

Extinct-in-the-wild species in conservation limbo

February 26 2023, by Marlowe HOOD



Lonesome George was the last known Pinta Island Tortoise, from the Galapagos Archipelago.

For species classified as "extinct in the wild", the zoos and botanical gardens where their fates hang by a thread are as often anterooms to

oblivion as gateways to recovery, new research has shown.

Re-wilding what are often single-digit populations faces the same challenges that pushed these [species](#) to the cusp of [extinction](#) in the first place, including a lack of genetic diversity. But without [conservation efforts](#), experts say, chances of these species surviving would be even smaller.

Since 1950, nearly 100 animal and plant species vanquished from nature by hunting, pollution, deforestation, invasive lifeforms and other drivers of extinction have been put into [critical care](#) by scientists and conservationists, according to the findings.

While the category "extinct in the wild" was not added to the benchmark Red List of Threatened Species until 1994, the term could have applied to all of them.

Of these species teetering on the edge, 12 have been reintroduced to some degree back into the wild, according to a pair of studies published last week in the journals *Science* and *Diversity*.

Another 11, however, have gone the way of dinos, dodos and dozens of Pacific island trees, whose delicate flowers will never again grace the planet.

Biodiversity loss has reached crisis proportions not seen since an errant asteroid as big across as Paris smashed into Earth 66 million years ago, wiping out land dinosaurs and ending the Cretaceous period.

That was one of five so-called mass extinction events over the last half-billion years.

Scientists say [human activity](#) has pushed Earth into the sixth, with

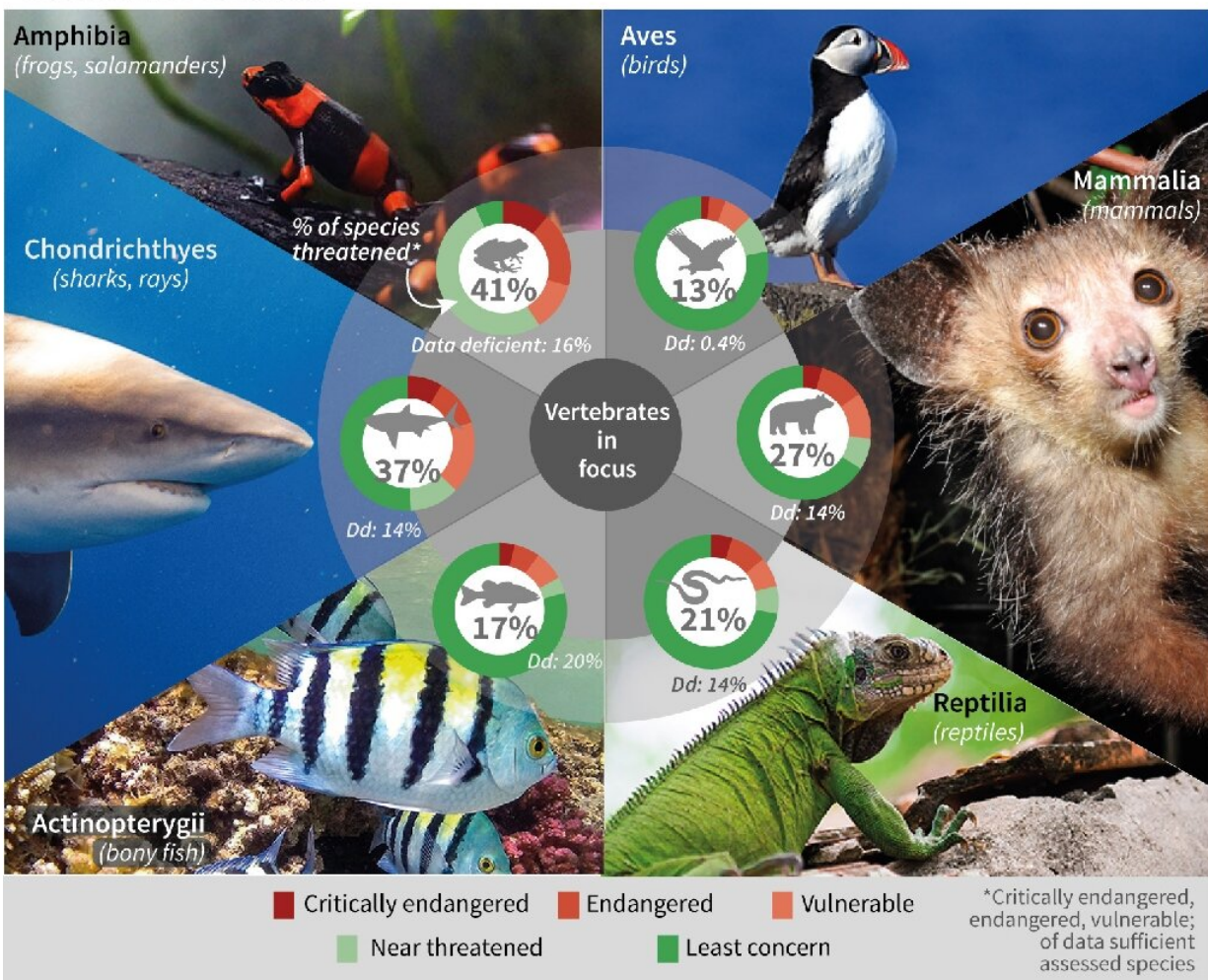
species disappearing 100 to 1,000 times more quickly than normal.

"Real opportunities to prevent extinction and return previously lost species to the wild abound and we must take them," the international team of 15 authors said.

"We have lost 11 species entirely under our care to extinction since 1950."

Biodiversity on display: vertebrates

28 percent of all species assessed by IUCN are threatened with extinction, here we take a look at the situation for vertebrates



Source: IUCN.org Red List

Photos: Joseph Preziosa / Paola Mafla / Andy Buchanan / David Haring / Lionel Chamoiseau / Khaled Desouki

AFP

The percentage of vertebrates threatened with extinction.

Success stories

Another study published last week in *Current Biology*—looking at the "Great Dying" event 252 million years ago that annihilated 95 percent of life on Earth—showed that accelerated species loss preceded broader ecological collapse.

"Currently, we may be losing species at a faster rate than in any of Earth's past extinctions," lead author Yuangeng Huang, a researcher at the China University of Geosciences, told AFP.

"We cannot predict the tipping point that will send ecosystems into a total collapse but it is an inevitable outcome if we do not reverse biodiversity loss."

Recent conservation [success stories](#)—some of them heroic—include the European bison, which once roamed across Europe.

By the 1920s their numbers were so reduced that surviving specimens were rounded up into zoos and a breeding programme was launched in Poland.

After reintroduction into the wild in 1952, the broad-shouldered beasts thrived and are no longer considered threatened with extinction by the International Union for the Conservation of Nature (IUCN), the keepers of the Red List.

Red wolves in North America, [wild horses](#) in central Asia and the desert-

dwelling Arabian oryx have all staged comebacks with a helping human hand.

So has the largest land tortoise in the world, native to Espanola Island in the Galapagos.

By the 1970s, *Chelonoidis hoodensis* had been eaten to the brink. Fourteen surviving individuals were removed and relocated decades later to another island, where their numbers are increasing.



European bison were reintroduced into the wild in 1952 and have thrived.

'Overlooked category'

Giant Pinta tortoises on a neighboring Galapagos island—one of the 11 extinct-in-the-wild species that didn't make it—were not so lucky.

After living for half a century as his species' sole survivor, a 75-kilogram (165-pound) male known as Lonesome George died in 2012.

Other creatures that never made it out of intensive care include Hawaii's black-faced honey creeper, a petite bird devastated by mosquito-borne avian malaria last seen in 2004; Mexico's freshwater Catarina pupfish, unsuccessfully relocated to captivity when its native habitat dried out due to groundwater extraction; and five types of snail on the Society Islands that fell victim to an invasive carnivorous cousin.

Surprisingly, the studies show that species surviving only in controlled environments are in a kind of conservation limbo.

"This is an overlooked category," the researchers noted.

"Despite being considered most at risk, extinct-in-the-wild species are not assessed under the Red List process."

"We have largely ignored the extent of, and the variation in, extinction risk of the very group of species for which humans are most responsible," they added.

Of the 84 species currently with this status, nearly half have not benefitted from attempts to reintroduce them into the wild. Most are plants, suggesting a possible bias towards reintroducing animals that might not be entirely scientifically justified.

At its most recent World Conservation Congress in 2020, the IUCN

called for the reestablishment of extinct-in-the-[wild species](#) in the wild by 2030.

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