



LINDA FEUREN

Cuba's Little Earth Hutia (*Mesocapromys sanfelipensis*) has not been seen in nearly 40 years and is considered "Critically Endangered-Possibly Extinct."

are fully protected but vulnerable to fires. The species was first described this year and has been listed as "Vulnerable."

However, the study also shows that conservation can bring species back from the brink of extinction, with 5% of currently threatened mammals showing signs of recovery in the wild. The Black-footed Ferret (*Mustela nigripes*) moved from "Extinct in the



MICHAEL YERSHIN

The Black-footed Ferret (*Mustela nigripes*) moved from "Extinct in the Wild" to "Endangered" after a successful reintroduction by the U.S. Fish and Wildlife Service.

Wild" to "Endangered" after a successful reintroduction by the U.S. Fish and Wildlife Service into eight western states and Mexico from 1991–2008. Similarly, the Wild Horse (*Equus ferus*) moved from "Extinct in the Wild" in 1996 to "Critically Endangered" this year after successful reintroductions started in Mongolia in the early 1990s. The African Elephant (*Loxodonta africana*) moved from "Vulnerable" to "Near Threatened," although its status varies considerably across its range. The move reflects the recent and ongoing population increases in major populations in southern and eastern Africa. For the moment, these increases outweigh any decreases taking place elsewhere.

"The longer we wait, the more expensive it will be to prevent future extinctions," says Dr. Jane Smart, Head of IUCN's Species Program. "We now know what species are threatened, what the threats are and where — we have no more excuses to watch from the sidelines."



FRANCESCO ROVERO

The Grey-faced Sengi or Elephant-shrew (*Rhynchocyon udzungwensis*) was first described this year. Known from only two forests in the Udzungwa Mountains of Tanzania, the species has been listed as "Vulnerable."

The project to assess the world's mammals was conducted with help from more than 1,800 scientists from over 130 countries. It was made possible by the volunteer help of IUCN Species Survival Commission's specialist groups and the collaborations between top institutions and universities, including Conservation International, Sapienza Università di Roma, Arizona State University, Texas A&M University, University of Virginia, and the Zoological Society of London.

More Than Mammals

Overall, the IUCN Red List now includes 44,838 species, of which 16,928 (38%) are threatened with extinction. Of these, 3,246 are in the highest category of threat, "Critically Endangered," 4,770 are "Endangered," and 8,912 are "Vulnerable." New groups of species have appeared on the IUCN Red List for the first time, increasing the diversity and richness of the data. Indian Tarantulas (*Poecilotheria regalis*), highly prized by collectors and threatened by the international pet trade, have made their first appearance on the IUCN Red List. They face habitat loss due to new roads and settlements.

"No other tool is as valuable for conservation as the Red List, which provides scientists and decision makers with an important set of information, freely available to the public, to improve the effectiveness of our conservation efforts." Dr. Russell Mittermeier, Chair of IUCN's Primate Specialist Group and president of Conservation International.



JOHN BELL

Indian Tarantulas (*Poecilotheria regalis*) are highly prized by collectors and threatened by the international pet trade. The species has made its first appearance on the IUCN Red List due to habitat loss.



PHILIPP MAITZ

The Squaretail Coral Grouper (*Plectropomus areolatus*) is listed as "Vulnerable;" it is fished unsustainably at its spawning aggregations.

The Rameshwaram Parachute Spider (*Poecilotheria hanumavilasumica*) has been listed as "Critically Endangered" as its natural habitat has been almost completely destroyed.



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Costa Rica's Holdridge's Toad (*Incilius holdridgei*) moved from "Critically Endangered" to "Extinct," as it has not been seen since 1986.



The La Palma Giant Lizard (*Gallotia auaritae*) from the Canary Island of La Palma was thought to be extinct, but was rediscovered last year and is now listed as "Critically Endangered."



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The Cuban Crocodile (*Crocodylus rhombifer*) moved from "Endangered" to "Critically Endangered" because of illicit hunting.

For the first time, all 161 species of groupers have been assessed, revealing that 20 of them are threatened with extinction. The Squaretail Coral Grouper (*Plectropomus areolatus*) from the coral reefs of the Indo-Pacific has been listed as “Vulnerable.” The fish is seen as a luxury live food, and is fished unsustainably at its spawning aggregations, a major threat for many grouper species.

Amphibians are facing an extinction crisis, with 366 species added to the IUCN Red List this year. A total of 1,983 species (32%) are either threatened or extinct.² In Costa Rica, Holdridge’s Toad (*Incilius holdridgeri*), an endemic species, moved from “Critically Endangered” to “Extinct,” as it has not been seen since 1986 despite intensive surveys. New reptiles assessed

this year include the La Palma Giant Lizard (*Gallotia avaritae*). Found on the Canary Island of La Palma and thought to have become extinct in the last 500 years, it was rediscovered last year and is now listed as “Critically Endangered.” The Cuban Crocodile (*Crocodylus rhombifer*) is another “Critically Endangered” reptile, moved from “Endangered” because of population declines caused by illicit hunting for its meat and skin, which is used in clothing.

² See also the book review on p. 243.

The “Dow Jones Index” of Biodiversity

The IUCN Sampled Red List Index (SRLI) is a new initiative of the IUCN Red List, developed in collaboration with the Zoological Society of London. It is set to revolutionize our understanding of the conservation status of the world’s species. The approach takes a randomized sample of species from a taxonomic group to calculate the trends in extinction risk within that group, in much the same way that an exit poll from a polling station can be used to calculate voting trends. This means that tracking the fate of these species is possible, in the same way as the Dow Jones Index tracks the movement of the financial markets.

Although species coverage on the IUCN Red List has increased in number each year, assessments have in general been restricted to the better-known species groups such as birds and mammals. As a consequence, until recently, the conservation status of less than four percent of the world’s described biodiversity has been known. Basing conservation decisions on such a

restricted subset of species can no longer be considered appropriate, and the SRLI, which is more representative of global biodiversity, can be used to provide a broader picture. “We are now emerging from the dark ages of conservation knowledge, when we relied on data from a highly restricted subset of species,” says Dr Jonathan Baillie, Director of Conservation Programs at the Zoological Society of London (ZSL). “In the future we will expand the scope of our species knowledge to include a far broader range of groups, thus informing and assisting policy makers in a hugely more objective and representative manner.”

Designed to broaden the types of species covered in the IUCN Red List, the SRLI uses a sample of at least 1,500 species from selected groups to show trends in extinction risk. All the world’s birds, amphibians, and mammals have now been assessed for the IUCN Red List. The first results from the SRLI were revealed this year. They include results for reptilian species, giving us a clearer indication of the status of terrestrial vertebrates, as well as other less well-known groups such as freshwater crabs. One of the newly assessed freshwater crab species, the Purple Marsh Crab (*Afrithelphusa monodosa*) from western Africa, was almost completely unknown to science until recently. The first living specimen was found in 2005, and the species has been listed as “Endangered” because of habitat disturbance and deforestation from agriculture in all parts of the Upper Guinea forest.

In the future, the SRLI will sample other lesser-known groups such as beetles, molluscs, mushrooms, lichens, and plants like mosses and liverworts, as well as flowering plants. Over the coming years, this new approach will enable us to build a clearer picture of the status of all the world’s species, not just the furry and feathered. “Over the years, the rigor of the IUCN Red List process has built it into the ‘global gold standard’ for monitoring the conservation status and trends of species and the threats they face worldwide,” said Dr. Holly Dublin, Chair of IUCN’s Species Survival Commission (SSC). “The SSC is the largest and oldest IUCN Commission, its members are proud to contribute their knowledge and expertise to delivering this amazing conservation tool to the world.”



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The first living specimen of the Purple Marsh Crab (*Afrithelphusa monodosa*) from western Africa was found in 2005. The species has been listed as “Endangered” because of habitat disturbance and deforestation from agriculture in all parts of the Upper Guinea forest.