

Elephants evolve to beat poachers

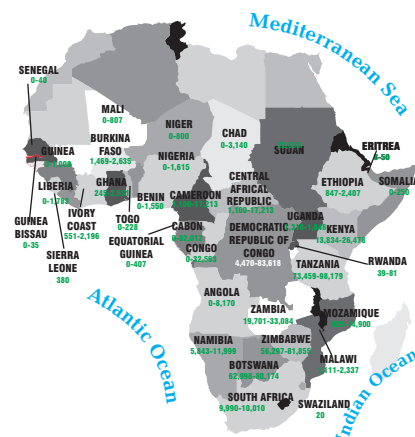
Despite serious attempts at putting an end to elephant poaching, the disappearance of the species in various parts of the world continues to be reported. However, evolution has come to the rescue of this magnificent animal, with a reduction in its physical size and the length of its tusks, giving it added camouflage advantage and lower physical attractiveness, says **Gargee Borah**

The mere mention of elephants conjures up images of an organised pack majestically marching across the Asian and African forests, either to the watering hole or to bathe in the Blue Nile – a perfect setting for the *Elephant Song* popularised by *The Jungle Book*. But this picture of paradoxes that paints the animal in both gentle and powerful strokes may soon be erased from the forests' prized collection because of man's unflinching attempts to chase, capture and kill them for the one asset that announces their death sentence, their ivory tusks.

Elephant tusks have been deemed as an object of great value for trophy collectors and the elite art lovers. Ivory is a very beautiful substance, which turns into genuine art in the hands of a skilled craftsman. It has been a mark of status as well as of beauty in the form of statues,

jewellery or ornaments. But it is a horrifying truth that elephants have to face. As long as the art world is populated by people who love to collect these artefacts for very high prices, there will be people who are willing to kill elephants to get their tusks. They have been killed in such large numbers that their population figures are now flickering on the endangered species list.

The sale and import of ivory is very common in many nations today.

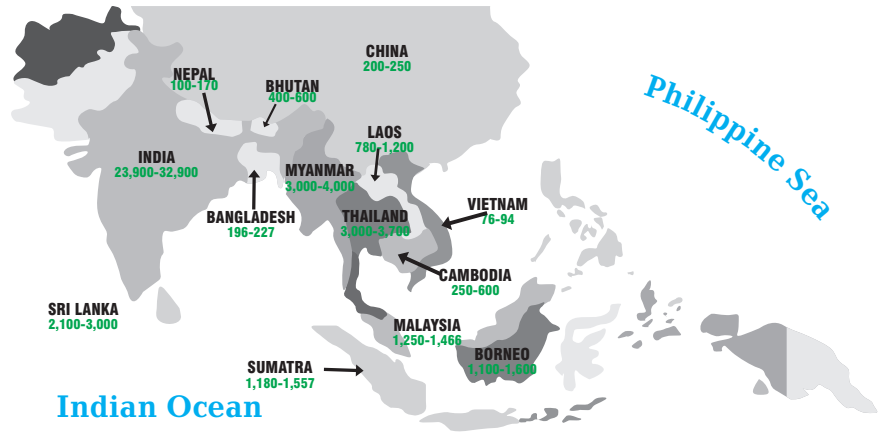


Elephant population in Africa

More than 100,000 Asian Elephants have been killed during the past one century for this illegal trade. Even in those nations that ban this illegal trade (like the US and the UK), a black market exists, so does online trade.

Last year, a survey conducted by the International Fund for Animal Welfare (IFAW) in Britain, Australia, China, Germany, the Netherlands, France, Canada and the United States tracked more than 2,200 elephant ivory items listed on eBay websites, more than 90 per cent of which breached even eBay's own wildlife policies. "As the world's largest online shop window, eBay has a special responsibility to lead the way by banning ivory from their sites. Only a global ban on all ivory sales will remove the cover under which this criminal activity currently operates and as a result, seriously help to decrease illegal trade and the cruel and unnecessary slaughter of elephants," Robbie Marsland, IFAW's British director, was quoted by the *The Sydney Morning Herald* as saying. Following the report, eBay took measures to stop the illegal trade of elephant ivory and artefacts on its website and joined the fight to save the pachyderms.

The International Fund for Animal Welfare's (IFAW) special report entitled *Elephants on the High Street* talks of the Portobello Road market in west London, the single biggest source of illegal ivory in the UK, while the Convention on



Elephant population in Asia

International Trade in Endangered Species of Wild Flora and Fauna (CITES) identifies the UK as the third biggest supplier of ivory to the US, which is likely to provoke illegal poaching.

In India, the Northeast houses around 40 per cent of the total wild elephant population of India, which makes it an important area for elephants in the world. However, deforestation and poaching elephants for ivory and meat have endangered the species. In a census carried out in March 1993, more than 11,000 elephants were counted in Assam, Arunachal Pradesh and Meghalaya. Now, according to the 2008 census, the number has come down to 1,293.

Though verging on the severe in Assam-Nagaland, Assam-Mizoram and Assam-Arunachal Pradesh borders, elephant poaching has almost wiped out the species in Mizoram, southern Assam, and parts of Manipur, Tripura and Nagaland. Among others fondness for meat is an important factor leading to the decline of the species in these areas. Various tribes such as Mizos, Nagas, Kukis, Chakmas, Dimasas, Kacharis, Dafflas or Nishis and Adis relish elephant meat and

whenever an opportunity arises, they kill the animal.

When under threat, certain species develop or adopt new ways to protect or camouflage themselves. Poaching has caused the elephants to evolve, and at an unusually fast rate. Scientists who have been following this trend say that such evolution normally takes thousands of years to produce seemingly minor changes. In the case of the elephants, it is reported to be a reduction in the tusk size and the physical stature in an estimated one-and-a-half century.

African elephants face a larger threat because both sexes have tusks, while in the Asian species it is only the male that grows one. Zoologists from the Oxford University, who have been studying the behavioural and breeding patterns of the African elephant, suggest that this reduction in the tusk size and physical stature is because of the change in the breeding behaviours of the animals. Poachers usually go for the largest males with the largest tusks, thus eliminating them from the breeding cycle.

"Selective removal is a likely cause for such changes. The tusks have an important role to play in governing elephant behaviour. They use them to intimidate smaller males or win fights for the female elephants. When the larger males are killed for their tusks, it leaves only the less attractive smaller males with smaller tusks for breeding. It is likely that



they will breed more successfully when compared to the larger ones. As a result their progeny will be smaller in stature and have smaller tusks," explains Sameer Sinha, director, Traffic India, a division of the World Wildlife Federation, India. According to him a similar situation is prevalent in Asia, where the tuskless male gene pool is growing.

A study, conducted in the Xishuangbanna Dai Autonomous Prefecture in southwest China's Yunnan province, which is the home for two-thirds of China's elephant population, also supports the tuskless phenomenon. It has predicted that more male Asian elephants in China will be born without tusks because poaching of tusked elephants is reducing the gene pool.

Dr N Bhaskaran, a scientist at the Indian Institute of Sciences, Bangalore points out that such evolution may be more prominent among Asian elephants because only the males have tusks in the species. "The proportion of the *Makhna* or elephant bulls without tusks is relatively high in north India and the tusker is found mainly in the south, which is why poaching in south India is more. While one cannot say for sure if elephants here have diminished their tusk size, but our observations reveal that their physical stature may have reduced and is likely to happen in the long run due to the selective removal of

healthy tuskers through poaching. Perhaps the diminished physical stature offers them better camouflage. Since they are a monogynous species, in-breeding is also very rare. We need to conduct detailed studies to arrive at a conclusion though," he says.

The tusk-free gene, which is found in between 2 and 5 per cent of male Asian elephants, has increased to between 5 and 10 per cent in elephants in China. So far, there are between 45,000 and 50,000 Asian elephants in 13 countries, including China and India. Poaching is a frightening threat to these remaining few, in addition to other problems like deforestation due to the foray of human activity. Because of the rampant killing of male elephants for tusks, the female-to-male ratio has changed alarmingly. However, Parbati Baruah, president of the Kaziranga Wildlife Society suggests that specific studies and observations have to be made in order to arrive at a conclusion. She says, "The evolution of an elephant takes thousands of years to take place. Even if such kind of an evolution is going on, there cannot be a definite conclusion so soon."



Dr Bhaskaran attributes the uneven ratio to the spectacular reduction in the fertility of the species and the depletion of its gene pool. It is also true that some adolescent elephants are killed before they breed.

An international ban on selling ivory came into force in 1989 by the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) after widespread poaching sent Africa's elephant populations diving. Some 160 member nations, including China, signed the treaty banning the trade of products from endangered animals. Between 1979 and 1989, the number of elephants in Africa halved from 1.3 million to 625,000, with Kenya alone losing 85 per cent of its elephants. Since then, the number of pachyderms in Africa has climbed to approximately 450,000, but an estimated 20,000 are still killed every year by poachers who sell tusks on the black market, in a multi-million-dollar industry run by criminal syndicates around the world.

To control this situation, strict measures have to be undertaken. There could perhaps be officially sanctioned ivory auctions. Unlike ivory sold in the black markets, ivory sold at auctions should be from elephants that have either died due to natural causes or were culled. The money thus generated should go to conservation programmes and anti-poaching activities. 🌍

Rhinos under threat too

Besides elephants, the Indian one-horned rhino (*Rhinoceros unicornis*) is also threatened due to poaching for its horns. The District Forest Officer of Kaziranga, Dibyadhar Gogoi says, "There is nothing as elephant poaching in Kaziranga. The only poaching that goes on here is of rhinos which are mainly because of their horns." The difference in poaching techniques between these animals is that both sexes in rhinos have horns, making the entire population susceptible whereas in the elephants, the females and even some males do not have tusks, and therefore, are not in the hit list of poachers.

At present, about 1,855 rhinos live in the Kaziranga National Park of Assam, which is the largest population in one area anywhere in the world.

Rhinos are mostly killed because of the great demand for its horn in the east Asian and the southeast Asian countries. While the rhino horn is mostly used for medicinal purposes, it is also used to make dagger handles, known as *Jambia* in the local parlance. Though its actual medicinal properties are not known, the usual belief among the Chinese is that it can cure heart trouble, headache, cleanse the pancreas and liver and can be used as an ointment for skin disease.

