Bornean Orangutan

About the Species

Based on genetical study of Bornean orangutan (*Pongo pygmaeus*), three orangutan subspecies are identified, namely *Pongo pygmaeus pygmaeus* in the northwest of Borneo, *Pongo pygmaeus wurmbii* in central Borneo and *Pongo pygmaeus morio* in the northeast Borneo. From the three Bornean subspecies, the central bornean orangutan (*P.p. wurmbii*) is the largest, while the northeast bornean orangutans (*P.p. morio*) is the smallest.

It is estimated there are approximately 54,000 orangutan in Borneo island, both in Indonesian and Malaysian parts in 2004 (Wich et all 2008). Among the three subspecies of Bornean orangutan, *P.p. pygmaeus* is the most threatened, with and estimated 3,000 to 4,500 in-dividuals in West Kalimantan and marginally in Sarawak, or less than eight percent of the total of Bornean orangutan population.

Ecology and Habitat

Bornean orangutans are more abundant in low-lying forests (below 500 meters asl) than in uplands. Flood-prone forests and peatswamps produce more regular and larger fruit crops than dry dipterocarp forests and harbour the highest orangutan densities. Bornean orangutans are vulnerable to habitat disturbances, although the taxon *P. p. morio* shows a relative and unexpected tolerance to habitat degrada-tion in the northern part of the island (Ancrenaz et al. 2005).

Physical Description

- Bornean orangutan belongs to the great apes family and the largest arboreal mammals.
- They have long, shaggy, dark red-brown hair with facial color ranges from pink to red to black.
- Adult males weigh 50 - 90 kg and 1.25 to 1.5 m in height. While adult females weigh 30 - 50 kg and 1 meter in height.
- They have long arms that are useful for reaching fruits and brachiating, with scoop like hands and feet for powerful grips.
- Cheek pads in adult males make the face look larger, but not all the adult males have cheek pads.
- A throat pouch is inflated to produce loud, long calls to advertise their where about.
FACTSHEET: BORNEAN ORANGUTAN

Threats

The Bornean orangutans are an endangered and fully protected species in Indonesia legislation. This species is listed on Appendix I of CITES. Some major threats include habitat loses, illegal logging, forest fires, poaching and pet trade. In the last decade, each year, at least 1.2 million hectare of Indonesia’s forest have been to large scale logging activities, forest conversion, such as for agriculture, plantations, mining and settlements and illegal logging. The forest fires caused by the El Nino climatic event and the severe drought in Borneo have impacted to reduce the population of orangutan. During the past 20 years, the habitat of the Bornean orangutan has been reduced by at least 55 percent. In addition, the conflict between human in agricultural lands and the demand for young orangutans as pets still become one of the threats of orangutan population.

WWF’s work for Bornean Orangutan’s Conservation

WWF works with many stakeholders including the Indonesian government, other organizations and local people in order to save and reduce the destruction of orangutan’s habitat. There are three components of WWF works in the Heart of Borneo:

1. Create a network of protected areas as a refuge for key species such as the orangutan.
2. Connect these protected areas with carefully managed ‘ecological corridors’ making sure orangutans and other species can move between them. Ensure that all other land within and bordering the Heart of Borneo without a protected status will be retained as sustainably managed forest land. More than 70% of the estimated wild Bornean orangutan population living in outside protected areas, mostly in logging concessions. Studies show that Bornean orangutans can fare well in forests that are logged if reduced impact logging is implemented through Sustainable Forest Management, logging is done selectively, fruit trees are kept intact, and hunting is closely controlled.
3. Awareness campaign on orangutan conservation programs to specific target groups especially the local people whose living in adjacent the orangutan habitat. WWF also implements some orangutan conservation projects in West and Central Kalimantan. In West Kalimantan, it is specifically targeted at P. pygmaeus in Betung Kerihun and Danau Sentarum National Park and also corridor in between the national park. Both of the national parks are located in Kapuas Hulu district. While in the concession areas in Ketapang District, the target sub species is P. wurmbii. In Central Kalimantan, orangutan conservation project is focused in orangutan habitat in Sebangau National Park.

Text: Elisabeth Wetik, Editor: Chairul Saleh, Desmarita Murni, Annisa Ruzuar, Design and Lay out: Annisa Ruzuar
About the Species

The sundaland clouded leopard (*Neofelis diardi*) is recognized as separate species from the clouded leopard of mainland Southeast Asia (*Neofelis Nebulosa*) based on genetic and morphological differences.

Clouded leopard is a very secretive animal, thus not very often encountered. It spends much of its time in the tree canopies and is more often active at night than during daytime. Clouded Leopards feed on monkeys, mouse deer, barking deer, young bearded pigs and sambar deer. Occasionally birds and reptiles (such as monitor lizards) are eaten as well.

The estimated total population of Sundaland clouded leopard in Sumatra is about 8000 to 19,000 individuals, while in Borneo is about 5000 to 11,000 individuals. Currently they are classified as vulnerable by IUCN Red List.

Ecology and Habitat

Clouded Leopards occur in most forested habitats from coastal areas to the interior mountain ranges. They have been observed hunting monkeys in mangroves and traces were found at mountain ridges with elevations of up to 1600 meters above sea level. Their preferred habitats are the dense lowland and hill Dipterocarp rainforests of Sumatra and Borneo. They usually avoid open areas with few trees and are very sensitive to human disturbances.

Physical Description

- The clouded leopard is named after the distinctive 'clouds' on its coat - ellipses partially edged in black, with the insides a darker colour than the background colour of the pelt.
- A medium-sized cat, 60 to 110 cm long and weighing between 11 and 20kg.
- It has an exceptionally long tail for balancing with black ring markings.
- Well adapted to forest life, the clouded leopard also has relatively short legs and broad paws which make it excellent at climbing trees and creeping through thick forest.
FACTSHEET: CLOUDED LEOPARD

Threats

Habitat Destruction

Throughout the island of Sumatra and Borneo, vast areas of lowland forests have been converted for agriculture, plantations, and settlements. Forest fires, nowadays yearly returning phenomena, have taken their toll. Unsustainable logging has destroyed large forest areas everywhere in Sumatra and Borneo. Sundaland clouded leopards can actually survive in forests where timber is harvested as long as this is practiced in a well-managed and responsible way avoiding destruction of the remaining forests. This is unfortunately not always the case.

A viable population of Sundaland clouded leopards, containing at least 50 individuals, needs an area of at least 3400 square kilometers (340,000 ha) of undisturbed forest. The Heart of Borneo, which still has large uninterrupted stretches of forest habitats, is the most important area for the conservation of Sundaland clouded leopards.

Poaching and Illegal Trading

Traditionally, Sundaland clouded leopards have been hunted by most indigenous communities, but only on a small scale. Commercial hunting with the main purpose of selling the skins and fangs is much more destructive. Sundaland clouded leopards are protected by Indonesian law and they are included in CITES Appendix I (species that are banned from international commercial trade due to fears of their extinction).

WWF’s work for Clouded Leopard’s Conservation

WWF is working with the Indonesian government, other conservation organization and local people to save the habitat of Sundaland clouded leopard’s both in Sumatra and Borneo from extinction. WWF Indonesia also supports the management of conservation areas such as national parks and protected forests as an effort to preserve and maintain the habitat of Sundaland clouded leopard. WWF also works with business sectors to ensure that their operation in high conservation value area – including those with high biodiversity values – apply best management practices.

For areas outside the conservation area, WWF Indonesia’s efforts to encourage the natural resources management that adopt the sustainable principles in order to minimize the destruction of Sundaland clouded leopard’s habitat.

Text: Elisabeth Wetik, Editor: Stephan Wulffraat, Desmarita Murni, Annisa Ruzuar, Design and Lay out: Annisa Ruzuar
Pygmy Elephant

About the Species

After analysis of DNA collected from elephants from Sabah, it was discovered that elephant population living in Borneo was isolated 300,000 years ago from other Asian elephant populations. The elephants of Borneo are clearly a separate sub-species, although it is likely that this sub-species was introduced from another, unknown, area. The sub-species was named *Elephas maximus borneensis*, or “Borneo Pygmy Elephant”. Currently the status of this elephant is endangered and classified in CITES Appendix I.

Pygmy elephant population in northern East Kalimantan is not large, but still very important. The total number of Borneo pygmy elephants in herds strongly fluctuates and is estimated at 30-80 individuals.

Ecology and Habitat

The Borneo pygmy elephant inhabits Borneo, in the eastern and southern parts of Sabah, Malaysia and northern part of East Kalimantan, Indonesia. In East Kalimantan Province, the habitat of these elephants falls within the administrative boundaries of the Nunukan District and are almost entirely confined to the drainage area of the Sebuku River. Solitary elephants sometime roams Sembakung area.

Physical Description

- Smaller compares to other Asian elephants sub-species, with height up to 2.5 m
- Dark brown to grey in color
- Longer tail proportion
- One calf is born at a time and female Asian elephants have about 7 calves in a lifetime. They give birth about every 4 - 6 years, although this period may be extended when conditions are unfavourable for survival, such as during drought. The gestation period is between 19-22 months
Threats

Major threat to Borneo pygmy elephant population of the Sebuku area is deforestation. Elephants require large feeding grounds and viable breeding populations. The conversion of forest to palm oil or other plantations have brought the Borneo pygmy elephants in more frequent contact with people, thus increasing human – elephant conflict in the area. Conversion of these habitats could result in the destruction of the entire ecosystem, including the essential drainage of the Sebuku area. It would create enormous problems with the elephant herds, which will either disturb the new plantations, or be exterminated from Kalimantan, as there are no suitable habitats for them anymore.

Human disturbances within forests such as illegal logging, increased agriculture and settlements, and hunting are rapidly breaking up contact between sub populations, as well as minimizing the areas of forests available for each small group to live and feed on.

Borneo pygmy elephants can still thrive well in forests that have been logged, as long as the required space and resources are still available to them to move and feed. Logging can be compatible with elephant conservation if practiced properly.

WWF’s work for Pygmy Elephant’s Conservation

WWF and East Kalimantan KSDA Office are working with the local communities to mitigate wildlife conflict with Borneo pygmy elephants, among others through public awareness and training on how to handle intruding elephants. In addition, WWF with local communities, local government namely Nunukan District, companies, military commander, head of police and other functionaries of Sebuku Sub-District work together to study the elephant herd habitats, mapping and analysis of solitary elephant behavior and movements.

WWF and District Government of Nunukan have conducted several meetings and workshops to disseminate Borneo pygmy elephant surveys and maps. The latest development and progress on Borneo pygmy elephant project had been presented and the new work plan was discussed and much input was obtained from the various stakeholders.

Awareness campaign as well as engagement with logging companies operating in the elephant habitats has been done to develop and implement an elephant conservation management plan integrated in the overall commercial management of the concessions.
The Rhinoceros hornbill (Buceros rhinoceros) is one of the largest hornbill species in Asia. Its global distribution areas are Southeast Asian, including Malaysia Peninsular, Sumatra, Borneo, and Java Island.

The Rhinoceros hornbill spends much of its time in the canopy of a forest. It feed on fruits, insects, small reptiles, rodents, and small birds. This bird species has unique habits: the females are nesting inside tree holes which are closed by them by mud, and fed by the males for as long as they stay inside the tree holes. The rough “honk” voice produced by the males were repeatedly by the females with a different tones. Frequently, it is like a duet, but one is slower than the other one, thus it sounds like “honk – hank...” Another unique habit of the rhinoceros hornbill is that they are able to produce a loud peculiar noise, while they are flapping their wings in the air. Some of the local communities are able to call the rhinoceros hornbill by imitating its voice.

Rhinoceros hornbill is classified by the IUCN Red List as a near threatened species. It is also included in CITES Appendix II (The species are not necessarily threatened with extinction globally, but trade in these species is only permitted with an appropriate export permit and a certificate of origin).

Physical Description

- Hornbill is named after the distinctive horn-shaped outgrowth on top of its beak.
- A large size bird with 1,1 m body length.
- A yellow beak – red stems with red – yellow curved upward horn, black and white pelt (the head, back, wings, chest are black; the belly and thigh are white), greenish grey legs, and a light white tail with crosswise black line.
- A dark grey skin around the eyes, with red iris (male) and white – blue (female).
Ecology and Habitat

The rhinoceros hornbill could be found in low density areas of most lowland forests and hills. Hornbill has a very important function as the tree seed dispersers – after the fruit was eaten, the seeds are discarded everywhere. The presence of this species is very conspicuous, because it has large sized body, with a unique habit and voice. However, in general, the rhinoceros hornbill can only be found on a small scale population in one place of the extensive forest area.

Threats

Many of the tropical rainforests across the Sumatra and Borneo islands have been converted for agriculture, plantations and settlements. Forest fires that now have become an annual phenomenon, has been consuming a lot of victims. Unsustainable logging has destroyed many forest areas in Sumatra and Borneo islands. Rhinoceros hornbill can actually survive in forests where timber is harvested in a well-managed and responsible way, and poaching activity is strictly controlled, thus this species has not experienced scarcity that led to extinction. Rhinoceros hornbill needs a tree with hollow trunk, usually an old and thick tree for nesting.

WWF’s work for Rhinoceros Hornbill’s Conservation

WWF is working with the Indonesian government, other conservation organization and local people to support the rhinoceros hornbill’s conservation program, both in Sumatra and Borneo islands. WWF Indonesia also supports the management of conservation areas such as national parks and protected forests as an effort to preserve and maintain the habitat of the rhinoceros hornbill. WWF also works with private sectors to ensure that their operation in high conservation value area – including those with high biodiversity values – apply best management practices. WWF is also providing information to the local communities about the importance of hornbill’s conservation and the efforts to prevent poaching for commercial purposes.

For areas outside the conservation area, WWF Indonesia’s efforts to encourage the natural resources management that adopt the sustainable principles in order to minimize the destruction of endangered species habitat, including rhinoceros hornbill.