



# Interesting PHILIPPINE ANIMALS

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The Philippine Science Heritage Center is a project of the Philippine National Academy of Science and Technology. The Center highlights the important contributions of the Philippines to the world of science for a better tomorrow. In agriculture alone, the Philippines has significant contributions not known to many Filipinos that have affected their lives. The inventive genius of the Filipinos is hardly known in the Philippines. These will be collected and highlighted.

The objective of the Center is to elicit a sense of pride in every Filipino who visits it – a feeling of greatness in the richness of our science heritage. An exhibition area is being developed in the Department of Science and Technology.

For those unable to visit the Center, written materials on the different contributions of the Philippines to the scientific world are being published. Such publications can also be used by schools in teaching values education with scientific insights.

This booklet is a part of the series.



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**T**he Philippine archipelago is home to an astounding number of unique and rare plants and animals. Like other countries with island ecosystems, it boasts of a great variety and abundance of wildlife. No two islands are identical, including their wildlife.

In animals alone, the Philippines seems to have it all. Its waters are the home of both the largest and the smallest fish in the world: the whale shark (20-25 meters) on one hand and the *Pandaka pygmaea* (11 millimeters), a miniature goby, on the other. Across the Philippine skies flies the Philippine eagle, the second largest eagle in the world, and one of the most majestic birds of prey.

Our islands are also characterized by a very high number of endemic species. An “endemic” animal is a native of a specific geographical region and can be found only there. We have many of these: The Philippine tarsier, flying lemur, cloud rat, Palawan peacock pheasant, and tamaraw are but a few of the rich pool of animals found only in the Philippines and nowhere else.

There is one major problem common to many of our endemic animals: Their habitats are rapidly vanishing because of conversion for other uses, and as a result of habitat destruction many of these animals are now endangered species. The word “species” means animals with common characteristics and the same name.

In the 1930s, the Philippines had about 16 million hectares of old-growth forests. Less than 60 years later, not even a million hectares remained. Tropical rainforests such as ours are rich with plant and animal life, each occupying its respective corner in the forest, contributing towards the balance of the ecosystem. The destruction of the forests instantly makes the threat of extinction more real for the animals that make it their home. It is therefore difficult to imagine the number of wildlife that have been destroyed together with these forests; countless species had not even been collected and identified before they were lost for good.

Practically every Filipino can differentiate a tiger from a lion, and a giraffe from a zebra. However, not many of us know what the tarsier, mouse deer, and peacock pheasant look like. How can we appreciate and hope to save these unique Philippine animals if we don't even know that they exist?

Our appreciation for them must come hand in hand with awareness of the threats to their existence, and an active concern so that the constraints to their survival may be lessened, or even removed. It is necessary that we become informed about these creatures — where they live, what they eat, what they do to survive — so that we may better respond to their needs. After all, these priceless living treasures are part of what makes the Philippines a special place. Lose them, and the country loses part of its natural heritage. The sad part is, extinction is forever.

## MAGO

The *mago* or tarsier is frequently cited as the "smallest monkey," but in reality this nocturnal creature is not a monkey but a prosimian. "Pro" means "before" and "simian" means "monkey" or "ape." The tarsier belongs to a group of primates considered more primitive than monkeys and apes in terms of evolution.

The mago is uniformly grey or reddish-brown in color. It has unique and unusual features. In fact, it has been said that Stephen Spielberg's ET was modeled after the tarsier's eyes and its long hands and fingers.

In proportion to its body, the tarsier's eyes are the biggest among all animals. They are, however, fixed in their sockets and cannot move. To see sideways, a tarsier must turn its head. Fortunately, its head can turn nearly 360 degrees, giving it an extremely wide field of vision. Its acute sense of sight complements its high sensitivity to sounds. The tarsier has paper-thin ears that can be twisted to focus on a particular sound. The ears can also be crinkled when the tarsier is excited, and can move independently.

The mago leaps an average of 1.4 meters, and can leap a maximum of 6 meters. Its powerful fingers are marked by enlarged and rounded soft pads at the ends, which aid it in clinging to trees. The mago inhabits the undergrowth of forests, where it easily moves around numerous saplings, vines, and bamboo trees. Tarsiers are commonly found in dense patches of bushes, tall grasses, bamboo, and small trees in tropical rainforests. They are also found in

**Mago**  
*Tarsius syrichta*



English name:  
Philippine tarsier

Local names: *Mago, mamag, amac* (Bis),  
*magau, magatilokok, majo, malmay*

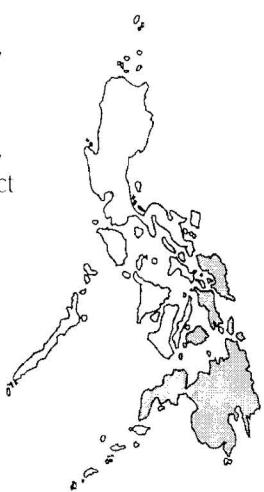
Distribution: **Endemic.** Reported in Leyte, Samar, Bohol, Mindanao, Maripipi, Dinagat, Siargao, Basilan and Biliran islands

Habitat: Primary to secondary growth forests in lowlands and at medium elevation



Food: Crickets, beetles, termites, grasshoppers, cockroaches, moths, locusts, spiders, mice, crabs, lizards, small fish, young birds, frogs, worms, and insect larvae

Current status: Locally common due to its tolerance of secondary growth habitat; vulnerable species



abandoned clearings with new growth of medium height plants, both in the lowlands and at medium elevations.

A timid animal, the mago dislikes strong light, even normal sunlight. It sleeps in dense vegetation and tree perches during the day, making it easy prey for trappers, who just have to shake the bush or tree to dislodge it. It is a docile and silent creature during the day but is quite alert at night, especially when hunting for its prey. When disturbed or frightened, it curls up like a baby monkey, sometimes biting intruders with its sharp teeth.

The mago may look cute and cuddly but actually does not make a good pet. It smells bad because it emits strong glandular secretions and marks its territory by urinating on specific spots on trees.

At night it is often found at the edges of clearings looking for food and pieces of charcoal as a source of salt. The mago feeds on a variety of insects and small animals. A particularly picky eater, it will eat only live prey that it first observes, then catches with both hands before popping into its mouth. It can consume as many as 17 hoppers or 5 lizards a day. It will rarely, if ever, eat any insect that falls on the ground. The prey is chewed with side-to-side movements of the jaw while the mago sits upright on its hindquarters. It drinks water by lapping it up.

Tarsiers are monogamous. Mating occurs in April and May, the female giving birth to a single baby. The female shows little tolerance for the male immediately before and after giving birth. In captivity the male is observed to have less

participation in the care for the young. The baby is carried clinging to the neck of the mother, but after two months it is left in its hiding place. Since breeding time coincides with the preparation of land for kaingin planting, a lot of sluggishly moving pregnant females are often needlessly killed. At the same time, rapidly advancing sedentary cultivation into the habitat of the tarsier has diminished its numbers.

In the wild, a tarsier may live up to 20 years, but in captivity its lifespan is only up to 13 years.

## TAMARAW

The country's largest wild animal is the rare tamaraw, a smaller version of the Asian water buffalo or carabao. It is closely related to the anoa, another rare, fierce dwarf water buffalo found only in the remote forests of Sulawesi. The tamaraw feeds on grass in the morning and rests in the shade during the afternoon. Unlike the carabao, which has no sweat glands, the tamaraw doesn't wallow in mud or water to cool off. One other difference is that its horns are short, straight, and sharp, assuming a V-form instead of the carabao's long, curved, and blunt horns, which grow into a wide semicircle. The bull or male tamaraw has a flattened pair of horns and is brown in color, while the female has rounded horns and is darker in pigmentation.

The tamaraw is shy and timid, but can be ferocious when threatened. It is reputedly hard to hunt because of its keen sense of smell and hearing, enabling it to detect hunters and enemies more than a kilometer away.

**Tamaraw**  
*Bubalus mindorensis*



English names: Tamaraw, Philippine dwarf water buffalo

Local names: Tamaraw, *timaraw*, *timaran*

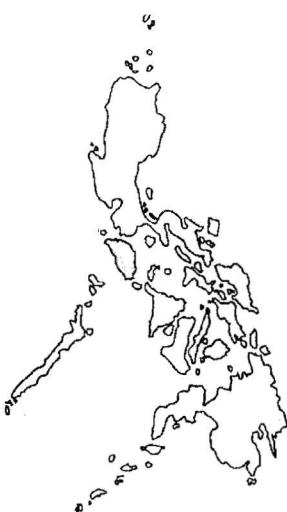
Distribution: **Endemic**. Mindoro island only

Habitat: Dense vegetation along rivers, lowlands, marshy areas, open grasslands and forests



Food: Grasses

Current status: Rare and geographically restricted; severely **endangered** and declining



This animal frequents dense vegetative shelters along the rivers and lowlands of Mindoro, and spends much of its time in marshy areas. It is also frequently found in open grasslands and forests, and ranges from sea level up to the high ridges, at elevations of more than 2000 meters.

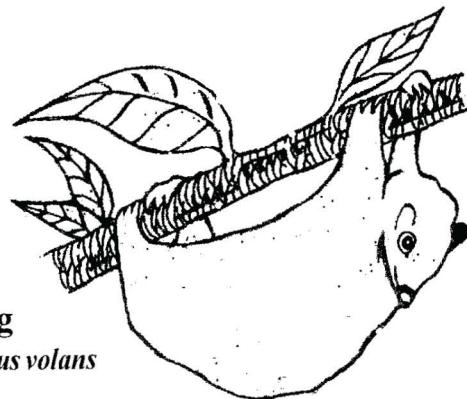
The tamaraw has been hunted for food and sport for many years and is now severely endangered. Although its grazing grounds in the uplands of Mindoro have been declared national wildlife sanctuaries, and in spite of government regulations prohibiting its capture and killing, the species continues to be killed and collected illegally.

## KAGWANG

The Philippine flying lemur or *kagwang* is not a true lemur. Neither does it fly; it glides. True lemurs are prosimians found only on the island of Madagascar, off the coast of Africa. The kagwang's head resembles that of a true lemur, and it has the same staring expression in the eyes. The female kagwang is distinguished from the male by a bright yellow stripe that runs down the middle of her face.

There are only two species of flying lemurs (Order Dermoptera) in the world: the Philippine flying lemur and the Malayan flying lemur (*Cynocephalus variegatus*).

The kagwang is an animal with beautiful fine fur. Found at the sides of its body are finely furred membranes connecting with the forelimbs and hindlimbs; other narrow membranes con-



**Kagwang**

*Cynocephalus volans*

English names: Philippine flying lemur, Philippine colugo

Local names: *Kaguang/kagwang* (Bis.), *cabal* (Mind.), *colugo*, *kolago* (Tag.), *mimmal* (Samal), *cago*, *gagua*, *gigua*, *quingua*

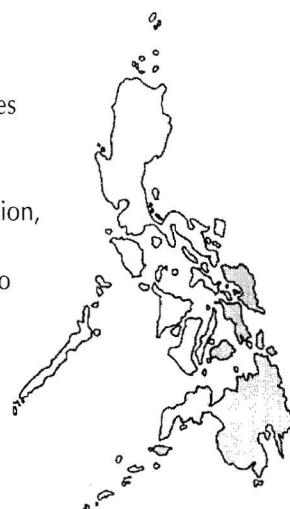
Distribution: **Endemic**. Widespread in Samar, Leyte, Bohol, Maripipi, Mindanao, Dinagat, Siargao, Biliran, and Basilan

Habitat: Roosts in specific holes or in trunks of tall trees, usually in dense hardwood forests, during daytime



Food: Buds and leaves

Current status: Stable population, common in primary and secondary forests at low to middle elevations, mixed forests, and orchards



nect the inner sides of each forelimb and the sides of the neck; and another membrane connects both hindlimbs with the entire length of the tail from base to tip. These membranes aid in gliding, bearing the lemur through the air.

Nocturnal in its activities, the flying lemur spends the daytime inside a specific hole in the trunk of a standing dead tree, or hanging by its forelimbs and hindlimbs from the underside of a branch. It usually selects a branch on the middle storey or the highest storey in three-storey forest, usually in dense hardwood forests. The fur blends with the color of the tree trunks or branches, serving as camouflage and making it difficult for the animal to be seen, much less recognized by hunters.

The kagwang typically emerges from its hole at dusk. It climbs to the peak of its tall tree home, jumps off, and glides toward neighboring trees in search of food. Of remarkable interest is its capacity to travel fast and cover wide distances using this technique. It can glide as far as 80 meters — almost three times the length of a basketball court — in a single leap. A mother flying lemur sometimes leaves her hole with a young one clinging to her underside.

The kagwang is an active night feeder, relying heavily on buds and leaves. Where there are tall trees, whether naturally growing or planted, the flying lemur abounds. Unfortunately its habitat has been destroyed by logging and consequent conversion of forestland to other uses such as agriculture.

## BUOT

*Buot* or Philippine cloud rats are among the most spectacular and attractive rodents in the world. All species have relatively long, dense fur that is spectacularly colored and patterned, and at times quite variable. Apart from their larger size, cloud rats are externally distinguished from all other rodents by their densely furred tail. There are two species known as giant cloud rats. The Northern Luzon giant cloud rat is relatively large, with a slender tail and head-and-body length up to 45 centimeters. It is predominantly white with a distinct black mask and collar. Upon birth, its color is white, and as it grows older its coloration changes to grayish brown.

Buot are generally nocturnal and live alone, in pairs, or in pairs with one or two dependent young, which are born in the hollow holes of standing or fallen trees or in holes in the ground.

Generally herbivorous, the buot feeds on leaves, fruits, and roots. Its water requirement is low, apparently being satisfied mostly by the succulent food it consumes. The cloud rat's method of consuming food is distinctive: It holds the food with its forepaws and eats while in an upright posture, chewing loudly. In captivity, the peels of sweet potato, banana, and gabi are bitten off before being consumed.

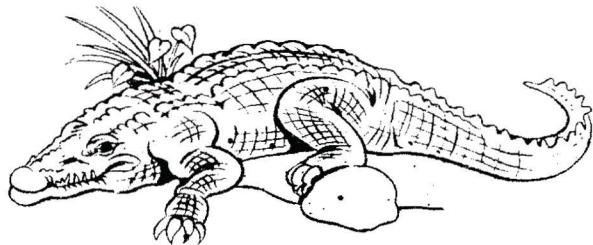
All cloud rats are endemic to the Philippines. This includes the Southern Luzon cloud rat or *bugkun* (*Phloemys cumingi*) found in Laguna, Quezon and the Bicol peninsula; the Ilin Island cloud rat (*Crateromys paulus*); the Dinigat Is-

Though not as large as the Indo-Pacific crocodile, the buwaya is widely known for its ferocity. The female exhibits aggressive behavior about 2 weeks before laying her eggs, increasing in intensity as incubation progresses. She lunges at human intruders and natural predators coming within 4-5 meters of the nest. When disturbed or about to attack, she snaps her mouth and makes hissing sounds. The male generally does not show this behavior of defending the nest. The Philippine crocodile has never been known to openly attack humans without provocation.

In the wild, the buwaya exhibits the sit-and-wait foraging tactic. It submerges itself and slows down its heartbeat to six beats a minute while waiting for live prey. It conceals itself while submerged in water, with only the nostrils, eyes, and ears showing above the surface. Then, in a flash, it streaks to the surface and attacks the prey with great and surprising speed. A big kill is usually broken into smaller, manageable pieces by violent shaking of the crocodile's head and neck.

Juvenile crocodiles prefer smaller food items, mostly insects, fish, frogs, lizards, snakes, and turtles. Adults tend to prefer bigger vertebrates such as larger lizards, snakes, fish, water birds, and mammals. Contrary to popular belief, crocodiles are not greedy eaters; they can last for weeks between feedings.

Being a cold-blooded vertebrate, the buwaya does not spend a lot of energy in order to regulate its body temperature. It regulates its body temperature through behavioral patterns. For



## Buwaya

*Crocodylus mindorensis*

English names: Philippine crocodile, Philippine freshwater crocodile, Mindoro crocodile

Local names: *Buwaya, buaya*

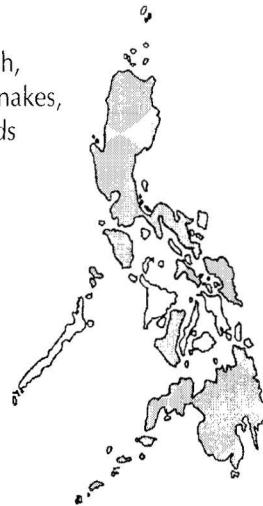
Distribution: **Endemic**. Mindoro, Busuanga, Masbate, Culion, Negros, Luzon, Samar, Mindanao, and the Sulu archipelago

Habitat: Freshwater marshes, small lakes, swamps, ponds, mangroves, and large rivers



Food: Insects, crustaceans, fish, frogs, lizards, snakes, turtles, and birds

Current status: **Endangered**



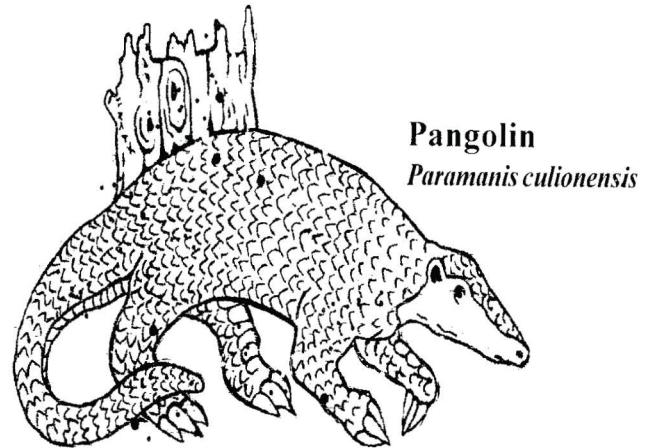
instance, to keep itself warm, it basks in the sun, and to cool itself, it stays in the shade or lies mostly submerged in water. To release excess heat by evaporation, it simply opens its mouth.

## PANGOLIN

The pangolin is a medium sized mammal found in the forests of Palawan, Borneo, and adjacent islands. An endemic species is found in the Philippines. It is also known as the scaly anteater because of the presence of scales, which are actually modified hair and completely different from reptile scales. The pangolin is a nocturnal animal that gives birth only once a year. It is pale and yellowish in color with translucent dermal scales overlapping on most parts of its body. Its ears are small and well adapted to burrowing. It has poor eyesight, but its sense of smell is highly developed.

The name pangolin comes from a Malay word for "round cushion," referring to the animal's defense of curling up into a ball. It moves about slowly, and when disturbed or threatened, rolls itself into a scaly ball with the head and belly innermost. It is difficult to unroll by the average person, because the more pressure one applies, the tighter its roll becomes. The tail is used for lashing out at enemies with the sharp edges of its scales. It also sprays urine and anal gland secretions on persistent intruders.

An expert digger and good climber, this toothless, nocturnal mammal feeds exclusively on ants and termites. It uses its large claws to dig into



**Pangolin**  
*Paramanis culionensis*

English names: Scaly anteater, Palawan pangolin

Local names: *Tangiling, tanggiling* (Palawan), *goling, balikon, balintong, balekon* (Cuyo)

Distribution: Found only on Culion, Busuanga, and Palawan

Habitat: Primary and secondary lowland forests



Food: Ants and termites

Current status: Rare and uncommon, heavily hunted; possibly **endangered** in the Philippines



termite mounds. It breaks open termite nests, both those on the ground and those on trees, and feeds on the termites that are dislodged, using its tongue (sometimes as long as 25 centimeters) to lick them up with efficiency.

The pangolin is hunted for its scales, which are believed to have medicinal value. They are ground and mixed into potions that are used for combatting asthma, fever, skin diseases, and venereal diseases. However, this belief has no medical basis.

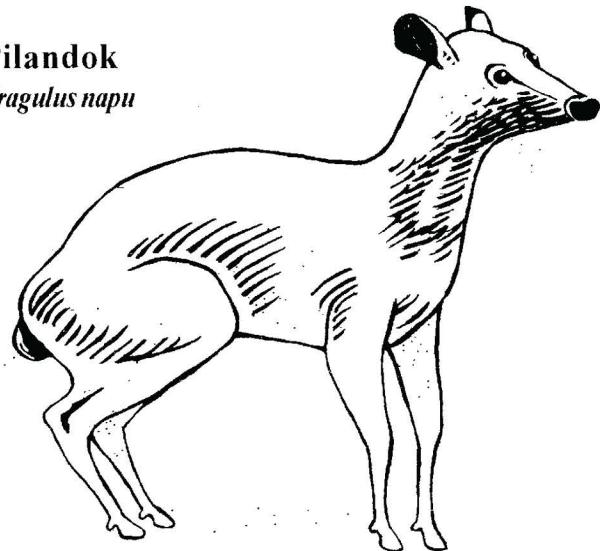
## PILANDOK

The English name "mouse deer" is misleading, because the pilandok is neither a mouse nor a deer. One of the smallest of hooved animals, it is hardly 30 centimeters high. It has the face and body of a mouse and the hooves, hair, and color of a deer. It also possesses a digestive system similar to that of a deer. The color is brownish-black with three prominent white lines from the jaw down to the lower section of the neck. The pilandok has four developed toes. It does not grow antlers like real deer, but the male has tusklike upper canine teeth used in fighting, especially during the courtship season. Both male and female have lower incisors, a characteristic typical of ruminants (cud-chewers). The incisors are very sharp, and can easily cause bad cuts. The canines serve as the main protective structures of the animal.

Like the carabao, tamaraw, and deer, the pilandok feeds by instantly swallowing lumps of plant material, rolled without much chewing into

### Pilandok

*Tragulus napu*



English names: Mouse deer, chevrotain

Local name: *Pilandok*

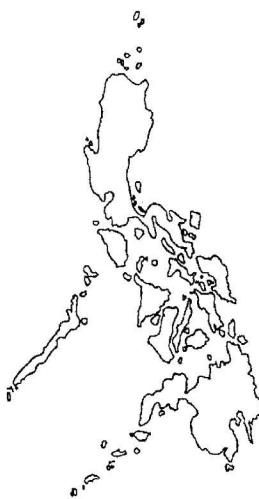
Distribution: Balabac, Bugsuc, and Ramos islands; southern tip of Palawan

Habitat: Primary and secondary forests and scrub



Food: Plant material

Current status: Population declining



the first chamber of the stomach, the rumen. Later, as the animal rests, the cud is regurgitated from the rumen to the mouth and chewed finely. The resulting material then goes to another chamber of the stomach. The pilandok feeds mostly on leaves, grasses, and other plants in the forest.

This animal is active at night. During the day, it stays in deeply shaded spots, among the dense vegetation, inside original forests. Mouse deer may also be found inside the second-growth forests close to original forests. The animal is difficult to find in the forest during the day, but at night it roams around cleared areas, even close to the seashore.

The pilandok is commonly encountered along roadsides at night with the use of a flashlight. Its eyes flash very brightly once caught in the beam, and it normally stares for some time before fleeing.

## HARING IBON

The *haring ibon* or Philippine eagle is the great eagle of Asia – one of the largest birds of prey in the world. Formerly called the “monkey-eating eagle,” it is the world’s second-largest eagle (after the South American harpy eagle), with a wingspan of over 2 meters. The harpy eagle is merely heavier by about one kilo (up to 9 kilograms in weight compared with the haring ibon’s 8 kilograms) and has larger legs and feet. However, the Philippine eagle is taller and its wingspan — about 1.5 meters — is wider. In terms of size, it also beats the American bald eagle.



**Haring Ibon**  
*Pithecopha jefferyi*

English names: Philippine eagle, great Philippine eagle

Local names: *Haring ibon, haribon, manao*

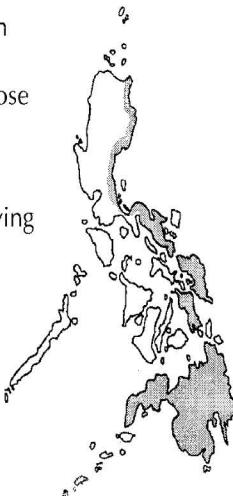
Distribution: **Endemic**. Leyte, Samar, Sierra Madre Range of Luzon, and Mindanao only

Habitat: Dense primary forests on remote mountainsides; well-forested peaks, especially those with dense hardwood forests



Food: Monkeys, flying lemurs, flying squirrels, civets (musangs), and snakes

Current status: Critically endangered



The name "haring ibon" comes from the Tagalog words "hari" meaning "king" and "ibon" meaning "bird." It is a fitting name for this majestic creature, which has been named our national bird, replacing the small *maya* or rice-bird/sparrow.

The haring ibon was first observed in Samar in 1896 by John Whitehead. Its scientific name *Pithecophaea jefferyi* was taken from the Greek words "pithekos" meaning "monkey" and "phaegin" meaning "eater"; "jefferyi" is in honor of Whitehead's father Jeffrey.

The haring ibon may live for up to 60 years, but its reproduction rate is slow. A single, pure white, fist-sized egg is produced every 2 years. Nesting begins in late September to early December. The eagle's nest, which can be 3 meters wide, is built up to 50 meters above the ground on ferns or orchids growing in the canopy of a giant hardwood. It chooses the highest elevation for its nest, providing the mating pair a panoramic view of the entire area. The eagle does not mate in mid-air. Rather it displays aerial courtship, which is often mistaken for mating in mid-air.

Its feeding area covers approximately 40 square kilometers. It favors dense, primary forests on remote mountainsides where it hunts its principal food: monkeys, flying lemurs, flying squirrels, civets, birds, and large snakes. Because of the rapid destruction of its forest habitat, it is now known that the Philippine eagle occasionally preys on small domestic animals that it finds in the kaingin clearings of farmers who have settled in the densely forested areas of large

mountain masses. Along with the shrinking habitat, the number of prey has also decreased.

Although protected by law, the Philippine eagle is severely endangered due to mindless trophy-hunting and the encroachment of loggers and kaingin farmers on its habitat. Today, there are barely 100 of these giant eagles left in the wild. Attempts have been made to breed this bird in captivity. In 1992, these efforts bore fruit. Much work, however, remains to be done, and the haring ibon remains a globally critically endangered species, seriously threatened with extinction.

## KUAGO

The name *kuago* is a general Tagalog term for owl. The Philippines has 15 species of owls, and 8 of these are endemic. The Philippine eagle owl is a large, round-faced bird that lives near rivers in lowland forests. It has lengthened feathers above and behind the eyes called ear tufts, which resemble horns. The plumage, which is soft, fluffy, and plentiful, is mainly reddish with black and dark brown streaks. The throat region is whitish. The largest owl in the Philippines, the *kuago*, is called eagle owl because it resembles the robust body of an eagle.

Mainly nocturnal, the *kuago* is a predator, feeding mostly on small mammals such as rats and mice, small birds, snakes, lizards, frogs, and insects. Like most owls, it uses its powerful talons to capture prey, and its bill to tear into pieces big prey that are too large for it to swallow. The owl's wing feathers are adapted for



## Kuago

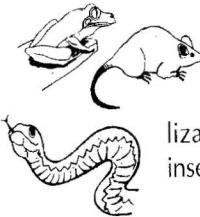
*Bubo philippensis*

English name: Philippine eagle owl

Local names: *Kuago* (common name for many species of owls), *bukaw* (Bis.)

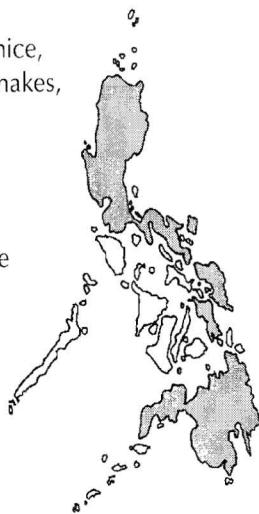
Distribution: **Endemic.** Luzon, Mindanao, Leyte, Samar, and Catanduanes

Habitat: Lowland forests, near rivers



Food: Rats, mice, small birds, snakes, lizards, frogs, and insects

Current status: **Endangered** due to habitat loss



silent flight, which allows it to surprise its prey. Its large, round eyes are fixed in their eye sockets, which take up more than one half of the skull. These eyes allow the kuago to see small prey even in the dark. Because its eyes are fixed, the kuago turns its head nearly 360 degrees to get a wide view of its surroundings.

An owl is unable to digest the bones, feathers, and fur of its prey; it regurgitates these undigested items as pellets.

## KALANGAY

The Philippine cockatoo, also known as the red-vented cockatoo, was once a common cage bird capable of mimicking human voices. Locally called *kalangay*, it has a predominantly white plumage that produces a distinct contrast against the color of the forest. Because of this contrast, it is easy to locate among dense vegetation. Other distinguishing features of the kalangay are its crest or feathers on the head, which can be raised when excited or alarmed, and the orange-red color of the feathers under the tail.

The kalangay is a gregarious and noisy bird. It seems that its constant vocalization, especially when in flight, is used to maintain contact with members of the flock. The call of the cockatoo is low pitched, somewhat harsh sounding, and melodic.

Both in the wild and in captivity, these birds form permanent pairs that breed for life. The death of a partner could cause delayed breeding with a new partner if one is found. The fidelity

## Kalangay

*Cacatua baematuropygia*



English names: Philippine cockatoo, red-vented cockatoo

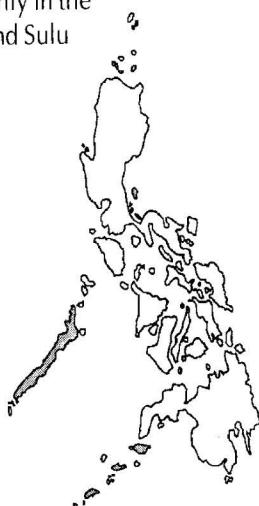
Local names: *Kalangay, katala*

Distribution: Formerly found throughout the Philippines, but now found only in the islands of Palawan, Polillo, and Sulu archipelago

Habitat: Primary and secondary-growth forests, mangroves, swamps, and cultivated areas

Food: Seeds, nuts, and berries

Current status: Critically endangered because of overhunting and habitat loss



of the parents to the nest is exhibited by the kalangay's return to the same nest every nesting time.

The kalangay feeds on small fruits of trees growing in forests and in cultivated areas. It uses its heavily hooked and powerful bill to grasp food and to crack hard seeds and nuts. It also uses one of its clawed feet to bring food to its beak. As in other species of parrots, its tongue is thick and fleshy. Because of its structurally adapted bill, the cockatoo has become an expert in extracting the kernels and discarding the husks of corn. Furthermore, the bill is used to help the bird in balancing itself by pressing against the limbs of a tree while moving up and down on its feet.

The kalangay is found both in secondary growth forests and along the forest edge as well as in primary forests, mangrove swamps, and cultivated areas. It has been known to be destructive to crops by feeding on ripening grains of corn in kaingin areas. It roosts close to its nest, in holes, or in cavities in tall trees.

The kalangay is the second-most hunted wildlife species in Palawan. In the past it was found abundantly throughout the Philippines from Luzon to Sulu and Palawan. However, unregulated collection and illegal trade of this species, which is very much in demand as a house pet and zoo animal, has caused a rapid decline in its population. Today it is found only in a few areas and islands, mostly in Palawan and Sulu. An equally important factor in the population decline is the felling of trees, which results in the loss of the bird's nesting holes and the de-

struction of its natural habitat. To the detriment of the kalangay, loggers also target the species and size of trees it prefers for nesting. Because of hunting and habitat loss, it is suffering the same fate as the Philippine eagle: It is now one of the world's critically endangered species.

## KALAW

The *kalaw* or Rufous hornbill is a large bird. It has a conspicuously large, red bill with a flattened helmet-like structure on its head, the casque. In the male, the bill is larger and more prominent. Although it looks bulky, the bill is actually light and is used as an effective small-fruit picker or plucker. The *kalaw*'s breast is dull black, and its tail is stained with yellowish buff. The term "kalaw" has also been used for other large hornbills in the Philippines, all of which are endemic but not as large as the Rufous hornbill. These include the Visayan writh-billed hornbill (*Aceros waldeni*), Mindanao writhed hornbill (*Aceros leucocephalus*), Palawan hornbill (*Anthracoceros marchei*), and Sulu hornbill (*Anthracoceros montani*). Both the Visayan writh-billed hornbill and the Sulu hornbill are critically endangered.

The Rufous hornbill is largely fruit eating but also feeds on small vertebrates like lizards and young birds as well as insects and eggs. It is commonly found in secondary growth and primary forests from the lowlands to the mountains. It also ventures into nearby cultivated areas and forests where there are large feeding trees. The *kalaw* nests in tree holes, where the



**Kalaw**  
*Buceros hydrocorax*

English names: Rufous hornbill, great Philippine hornbill

Local name: *Kalaw*

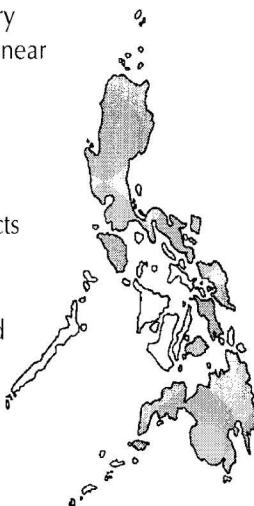
Distribution: **Endemic**. Luzon, Bohol, Leyte, Samar, Basilan, and Mindanao

Habitat: Primary and secondary growth forests, forest edge near cultivated areas



Food: Fruits, small vertebrates, and insects

Current status: Near threatened



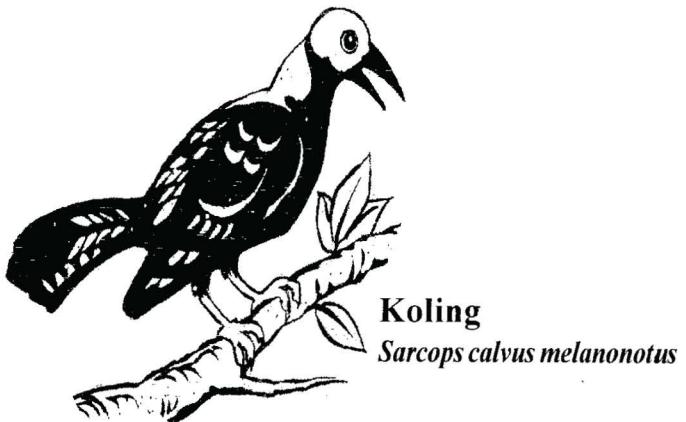
female is sealed in by the male to protect her from predators. Only a small opening is left, allowing feeding of the imprisoned occupant. The female remains inside up to the time the chicks are born. Rufous hornbills form family groups wherein the young birds from the previous clutch remain with the parents to help raise their young siblings.

Rufous hornbills form small flocks and travel great distances in search of food. The bird's up-and-down flight is heavy, with the neck extended fully forward. Upon alighting it bursts into a series of calls, emitting a loud, harsh "kang-haw, he-haw-haw." Flight, feeding, and mating are also attended by similar bouts of calling, which can be heard from a distance. Feeding groups of kalaw forage on small fruits and berries of canopy forest trees, especially the balete or strangling fig. In turn, they help disperse the seeds of the balete.

The population of the kalaw is declining due to habitat loss and the loss of large or tall nesting trees with cavities. It is also hunted for food, as game, and for the illegal pet trade. Once common in forests, it is now restricted to a few well-forested areas. If such conditions continue, the kalaw will soon be an endangered species.

## KOLING

The koling is another favorite cage bird, becoming popular because of its resemblance to the hill myna, which is kept because of its ability to mimic the human voice. The koling, however, is not a good mimic.



**Koling**  
*Sarcops calvus melanopterus*

English name: Coleto, bald starling

Local names: *Koling, kuhling, iling, saling* (Bis.), *coleto* (Tag.), *sungko, langit* (Mindanao)

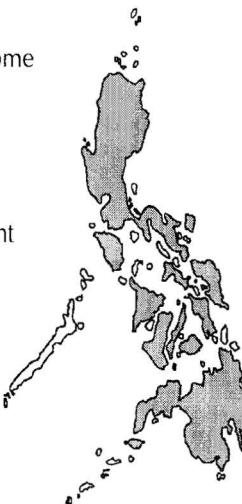
Distribution: **Endemic**. Its three subspecies are widely distributed throughout the Philippines except the Palawan region

Habitat: Original hardwood forests, secondary growth forests, clearings with standing dead trees



Food: Fruits and some insects

Current status: Not threatened at present



The large bare areas around each of the koling's eyes are separated by only a very narrow strip of feathers along the middle of the top of the head, making it appear bald. Because of this, it is sometimes called the bald starling.

It is a fruit eater and is found from the coastal lowlands into the interior up to the upper limit of the real hardwood forest zone. It stays in the open, sometimes even close to cultivated areas, especially around farms, and in original hardwood forests. It is most common in the foot-hills and hill regions, where there are extensive clearings with many dead trees left standing.

Koling sometimes build nests inside holes of dead coconut trees, or in trees with holes abandoned by woodpeckers. The birds go about in small groups of three to about a dozen. They are not shy and allow close observation, especially in the feeding trees. The koling's feeding places range from short bushes or shrubs to very tall trees, especially those inside the dense canopy of hardwood forests. The birds often stay and feed in the same trees where other birds such as pigeons, hanging parrots, and flowerpeckers feed.

The birds fly fast with very rapid noisy beating of the wings. Even when unseen, the characteristic sound of the rapid, noisy wings is an indication of the koling's presence. The birds utter a very clear click followed soon after by a high metallic whistle. This sound cannot be mistaken for that of any other species, once heard and duly recognized.

## TANDIKAN

The *tandikan* is an extremely rare and secretive bird found only in the Philippines. It is one of the most beautiful of Palawan's endemic fauna. It is believed to be the most colorful species of peacock pheasant in Southeast Asia. The English name "peacock pheasant" comes from the peacock-like patterns on its tail.

The tandikan lives on the forest floor of primary and secondary forests, scratching the forest litter for small seeds; fruits; and insects, especially termites. It is widely hunted, particularly the male, which has a long, pointed, metallic-blue crest and back. The female is dull brown in color and, unlike jungle fowl, lays only two eggs at a time. The male struts and displays to the female in a dancing arena within a clearing on the forest floor. Nothing is known about its nesting in the wild, although it has been successfully bred in captivity, especially in several foreign zoos.

The tandikan is sought by collectors and may be threatened with extinction unless adequately protected. It has declined greatly in number in its dwindling forest habitat in the lowlands of Palawan. It is hunted as game for food and trophies, and for the pet trade. It is a popular cage bird.

## PUÑALADA

The *puñalada* or Luzon bleeding-heart pigeon is a beautiful rare bird occurring in secondary growth and primary forests. It spends most of



**Tandikan**  
*Polyplectron emphanum*

English name: Palawan peacock pheasant

Local name: *Tandikan*

Distribution: **Endemic.** Palawan only

Habitat: Coastal lowland forests



Food: Fruits, seeds,  
termites, insects,  
and small animals

Current status:  
**Endangered**



**Puñalada**  
*Gallicolumba luzonica*

English name: Luzon bleeding-heart pigeon

Local names: *Puñalada* (Sp.), *lagaran* (Tag.)

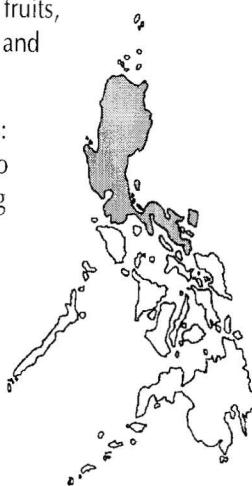
Distribution: **Endemic.** Luzon, Polillo, and Catanduanes

Habitat: Forest floor of lowland primary and secondary growth forests



Food: Seeds, fruits,  
small insects, and  
worms

Current status:  
Uncommon to rare; declining  
due to overhunting and habitat loss



its time on the ground, particularly along trails, small clearings, and along the banks of streams. When in flight it can move fast, avoiding tree trunks with speedy movements and turns.

The Luzon bleeding-heart pigeon belongs to a group of five species of bleeding-heart pigeons endemic to the Philippines, all commonly called puñalada. They can be easily identified by the bright red spot in the center of the breast, and the lighter pinkish feathers surrounding the spot, giving it a "bleeding" effect. "Puñalada" is a Spanish word meaning "pierced with a dagger." The red color markings in the pigeon's breast vary in each of the five species.

The puñalada roosts in shrubs and trees, and eats fruit, grain, small insects, and worms. Its voice is a low-pitched but clear and mournful-sounding "coooo" or "coo-oo." It is widely hunted for food and for the pet trade. It is a popular cage bird and is sought by collectors. It is declining in its dwindling forest habitat due to logging and conversion to farms. All of the four other species of endemic bleeding-heart pigeons are now severely threatened with extinction. These include the Mindanao bleeding-heart pigeon (*Gallicolumbia criniger*), Sulu bleeding-heart pigeon (*G. menagei*), Negros bleeding-heart pigeon (*G. keayi*), and Mindoro bleeding-heart pigeon (*G. platenae*). Unless the puñalada is protected, it will also become endangered.

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