

ELEPHANTS







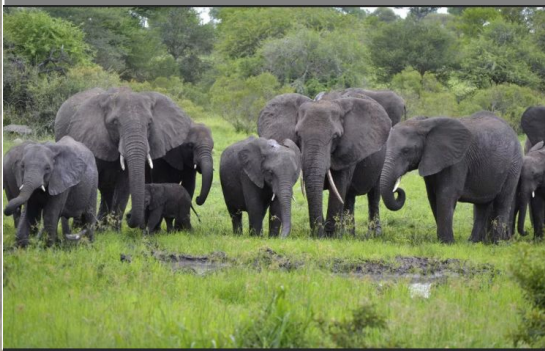
elephant - слон

['elɪfənt]



**African bush elephant
- Африканский
саванный слон**

['æfrɪkən bʊʃ 'elɪfənt]



**African forest elephant
- Африканский лесной
слон**

['æfrɪkən 'fɒrɪst 'elɪfənt]



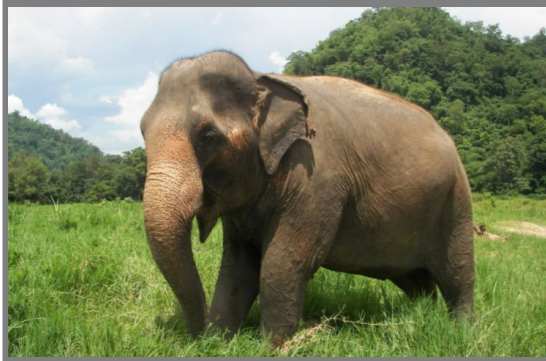
Asian elephant -
Азиатский слон

[eɪʃn 'elɪfənt]



Sri Lankan elephant -
Шри-ланкийский слон

[sri 'lænkən 'elɪfənt]



Indian elephant -
Индийский слон

['ɪndiən 'elɪfənt]



Sumatran elephant -
Суматранский слон

[su:'mɑ:trən 'elɪfənt]



Borneo elephant -
Борнейский слон

['bɔ:nɪəʊ 'elɪfənt]

Elephant



Elephants are the largest existing land animals. Three species are currently recognised: the African bush elephant, the African forest elephant, and the Asian elephant. Elephantidae is the only surviving family of the order Proboscidea; extinct members include the mastodons. The family Elephantidae also contains several extinct groups, including the mammoths and straight-tusked elephants. African elephants have larger ears and concave backs, whereas Asian elephants have smaller ears, and convex or level backs. Distinctive features of all elephants include a long proboscis called a trunk, tusks, large ear flaps, massive legs, and tough but sensitive skin. The trunk is used for breathing, bringing food and water to the mouth, and grasping objects. Tusks, which are derived from the incisor teeth, serve both as weapons and as tools for moving objects and digging. The large ear flaps assist in maintaining a constant body temperature as well as in communication. The pillar-like legs carry their great weight.

Elephants are scattered throughout sub-Saharan Africa, South Asia, and Southeast Asia and are found in different habitats, including savannahs, forests, deserts, and marshes. They are herbivorous, and they stay near water when it is accessible. They are considered to be keystone species, due to their impact on their environments. Elephants have a fission-fusion society, in which multiple family groups come together to socialise. Females (cows) tend to live in family groups, which can consist of one female with her calves or several related females with offspring. The groups, which do not include bulls, are usually led by the oldest cow, known as the matriarch.

Males (bulls) leave their family groups when they reach puberty and may live alone or with other males. Adult bulls mostly interact with family groups when looking for a mate. They enter a state of increased testosterone and aggression known as musth, which helps them gain dominance over other males as well as reproductive success. Calves are the centre of attention in their family groups and rely on their mothers for as long as three years. Elephants can live up to 70 years in the wild. They communicate by touch, sight, smell, and sound; elephants use infrasound, and seismic communication over long distances. Elephant intelligence has been compared with that of primates and cetaceans. They appear to have self-awareness, and appear to show empathy for dying and dead family members.

African bush elephants and Asian elephants are listed as endangered and African forest elephants as critically endangered by the International Union for Conservation of Nature (IUCN). One of the biggest threats to elephant populations is the ivory trade, as the animals are poached for their ivory tusks. Other threats to wild elephants include habitat destruction and conflicts with local people. Elephants are used as working animals in Asia. In the past, they were used in war; today, they are often controversially put on display in zoos, or exploited for entertainment in circuses. Elephants are highly recognisable and have been featured in art, folklore, religion, literature, and popular culture.

African bush elephant



The African bush elephant, also known as the African savanna elephant, is the largest living terrestrial animal, with bulls reaching a shoulder height of up to 3.96 and a body mass of up to 10.4 t.

It is distributed across 37 African countries and inhabits forests, grasslands and woodlands, wetlands, and agricultural land. Since 2021, it has been listed as Endangered on the IUCN Red List. It is threatened foremost by habitat destruction, and in parts of its range also by poaching for meat and ivory. It is a social mammal, traveling in herds composed of cows and their offspring. Adult bulls usually live alone or in small bachelor groups. It is a herbivore, feeding on grasses, creepers, herbs, leaves, and bark.

The African bush elephant has grey skin with scanty hairs. Its large ears cover the whole shoulder, and can grow as large as 2 m-1.5 m. Large ears help to reduce body heat; flapping them creates air currents and exposes large blood vessels on the inner sides to increase heat loss during hot weather. The African bush elephant's ears are pointed and triangular shaped. Its occipital plane slopes forward. Its back is shaped markedly concave. Its sturdy tusks are curved out and point forward.

The African bush elephant is the largest and heaviest land animal on Earth, with a maximum recorded shoulder height of an adult bull of 3.96 m and an estimated weight of up to 10.4 t. On average, males are about 3.20 m tall at the shoulder and weigh 6.0 t, while females are much smaller at about 2.60 m tall at the shoulder and 3.0 t in weight.

Elephants attain their maximum stature when they complete the fusion of long-bone epiphyses, occurring in males around the age of 40 and females around the age of 25.

The trunk is a prehensile elongation of the upper lip and nose. Short tactile hair grows on the trunk, which has two finger-like processes on the tip. This highly sensitive organ is innervated primarily by the trigeminal nerve, and thought to be manipulated by about 40,000–60,000 muscles. Because of this muscular structure, the trunk is so strong that elephants can use it for lifting about 3% of their own body weight. They use it for smelling, touching, feeding, drinking, dusting, sound production, loading, defending, and attacking. Functional loss of the trunk due to floppy trunk syndrome sometimes forces elephants to carry their trunks over their tusks and walk into deep water in order to drink.

Both sexes have tusks, which erupt when they are 1–3 years old and grow throughout life. Tusks grow from deciduous teeth known as tushes that develop in the upper jaw and consist of a crown, root and pulpal cavity, which are completely formed soon after birth. Tushes reach a length of 5 cm. The tusks erupt when elephants are 1–3 years old and grow throughout life. They are composed of dentin and coated with a thin layer of cementum. Their tips bear a conical layer of enamel that is usually worn off when the elephant is five years old. Tusks of bulls grow faster than tusks of females. Mean weight of tusks at the age of 60 years is 109 kg in bulls, and 17.7 kg in cows. The longest known tusk of an African bush elephant measured 3.51 m and weighed 117 kg.

The African bush elephant occurs in Sub-Saharan Africa including Uganda, Kenya, Tanzania, Botswana, Zimbabwe, Namibia, Zambia, and Angola. It moves between a variety of habitats, including subtropical and temperate forests, dry and seasonally flooded grasslands and woodlands, wetlands and agricultural land from sea level to mountain slopes. In Mali and Namibia, it also inhabits desert areas.

In Ethiopia, the African bush elephant has historically been recorded up to an altitude of 2,500 m. By the late 1970s, the population had declined to a herd in the Dawa River valley and one close to the Kenyan border.

The African bush elephant is herbivorous. Its diet consists mainly of grasses, creepers and herbs. Adults can consume up to 150 kg per day. During the dry season, the diet also includes leaves and bark. Tree bark in particular contains a high level of calcium. Elephants in Babilie Elephant Sanctuary consume leaves and fruit of cherimoya, papaya, banana, guava and leaves, stems and seeds of maize, sorghum and sugarcane. To supplement their diet with minerals, they congregate at mineral-rich water-holes, termite mounds and mineral licks. Salt licks visited by elephants in the Kalahari contain high concentrations of water-soluble sodium. Elephants drink 180–230 l of water daily, and seem to prefer sites where water and soil contains sodium. In Kruger National Park and on the shore of Lake Kariba, elephants were observed to ingest wood ash, which also contains sodium.

African forest elephant



The African forest elephant is one of the two living African elephant species. It is native to humid forests in West Africa and the Congo Basin. It is the smallest of the three living elephant species, reaching a shoulder height of 2.4 m. Both sexes have straight, down-pointing tusks, which erupt when they are 1–3 years old. It lives in family groups of up to 20 individuals. Since it forages on leaves, seeds, fruit, and tree bark, it has been referred to as the 'megagardener of the forest'. It contributes significantly to maintain the composition and structure of the Guinean Forests of West Africa and the Congolese rainforests.

The first scientific description of the species was published in 1900. During the 20th century, the population declined due to hunting to less than 30,000 individuals estimated in 2013. It is threatened by habitat loss, fragmentation, and poaching. The conservation status of populations varies across range countries. Since 2021, the species has been listed as Critically Endangered on the IUCN Red List.

The African forest elephant has a grey skin, which looks yellow to reddish after wallowing. It is sparsely covered with black coarse hair, which is 20–200 mm long around the tip of the tail. The length of the tail varies between individuals from half the height of the rump to almost touching ground. It has five toenails on the fore foot and four on the hind foot. Its oval-shaped ears have small elliptical-shaped tips. Its large ears help to reduce body heat; flapping them creates air currents and exposes the ears' inner sides where large blood vessels increase heat loss during hot weather. Its back is nearly straight. Its tusks are straight and point downwards.

Bulls reach a shoulder height of 2.4–3.0 m. Females are smaller at about 1.8–2.4 m tall at the shoulder. They reach a weight of 2–4 tonnes. Foot print size ranges from 12.5 to 35.3 cm. The tip of the trunk of African elephants has two finger-like processes. The trunk is a prehensile elongation of its upper lip and nose. This highly sensitive organ is innervated primarily by the trigeminal nerve, and thought to be manipulated by about 40–60,000 muscles. Because of this muscular structure, the trunk is so strong that elephants can use it for lifting about 3% of their own body weight. They use it for smelling, touching, feeding, drinking, dusting, producing sounds, loading, defending and attacking.

The African forest elephant's tusks are straight and point downwards. Both male and female African elephants have tusks that grow from deciduous teeth called tushes, which are replaced by tusks when calves are about one year old. Tusks are composed of dentin, which forms small diamond-shaped structures in the tusk's center that become larger at its periphery. A conical layer on their tips consisting of tooth enamel is usually worn off when the elephant is five years old.

The African forest elephant has pink tusks, which are thinner and harder than the tusks of the African bush elephant. The length and diameter vary between individuals. Tusks of bulls grow throughout life, tusks of cows cease growing when they are sexually mature. They use their tusks for marking and debarking trees, digging for roots, minerals and water, to rest and protect the trunk, and also for defense and attack.

The tusks are used to push through the dense undergrowth of their habitat. Their tusks can grow to about 1.5 m long and can weigh between 23 and 45 kg.

The African forest elephant is distributed in the evergreen moist deciduous Upper Guinean forests in Ivory Coast and Ghana. Populations in Central Africa range in large contiguous rainforest tracts from Cameroon to the Democratic Republic of the Congo. The largest stable population lives in Gabon.

The African forest elephant lives in family groups. Groups observed in the rain forest of Gabon's Lopé National Park between 1984 and 1991 comprised between three and eight individuals. Groups of up to 20 individuals were observed in the Dzanga-Sangha Complex of Protected Areas, comprising adult cows, their daughters and subadult sons. Family members look after calves together, called allomothering. Once young bulls reach sexual maturity, they separate from the family group and form loose bachelor groups for a few days, but usually stay alone. Adult bulls associate with family groups only during the mating season. Family groups travel about 7.8 km per day and move in a home range of up to 2,000 km². Their seasonal movement is related to the availability of ripe fruits in Primary Rainforests. They use a complex network of permanent trails that pass through stands of fruit trees and connect forest clearings with mineral licks. These trails are reused by humans and other animals.

Asian elephant



The Asian elephant, also known as the Asiatic elephant, is the only living species of the genus *Elephas* and is distributed throughout the Indian subcontinent and Southeast Asia, from India in the west, Nepal in the north, Sumatra in the south, and to Borneo in the east. Three subspecies are recognised—*E. m. maximus* from Sri Lanka, *E. m. indicus* from mainland Asia and *E. m. sumatranus* from the island of Sumatra.

The Asian elephant is the largest living land animal in Asia. Since 1986, the Asian elephant has been listed as Endangered on the IUCN Red List, as the population has declined by at least 50 percent over the last three elephant generations, which is about 60–75 years. It is primarily threatened by loss of habitat, habitat degradation, fragmentation and poaching. In 2019, the wild population was estimated at 48,323–51,680 individuals. Female captive elephants have lived beyond 60 years when kept in semi-natural surroundings, such as forest camps. In zoos, Asian elephants die at a much younger age; captive populations are declining due to a low birth and high death rate.

In general, the Asian elephant is smaller than the African bush elephant and has the highest body point on the head. The back is convex or level. The ears are small with dorsal borders folded laterally. It has up to 20 pairs of ribs and 34 caudal vertebrae. The feet have more nail-like structures than those of African elephants—five on each forefoot, and four on each hind foot. The forehead has two hemispherical bulges, unlike the flat front of the African elephant.

On average, when fully-grown, males are about 2.75 m tall at the shoulder and 4 t in weight, while females are smaller at about 2.40 m at the shoulder and 2.7 t in weight. Sexual dimorphism in body size is relatively less pronounced in Asian elephants than in African bush elephants; with males averaging 15% and 23% taller in the former and latter respectively. Length of body and head including trunk is 5.5–6.5 m with the tail being 1.2–1.5 m long. The largest bull elephant ever recorded was shot by the Maharajah of Susang in the Garo Hills of Assam, India in 1924, it weighed an estimated 7 tons, stood 3.43 m tall at the shoulder and was 8.06 m long from head to tail. There are reports of larger individuals as tall as 3.7 m.

Tusks serve to dig for water, salt, and rocks, to debark and uproot trees, as levers for maneuvering fallen trees and branches, for work, for display, for marking trees, as a weapon for offence and defence, as trunk-rests, and as protection for the trunk. Elephants are known to be right or left tusked.

Female Asian elephants usually lack tusks; if tusks – in that case, called "tushes" – are present, they are barely visible and only seen when the mouth is open. The enamel plates of the molars are greater in number and closer together in Asian elephants. Some males may also lack tusks; these individuals are called "filsy makhnas", and are especially common among the Sri Lankan elephant population.

A record tusk described by George P. Sanderson measured 5 ft along the curve, with a girth of 16 in at the point of emergence from the jaw, the weight being 104+1/2 lb. This was from an elephant killed by Sir Brooke and measured 8 ft in length, and nearly 17 in in circumference, and weighed 90 lb. The tusk's weight was, however, exceeded by the weight of a shorter tusk of about 6 ft in length which weighed 100 lb.

Skin colour is usually grey, and may be masked by soil because of dusting and wallowing. Their wrinkled skin is movable and contains many nerve centres. It is smoother than that of African elephants and maybe depigmented on the trunk, ears, or neck. The epidermis and dermis of the body average 18 mm thick; skin on the dorsum is 30 mm thick providing protection against bites, bumps, and adverse weather. Its folds increase surface area for heat dissipation. They can tolerate cold better than excessive heat. Skin temperature varies from 24 to 32.9 °C. Body temperature averages 35.9 °C.

Asian elephants inhabit grasslands, tropical evergreen forests, semi-evergreen forests, moist deciduous forests, dry deciduous forests and dry thorn forests, in addition to cultivated and secondary forests and scrublands. Over this range of habitat types elephants occur from sea level to over 3,000 m. In the eastern Himalaya in northeast India, they regularly move up above 3,000 m in summer at a few sites.

Sri Lankan elephant



The Sri Lankan elephant is one of three recognised subspecies of the Asian elephant, and native to Sri Lanka. Since 1986, *Elephas maximus* has been listed as endangered by IUCN as the population has declined by at least 50% over the last three generations, estimated to be 60–75 years. The species is primarily threatened by habitat loss, degradation and fragmentation.

***Elephas maximus maximus* is the type subspecies of the Asian elephant, first described by Carl Linnaeus under the binominal *Elephas maximus* in 1758.**

The Sri Lankan elephant population is now largely restricted to the dry zone in the north, east and southeast of Sri Lanka. Elephants are present in Udawalawe National Park, Yala National Park, Lunugamvehera National Park, Wilpattu National Park and Minneriya National Park but also live outside protected areas. It is estimated that Sri Lanka has the highest density of elephants in Asia. Human-elephant conflict is increasing due to conversion of elephant habitat to settlements and permanent cultivation.

In general, Asian elephants are smaller than African elephants and have the highest body point on the head. The tip of their trunk has one finger-like process. Their back is convex or level. Females are usually smaller than males. Some males have tusks. Sri Lankan elephants are the largest subspecies reaching a shoulder height of between 2 and 3.5 m, weigh between 2,000 and 5,500 kg, and have 19 pairs of ribs.

Their skin colour is darker than of indicus and of sumatranus with larger and more distinct patches of depigmentation on ears, face, trunk and belly. Only 7% of males bear tusks. Average adult elephant tusks grow up to about 6 feet. It can weight up to 35 kg.

The Sri Lankan subspecies designation is weakly supported by analysis of allozyme loci, but not by analysis of mitochondrial DNA sequences.

In July 2013, a dwarf Sri Lankan elephant was sighted in Udawalawe National Park. It was over 1.5 m tall but had shorter legs than usual and was the main aggressor in an encounter with a younger bull.

Sri Lankan elephants are restricted mostly to the lowlands in the dry zone where they are still fairly widespread in north, south, east, north-western, north-central and south-eastern Sri Lanka. A small remnant population exists in the Peak Wilderness Sanctuary. They are absent from the wet zone of the country. Apart from Wilpattu and Ruhuna National Parks, all other protected areas are less than 1,000 km² in extent. Many areas are less than 50 km², and hence not large enough to encompass the entire home ranges of elephants that use them. In the Mahaweli Development Area, protected areas such as Wasgomuwa National Park, Flood Plains National Park, Somawathiya National Park, and Trikonamadu Nature Reserve have been linked resulting in an overall area of 1,172 km² of contiguous habitat for elephants. Nevertheless, about 65% of the elephant's range extends outside protected areas.

Indian elephant



The Indian elephant is one of three extant recognised subspecies of the Asian elephant and native to mainland Asia.

Since 1986, the Asian elephant has been listed as Endangered on the IUCN Red List as the wild population has declined by at least 50% since the 1930s to 1940s, i.e. three elephant generations. The Asian elephant is threatened by habitat loss, degradation and fragmentation.

In general, Asian elephants are smaller than African elephants and have the highest body point on the head. The tip of their trunk has one finger-like process. Their back is convex or level. Indian elephants reach a shoulder height of between 2 and 3.5 m, weigh between 2,000 and 5,000 kg, and have 19 pairs of ribs. Their skin colour is lighter than that of Asian elephants with smaller patches of depigmentation, but darker than that of Asian elephants. Females are usually smaller than males, and have short or no tusks.

The largest Indian elephant was 3.43 m high at the shoulder. In 1985, two large elephant bulls were spotted for the first time in Bardia National Park, and named Raja Gaj and Kanchha. They roamed the park area together and occasionally visited female herds. Raja Gaj stood 3.43 m tall at the shoulder and had a massive body weight. His forehead and domes were more prominent than in other Asian bull elephants. His appearance has been compared to that of a Stegodon and mammoth due to his high bi-domed shaped head.

Indian elephants have smaller ears, but relatively broader skulls and larger trunks than African elephants. Toes are large and broad. Unlike their African cousins, their abdomen is proportionate with their body weight but the African elephant has a large abdomen as compared to the skulls.

The Indian elephant is native to mainland Asia: India, Nepal, Bangladesh, Bhutan, Myanmar, Thailand, Malay Peninsula, Laos, China, Cambodia, and Vietnam. It is regionally extinct in Pakistan. It inhabits grasslands, dry deciduous, moist deciduous, evergreen and semi-evergreen forests.

The movement and habitat utilisation patterns of an elephant population were studied in southern India during 1981–83 within a 1,130 km² study area. The vegetation types of this area encompasses dry thorn forest at 250 to 400 m, deciduous forest at 400 to 1,400 m, stunted evergreen forest and grassland at 1,400 to 1,800 m. Five different elephant clans, each consisting of between 50 and 200 individuals had home ranges of between 105 km² and 320 km², which overlapped. They preferred habitat where water was available and food plants were palatable.

Sumatran elephant



The Sumatran elephant is one of three recognized subspecies of the Asian elephant, and native to the Indonesian island of Sumatra. In 2011, IUCN upgraded the conservation status of the Sumatran elephant from endangered to critically endangered in its Red List as the population had declined by at least 80% during the past three generations, estimated to be about 75 years. The subspecies is preeminently threatened by habitat loss, degradation and fragmentation, and poaching; over 69% of potential elephant habitat has been lost within the last 25 years. Much of the remaining forest cover is in blocks smaller than 250 km², which are too small to contain viable elephant populations.

In general, Asian elephants are smaller than African elephants and have the highest body point on the head. The tip of their trunk has one finger-like process. Their back is convex or level. Females are usually smaller than males, and have short or no tusks.

Sumatran elephants reach a shoulder height of between 2 and 3.2 m, weigh between 2,000 and 4,000 kg, and have 20 pairs of ribs. Their skin colour is lighter than of maximus and indicus with the least depigmentation.

The Sumatran elephant was once widespread on the island, and Riau Province was believed to have the largest elephant population in Sumatra with over 1,600 individuals in the 1980s. In 1985, an island-wide rapid survey suggested that between 2,800 and 4,800 elephants lived in all eight mainland provinces of Sumatra in 44 populations. Twelve of these populations occurred in Lampung Province, where only three populations were extant in 2002 according to surveys carried out between September 2000 and March 2002. The population in Bukit Barisan Selatan National Park was estimated at 498 individuals, while the population in Way Kambas National Park was estimated at 180 individuals. The third population in Gunung Rindingan-Way Waya complex was considered to be too small to be viable over the long-term.

By 2008, elephants had become locally extinct in 23 of the 43 ranges identified in Sumatra in 1985, indicating a very significant decline of the Sumatran elephant population up to that time. By 2008, the elephant was locally extinct in West Sumatra Province and at risk of being lost from North Sumatra Province too. In Riau Province only about 350 elephants survived across nine separate ranges.

As of 2007, the population of Sumatran elephants is estimated to be 2,400–2,800 wild individuals, excluding elephants in camps, in 25 fragmented populations across the island. More than 85% of their habitat is outside of protected areas. In Aceh, radio-collared Sumatran elephant clans preferred areas in dense natural forests in river and mountain valleys at elevation below 200 m; from there, they moved into heterogenous forests and foraged near human settlements mainly by night.

Borneo elephant



The Borneo elephant, also called the Borneo pygmy elephant, is a subspecies of Asian elephant that inhabits northeastern Borneo, in Indonesia and Malaysia. Its origin remains the subject of debate. A definitive subspecific classification as *Elephas maximus borneensis* awaits a detailed range-wide morphometric and genetic study. Since 1986, the Asian elephant has been listed as Endangered on the IUCN Red List as the population has declined by at least 50% over the last three generations, estimated to be 60-75 years. It is pre-eminently threatened by loss, degradation and fragmentation of habitat.

The Sultan of Sulu was thought to have introduced captive elephants to Borneo in the 18th century, which were released into the jungle. Comparison of the Borneo elephant population to putative source populations in DNA analysis indicates that the Borneo elephants more likely derived from Sundaic stock and are indigenous to Borneo, rather than having been introduced by humans. The genetic divergence of Borneo elephants warrants their recognition as a separate evolutionarily significant unit.

In general, Asian elephants are smaller than African elephants and have the highest body point on the head. The tip of their trunk has one finger-like process. Their back is convex or level.

It has become commonplace to refer to the Borneo elephant as a 'pygmy' subspecies, although adult elephants of Sabah of both genders are similar in height to their counterparts in Peninsular Malaysia. Five measurements of the skull of a fully adult female elephant from Gomantong Forest Reserve were slightly smaller (72–90%) than comparable dimensions averaged for two Sumatran skulls. Few available measurements show that they are of similar size to other populations of the Sunda subregion.

Elephants are confined to the northern and northeastern parts of Borneo. In the 1980s, there were two distinct populations: One lived in Sabah, ranging over the Tabin Wildlife Reserve and adjacent mostly logged dipterocarp forest on steep terrain; the other inhabited the hilly interior at about 300 to 1,500 m altitude in dipterocarp forest, which was largely undisturbed at the time and only logged at its periphery. In Kalimantan, their range is restricted to a small contiguous area of the upper Sembakung River in the east.

The range of wild elephants in Sabah and Kalimantan seems to have expanded very little in the past 100 years despite access to suitable habitat elsewhere on Borneo. Borneo's soil tends to be young, leached, and infertile, and there is speculation that the distribution of wild elephants on the island may be limited by the occurrence of natural mineral sources. The elephant density and population size varied throughout the five key ranges affected by conversion of lowland forest, fragmentation of habitat, and existing land use activities such as logging.