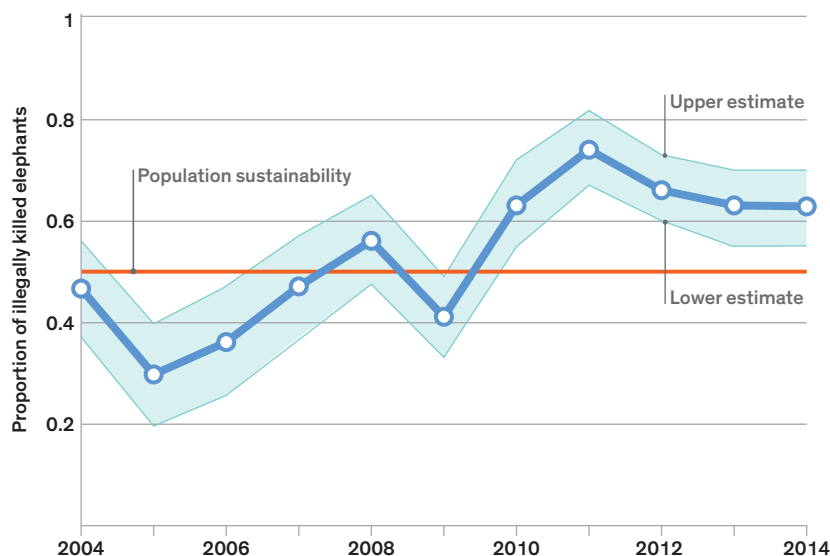


# DEATHS OF ELEPHANTS



**PROPORTION OF ILLEGALLY KILLED ELEPHANTS** is estimated by comparing elephant carcasses with population size and natural mortality rates. At levels above the horizontal red line elephant populations would be expected to decline.

SOURCE: CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



## AFRICAN ELEPHANTS ARE THE WORLD'S LARGEST

terrestrial mammals: Adult males can weigh more than 6,000 kilograms, females average about half as much, and newborns about 100 kg. They are sociable, intelligent, proverbially capacious in memory, and eerily aware of death, as they show in their remarkable behavior when they encounter the bones of their ancestors. Although their bones have remained in Africa, their tusks have often ended up in piano keys or in the ivory bric-a-brac you still see sometimes on mantel-pieces. • Ancient Egyptians hunted elephants, and Carthaginians used them in wars with Rome until finally elephants became extinct in North Africa, remaining abundant only south of the Sahara. The best available estimate of the continent's maximum carrying capacity (including smaller-size forest elephants) was about 27 million animals at the beginning of the 19th century; their actual number might have been closer to 20 million. Today, though, there are well under 1 million. • Reconstructions of the past ivory trade indicate a fairly steady flow of around 100 metric tons per year until about 1860, and then a fivefold rise just after 1900. The trade plunged during World War I, then rose briefly before another war-induced plunge, after which it resumed its rise, peaking at more than 900 metric tons a year by the late 1980s. I have integrated these fluctuating harvests and come up with aggregate removals of 55,000 metric tons of ivory during the 19th century and at least 40,000 metric tons during the 20th century. • The latter mass translates into the slaughter of at least 12 million elephants. No good systematic estimates of surviving elephants are available before 1970, but the latest continent-wide summary puts the confirmed total at

470,000 in 2006, with another 160,000 animals classed as probable. By the end of 2016 we will know better, when we get the results of the Great Elephant Census, a project funded by Microsoft cofounder Paul G. Allen. The census relies on aerial surveys of about 80 percent of the savanna elephant's range. Some preliminary results are encouraging: After a period of slaughter, Uganda's elephants have bounced back quite strongly.

Other news is deeply discouraging: The number of Mozambique's elephants was halved between 2009 and 2014, to 10,000, and during the same five years more than 85,000 Tanzanian elephants were killed, their total dropping from nearly 110,000 to just 43,000 (the difference is accounted for by an annual 5 percent birth rate). New DNA analyses of large ivory seizures made between 1996 and 2014 have traced some 85 percent of the illegal killing to East Africa, above all in the Selous Game Reserve in southeastern Tanzania, the Niassa Reserve in northern Mozambique, and more recently also in central Tanzania.

Most of the blame rests with China's continuing demand for ivory, much of which gets turned into elaborately kitschy carvings, including statuettes of Mao Zedong, the man responsible for the greatest famine in human history. But this may finally be changing. After three public ceremonies of illegal ivory destruction, including one in Beijing in May 2015, when authorities crushed 660 kg of tusks and carvings, the Chinese government pledged to stop the trade and processing of ivory. We will have to wait for real action. In October 2015, 66-year-old Yang Fenglan was arrested in Tanzania: She was the boss of the biggest smuggling network connecting Africa and China.

And once the slaughter stops, some African regions may face a new problem, evident for years in parts of South Africa: a surfeit of elephants. It is no easy matter to manage expanding numbers of large and potentially destructive animals, especially those living in proximity to farmers and herders. ■