Department of Wildlife and National Parks Peninsular Malaysia

PERHILITAN

(Elephas maximus)

Elephant in Peninsular Malaysia

Basic Facts

Found in Asia and Africa, the elephant is the largest terrestrial mammal. It belongs to the Family *Elephantidae* in the Order *Proboscidae*. Asian elephants can grow up to 3.0m at shoulder height and weighs up to 5,000 kg. Only the males have tusks. However, there is tuskless male known as *makhna*. They have 4 cm-thick skin that is tough yet very sensitive. Elephants take frequent dust baths for protection from diseases and parasites, and spray water and wallow in mud to keep them cool. The flapping of the ears also serves as a thermoregulatory function in hot weather. Found in lowland to hill dipterocarp forests, they feed on fruits and grasses, stems, twigs, bark, root and leaves of a variety of plants, including palms and bananas.

At the beginning of the 20th century, more than 100,000 Asian elephants may have existed. While an accurate estimate of the current size of total elephant numbers is unavailable, it is roughly estimated that there are between 30,000 and 50,000 Asian elephants remaining, as opposed to 10 times as many African elephants.

Asian elephants live in matriarchal herds, of breeding groups of 3 to 40 females and young. Females give birth to a single calf, sometimes twins, after a 21-22-month gestation period. A unique feature of the elephant social system is called *allo-mothering* behavior, where females look after and protect calves that are not necessarily their own. Males leave the herd upon maturity, and join other males, or live alone. They only seek females to mate.

Protected status

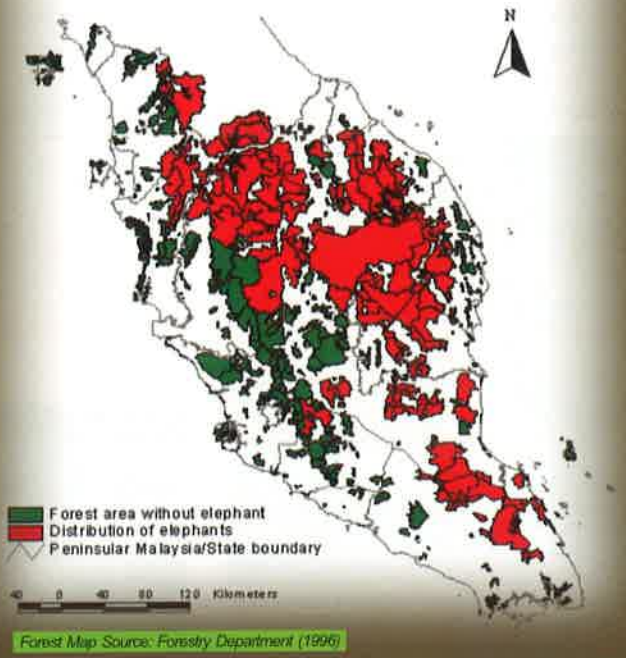
Internationally, it is listed as an Endangered species on the 2012 IUCN Red List and on Appendix I of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). In Peninsular Malaysia, it is totally protected under The Wildlife Conservation Act 2010 [Act 716], which makes it an offence for anyone to unlawfully shoot, kill, take or possess an elephant or part thereof. If guilty, the penalty is a maximum fine of RM100,000 or 3 years imprisonment, or both. If it is a female elephant, the maximum fine is RM300,000 or 10 years imprisonment or both. A juvenile elephant entails a maximum fine of RM200,000 or 10 years imprisonment or both.

Anyone who injures, mistreats, provided insufficient food or confines in an enclosure or cage that is not conducive to the elephant's comfort or health is liable to a maximum fine of RM50,000, or 1 year's imprisonment, or both. Anyone who provokes or wounds an elephant that consequently becomes an immediate danger to human life, will be fined up to RM30,000 or 1 year's imprisonment, or both.

Distribution and Population Status

An estimate puts the Peninsular Malaysia's Asian Elephant population at 1,220 - 1,680. This is based on data collected by the Department of Wildlife and National Parks (DWNP), Peninsular Malaysia through its inventory and monitoring programmes from 2000 to 2012 and the dung-count surveys conducted in collaboration with the Wildlife Conservation Society (WCS) Malaysia. The Taman Negara National Park holds the largest population in Peninsular Malaysia with estimated of 600 - 650 elephants. This is mainly because it is the largest protected area and it has been the main release area for elephants since 1983.

Distribution of elephants in Peninsular Malaysia



Forest Map Source: Forestry Department (1996)

Electric fence is an effective barrier to prevent elephant from going into agricultural areas.

Construction of the viaduct helps in connecting main elephant habitats.

KM 10, Jalan Cheras, 56100 Kuala Lumpur, Malaysia.

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Conservation Actions

As the government agency responsible for wildlife conservation in Peninsular Malaysia, DWNP carry out many elephant conservation programs. It manages 40 Protected Areas (PA) in Peninsular Malaysia. Taman Negara National Park is the largest of all the PAs, encompassing 4,343 km², spanning Pahang, Kelantan and Terengganu. In 2007, Perak's 1,175 km² Belum Forest Reserve was gazetted as the Royal Belum State Park, promising good prospects for elephant conservation.

In addition, the Government has also initiated the Master Plan for Ecological Linkages of Central Forest Spine (CFS). The ecological linkages aim to restore the connectivity of the forest complexes within the CFS and could connect established wildlife and forest reserves. These areas are the key habitat for the elephants and the implementation of this master plan had been anticipated in elephant conservation programs in the country.

In 1974, DWNP started a program to capture and translocate elephants in conflict situations to safer areas such as national parks and large forest reserves or state parks. Since then, more than 700 elephants from Pahang, Terengganu, Perak, Perlis, Kedah, Negeri Sembilan and Johor had been captured and most were translocated to the various forest reserves, state parks and Taman Negara.

The National Elephant Conservation Centre (NECC), at Kuala Gandah was established in 1989 as the center of elephant translocation team. Besides that, this center also providing treatment and rehabilitation of orphanage or wounded elephants. At present, the NECC become as one of the main ecotourism site for visitors to come and interact with wild elephant in a natural setting. This center is visited by over 200,000 tourists annually.

Researches on elephants have been carried out either by DWNP officers or in collaboration with local or foreign research agency. Started in 2011, the Department has collaboration with the University of Nottingham, Malaysia Campus to carry out the Management and Ecology of Malaysian Elephant (MEME) program. The main component of this research is to study elephant ecology and interactions with humans using satellite transmitter.

In 2009, DWNP was initiated the electric fencing projects to prevent elephants from encroaching into villages and plantations area. At the moment, a total of 100 km electric fences were constructed with the cost of about RM5.0 million. The projects were located in key elephant range states like in Perak, Kelantan, Pahang, Terengganu and Johor.

Displaced elephants are translocated from conflict areas to safer areas like Taman Negara, state parks and Sungai Deka Elephant Sanctuary.

Research on translocated elephant movements in Taman Negara was conducted using satellite transmitter

Main Threat

Habitat lost and fragmentation is the main threats to elephants in Peninsular Malaysia. Prior to the 1980s, vast areas of lowland forests - prime elephant habitat - were converted into oil palm and rubber plantations. Much had to make way for the construction of dams and highways. From only 540 km² in 1960, oil palm plantations covered more than 16,000 km² in 1987. Various government agricultural land schemes such as Federal Land Development Authority (FELDA), Rubber Industry Smallholding Development Authority (RISDA) and Federal Land Conversion had opened and developed the land with intended to reduce the poverty at that time. Prior to 1990s, the rate of deforestation had started decreasing. However the activities forest clearing for small scale plantation still continues which create fragmented forests. Logging activities also contributed to an increase in human-elephant conflict (HEC) in certain areas in Peninsular Malaysia.

Shrinking of habitats would persuade elephants out of the forest for searching food. Plantations at fringe forest usually cultivated with oil palm and rubber. Indirectly, it would provide an easy food source for the elephants. Hence, elephant disturbance in agricultural lands had caused significant losses to the landowners. Thus, it could create the HEC. Prior to early 1970s, killing of elephants were applied to overcome the HEC. However, begins in 1974, the translocation programme being implemented.

Agricultural landowners also carried out various preventive measures, such as constructing trenches and watch towers, installing bright lights, or driving elephants off using shotguns, carbide bamboo canons, burning tires and logs. These, however, aren't always successful or necessarily legal. Electric fences are often more effective, but quite expensive to build and maintain.

In the African continent, elephants were poached for its tusks. Elephants are also illegally captured for zoos and private collections. Fortunately, this threat is less occurred in Peninsular Malaysia.

Tourist activities at NECC

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