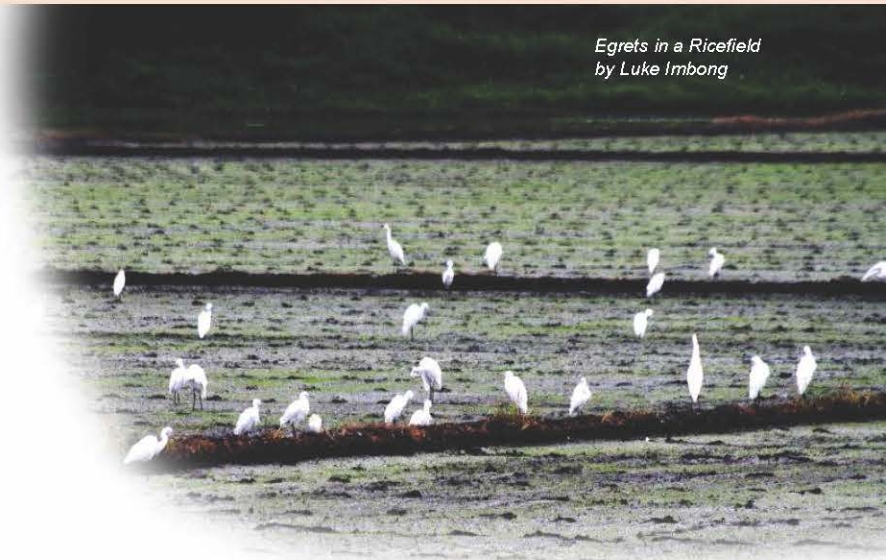
Effects of different agricultural practices on avian abundance and diversity

A frequent threat to birds within agricultural areas is the use of chemical pest and weed control. While the use of herbicides can control the growth of weeds, herbicides also reduce food resources for birds and in some cases, herbicides themselves can also be toxic for birds.

Pesticides on the other hand specifically target invertebrates like aphids that are considered pests. Like herbicides, pesticides can be toxic for birds and may reduce food resources such as invertebrates, fishes and amphibians (Ibanez *et al.* 2007). One of these pesticides, carbofuran, banned in many countries such as Canada and in European Union, is still being used in the Philippines because of its effectiveness in killing aphids. Birds which prey on organisms exposed to carbofuran tend to bear offspring with deformities. The Silvery Kingfisher *Alcedo argentata* is a Vulnerable species threatened by carbofuran contamination from commercial banana plantations in Bohol and Mindanao (BirdLife International 2012).

Aside from the use of pesticides on farm lands, another threat to avian diversity in agricultural areas is the misconception that all birds eat crops (Smedley 2013). Migratory species such as egrets, herons and bitterns eat invertebrates as well as fish, crustaceans, frogs and reptiles. Their diet does not include crops. Birds of prey are also found in croplands such as grass owls that hunt mammals within the fields and control the number of the smaller birds. These large birds are easily targeted by farmers because of their size which makes them relatively easy to catch. There is a need for farmers to be aware that these birds could actually help their crops through natural pest management (Smedley 2013).

Egrets in a Ricefield
by Luke Imbong



Scaly Breasted Munia
by Rodrigo Galay



Climate change alters the distribution of birds because of loss of suitable habitat

Birds tend to fly to higher elevations to search for their ideal climate envelope. The progression of climate change may increase the risk of montane species extinction.

Impacts of Climate Change

Habitats favoured by restricted range birds, mostly endemic species, are expected to become increasingly unsuitable for their continued existence over the next 40 years due to climate change (BirdLife International 2004). Modeling the relationship of climatic variables with the distribution of birds against global climate change models show that areas suitable for birds now will not be suitable in the future due to changes in temperature and rainfall. The suitable range for the species may then shift, contract or even disappear. The greatest shift is projected in areas of high elevation (BirdLife International 2004).

Studies suggest that various species will not be able to tolerate the conditions within their present restricted range should changes in climate occur (BirdLife International 2004). Species will move to higher elevations to look for a suitable habitat when it gets hotter in the lowlands. Species move at different speeds and rates, which may cause an imbalance in the ecosystem because predator and prey will not be able to move to the new habitat at the same time. Global studies estimate that with climate change, many species could become extinct by 2050—even those that are currently considered safe. Species with restricted ranges will be the most susceptible (BirdLife international 2004).

Climate change could have a particularly severe impact on avifaunal diversity in the Philippine where almost 30% of bird species are endemics. The archipelagic nature of the country makes it highly vulnerable to climate change. With over 7,000 islands, the threat of extinction of the so many island-endemic, restricted range fauna (Lasco *et al.* 2008) is high. The threat is most pronounced with these endemics because their tolerance level of survival is limited to the habitat within a specific island.

Mining is a major threat in several Important Bird Areas

The rich deposits of gold, copper, nickel and other metallic minerals in the Philippines coupled with a liberal mining policy favorable to foreign investors has developed the mining industry in the country in a manner that can likely cause irreversible damage to the environment. These mineral resources are currently valued at about USD 1.4 trillion (Joint Foreign Chambers of the Philippines 2010) with an estimated 7.1 billion tons of metallic mineral reserves. Copper accounts for 4.8 billion tons of these reserves while gold is at 110,000 tons (USA International Business Publications 2007). An added attraction in carrying out mining operation in the Philippines is its proximity to deep-water anchorages where minerals can be easily transported for export (Naito *et al.* 2001).

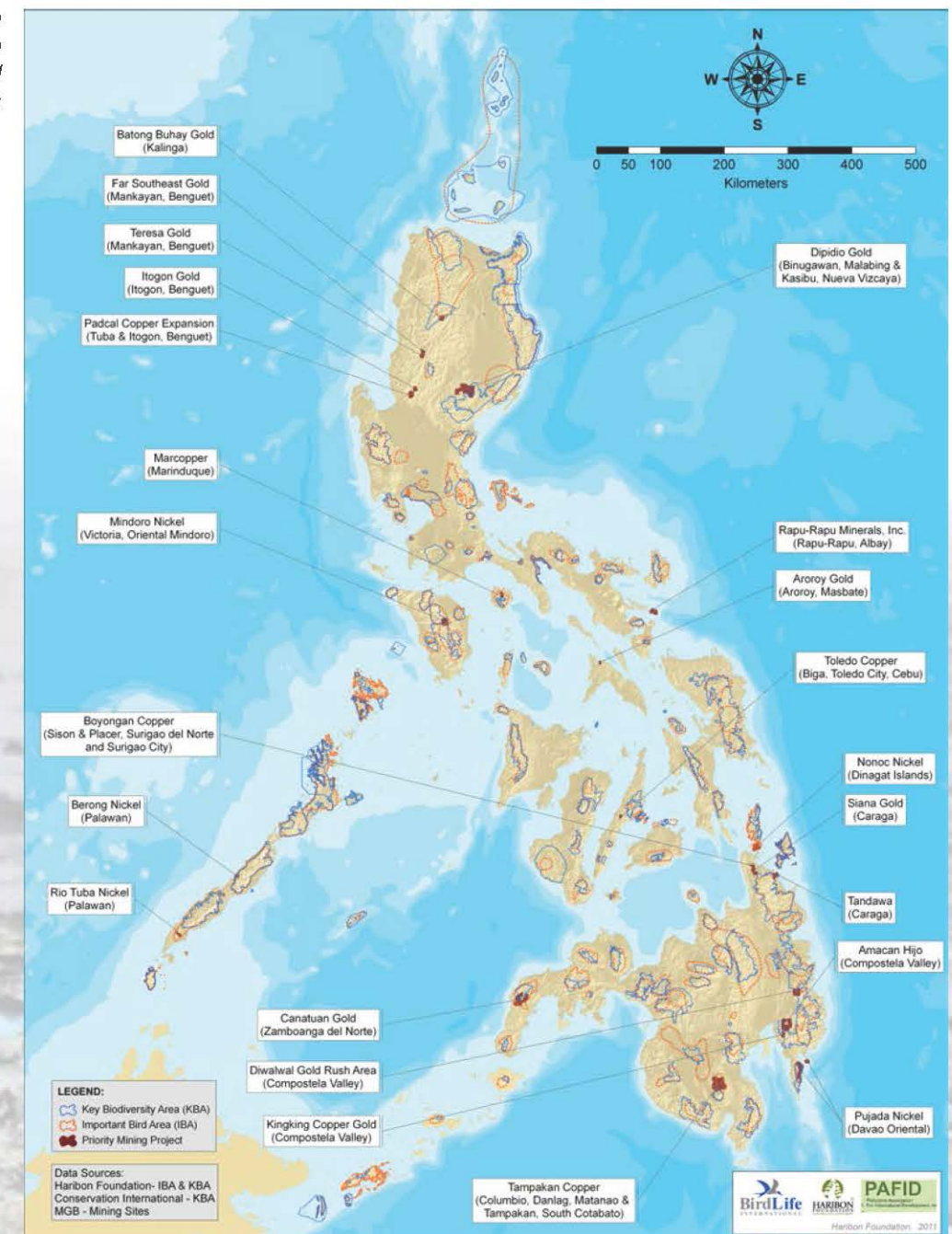
About 30% of the country's land area or 9 million hectares has potential for mining metallic minerals with 632 mining rights already issued by the government covering nearly half a million hectares (Mines and Geosciences Bureau 2004). The majority of these potential and existing mining sites overlap with areas identified as Key Biodiversity Areas or Important Bird Areas.

Las Piñas-Parañaque Critical Habitat and Ecotourism Area
Photo by Luke Imbong

Despite being among the worst record holder for countries with disastrous consequences of mine tailings for local people and the environment, the government has streamlined the mining application process and offered tax free incentives for the first five years of operations (CEC 2012). In the last 25 years, at least 16 serious tailing dam failures have been recorded along with 800 abandoned mine sites that have not been cleaned up (Doyle *et al.* 2007).

Typically, open-pit mining for copper and gold and strip-mining for nickel is employed in mining in the Philippines which involves flattening mountaintops, creating huge craters and producing vast amounts of waste in the form of mine tailings. Gold mining also involves the use of cyanide to separate gold, thereby releasing harmful toxic chemicals in the process. In Bagacay Mines (Samar island) and several other abandoned mining sites, forest landscapes have been destroyed with the soil and nearby surface waters found to be contaminated with heavy metals (Asio 2009). Also, workers in new mining sites bring their families for settlement to previously uninhabited areas, thus increasing the threat to wildlife through disturbance and destruction of natural vegetation (CEPF 2002).

Map of the Philippines with 23 Priority Mining Sites in Important Bird Areas and Key Biodiversity Areas



Identification of Protected Areas, Important Bird Areas and Key Biodiversity Areas save birds from extinction

The implementation of NIPAS Act and the designation of Important Bird Areas and Key Biodiversity Areas in the country protects birds and all associated flora and fauna from the threat of extinction.

Important Bird Areas and Key Biodiversity Areas

Important Bird Areas (IBAs) have been identified for the conservation of globally important birds. There are four criteria used to determine an area to be identified as an IBA, including:

- (A1) Presence of Globally Threatened Species;
- (A2) Presence of Restricted Range Species;
- (A3) Presence of Biome-restricted Species; and
- (A4) Presence of Congregating Birds

Key biodiversity areas (KBAs) are priority sites for conservation of globally threatened species in the world. Important Bird Areas on the other hand are conservation areas for globally important bird species. All IBAs fall under KBAs because they encompass all endangered species. In the Philippines, BirdLife International and Haribon Foundation identified 117 IBAs (Mallari, Tabaranza & Crosby 2001). Realizing the need to conserve all species and not just birds, the Haribon Foundation, Conservation International (CI) and the DENR partnered to identify the KBAs in the Philippines. The team refined the information from 117 IBAs and 206 Conservation Priority Areas (CPAs) that include data for threatened and restricted range species of freshwater fishes, amphibians, reptiles, birds and mammals. This initiative recognized 128 KBAs considered as priority sites for conservation. The inclusion of the identified KBAs in the country's protected area system and conservation initiatives is a defining point to ensure the conservation of the full scope of the country's natural heritage (Ambal *et al.* 2012).

Some of the IBAs have also been designated as Wetlands of International Importance. Listed since the 1990s are Olango Island Wildlife Sanctuary, Agusan Marsh Wildlife Sanctuary, Tubbataha Reefs National Park and Naujan Lake National Park. More recently, the Puerto Princesa Subterranean River National Park (listed on 30 June 2012) and Las Pinas-Parañaque Critical Habitat and Ecotourism Area (LPPCHEA, listed on 15 March 2013) have been added to the list. The Puerto Princesa Subterranean River National Park connects a range of important ecosystems from the mountains to the sea, including a limestone karst landscape with a complex cave system, mangrove forests, lowland evergreen tropical rainforests, and freshwater swamps. It is home to about 800 plant and 233 animal species, including the Critically Endangered



Philippine Cockatoo (*Cacatua haematuropygia*) and Hawksbill Turtle *Eretmochelys imbricate*, as well as the Endangered Green Sea Turtle *Chelonia mydas* and Nordmann's Greenshank (*Tringa guttifer*). There are also some 15 endemic species of birds such as the Palawan Peacock Pheasant *Polyplectron emphanum* and the Tabon Scrub Fowl *Megapodius cumingii*. One of the unique features of the park is an 8.2 km long section of the Cabayugan River that flows underground within large formations of stalactites and stalagmites. The river provides water to local communities for domestic and agricultural uses, before flowing towards the underground river (Ramsar 2012).

LPPCHEA, situated within metropolitan Manila, is made up of two mangrove-covered islands, shallow lagoons and a coastline. As many as 5,000 individual migratory and resident birds have been recorded at LPPCHEA which includes the Vulnerable Chinese Egret *Egretta eulophotes* among the 47 migratory species. Records suggest that LPPCHEA supports at least 1% of the estimated population of Black Winged Stilts *Himantopus himantopus* using the East Asian-Australasian Flyway (Ramsar 2013).

Proper conservation of an IBA assures the protection of the site's biodiversity which will bring us one step closer to preventing the extinction of threatened species.

National Integrated Protected Areas System (NIPAS) Law

The NIPAS Law (Republic Act 7586 of 1992) replaced the National Parks Law (Republic Act 3915 of 1932) and provided the legal framework to establish and manage protected areas in the Philippines. The law identifies portions of land or water set aside to be protected because of their physical and biological significance. The NIPAS Act states that these lands or water will be managed to promote biodiversity conservation and prevent destructive anthropogenic activities in the area. It attempts to address the problems of protected area management in the Philippines by espousing the twin objectives of biodiversity conservation and sustainable development (Mallari, Tabaranza & Crosby 2001).

Prior to the effectivity of the NIPAS Law in 1992, the government has identified 202 initial components made up of national parks, game refuge and wildlife sanctuaries, wilderness areas, mangrove reserves, watershed reservations, protected landscapes and seascapes among others. The NIPAS requires the creation of a Protected Area Management Board, a multi- sectoral and decision making body governing each of the established protected areas. As of June 2012, the government has recognized more PAs, which now totals to 240, with 113 formally proclaimed by the President. Of these 113 proclaimed PAs, 84 are terrestrial PAs with a total of 2.2 million hectares while 29 are marine PAs covering 1.37 million hectares (DENR-PAWB 2012). Around 13 PAs (9 from the initial components and 4 additional areas) have specific laws establishing them under the NIPAS.

These are 1) Batanes Island Protected Landscape and Seascape, 2) Northern Sierra Madre Natural Park, 3) Bangan Hill Natural Park, 4) Mts. Banahaw-San Cristobal Protected Landscape, 5) Tubbataha Reefs Natural Park, 6) Mt. Kanlaon Natural Park, 7) Sagay Marine Reserve, 8) Central Cebu Protected Landscape, 9) Mimbilisan Protected Landscape, 10) Mt. Kitanglad Range Protected Area, 11) Mt. Malindang Natural Park, 12) Mt. Apo Natural Park and 13) Mt. Hamiguitan Range Wildlife Sanctuary. The NIPAS Law works in synergy with multiple projects to optimize the conservation of the Philippine environment. This law is a good initial conservation action but the true challenge and defining point of its success will be effective implementation.



The expansion of Protected Areas and the partnership of different organizations help conserve biodiversity

The NewCAPP and Biodiversity Partnerships Projects support and enhance the Protected Areas System of the country for better conservation of biodiversity.

New Conservation Areas in the Philippines Project (NewCAPP)

NewCAPP aims to develop and reinforce the terrestrial protected area system in the Philippines by developing new protected area models and building capacity for effective management of the system. This will be supported by improved systemic and institutional capacities. The expanded protected area system will cover important ecosystems and form strong links to local communities and indigenous lands in the surrounding landscape through the integration of new conservation areas (PAWB-DENR 2011). The conservation areas covered by the project are Zambales Mountains, Mts. Irid-Angelo and Binuang, Polillo Group of Islands, Mt. Iglit-Baco National Park, Mt. Nacolod, Mt. Hilong-hilong, Mt. Kalatungan and Tawi-Tawi Islands.

Zambales Mountains is one of the priority areas of the project. Forests of Mangatarem, Pangasinan forms part of the Zambales Mountain Range. Its approximate forest cover is around 6,500 hectares, the largest remaining tract of forest in the entire province of Pangasinan.

Mangatarem's Local Government Unit (LGU) issued a Sangguniang Bayan Resolution No. 102-2011 on November 23, 2011 requesting DENR Sec. Paje to declare 7, 472 hectares of the forest lands of Mangatarem as a Critical Habitat.

Furthermore, the DENR in Region 1 has affirmed the Forest Land Use Plan (FLUP) of Mangatarem last June 19, 2012. The support of DENR fast-tracked the approval of the FLUP by the Sangguniang Panlalawigan of Pangasinan.

Biophysical Assessment of the forests of Mangatarem is a prerequisite for the Critical Habitat declaration. To assess the current biophysical status of the area, a multi-stakeholder team was arranged to do the fieldwork. The team was composed of representatives from DENR, LGU, Haribon, and members of partner Peoples Organizations and Bantay Gubat. The team gathered baseline data for annual monitoring of the area as well as to support the Critical Habitat Establishment. The Important Bird Area Monitoring System of BirdLife International was used to assess the overall all status of the proposed Critical Habitat.

Source: New Conservation Areas in the Philippines Project (NEWCAPP) 2012 Annual Report



Nightjar sampled in Mangatarem, Pangasinan by Haribon Foundation



Juvenile Philippine Hawk Eagle by J Kahili Panopio

Biodiversity Partnership Projects

The Partnerships for Biodiversity Conservation: Mainstreaming in Local Agricultural Landscapes, also known as the Biodiversity Partnership Project (BPP) is a collaborative effort by government agencies, local government units and conservation organizations to safeguard key biodiversity areas in the Philippines and conserve Philippine biodiversity. The project is aimed at enabling policies at the national level and enhancing capacities of local government units to include biodiversity concerns in their development plans and to showcase biodiversity friendly practices in 8 demonstration sites in 5 regions (Resabal 2012). The sites of BPP are Magapit Protected Landscape, Quirino Protected Landscape, Mt. Siburan, Malampaya Sound, Central Panay Mountains, Northern Negros National Park, Lake Mainit and Mt. Hamiguitan.

Mt. Siburan is found in Sablayan, Occidental Mindoro. Siburan has the largest area of remaining lowland forest in Mindoro. The Sablayan Prison and Penal Farm (SPPF) occupies a significant area on the mountain, this in turn regulates the access to the area. The forest of Siburan is a generally closed canopy lowland forest and it spans over 1000 ha. The forests of Mt. Siburan is home to several Globally Threatened Mindoro endemics such as the Critically Endangered Black-hooded Coucal (*Centropus steerii*), Critically Endangered Mindoro Bleeding-heart Pigeon (*Gallicolumba platenae*), Endangered Mindoro Hornbill (*Penelopides panini*), and Vulnerable Scarlet-collared Flowerpecker (*Dicaeum rectocinctum*).

Through the Biodiversity Partnerships Project, Haribon Foundation renewed its ties with the key local stakeholders of Mt. Siburan. The renewed ties with stakeholders paved the path for the revitalization of the Important Bird Area Monitoring System (IBAMS) team for Siburan. The IBAMS team was composed of representatives from the stakeholders specifically the Sablayan Local Government Unit (LGU), SPPF, Palbong Community Based Forest Management Agreement holders, Samahan ng Sablayeñong Mapagkalinga sa Kalikasan (SASAMAKA), and Community Environment and Natural Resources Office (CENRO). The team surveyed the biophysical and socio-economic State of Sablayan as well as Pressures and corresponding Responses to the threats. The results of the surveys were used to update the ecological profile of Mt. Siburan.

Aside from updating the ecological profile of Mt. Siburan, Haribon has also provided assistance to the Sablayan LGU in updating their Forest Land Use Plan and a Communication Plan for the production of educational materials for awareness raising activities in the municipality.

Ensuring the conservation of the forests of Mt. Siburan will not only save several species from extinction but will also perpetuate the sustainable use of ecosystem services in Mindoro.



Black Naped Oriole by J Kahili Panopio

Nature Conservation by Indigenous People and Species Champions and Guardians

Indigenous People
integrate the
conservation of natural
resources in their culture
as well as sustainable
use. Species Champions
and Guardians protect
and help Critically
Endangered Species to
recover from being in the
brink of Extinction.

Biodiversity Conservation by Indigenous People

Indigenous people have the greatest understanding of our environment. They are immersed with nature in their everyday life and the forest is their main source of livelihood. Traditional hunting and gathering is their way of sustainable harvesting of forest resources. Their practices follow the seasons which mean they allow the replenishment of the resources before harvesting them.

Most indigenous peoples in the Philippine uplands employed indigenous forest management practices in the past and it may be safe to assume that the few remaining areas in the country with intact forests are mostly those in which indigenous forest management still persists (Guiang *et al.* 2001).

Guiang *et al.* (2001) examined five indigenous forest management systems in Luzon and Mindanao namely the *muyong* system of the Ifugao, the *tayan* of the Bontoc, the *saguday* of the Sagada, the indigenous management practices of the Ikalahan, and the *gaop* system of the Higaonon. The unit of conservation of these indigenous cultures is their ancestral land. Their forests provide them ecosystem services and furthermore, they see forest lands as part of their culture, without which their culture cannot continue to exist. It is notable that there is an increase in the forest cover owing to the continuous planting of trees, regulated use of forest products ensuring resource renewal and a good system of maintenance and protection from natural and anthropogenic forces.



Indigenous People of
Barangay Umiray, General Nakar
Quezon Province

Species Champions and Guardians (BirdLife)

BirdLife through BirdLife Partners facilitates the Preventing Extinctions Program. Individuals or organizations who take on a formal role to implement, coordinate or promote conservation action for a particular Critically Endangered species are appointed as Species Guardians. Donors, who support the BirdLife and Its Partners acting as Species Guardians to prevent extinction of a species, are Species Champions.

The role of Species Guardians is to stimulate conservation action for the species they are protecting. Furthermore they are tasked to monitor the status of the species. Species Champions, on the other hand, support the Species Guardians by funding conservation initiatives and monitoring of the species.

Haribon Foundation is the Philippine BirdLife Partner and also serves as the Species Guardian for four Critically Endangered Birds in the Philippines namely, the Philippine Eagle, Mindoro Bleeding-heart, Black-hooded Coucal and Sulu Hornbill.

The Swedish Ornithological Foundation is the Species Champion for the Philippine Eagle. The Preventing Extinctions Program: Philippine Eagle has conducted perception surveys, facilitated (along with the Philippine Raptor Conservation Program of the Department of Environment and Natural Resources - Protected Areas and Wildlife Bureau) a Raptor Research and Handling Training to increase the capacity of the technical personnel such as municipal and provincial veterinarians. Furthermore, exhibits were conducted in the municipalities of Infanta and General Nakar, Quezon showcasing the biology of Philippine Eagles, and the need for its conservation.

Cebu Biodiversity Conservation Foundation is the Species Guardian for the Critically Endangered Cebu Flowerpecker. Recent sightings have been recorded in the island and the correlation between the Cebu Flowerpecker and the Red Keeled Flowerpecker is being explored to further understand the life and behaviour of this globally threatened bird.



Critically Endangered
Philippine Eagle
by Klaus Nigge

Searching for the LOST Species: The Sulu Bleeding-heart Surveys

A preliminary field survey in October 2004 was conducted by Haribon in Languyan to establish baseline information on the biodiversity of Tawi-Tawi. A second survey in June 2007 supported by the Critical Ecosystem Partnership Fund–Threatened Species Program was conducted in Languyan, Sapa-sapa, Tandubas and Simunul to purposively search for the “lost species”, that is, the Critically Endangered Sulu Bleeding-heart *Gallicolumba menagei*. The Sulu Bleeding-heart has not been sighted nor collected in the last 100 years despite the efforts of ornithologists to locate it in the last two decades.

The combined results of the two surveys showed a total of 111 species of birds of which 3 are Critically Endangered, 1 Endangered, 4 Vulnerable and 2 Near Threatened based on the IUCN Criteria. Of the 111 bird species 21 were also endemic while 4 were near-endemic.

The surveys also documented the presence of other threatened avian species in Tawi-Tawi such as the Sulu Hornbill *Anthracoceros montani*,

Tawi-Tawi Brown Dove *Phapitreron cinereiceps*, Sulu Woodpecker *Dendrocopus ramsayi* and Red-vented Cockatoo *Cacatua haematurus*.

Additionally, the surveys documented 10 species of mammals, 13 reptiles, 11 amphibians, 12 true mangrove species and 9 associated mangrove species. Unfortunately, both surveys failed to locate the Sulu Bleeding-heart.

Deforestation, due to illegal logging and land conversion to agriculture, has been the major threat to Tawi-Tawi biodiversity since the 1980s. Around 8 species of birds and 4 species of mammals are now threatened with extinction.

While most areas in Tawi-Tawi, especially the small islands, have lost their significant forest habitats that could support the survival of the Sulu Bleeding-heart, the combined relatively extensive and contiguous forests of Tandubas to the northeast, Panglima Sugala to the south and Languyan to the north of mainland Tawi-Tawi could still possibly hold a population of the Sulu Bleeding-heart. Another purposive survey is recommended to spend longer time simultaneously in the forests of Tandubas (especially Himba), Panglima Sugala (especially Buan) and Languyan.

Professor Blas Tabaranza Jr.
Haribon Foundation

A Mosque in Tawi Tawi
Haribon Foundation

Status of the Philippine Eagle: a summary CY 2012

Several milestones were realized during 2012 for the conservation of the Philippine Eagle. There were 23 sightings of the eagle recorded within the year. Among the areas of the sightings was Midsaling Creek, Alik, Iligan City. This area is a new inclusion to the list of the Philippine Eagle sightings owing to the recovery of an injured juvenile last October 24, 2012.

Around 4 of the recorded sightings were reported at Apayao, Cordillera Administrative Region (CAR) by the Regional Eagle Watch Team–CAR (REWTCAR). The sightings were confirmed by the joint effort of Philippine Raptors Conservation Program, Protected Areas and Wildlife Bureau (PAWB-DENR), REWTCAR and the Philippine Eagle Foundation. Surveys and monitoring activities in Calanasan, Apayao, revealed that the local community is very much involved in the conservation of the species. The local government unit is implementing an environmental management conservation plan called “Lapat” which covers about 5,000 ha of forest, watershed, aquatic and marine life, wildlife and birds, sanctuaries and protected areas. It is in these areas where exploration, extraction of forest products, hunting, catching and killing wildlife is prohibited and punishable by traditional laws as well as Municipal and National Environment and Natural Resources laws.

A wild caught Philippine Eagle named Raquel tagged with a GPS transmitter was released last 6 May 2011. Since her release, the REWT-2, PEF and PTFCE personnel have been tracking the bird's movements. The GPS readings obtained after her release gave information about her feeding and grooming habits. Eight days after her release, the team was able to document her first successful hunt of an adult Water Monitor *Varanus marmoratus* indicating that she did not lose her hunting and survival instincts while being captive for over a year. The dispersal pattern of the bird showed that she quickly regained her flight and hunting skills. Her successful re-introduction to the wild could be attributed to the fact that she was captured as an adult.

Furthermore, the GPS readings revealed that the bird preferred forested areas as opposed to the non-forested areas though she has ventured into populated areas since her release. When it was tracked that she had ventured into a populated area, REWT-2 and partner organizations mobilized to conduct IEC at neighboring towns to create awareness about the species.

As compared to Mindanao, the information and knowledge of the Philippine Eagle in Luzon was quite low until recently. Raquel's reintroduction pioneered the opportunities for research on the eagle's breeding behavior and food habits in Luzon. Readings often showed that Raquel frequented certain areas which may indicate that she has found a mate and is starting to breed. The GPS signals from her transmitter will soon hopefully lead us to their future nesting site.

The most recent wild sighting of the rare bird was in Taft Forest Wildlife Sanctuary in Samar Island. Wild Bird Club of the Philippines member Ruth Francisco was out in the forests of Samar on the lookout for the Mindanao Bleeding-heart but to her awe, the Philippine Eagle showed itself to the passionate birder.

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Protected Areas and Wildlife Bureau - DENR

Anson Tagtag
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Wildlife Bureau -DENR

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<http://ebonph.wordpress.com/2013/04/01/philippine-eagle-in-samar/>. Accessed 5-6-13.

Critically Endangered
Philippine Eagle
by Klaus Nigge



Distribution decline of the Philippine Cockatoo (a Katala Foundation Case Study)

Philippine Cockatoo was formerly distributed over all larger, and many dozens of smaller islands in the country. The species suffered mainly from destruction and degradation of its lowland forest habitats, trapping for the pet trade and persecution as an agricultural pest. Its demise was rapid and almost complete, except in Sulu (where very little is known of the cockatoo population) and Palawan, the species' current stronghold.

Members of Katala Foundation started a conservation project for the species on Rasa Island in southern Palawan in 1998. Only 23 to 25 birds were left on the island at that time. Due to intensive management, particularly involvement of parrot poachers as wildlife wardens, the population recovered to presently between 260 and 280 individuals. An additional four project sites have been added to the Philippine Cockatoo Conservation Program since: three of them in Palawan and one in the Polillo group of islands.

Research conducted is mostly applied. Information on breeding biology helps to manage nests more efficiently, for example to prevent nest predation, control parasite infestations, or help to decide when to commence supplementary feeding of starving nestlings in drought years. Reforestation trials with native plants, including cockatoo food- and nest-providing trees, were preconditions for habitat restoration projects, like those currently underway in Dumaran, Palawan. Additionally, potential sites for re-introduction of the species are presently assessed outside of Palawan, in the hope of bringing the cockatoo to back parts of its historical range.

Most of these measures are long-term in nature and only possible due to the continued commitment of the Katala Foundation's partners in the Philippine Cockatoo Conservation Program internationally. These include Loro Parque Fundación, North of England Zoological Society, Zoologische Gesellschaft für Arten- und Populationsschutz, Conservation des Espèces et des Populations Animales, as well as the Department for Environment and Natural Resources within the country.

Although cockatoos in PCCP sites recovered markedly, pressure on the species is mounting again. A project to convert cockatoo



Mangrove Areas in Palawan
Photo by Katala Foundation

habitats into large-scale *Jatropha* plantations on Dumaran Island, Palawan have been prevented in 2012.

An even bigger threat is still looming: DMCI Power Corporation is planning to put up a 15 MW coal-fired power plant only about a kilometer away from Rasa Island Wildlife Sanctuary which by now harbors at least one quarter of the global Philippine Cockatoo population. Katala Foundation voiced out its serious concerns regarding the project and stated that the coal plant would result in cockatoo casualties due to collisions and electrocution at the feeder power lines. Even more seriously, the power plant would block the flight path of the birds' foraging area from the mainland to the island, which in turn would result in a reduction of the carrying capacity of Rasa Island for this species, since parent birds could not any more provide their young with sufficient food. The power plant has therefore the potential to advance as the single-most serious site-based threat factor for this already Critically Endangered species.

Despite massive opposition from local communities, the affected municipal government of Narra, national and international environmental groups, and ignoring the recommendations of its own technical staff, the Palawan Council for Sustainable Development endorsed the power plant project of DMCI. Katala Foundation and other Philippine-based non-governmental organizations are currently organizing the protest against this controversial and unsustainable project.

Palawan is still the stronghold for the Philippine Cockatoo, but it may not be its safe haven any longer!

Peter and Indira Widmann,
Katala Foundation, Inc.,
Palawan

Critically Endangered
Philippine Cockatoo
Photo by Katala
Foundation



Birds within Rice Fields (an IRRI Case Study)

Due to the loss of natural wetlands throughout Asia, rice fields provide an important alternative wetland habitat for birds. Unfortunately, little is known about which bird species use rice fields within the Philippines and the impacts of different agricultural management practices on avian species diversity. To address this, research is currently being conducted at the International Rice Research Institute (IRRI), in Los Baños in collaboration with the University of Reading, United Kingdom, in a geographic spread of rice field sites in the Philippines.

Research on the IRRI Experimental Farm (53 km South of Manila Bay, 2 km from Laguna lake) has shown that during the early rice growing stages, when rice fields are typically flooded but have little vegetation cover, foraging habitat is provided for wading species such as egrets, rails, bitterns and sandpipers (Smedley R., unpublished data). As the rice develops and provides more cover, the fields provide refuge, food and a nesting habitat for a greater number of bird species, from waders to passerines. After harvest, when the fields are dry, granivorous birds are the dominant avian species, feeding upon spilled grain.

To better manage rice fields as avian wetlands, we need to understand the effect of different management practices upon bird life. Not surprisingly, rice fields sprayed with insecticide have lower bird counts than adjacent unsprayed rice fields (Smedley R., unpublished data). Insecticides reduce arthropod biodiversity, which in turn affects the population dynamics of birds that prey upon them.

Increased intensity of rice-cropping, and reduced water usage of rice, are both encouraged in the Philippines, but little is known about their impacts upon the avian fauna. Faster growing rice varieties are typically used to increase the number of rice harvests achievable over a year, but this may reduce the time over which refuge and nesting habitats are available for birds. This may result in a reduction in hatching success for a number of species, and have a negative effect upon species that rely on the crops to provide cover for their young.



Little Ringed Plover
by J Kahlil Panopio

Alternatively, an increase in the proportion of the year in which land is planted with rice may favor species that are not using the rice fields for breeding, such as globally important migratory species.

Water management practices that reduce the duration of flooding within rice fields may have a negative effect on some bird species due to a decrease in aquatic prey. At a catchment level, however, expedient use of water often leads to a larger area for rice production, which would be favorable to other bird species.

Rice fields provide a great opportunity for the Philippines to simultaneously increase rice production and support local biodiversity, yet how avian species respond to different management regimes of irrigated croplands need further investigation. In addition, more attention needs to be given to the habitat mosaic in these intensive agricultural lands. A decrease in bird of prey persecution and, enhancement schemes such as set-aside fallow land and increased perching opportunities, have increased avian biodiversity in temperate agricultural lands in western countries. If we can provide a good balance between intensive tropical agriculture and associated habitat margins that support increased avian biodiversity, then birds could provide an essential ecosystem service, such as through their control of invertebrate pests.

Rice fields are widely distributed throughout the Philippines and are easy to access. They therefore present an opportune "classroom" habitat for children to learn about avian biodiversity and ecology. Over the last 5 years, IRRI has had over 120 thousand school children visit the rice museum and the adjoining fields. Current educational tools being used at IRRI include demonstration fields and photograph exhibitions to display the many different birds that can be found within rice fields.

Other research at IRRI includes the identification of possible avian species that could be used to indicate the health of a rice ecosystem. Further studies on birds within different rice agro-ecosystems will provide a better understanding of how this human-modified habitat can provide important wetlands for birds within the Philippines.

Richard E. Smedley
University of Reading
International Rice Research Institute

Alexander M. Stuart
International Rice Research Institute

Cattle Egrets in a
Farm Land by
J Kahlil Panopio



IUCN Redlist categories & Philippine National Redlist categories

There have been three significant efforts to categorize the level of threat among birds in the Philippines using the IUCN criteria. The first (1999) categorization of bird threat status was published in The Threatened Birds of the Philippines: The Haribon Foundation and BirdLife International Red Data Book. The second (2004) effort came when the DENR released the Philippine National Red List for birds and the third is the most recent assessment of IUCN (2012) through their regular and updated Red List Status. The IUCN Red list continues to accept information about each species of birds throughout the world, including the Philippines, and is constantly evaluating the threat status based on the submitted information.

The initial 1999 national efforts identified 74 birds which were threatened based on an assessment of the standards for the IUCN Red list and BirdLife International. The book was an initial milestone for bird conservation in the Philippines. Subsequently these efforts were supplemented by experts from the Wild Life Conservation Society of the Philippines for the establishment of the Philippine National Red list Categories found in the DENR’s Administrative Order (DAO) 2004-15. The administrative order establishes the list of terrestrial threatened species of the Philippines and their respective categories. The list included 79 birds along with other terrestrial species.

The current information about the global threat status of Philippine birds can also be found in the IUCN Red list website. Comparatively, while the IUCN Red list follows rigid criteria for the categorization of a species from a global perspective, the Philippine National Red List is an output of the synergy between the knowledge and judgment of our nation’s experts and the global assessment of IUCN. Thus, some species found in the National List are not listed in the IUCN Red list, and the opposite is true that some species found in the IUCN Red list are not included in the National List. This is the dilemma regarding the value of global versus regional or national assessment of bird status.

The categorization of globally threatened birds cannot be fully used in an archipelagic setting like the Philippines where endemism is very high. A bird which is considered vulnerable at the global level can be critically endangered at the national level in the sense that the bird populations in different islands are being extirpated. The regional assessment therefore should be sensitive enough to truly evaluate the threat status of Philippine birds at the national level

APPENDIX I. STATE OF NATIONALLY THREATENED BIRDS OF THE PHILIPPINES

Source: IUCN 2012. IUCN Redlist of Threatened Species. Vers. 2012.2. 2012. www.iucnredlist.org (accessed December 2012). DENR - PAWB. "2004 Statistics on Philippine Protected Areas and Wildlife Resources". Quezon City, Philippines. 2004. Threat Status: CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern Occurrence Status: PE = Philippine Endemic, Native = There is a native population in the Philippines but the species can also be seen in other countries Habitat: F = Forest, W = Wetland, C = Coastal

Family	Scientific Name	English Common Name	Local Name	Threatened Birds of the Philippines (Collar et al. 1999)	National Threat Status (2004)	IUCN Redlist Status (2012)	Distribution Summary	Occurrence Status	Habitats	Main Altitudinal Range	Key Threats
Accipitridae	<i>Ichthyophaga ichthyaeus</i>	Grey-headed fish-eagle	Alak-ak	NT	VU	NT	Basilan; Bongao; Luzon; Mindanao; Mindoro; Negros; Calamianes; and Samar.	Native	W, F	<1525m	loss of undisturbed wetlands, over-fishing, siltation, pollution and persecution
Accipitridae	<i>Pithecophaga jefferyi</i>	Philippine eagle	Haring ibon; Tipule; Tipule; maboogook; Agila; darayod; garuda; Kalumbata	CR	CR	CR	Luzon; Samar; Leyte; and Mindanao	PE	F	<1800m	Habitat loss, Hunting and Trade, Unintentionally caught in snares
Accipitridae	<i>Spizaetus philippensis (Nisaetus philippensis)</i>	Philippine hawk-eagle	Manao; banog; Lawin; Agulla.	VU	VU	VU	Luzon, Samar, Leyte, Biliran, Bohol, Negros, Mindanao, Basilan, Siquijor (possibly extirpated), and Panay (unconfirmed)	PE	F	<1000m	Habitat loss, Hunting
Alcedinidae	<i>Actenoides hombroni</i>	Blue-capped kingfisher	Salaksak	VU	VU	VU	Mindanao, Recorded in Basilan, Zamboanga, and Mt. Hilong-Hilong, and Agusan.	PE	F	1000-2000m	Habitat loss, Agriculture Encroachment, Mining
Alcedinidae	<i>Alcedo argenteata</i>	Silvery kingfisher	Salaksak; kibid; susulbot; tikarol	VU	VU	VU	Visayas and Mindanao. Recorded in Siargao, Leyte; Samar; and Bohol.	PE	F, W	<1000m	Habitat loss, Mining, Agricultural Expansion, Pesticide poisoning
Alcedinidae	<i>Ceyx melanurus</i>	Philippine dwarf kingfisher	Biding; salaksak	VU	VU	VU	Luzon; Visayas; and Mindanao, Recorded in Polillo; Alabat; Catanduanes; Samar; Leyte; Basilan; and Ayala Mindanao.	PE	F, W	750m	Habitat loss, Mining
Alcedinidae	<i>Todiramphus winchelli</i>	Rufous-lored kingfisher	Salaksak; tikarol	VU	VU	VU	Visayas, Mindanao, and Sulu Archipelago. Recorded in Bohol; Cebu; Negros; Samar; Sibuyan; Tawi-Tawi; Sicoon; Tablas; Leyte; Mindanao; Basilan; Jolo; Calicoan; Siquijor; Romblon; Zamboanga; Bongao; Biliran; and Papahag.	PE	F	<1000m	Habitat loss

Family	Scientific Name	English Common Name	Local Name	Threatened Birds of the Philippines (Collar et al. 1999)	National Threat Status (2004)	IUCN Redlist Status (2012)	Distribution Summary	Occurrence Status	Habitats	Main Altitudinal Range	Key Threats
Anatidae	<i>Anas luzonica</i>	Philippine duck	Pato del Monte, dumaras (Tag); Kamasu; gakit; tamo; papan (Bis.); Pato ilahas (Hil.)	VU	VU	VU	Bohol; Catanduanes; Guimaras; Lubang; Luzon; Marinduque; Masbate; Mindanao; Mindoro; Negros; Panay; Polillo; Samar; Sibuyan (Goodman et al. 1995); Siquijor and Ticao.	PE	F, W, C	No Available Information	Habitat loss, Hunting and Trapping
Anhingidae	<i>Anhinga melanogaster</i>	Oriental Darter	Kasili (Tag.); Sili-sili (Vis.)	LC	VU	NT	Luzon; Mindanao; Mindoro; Negros; and Palawan.	Native	F, W, C	No Available Information	Habitat loss, Pollution, Disturbance and Hunting
Ardeidae	<i>Egretta euphotes</i>	Chinese egret	Tagak; Tulabong; (Hiligaynon).	EN	VU	VU	Bohol; Cebu; Panay; Samar; Palawan; Basilan; Batan; Olango; Mindoro; and Luzon.	Migratory, wintering in the Philippines	F, W, C	No Available Information	Habitat loss, Pollution, Disturbance and Hunting
Ardeidae	<i>Gorsachius goisagi</i>	Japanese night-heron	Bakaw-gabi (Pli)	VU	EN	EN	Luzon; Mindanao; Negros; Siquijor; Semirara; Leyte; and Palawan.	Migratory, wintering in the Philippines	F, C	No Available Information	Habitat loss, Hunting
Bucerotidae	<i>Aceros leucocephalus</i>	Wreathed hornbill	Kalaw	NT	VU	NT	Mindanao. Recorded in Davao; Dinagat; and, Camiguin	PE	F	300 to 1000m	Habitat loss, Hunting and Trade
Bucerotidae	<i>Buceros hydrocorax</i>	Rufous hornbill	Kalaw	NT	VU	NT	Luzon; Visayas and Mindanao. Recorded in Marinduque; Bohol; Panaon; Samar; Leyte; Calicoan; Buad; Biliran; Basilan; Zamboanga; Dinagat; Siargao; Bucas; Balut; and Taltud.	PE	F	<2100m	Habitat loss and Hunting
Bucerotidae	<i>Aceros waldeni</i>	Walden's hornbill	Tubek; Dulungan (Hil.)	CR	CR	CR	Negros; Panay; Guimaras.	PE	F	300 to 1200m	Habitat loss, Hunting and Trade
Bucerotidae	<i>Anthracoceros marchei</i>	Palawan hornbill	Talusi	VU	VU	VU	Palawan. Recorded in Busuanga; Balabac; Puerto Princesa; and, Calauit.	PE	F	<900m	Habitat loss, Mining and Hunting
Bucerotidae	<i>Anthracoceros montani</i>	Sulu hornbill	Kalaw	CR	CR	CR	Sulu Archipelago. Recorded in Tawi-Tawi; Sanga-Sanga; and Jolo.	PE	F	No Available Information	Habitat loss
Bucerotidae	<i>Penelopides mindorensis</i>	Mindoro hornbill	Tarictic	EN	EN	EN	Mindoro. Recorded in Mt. Halcon.	PE	F, Grassland	<1000m	Habitat loss, Hunting

Family	Scientific Name	English Common Name	Local Name	Threatened Birds of the Philippines (Collar et al. 1999)	National Threat Status (2004)	IUCN Redlist Status (2012)	Distribution Summary	Occurrence Status	Habitats	Main Altitudinal Range	Key Threats
Bucerotidae	<i>Penelopides panini</i>	Visayan tarictic hornbill	Tarictic (Tag); Talusi; Tirc; Taosi (Bis); Tairic; Tulank (Hil)	EN	EN	EN	Panay; Guimaras; Masbate and Negros.	PE	F, Grassland	<1500m	Habitat loss and Hunting
Campephagidae	<i>Coracina mcgregori</i>	Mcgregor's cuckoo-shrike	No Available Information	NT	VU	NT	Mindanao. Recorded in Mt. Malindang; Mt. Kitanglad; Mt. Bliss; and Dagdagan, Mis. Or.	PE	F	1000-1900m	Habitat loss in Mt. Kitanglad, loss of habitat range through climate change
Campephagidae	<i>Coracina ostenta</i>	White-winged cuckoo-shrike	Aliyak-yak; kariyakyak (Bis.)	VU	VU	VU	Guimaras; Panay; and Negros	PE	F	Usually <1100m, Sometimes 1100 - 2150 m	Habitat loss
Charadriidae	<i>Charadrius peronii*</i>	Malaysian plover	Taringting; Talingting	NT	VU	NT	Bantayan; Basilan; Bohol; Calayan; Fuga; Leyte; Luzon; Mindanao; Mindoro; Palawan; Cebu; Romblon; Sibutu; Sibuyan; Siquijor; Tamaran; Ticao; Polillo; Panay; Catanduanes; Balabac; Dumaran; Cahayagan; and Ursula, Dinagat.	Native	W, C	No Available Information	Disturbance of Habitat
Chloropseidae	<i>Chloropsis flavipennis</i>	Philippine leafbird	No Available Information	VU	VU	VU	Cebu, Leyte, and Mindanao.	PE	F	<1000m	Habitat loss
Ciconiidae	<i>Ciconia boyciana *</i>	Japanese white stork	No Available Information	EN	EN	EN	Recorded only in Luzon (Maconacon, Isabela)	Native	F, W, C	No Available Information	Habitat loss
Columbidae	<i>Caloenas nicobarica</i>	Nicobar pigeon	Siete colores	LC	VU	NT	Jolo; Mindoro; Palawan mainland; Negros; Mindanao mainland; Sibutu; Siquijor; Tawi-Tawi; Talaran; Mangsi; Balabac Island; Cavilli; Lumbacan; Ursula; Tumindanao; Baluk-baluk; Basilan; and, Cayoagan.	Native	F, Shrubland	<500m	Habitat loss and Hunting
Columbidae	<i>Gallicolumba luzonica</i>	Luzon bleeding-heart pigeon	Punalada; Punay (Hil.)	NT	VU	NT	Luzon. Recorded in Ilocos Norte; Cagayan; Polillo; Catanduanes; Panay; and unspecified areas near Manila.	PE	F	<1400m	Habitat loss and Hunting

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Columbidae	<i>Phalinopus merillii</i>	Cream-bellied fruit dove	Punay; merilay	NT	VU	NT	Luzon. Recorded in Mt. Tabuan, Cagayan; Polillo; Paete and Pangil; Laguna; Albay; Lucban; Quezon; Sierra Madre near Tanay, Rizal; and, Papaya, Nueva Ecija.	PE	F	<1300m	Habitat loss and Hunting
Columbidae	<i>Treron formosae</i>	Whistling green-pigeon	Punay	NT	VU	NT	Carniguin; Calayan; Batan; and Sabtang islands.	Native	F	<2000m	Habitat loss and Hunting
Columbidae	<i>Ducula carola</i>	Spotted imperial pigeon	Balud	VU	VU	VU	Cagayancillo; Cagayan Sulu; Jolo; Sibutu; Mangsi; Balabac; Calusa; Cavilli; Calaut; Lumbacan; Sipangkot; Ursula; West and East Bolod; Loran; Dammi; and Tumindao.	PE	F	<2400m	Habitat loss
Columbidae	<i>Ducula mindorensis</i>	Mindoro imperial-pigeon	Balud	VU	VU	VU	Mindoro.	PE	F	700-1830m	Habitat loss and Hunting
Columbidae	<i>Ducula pickeringii</i>	Grey imperial-pigeon	Balud	VU	VU	VU	Cagayancillo; Cagayan Sulu; Jolo; Sibutu; Mangsi; Balabac; Calusa; Cavilli; Calaut; Lumbacan; Sipangkot; Ursula; West and East Bolod; Loran; Dammi; and, Tumindao.	PE	F	No Available Information	Habitat loss
Columbidae	<i>Ducula poliocephala</i>	Pink-bellied imperial-pigeon	Balud	NT	VU	VU	Basilan; Biliran; Catanduanes; Cebu; Dinagat; Leyte; Luzon; Masbate; Mindanao; Mindoro; Negros; Panay; Samar; Sibuyan; and Tawi-Tawi.	PE	F	<1500m	Habitat loss and Hunting
Columbidae	<i>Gallicolumba criniger</i>	Mindanao Bleeding-heart	Mukid	EN	EN	EN	Mindanao; Leyte; Samar. Recorded in Dinagat and Basilan.	PE	F	<750m	Habitat loss
Columbidae	<i>Gallicolumba keayi</i>	Negros Bleeding-heart	Punalada (Pil.)	CR	CR	CR	Negros only.	PE	F	300-1200m	Habitat loss and Hunting
Columbidae	<i>Gallicolumba menagei</i>	Sulu Bleeding-heart	No Available Information	CR	CR	CR	Sulu Archipelago. A specimen was taken from Tataan, Tawi-Tawi in 1891. Reported also from Jolo.	PE	F	No Available Information	Habitat loss and Hunting

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Columbidae	<i>Gallicolumba platanae</i>	Mindoro Bleeding-heart	Puñalada	CR	CR	CR	Mindoro only.	PE	F	<750m	Habitat loss and Accidental Trapping
Columbidae	<i>Phapitreron chinereiceps</i>	Tawi-tawi brown dove	No Available Information	CR	CR	CR	Tawi-Tawi.	PE	F	<500m	Habitat loss and Hunting
Columbidae	<i>Phalinopus marchei</i>	Flame-breasted fruit dove	Punay	VU	VU	VU	Luzon. Recorded in Mt. Banahaw, Quezon; Lepanto, Bontoc; Mt. Tabuan; Cagayan; Casiguran, Aurora; Abra; Mt. Sicapo-o; Ilocos Norte; and Mt. Polis, Mt. Province.	PE	F	400-2300m	Habitat loss
Columbidae	<i>Phalinopus arcanus</i>	Negros fruit-dove	Punay	CR	CR	CR	Negros. A specimen was taken from Mt. Kanla-on in 1953.	PE	F	<1100m	Habitat loss and Hunting
Cuculidae	<i>Centropus steerii</i>	Black-hooded coucal	Sukot-sukut	CR	CR	CR	Mindoro only.	PE	F	<760m	Habitat loss
Dicaeidae	<i>Dicaeum haematostictum</i>	Visayan flowerpecker	Panago-to	VU	VU	VU	Negros, Guimaras (presumed extirpated), Panay	PE	F, Scrubland, Gardens	<1250m, usually <1000m	Habitat loss
Dicaeidae	<i>Dicaeum quadricolor</i>	Cebu flowerpecker	Panago-to	CR	CR	CR	Cebu only.	PE	F	<500m	Habitat loss
Dicaeidae	<i>Dicaeum retrocinctum</i>	Scarlet-collared flowerpecker	Tariti	VU	VU	VU	Mindoro, Negros, Panay	PE	F	<1200m, Usually <1000m	Habitat loss
Emberizidae	<i>Emberiza sulphurata</i>	Japanese yellow bunting	No Available Information	VU	VU	VU	Calayan and Luzon.	Migratory, wintering in the Philippines	F, Shrubland	No Available Information	Habitat loss, Hunting and Pesticide Poisoning
Estrildidae	<i>Erythrura viridifacies</i>	Green-faced parrotfinch	Mayang kawayan	VU	VU	VU	Luzon; Mindanao; and Negros. Recorded in Cebu; Los Baños, Laguna; Massiat; Abra; Mt. Cetaceo, Siera Madre San Mariano, Isabela; Dalton Pass, Nueva Vizcaya; Norzagaray, Bulacan; Mt. Apo; Mindanao and Nagoro, Siaton, Negros Oriental.	PE	F, Savanna, Shrubland, Grassland	<1000m	Habitat loss and Hunting
Eurylaimidae	<i>Eurylaimus samarensis</i>	Visayan broadbill	Tukal	VU	VU	VU	Bohol; Leyte; and Samar.	PE	F	<750m	Habitat loss

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Eurylaimidae	<i>Eurylaimus steeri</i>	Mindanao broadbill	Tukai; Tukak (Mind)	VU	VU	VU	Mindanao. Recorded in Agusan; Basilan; Dinagat; Malamaui; and Siargao.	PE	F, Shrubland	<1200m	Habitat loss
Gruidae	<i>Grus antigone*</i>	Sarus crane	Tipol; bibiraw	NT	CR	CR	Luzon mainland. Recorded in Nueva Ecija; Candaba Swamp; Cagayan; Ilocos Norte; Quezon; and Isabela.	Native	W, Grassland	No Available Information	Habitat loss
Megapodiidae	<i>Megapodius cumingi</i>	Tabon scrubfowl	Tabon (Pil.)	LC	VU	LC	Balabac; Busuanga; Calaut; Culion; Palawan; Talampulan; Tanabon; Ursula; Balukbaluk; Bantayan; Batan; Basilan; Bohol; East Bolod; Bongao; Buluan; Cabo; Cagayancillo; Cagayan Sulu; Calayan; Camiguin Norte; Camiguin Sur; Catanduanes; Cebu; Cresta de Gallo; Dinagat; Fatima; Fuga; Gigantes; Jolo; Leyte; Luzon; Manuk manka; Marinduque; Masbate; Mindanao; Mindoro; Negros; Polillo; Romblon; Samar; Semirara; Sicogon; Siargao; Sibutu; Sibuyan; Tablas; Tara; Tawi-Tawi; Ticao; Tres Islas; and Tumindao.	Native	F, Shrubland	250-2000m	Habitat loss
							Leyte; Samar; and Mindanao. Recorded in Basilan; Dinagat; and Catbalogan.	PE	F	<1200m, usually <900m	Habitat loss
Muscicapidae	<i>Ficedula basianica</i>	Little slaty flycatcher	No Available Information	VU	VU	VU	Palawan	PE	F	<650m	Habitat loss
Muscicapidae	<i>Ficedula platenae</i>	Palawan flycatcher	No Available Information	VU	VU	VU	Luzon (probably from Bataan only); Dinagat; Basilan; Negros; Sibuyan; and Samar.	PE	F	<750 m	Habitat loss
Muscicapidae	<i>Hypothymis coelestis</i>	Celestial blue monarch	Pipit	VU	VU	VU	Luzon and Negros. Recorded in Dalton Pass, Sta Fe, Nueva Viscaya; Pangli, Laguna; and Valencia, Negros.	PE	F	<1200m, Generally <1000m	Habitat loss
Muscicapidae	<i>Muscicapa randi</i>	Ashy-breasted flycatcher	Ti-dik	VU	VU	VU					

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Muscicapidae	<i>Rhinomyias albigularis</i>	White-throated jungle flycatcher	No Available Information	EN	EN	EN	Negros, Guimaras (presumed extirpated), Panay	PE	F	<1350m, usually <950m	Habitat loss
Muscicapidae	<i>Rhinomyias insignis</i>	White-browed jungle flycatcher	No Available Information	VU	VU	VU	Mountains of Lepanto.	PE	F	>950m	Habitat loss
Phasianidae	<i>Polyplectron napoleoni</i>	Palawan peacock-pheasant	Tandikan (Palawan Tagbanua Batak)	VU	VU	VU	Palawan	PE	F	<800m	Habitat loss
Picidae	<i>Dendrocopos ramsayi</i>	Sulu woodpecker	Kasay-Kasay	VU	VU	VU	Restricted to Sulu Islands.	PE	F, Grassland	No Available Information	Habitat loss
Pittidae	<i>Pitta kochi</i>	Koch's pitta	Bakwa	VU	VU	VU	Luzon. Recorded in Mt. Cagua and Cordillera Mountain, Cagayan; Balian, Laguna; and, Mt. Isarog, Camarines Sur	PE	F	360-2,200m	Habitat loss
Pittidae	<i>Pitta steerii</i>	Azure-breasted pitta	Tukak	VU	VU	VU	Bohol; Samar; Leyte; and, Mindanao.	PE	F	<750m	Habitat loss
Psittacidae	<i>Tanygnathus lucionensis</i>	Blue-naped parrot	Loro (Tag.); Perio; Pikoy; Angale (Bis.); Perico	NT	VU	NT	Luzon; Mindoro; Palawan; Visayas and Mindanao. Recorded in Mt. Arayat, Pampanga; Davao; Polillo; Samar; Jolo; Basilan; Bohol; Busuanga; Negros; Cagayan Sulu; Caluya, Cebu; Bantayan; Culion; Puerto Princesa; Guimaras; Maestre de Campo; Samar; Sibutu; Ticao; Verde Samal; Sibay; Boracay; Semirara; Calaut; Burias; Leyte; Lapac; Loran; Tumindao; Balut; Fatima; Manuk Manka; Pangapuyan; Sarangani; West Bolod; Jinanoc; and Biliran.	Native	F	<1000m	Habitat loss and Hunting

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Pittidae	<i>Cacatua haematropygia</i>	Philippine Cockatoo	Kalangay (Tag.); Abucay; katale (Bis.)	CR	CR	CR	"Known to have occurred in Balabac; Bantayan; Basilan; Bohol; Bongao; Cebu; Cullion; Guimaras; Jolo; Lapac; Leyte; Lubang; Luzon mainland; Marinduque; Masbate; Mindanao mainland; Mindoro; Negros; Panay; Nipa; Palawan mainland; Panaon; Samar; Siquijor; Tablas; Tawi-Tawi; Polillo; Boracay; Catanduanes; Calicoan; Buad; Siargao; Dinagat; Calautit; Manuk Manka; Loran; Sarangani; Tumindao; and Gigantes Island. The species is now believed extinct in most of these areas."	PE	F, C	No Available Information	Habitat loss and Hunting
	<i>Prioniturus luconensis</i>	Green-headed racket-tailed parrot	No Available Information	VU	VU	VU	Luzon; Marinduque; and Davao	PE	F	300-1000m	Habitat loss and Hunting
Pittidae	<i>Prioniturus platenae</i>	Blue-headed racket-tail	Loro; Kanawihan (Tag.); mananguing; biloy (Bis.); Pikoy (Hil.)	VU	VU	VU	Palawan. Recorded in Balabac; Busuanga; Cullion; Dumaran; and Calautit.	PE	F, Savanna and Shrubland	<300m	Habitat loss
Pittidae	<i>Prioniturus verticalis</i>	Blue-winged racket-tail	No Available Information	EN	EN	EN	Tawi-Tawi. Recorded in Tataan; Bongao; Sibutu; Manuk-	PE	F	No Available Information	Habitat loss
Pycnonotidae	<i>Ixos siquijorensis</i>	Streak-breasted bulbul (Mottled-breasted bulbul)	Tagmaya; Tagbaya (Bis); Tigbaya (Siq)	EN	EN	EN	Tablas, Romblon, Siquijor, Cebu	PE	F	No Available Information	Habitat loss
	<i>Euryornithus pygmaeus</i>	Spoon-billed sandpiper	No Available Information	VU	VU	CR	Two birds were recorded in 1996 at Bicobian Bay, midway between Maonacon and Palanan, Isabela, Luzon.	Migratory, wintering in the Philippines	W, C	No Available Information	Habitat loss

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Scolopacidae	<i>Numenius tahitiensis</i>	Bristle-thighed curlew	No Available Information	VU	VU	VU	Recorded in Minagas Point, Dalaan Bay, Balabac, Palawan.	Migratory, wintering in the Philippines	C, Grassland	100-350m	Habitat loss, Hunting
Scolopacidae	<i>Tringa guttifer</i>	Nordmann's greenshank	Talingting	EN	EN	EN	Cebu and Luzon. Recorded in Obando, Bulacan; Calatagan, Batangas; and Minglanilla, Cebu.	Migratory, wintering in the Philippines	F, W, C and Grasslands	No Available Information	Habitat loss, Hunting and Pollution
Silviidae	<i>Acrocephalus sorghophilus</i>	Streaked reed-warbler	Tigso	VU	VU	VU	"Luzon; Negros; and Bohol. Recorded in Dalton Pass, Nueva Vizcaya; Benguet; Laguna; Pampanga; Negros; and Bohol."	Migratory, wintering in the Philippines	Grassland, Wetland	No Available Information	Habitat loss
Silviidae	<i>Phylloscopus ijimae</i>	Ijima's leaf-warbler	No Available Information	VU	VU	VU	Luzon. Recorded only in Mt. Cayapo, Lamao, Bataan.	Migratory, wintering in the Philippines	F, Scrubland	850-930m	Habitat loss
Sternidae	<i>Sterna bernsteini</i>	Chinese crested tern	Kanaway; ibong dagat	CR	CR	CR	Luzon. A bird was collected along Manila Bay in 1905. Another record simply indicated "Philippines".	Migratory, wintering in the Philippines	W, C	No Available Information	Habitat loss
Strigidae	<i>Bubo philippensis</i>	Philippine eagle-owl	Kuwago; Kwago.	VU	VU	VU	Luzon; Mindanao; Samar and Leyte.	PE	F	<1250m	Habitat loss and Hunting
Strigidae	<i>Otus gurneyi</i>	Giant scops-owl	Kwago.	VU	VU	VU	Mindanao. Recorded in Zamboanga and Siargao.	PE	F	<650m	Habitat loss
Sturnidae	<i>Gracula religiosa</i> *	Palawan hill myna	Tiyaw (Tagbanua, Palawan, Batak).	LC	VU	LC	Balabac; Busuanga; Cullion and Palawan islands.	PE	F	<500m	Hunting
Timaliidae	<i>Ptilichila falcata</i>	Falcated wren-babbler	No Available Information	VU	VU	VU	Palawan	PE	F	<1350m	Habitat loss
Timaliidae	<i>Stachyris nigrorum</i>	Negros striped-babbler	Kuyutan	EN	EN	EN	Negros. Recorded in Cuernos de Negros. Talinis and Siaton.	PE	F	950-1600m	Habitat loss
Timaliidae	<i>Stachyris speciosa</i> (<i>Dasytrotopha speciosa</i>)	Flame-templed babbler	Kuyutan	EN	EN	EN	Negros, and Panay	PE	F	<1180m, usually <1000m	Habitat loss
Turdidae	<i>Copsychus cebuensis</i>	Black shama	Siloy; Asosiloy; Aninihol; Asisihol	EN	EN	EN	Cebu	PE	F		Habitat loss
Turdidae	<i>Rhyacornis bicolor</i>	Luzon water-redstart	Ulisin (Irisan; Benguet)	VU	EN	VU	Mountains of Northern Luzon south to Dalton Pass and east to Sierra Madre Mountain Range, Quirino Province.	PE	Streams in F	>300m	Pollution of streams

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Turdidae	<i>Zoothera cinerea</i>	Ashy thrush	No Available Information	VU	VU	VU	Luzon mainland and Mindoro. Recorded in Apuyao, Mt. Province; Metro Manila; Bulacan; Nueva Vizcaya; Cavite; and, Laguna.	PE	F	<1100m	Habitat loss

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Philippine Eagle
Critically Endangered

The Staring Competition photo by J Kahlil Panopio.
A Northern Rufous Hornbill (lower left) and a Philippine Eagle (upper right)
perched on the same tree staring at each other.
This photo was taken at the Mingan Mountains of Nueva Ecija.

Northern Rufous Hornbill
Near Threatened

Haribon Foundation & BirdLife International

The State of Philippine Birds

