I'm not a bot

Species of some organisms facing a very high risk of extinction "Endangered" redirects here. For other uses, see Endangered (disambiguation) and Endangered species (disambiguation). For lists, see Lists of IUCN Red List endangered species. Conservation status by IUCN Red List category Extinct Extinct (EX) (list) Extinct in the Wild (EW) (list) Threatened Critically Endangered (CR) (list) Endangered (EN) (list) Vulnerable (VU) (list) Lower Risk Near Threatened (NT) (list) Conservation Dependent (CD) (list) Least Concern (LC) Other categories Data Deficient (DD) (list) Not Evaluated (NE) Related topics International Union forConservation of Nature (IUCN) IUCN Red List NatureServe status Lists of organisms by population Comparison of Red List classes aboveand NatureServe status belowvte Golden lion tamarin, an endemic and one of the endangered species saved from extinction in Brazil A visual representation of the declining percentages of endangered plant and animal species in Brazil from 2014 to 2022. The sidebar graph highlights the contrast between plant and animal conservation efforts. The California condor is a critically endangered species. Note the wing tags used for population monitoring. An endangered species is a species that is very likely to become extinct in the near future, either worldwide or in a particular political jurisdiction. Endangered species may be at risk due to factors such as habitat loss, poaching, invasive species, and climate change.[1] The International Union for Conservation of Nature (IUCN) Red List lists the global conservation status of many species, and various other agencies assess the status of species within particular areas. Many nations have laws that protect conservation-reliant species which, for example, forbid hunting, restrict land development, or create protected areas. Some endangered species are the target of extensive conservation efforts such as captive breeding and habitat restoration. Human activity is a significant cause in causing some species to become endangered.[2][3][4][5] Main article: Conservation status Photo of Pusa hispida saimensis, also known as Saimaa ringed seal, from 1956. Living only in Lake Saimaa, Finland, Saimaa ringed seals are among the most endangered seals in the world, having a total population of only about 400 individuals.[6] The conservation status of a species indicates the likelihood that it will become extinct. Multiple factors are considered when assessing the status of a species; e.g., such statistics as the number remaining, the overall increase or decrease in the population over time, breeding success rates, or known threats.[7] The IUCN Red List of Threatened Species is the best-known worldwide conservation status listing and ranking system.[8] Over 50% of the world's species are estimated to be at risk of extinction,[9] but the frontier between categories such as 'endangered', 'rare', or 'locally extinct' species is often difficult to draw given the general paucity of data on most of these species. This is notably the case in the world Ocean where endangered species not seen for decades may go extinct unnoticed.[10] Internationally, 195 countries have signed an accord to create Biodiversity Action Plans that will protect endangered and other threatened species. In the United States, such plans are usually called Species Recovery Plans. Main article: Endangered species (IUCN status) The Siberian tiger is an Endangered (EN) tiger subspecies. Three tiger subspecies are already extinct (see List of carnivorans by population).[11] Blue-throated macaw, a critically endangered bird Brown spider monkey, a critically endangered mammal Siamese crocodile, a critically endangered reptile American burying beetle, an endangered species of insect Kemp's ridley sea turtle, a critically endangered reptile The Mexican wolf, the most endangered subspecies of the North American grey wolf. Approximately 143 are living in the wild. Though labeled a list, the IUCN Red List is a system of assessing the global conservation status of species that includes "Data Deficient" (DD) species – species for which more data and assessment is required before their situation may be determined – as well species comprehensively assessed by the IUCN's species assessment process.[12] The species under the index include: mammals, birds, amphibians, cycads, and corals. Those species of "Near Threatened" (NT) and "Least Concern" (LC) status have been assessed and found to have relatively robust and healthy populations, though these may be in decline. Unlike their more general use elsewhere, the List uses the terms "endangered species" and "threatened species" with particular meanings: "Endangered" (EN) species lie between "Vulnerable" (VU) and "Critically Endangered" (CR) species. In 2012, the IUCN Red List listed 3,079 animal and 2,655 plant species as endangered (EN) worldwide.[12] Brazil is one of the most biodiverse countries in the world, if not the most. It houses not only the Amazon forest but the Atlantic forest, the savanna-like Cerrado among other biomes.[13] Due to the high density of some of its well-preserved rainforests, wildlife trafficking, which along with deforestation is one of the biggest endangerment drivers in Brazil, has become a challenge. Brazil has a broad legal system meant to protect the environment, including its Constitution,[14] as well as several federal, state and local government agencies tasked with protecting the fauna and flora, fining individuals or companies linked to environmental crimes and confiscating illegally taken wildlife. Though such agencies can collect their data, each system operates relatively on its own when it comes to wildlife trafficking. However, both the agencies and the NGO's working in Brazil agree that the birds account for about 80% of trafficked species in the country.[15] The relation between wildlife smuggling, other environment crimes under the Brazilian law such as deforestation, and endangered species is particularly intricate and troubling since the rarer the animal or plant gets the most targeted and valuable they become in the black market, which leads to more endangered species in its turn.[16] Additionally, some environment experts and scientists point to the disbanding of environment agencies and the repeal of laws in Brazil under the presidency of Jair Bolsonaro as one of the reasons behind a surge in the number of endangered species.[17] In one occasion during his presidency some fines totaling US$3.1 billion on environment criminals were revoked and at least one fine (related to illegal fishing) imposed on Bolsonaro himself was cancelled and the agent who fined him was demoted.[18] In the past, Brazil has successfully saved the endemic golden lion tamarin from extinction. Massive campaigns to raise awareness among people by NGO's and governments, which included printing depictions of the golden lion tamarin in the 20 reais Brazilian banknotes (still in circulation), are credited with getting the species out of the critically endangered animals list.[19][20] There is data from the United States that shows a correlation between human populations and threatened and endangered species. Using species data from the Database on the Economics and Management of Endangered Species database and the period that the Endangered Species Act (ESA) has been in existence, 1970 to 1997, a table was created that suggests a positive relationship between human activity and species endangerment.[21] Carbon dioxide in Earth's atmosphere is asserted to be one of the leading causes of animal endangerment. According to the US National Park Service:[22] If we can sufficiently reduce greenhouse gas emissions, many of them will still have a chance to survive and recover. NASA scientist James Hanson has warned that in order to maintain a climate similar to that under which human civilization developed and similar to that which so many organisms are adapted, we need to quickly reduce the carbon dioxide in our atmosphere to 350 parts per million (ppm). Before the industrial revolution, atmospheric carbon dioxide levels rarely rose above 280 ppm; during the 2014 calendar year, carbon dioxide levels fluctuated between 395 and 402 ppm. A proportional symbol map of each state's endangered species count Under the Endangered Species Act of 1973 in the United States, species may be listed as "endangered" or "threatened". "The Salt Creek tiger beetle" is an example of an endangered subspecies protected under the ESA. The US Fish and Wildlife Service, as well as the National Marine Fisheries Service are held responsible for classifying and protecting endangered species. They are also responsible for adding a particular species to the list, which can be a long, controversial process.[23] Some endangered species laws are controversial. Typical areas of controversy include criteria for placing a species on the endangered species list and rules for removing a species from the list once its population has recovered. Whether restrictions on land development constitute a "taking" of land by the government; the related question of whether private landowners should be compensated for the loss of uses of their areas; and obtaining reasonable exceptions to protection laws. Also lobbying from hunters and various industries like the petroleum industry, construction industry, and logging, has been an obstacle in establishing endangered species laws. The Bush administration lifted a policy that required federal officials to consult a wildlife expert before taking actions that could damage endangered species. Under the Obama administration, this policy was reinstated.[24] Being listed as an endangered species can have negative effect since it could make a species more desirable for collectors and poachers.[25] This effect is potentially reducible, such as in China where commercially farmed turtles may be reducing some of the pressure to poach endangered species.[26] Another problem with the listing of species is its effect of inciting the use of the "shoot, shovel, and shut-up" method of clearing endangered species from an area of land. Some landowners currently may perceive a diminution in value for their land after finding an endangered animal on it. They have allegedly opted to kill and bury the animals or destroy habitat silently. Thus removing the problem from their land, but at the same time further reducing the population of an endangered species.[27] The effectiveness of the ESA– which coined the term "endangered species"– has been questioned by business advocacy groups and their publications but is nevertheless widely recognized by wildlife scientists who work with the species as an effective recovery tool. Nineteen species have been delisted and recovered[28] and 93% of listed species in the northeastern United States have a recovering or stable population.[29] Currently, 1,556 endangered species are under protection by government law. This approximation, however, does not take into consideration the species threatened with endangerment that are not included under the protection of laws like the Endangered Species Act. According to NatureServe's global conservation status, approximately thirteen percent of vertebrates (excluding marine fish), seventeen percent of vascular plants, and six to eighteen percent of fungi are considered imperiled.[30]:415 Thus, in total, between seven and eighteen percent of the United States' known animals, fungi and plants are near extinction.[30]:416 This total is substantially more than the number of species protected in the United States under the Endangered Species Act. Bald eagle American bison Ever since humankind began hunting to preserve itself, over-hunting and fishing have been a large and dangerous problem. Of all the species who became extinct due to interference from humankind, the dodo, passenger pigeon, great auk, Tasmanian tiger and Steller's sea cow are some of the more well known examples; with the bald eagle, grizzly bear, American bison, Eastern timber wolf and sea turtle having been poached to near-extinction. Many began as food sources seen as necessary for survival but became the target of sport. However, due to major efforts to prevent extinction, the bald eagle, or Haliaeetus leucocephalus is now under the category of Least Concern on the red list.[31] A present-day example of the over-hunting of a species can be seen in the oceans as populations of certain whales have been greatly reduced. Large whales like the blue whale, bowhead whale, finback whale, gray whale, sperm whale, and humpback whale are some of the eight whales which are currently still included on the Endangered Species List. Actions have been taken to attempt a reduction in whaling and increase population sizes. The actions include prohibiting all whaling in United States waters, the formation of the CITES treaty which protects all whales, along with the formation of the International Whaling Commission (IWC). But even though all of these movements have been put in place, countries such as Japan continue to hunt and harvest whales under the claim of "scientific purposes".[32] Over-hunting, climatic change and habitat loss leads in landing species in endangered species list. It could mean that extinction rates could increase to a large extent in the future. Endangered species are addressed through Canada's Species at Risk Act. A species is deemed threatened or endangered when it is on the verge of extinction or extirpation. Once a species is deemed threatened or endangered, the Act requires that a recovery plan to be developed that indicates how to stop or reverse the species' population decline.[33] As of 2021, the Committee on the Status of Endangered Wildlife In Canada has assessed 369 species as being endangered in Canada. The World Wide Fund-India raises concern in the longevity of the following animal species: the Red Panda, the Bengal Tiger, the Ganges River Dolphin, the Asian Elephant.[34] India signed the Wildlife Protection Act and also joined the Convention on the International Trade in 1976, to prevent poaching from harming its wildlife.[35] Main article: Introduced species The introduction of non-indigenous species to an area can disrupt the ecosystem to such an extent that native species become endangered. Such introductions may be termed alien or invasive species. In some cases, the invasive species compete with the native species for food or prey on the natives. In other cases, a stable ecological balance may be upset by predation or other causes leading to unexpected species decline. New species may also carry diseases to which the native species have no exposure or resistance.[36] See also: Effects of climate change The World Wildlife Fund (WWF) emphasizes that our planet is warming at a rate faster than any time in the past 10,000 years, necessitating species to adapt to new climate patterns, such as variations in rainfall and longer, warmer summers.[37] For example, the U.S. Fish & Wildlife Service highlighted efforts to understand and mitigate the impact of climate change on species through scientific research, modeling, and conservation actions. This includes evaluating the current condition of species, their genetic variation, and how changes in their environment may affect their survival.[38] The International Union for Conservation of Nature (IUCN) reports that the approximately 1 °C rise in mean global temperature due to human activities is causing serious impacts on species, including changes in abundance, genetic composition, behavior, and survival. The IUCN stresses the importance of environmental policies aimed at reducing CO 2 emissions to lessen the impact of climate change on species. Tools like the IUCN Red List and guidelines for assessing species' vulnerability to climate change are vital for conservation efforts.[39] Image showing one of many fish kills (in this case Tilapia) induced by effects of climate change. In addition, climate change can lead to species decreasing in areas where they once thrived, by being forced to migrate or even going extinct from inhospitable conditions, invasive species, and fragmentation. A study cited by WWF found that one in six species is at risk of extinction due to climate change if no action is taken. The phenomenon of species shifting their ranges in response to changing climates, finding new or shrinking habitats, illustrates the direct impact of global warming on biodiversity.[37] Another major concern is rising ocean acidity caused from excess CO2 in the atmosphere. This creates acidic conditions in the ocean which creates an inhospitable environment for fish, plants, and other keystone species such as coral reefs[40] For example, the Emperor Penguins, which rely on Antarctic sea ice for breeding, shelter, and food, are directly threatened by the melting of ice sheets. Similarly, the Mount Rainier white-tailed ptarmigan, adapted to alpine mountaintops, faces habitat loss due to climate changes in snowfall patterns and rising temperatures.[41] Another example is in the case of the Salton Sea in California. This area is a critical habitat for many endangered and watched species, as well as many migratory birds. Due to environmental shifts from climate change and the addition of agriculture in the surrounding plains, the system has become almost irreparably damaged. The warming temperatures has caused mass evaporation, leaving the Sea much more saline and with much more exposed playa. This not only damages air quality but also has caused fish kills to accumulate as shown pictured below. This has made the system inhospitable to the birds and endangered species relying upon it [42] The dhole, Asia's most endangered top predator, is on the edge of extinction. Main article: Captive breeding Captive breeding is the process of breeding rare or endangered species in human controlled environments with restricted settings, such as wildlife reserves, zoos, and other conservation facilities. Captive breeding is meant to save species from extinction and so stabilise the population of the species that it will not disappear.[43] This technique has worked for many species for some time, with probably the oldest known such instances of captive mating being attributed to menageries of European and Asian rulers, an example being the Père David's deer. However, captive breeding techniques are usually difficult to implement for such highly mobile species as some migratory birds (e.g. cranes) and fishes (e.g. hilsa). Additionally, if the captive breeding population is too small, then inbreeding may occur due to a reduced gene pool and reduce resistance."Endangered" in relation to "threatened" under the ESAIn 1981, the Association of Zoos and Aquariums (AZA) created a Species Survival Plan (SSP) to help preserve specific endangered and threatened species through captive breeding. With over 450 SSP Plans, some endangered species are covered by the AZA with plans to cover population management goals and recommendations for breeding for a diverse and healthy population, created by Taxon Advisory Groups. These programs are commonly created as a last resort effort. SSP Programs regularly participate in species recovery, veterinary care for wildlife disease outbreaks, and some other wildlife conservation efforts. The AZA's Species Survival Plan also has breeding and transfer programs, both within and outside of AZA – certified zoos and aquariums. Some animals that are part of SSP programs are giant pandas, lowland gorillas, and California condors.[44] Black rhino Southern bluefin tuna Whereas poaching substantially reduces endangered animal populations, legal, for-profit, private farming does the opposite. It has substantially increased the populations of the southern black rhinoceros and southern white rhinoceros. Richard Emslie, a scientific officer at the IUCN, said of such programs, "Effective law enforcement has become much easier now that the animals are largely privately owned... We have been able to bring local communities into conservation programs. There are increasingly strong economic incentives attached to looking after rhinos rather than simply poaching: from Eco-tourism or selling them on for a profit. So many owners are keeping them secure. The private sector has been key to helping our work."[45] Conservation experts view the effect of China's turtle farming on the wild turtle populations of China and South-Eastern Asia– many of which are endangered– as "poorly understood".[46] Although they commend the gradual replacement of turtles caught wild with farm-raised turtles in the marketplace– the percentage of farm-raised individuals in the "visible" trade grew from around 30% in 2000 to around 70% in 2007[47]– they worry that many wild animals are caught to provide farmers with breeding stock. The conservation expert Peter Paul van Dijk noted that turtle farmers often believe that animals caught wild are superior breeding stock. Turtle farmers may, therefore, seek and catch the last remaining wild specimens of some endangered turtle species.[47] In 2015, researchers in Australia managed to coax southern bluefin tuna to breed in landlocked tanks, raising the possibility that fish farming may be able to save the species from overfishing.[48] Hawaiian Monk Seal Rehabilitation: The Hawaiian monk seal are one of the most endangered seal species in the world. Conservation initiatives have focused on mitigating human-seal conflicts, rehabilitating injured seals, and extensive monitoring to ensure their survival. These efforts have led to a gradual increase in their population.[49] Restoration of the American Bald Eagle: Once on the brink of extinction in the contiguous United States with only 417 known nesting pairs in 1963 due to pesticide use and habitat destruction, the Bald Eagle population has made a remarkable recovery. By 2020, the number of nesting pairs had surged to 71,400. Thanks to habitat protection, legal protection, and DDT ban efforts, leading to the bald eagle being removed from the list of threatened and endangered species.[50][51] The Gray Wolf Rebound: Starting in 1995 and 1996, 31 gray wolves from western Canada were relocated to Yellowstone, where they were temporarily kept in acclimation pens before being released into the wild. This careful reintroduction aimed to restore a key predator to the ecosystem, which had profound effects on the park's wildlife dynamics. After being nearly eradicated in the lower 48 states by the early 20th century, reintroduction and protective measures have allowed their populations to rebound significantly. By 2017, gray wolves were delisted in Montana, Idaho, and Wyoming, indicating a recovery to a point where they were no longer considered endangered in these areas.[52][53] Recovery of the Channel Island Fox: Beginning in 1999, the Channel Islands National Park launched an ambitious recovery program for the island fox, incorporating several key strategies: captive breeding and reintroduction, removal of predatory golden eagles, re-establishment of bald eagles, and eradication of non-native ungulates. The U.S. Department of the Interior officially recognized the recovery as the fastest for any Endangered Species Act-listed mammal in the U.S., announcing the delisting of three island fox subspecies in 2016. This recovery, from near extinction in the late 1990s to robust populations by the mid-2010s, underscores the power of partnership-driven conservation.[54][55] Though endangered, the sea otter has a relatively large population. 1870s photo of American bison skulls. By 1890, overhunting had reduced the population to 750. Knowlton cactus Loggerhead sea turtle Asian arowana Hawksbill sea turtle Cantor's giant softshell turtle ARKive Biodiversity Center for Biological Diversity Conservation cloning Critically Endangered Ex situ conservation Genome sequencing of endangered species Habitat fragmentation Holocene extinction International Rhino Foundation International Union for Conservation of Nature (IUCN) Overexploitation Rare species Red Data Book of the Russian Federation Threatened species World Wide Fund for Nature (WWF) List of Chromista by conservation status List of endangered amphibians List of endangered arthropods List of endangered birds List of endangered fishes List of endangered insects List of endangered invertebrates List of endangered mammals List of endangered molluscs List of endangered plants List of endangered reptiles List of fungi by conservation status Lists of IUCN Red List endangered species ^ "Why do animals and plants become endangered? | U.S. Geological Survey". www.usgs.gov. 31 December 2016. Retrieved 14 January 2024. ^ "Giant Panda WWF". Archived from the original on 9 August 2012. Retrieved 19 September 2022. ^ "Grey Long-Eared Bat Mammal Society". Retrieved 19 September 2022. ^ "Endangered Species". education.nationalgeographic.org. National Geographic. Retrieved 27 September 2023. ^ Tollefson, Jeff (6 May 2019). "Humans are driving one million species to extinction". Nature. 569 (7755): 171. Bibcode:2019Natur.569..171T. doi:10.1038/d41586-019-01448-4. PMID 31065101. S2CID 256768064. ^ "Saimaa Ringed Seal". Archived from the original on 25 December 2018. Retrieved 22 December 2018. ^ "NatureServe Conservation Status". NatureServe. April 2007. Archived from the original on 21 September 2013. Retrieved 2 June 2012. ^ "Red List Overview". IUCN. February 2011. Archived from the original on 27 May 2012. Retrieved 2 June 2012. ^ "Threatened Species". Conservation and Wildlife. Archived from the original on 13 September 2012. Retrieved 2 June 2012. ^ Briand, Frederic (October 2012). "Species Missing in Action - Rare or Already Extinct?". National Geographic. ^ "The Tiger". Sundarbans Tiger Project. Archived from the original on 17 September 2012. Retrieved 2 June 2012. ^ a b "IUCN Red List of Threatened Species". IUCN. 7 February 2018. Archived from the original on 27 May 2020. Retrieved 22 April 2022. ^ "The top 10 most biodiverse countries". Mongabay Environmental News. 21 May 2016. Archived from the original on 19 February 2021. Retrieved 3 December 2022. ^ "Brazilian Constitution of 1988 - Article 23 "The Union, the states, the federal district and the municipalities, in common, have the power: [...] VI – to protect the environment and to fight pollution in any of its forms; VII – to preserve the forests, fauna and flora" (PDF). OAS (Organization of American States). 2010. ^ "A máfia dos bichos: Muito além de reality, tráfico de animais no Brasil tira 38 milhões de bichos da mata por ano e gira R$ 3 bi". www.uol.com.br (in Brazilian Portuguese). Retrieved 3 December 2022. ^ KKIENERM. "Wildlife, Forest & Fisheries Crime Module 1 Key Issues: Implications of Wildlife Trafficking". www.unodc.org. Retrieved 4 December 2022. ^ Magazine, Hakai. "In COVID's Shadow, Illegal Fishing Flourishes". Hakai Magazine. Retrieved 6 December 2022. ^ "Ato do governo Bolsonaro deve anular até R$ 16 bilhões em multas ambientais". noticias.uol.com.br (in Brazilian Portuguese). Retrieved 4 December 2022. ^ "Mico-leão-dourado é "case" de sucesso para preservação, mas vê nova ameaça". www.uol.com.br (in Brazilian Portuguese). Retrieved 4 December 2022. ^ "How Brazil is working to save the rare lion tamarins of the Atlantic Forest". Mongabay Environmental News. 1 June 2022. Retrieved 4 December 2022. ^ Shogren, Jason F.; Tschirhart, John, eds. (2001). Protecting Endangered Species in the United States: Biological Needs, Political Realities, Economic Choices. Cambridge University Press. p. 1. ISBN 0521662109. ^ "Climate Change Endangers Wildlife". US National Park Service. 25 March 2020. Retrieved 14 September 2023. ^ Wilcove, D.S.; Master, L.L. (2005). "How Many Endangered Species are there in the United States?". Frontiers in Ecology and the Environment. 3 (8): 414. doi:10.2307/3868657. JSTOR 3868657. Archived from the original on 2 June 2021. Retrieved 1 June 2021. ^ "Reversing Bush Rule, Obama Resumes Safeguards for Endangered Species". PBS NewsHour. 3 March 2009. Archived from the original on 3 September 2019. Retrieved 23 July 2021. ^ Courchamp, Franck; Elena Angulo; Philippe Rivalan; Richard J. Hall; Laetitia Signoret; Leigh Bull; Yves Meinard (2006). "Rarity Value and Species Extinction: The Anthropogenic Allee Effect". PLOS Biology. 4 (12): e415. doi:10.1371/journal.pbio.0040415. PMC 1661683. PMID 17132047. ^ Dharmananda, Subhuti (2006). "Endangered Species issues affecting turtles and tortoises used in Chinese medicine". PLOS Biology. 4 (12). Institute for Traditional Medicine, Portland, Oregon: e415. doi:10.1371/journal.pbio.0040415. PMC 1661683. PMID 17132047. ^ "Shoot, Shovel and Shut Up". Reasononline. Reason Magazine. 31 December 2003. Archived from the original on 21 September 2009. Retrieved 23 December 2006. ^ "USFWS Threatened and Endangered Species System (TESS)". U. S. Fish & Wildlife Service. Archived from the original on 28 July 2007. Retrieved 6 August 2007. ^ "ESA Successes". www.esasuccess.org. Archived from the original on 10 February 2010. Retrieved 24 January 2007. ^ a b Wilcove & Master 2005. ^ BirdLife International (2016). "Haliaeetus leucocephalus". IUCN Red List of Threatened Species. 2016: e.T22695144A93492523. doi:10.2305/IUCN.UK.2016-3.RLTS.T22695144A93492523.en. Retrieved 11 November 2021. ^ Freedman, Bill (2008). "Endangered species". Gale. 46 (44) (4th ed.): 25. PMID 30399289. ^ Canada, Environment and Climate Change (26 February 2018). "Species at Risk Act: recovery strategies". www.canada.ca. Retrieved 1 August 2022. ^ Duffy, Molly. "The endangered animals of India". The Gazette. Retrieved 22 April 2022. ^ Kabała, Natasha (29 April 2019). "India's Wildlife Trade: Success and Failures of Protecting Endangered Species". Stop Poaching Now!. Archived from the original on 26 November 2020. Retrieved 22 April 2022. ^ Chiras, Daniel D. (2011). "Invader Species". Grolier. Online. Archived from the original on 9 October 2018. Retrieved 4 March 2015. ^ a b "Impact of climate change on species". wwf.panda.org. Retrieved 3 February 2024. ^ "Protecting threatened and endangered species in a changing climate | U.S. Fish & Wildlife Service". www.fws.gov. 4 January 2024. Retrieved 3 February 2024. ^ "Species and climate change". www.iucn.org. Archived from the original on 3 September 2023. Retrieved 3 February 2024. ^ Hoegh-Guldberg, O.; Mumby, P. J.; Hooten, A. J.; Steneck, R. S.; Greenfield, P.; Gomez, E.; Harvell, C. D.; Sale, P. F.; Edwards, A. J.; Caldeira, K.; Knowlton, N.; Eakin, C. M.; Iglesias-Prieto, R.; Muthiga, N.; Bradbury, R. H. (14 December 2007). "Coral Reefs Under Rapid Climate Change and Ocean Acidification". Science. 318 (5857): 1737–1742. Bibcode:2007Sci...318.1737H. doi:10.1126/science.1152509. hdl:1885/28834. ISSN 0036-8075. PMID 18079392. ^ "Preventing Extinctions in a Changing Climate | U.S. Fish & Wildlife Service". www.fws.gov. 26 May 2022. Retrieved 3 February 2024. ^ Shuford, W. David; Warnock, Nils; Molina, Kathy C.; Sturm, Kenneth K. (1 April 2002). "The Salton Sea as critical habitat to migratory and resident waterbirds". Hydrobiologia. 473 (1): 255–274. Bibcode:2002HyBio.473..255S. doi:10.1023/A:1016566709096. ISSN 1573-5117. ^ "Captive Breeding Populations – National Zoo". Nationalzoo.si.edu. Archived from the original on 15 October 2009. Retrieved 6 December 2009. ^ "Association of Zoos and Aquariums Species Survival Programs". Archived from the original on 3 August 2009. ^ "He's black, and he's back! Private enterprise saves southern Africa's rhino from extinction" Archived 2017-09-26 at the Wayback Machine, The Independent, June 17, 2008 ^ Shi, Haitao; Parham, James F.; Fan, Zhiyong; Hong, Meiling; Yin, Feng (1 January 2008). "Evidence for the massive scale of turtle farming in China". Oryx. Vol. 42. Cambridge University Press. pp. 147–150. doi:10.1017/S0030605308000562 (inactive 1 November 2024). Archived from the original on 5 June 2011. Retrieved 26 December 2009.{{cite news}}: CS1 maint: DOI inactive as of November 2024 (link) ^ a b "Turtle farms threaten rare species, experts say Archived 2012-02-18 at the Wayback Machine". Fish Farmer, 30 March 2007. Their source is an article by James Parham, Shi Haitao and two other authors, published in February 2007 in the journal Conservation Biology. ^ The Top 10 Everything of 2009: Top 10 Scientific Discoveries: 5. Breeding Tuna on Land, Time magazine, December 8, 2009. ^ "Endangered Species Conservation". NOAA Fisheries. NOAA. Archived from the original on 14 April 2016. Retrieved 11 April 2024. ^ "Bald Eagle Decline & Recovery | American Eagle Foundation". eagles.org. Retrieved 11 April 2024. ^ "Saving the Bald Eagle – a Conservation Success Story | Defenders of Wildlife". defenders.org. 10 January 2023. Retrieved 11 April 2024. ^ "Wolf Restoration - Yellowstone National Park (U.S. National Park Service)". www.nps.gov. Retrieved 11 April 2024. ^ "Yellowstone wolf restoration | U.S. Geological Survey". www.usgs.gov. 22 June 2017. Retrieved 11 April 2024. ^ "Interior Announces Fastest Successful Recovery of an Endangered Species Act-Listed Mammal; Three Island Fox Subspecies Now Fully Delisted | U.S. Department of the Interior". www.doi.gov. 11 August 2016. Retrieved 11 April 2024. ^ "Island Fox - Channel Islands National Park (U.S. National Park Service)". www.nps.gov. Retrieved 11 April 2024. Glenn, C. R. 2006. "Earth's Endangered Creatures" Archived 2019-09-15 at the Wayback Machine. Ishwaran, N., & Erdelen, W. (2005, May). Biodiversity Futures Archived 2015-11-07 at the Wayback Machine, Frontiers in Ecology and the Environment, 3(4), 179. Kotiaho, J. S., Kaitala, V., Komonen, A., Päivinen, J. P., & Ehrlich, P. R. (2005, February 8). Predicting the Risk of Extinction from Shared Ecological Characteristics Archived 2018-09-13 at the Wayback Machine, proceedings of the National Academy of Sciences of the United States of America, 102(6), 1963–1967. Minteer, B. A., & Collins, J. P. (2005, August). Why we need an "Ecological Ethics" Archived 2018-09-13 at the Wayback Machine, Frontiers in Ecology and the Environment, 3(6), 332–337. Raloff, J. (2006, August 5). Preserving Paradise Archived 2018-09-13 at the Wayback Machine, Science News, 170(6), 92. Wilcove, D. S., & Master L. L. (2008, October). How Many Endangered Species are there in the United States? Archived 2018-09-13 at the Wayback Machine Frontiers in Ecology and the Environment, 3(8), 414–420. Freedman, Bill. "endangered species." Gale Encyclopedia of Science. Ed. K. Lee Lerner and Brenda Wilmoth Lerner. 4th ed. Detroit: Gale Group, 2008. Discovering Collection. Gale. Chiras, Daniel D. "Invader Species." Grolier Multimedia Encyclopedia. Grolier Online, 2011. "endangered Species." Current Issues: Macmillan Social Science Library. Detroit: Gale, 2010. List of species with the category Endangered as identified by the IUCN Red List of Threatened Species Endangered Species from UCB Libraries GovPubs. Endangered Species & Wetlands Report Independent print and online newsletter covering the ESA, wetlands and regulatory takings. USFWS numerical summary of listed species in US and elsewhere Extinction: A million species at risk, so what is saved? BBC. December 28, 2019. 'Generally ignored' species face twice the extinction threat, warns study. The Guardian. August 4, 2022 Portals: Ecology Environment Biology Retrieved from " How can financial brands set themselves apart through visual storytelling? Our experts explain how.Learn MoreThe Motorsport Images Collections captures events from 1895 to today’s most recent coverage.Discover The CollectionCurated, compelling, and worth your time. Explore our latest gallery of Editors’ Picks.Browse Editors' FavoritesHow can financial brands set themselves apart through visual storytelling? 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Download our groundbreaking FREE guide to Ethical Animal Volunteering here!Conservation through Travel, since 2015Exciting opportunities to intern are available to budding conservationists and young graduates with a passion for wildlife. Your next step to a conservation careerTravel, learn and have fun by spending 1 week to 6 months wildlife volunteering at one of our inspirational conservation projects: from turtle beach patrol to rainforest education.Travel with a Cause! You can experience the wonders of one of the most biodiverse countries in the world and learn about ground-breaking conservation work Malaysia, including Malaysia Borneo, is one of the most bio-diverse countries in Asia with over 2000 endemic (native) species. However, most of the Malaysian wildlife is under threat, but to what level? Currently, the top 5 endangered animals are Malayan tiger, Malayan tapir, Bornean Orangutan, Asian Elephant and Black Shrew.The Red List of Threatened SpeciesThe International Union for Conservation of Nature (IUCN) is the world’s oldest and largest global environmental organisation. And it maintains a “Red List of Threatened Species”, the world’s most comprehensive list of endangered species. The Red List utilizes scientific approach and rigour to convey accuracy and urgency of conservation issues to the public, researchers and policy makers. Currently, the Red List categorises animal species into seven threat levels: least concern, near threatened, vulnerable, endangered, critically endangered, extinct in the wild, and extinct.A species can become endangered due to natural causes. However, the most common factor when it comes to species decline is ‘human activity’. The exponential rise in the human population is a factor. Plus rapid urbanisation and overconsumption have led to a decline in wild habitats and animals. Eventually, this makes species become endangered. Ideally, this should not happen. In contrast, classifying species as ‘endangered’ can help to highlight the issue. Additionally, it can help to raise awareness and encourage conservation actions. Ultimately, though, political will is needed!On 23 November 2019, Malaysia lost its only surviving Sumatran rhinoceros. Additionally, the Malayan tiger, the only tiger subspecies inhabiting the Malay peninsula, is now on the verge of extinction – less than 200 individuals are left in the wild, and sharply declining.Currently, one of the main threats to Malaysian wildlife is habitat loss due to deforestation for palm oil plantations, agriculture, and road building. It is estimated that over 80% of Malaysia Borneo has been logged. Deforestation leads to increasing human-wildlife conflict and severe environmental degradation in many parts of the region. At this rate, the tropical rainforest of Malaysia and its inhabitants are edging towards extinction.Workers sorting mature fruits of the palm oil plant. [Photograph by Sevki79, distributed under a CC-BY 4.0 license]BorneoPoachingThreatswildlife trafficking What is an endangered species? It is a kind of plant or animal at risk of going extinct. Species become endangered for two main reasons. First, their habitat may disappear. The second way is if their population is too small.Loss of HabitatA loss of habitat can happen naturally. For example, dinosaurs lost their habitat about 66 million years ago. Scientists believe an asteroid hit the Earth. It blasted dust into the air. Less sunlight reached plants, so they died. The air grew cooler. These changes killed off the dinosaurs, experts think.Today, humans cause a lot of habitat loss. People cause habitat loss when they clear land for farming. For example, people around the world eat a lot of beef. People near the Amazon rainforest cut down large areas of trees to make room for cows. These changes affect wild species that live in the rainforest. It may destroy the foods some animals need. There may not be safe places to raise young. Without a healthy habitat, some plants and animals may become endangered. There are indigenous, or native, people who live in the Amazon rainforest. Many of them protect the forest. But others are still cutting down trees because they can make money using the land for farming.Climate change also causes habitat loss. Climate change is when weather patterns around the world change over many years. Since the 19th century, humans have caused the climate to change faster than normal. Burning fuels, like gas and oil, to power machines created pollution. The pollution has trapped heat around the Earth. The temperature around the world has become warmer. This can destroy habitats. For example, polar bears live on icebergs. But warmer temperatures are melting the ice. The polar bears are having trouble adjusting to these new conditions.Loss of Genetic VariationA population that is too small can also make a species endangered. How? Genetic variation. Genetic variations are small differences within a species. They help a species survive. Say one oak tree needs less water than another oak tree. If there is less rain, the first oak tree is more likely to live. It may give its genetic information to its seeds. Then that oak's seedlings may need less water, too.Human actions can make genetic variation lower. One example is catching too many fish from the oceans. Fishermen are catching too many fish because more people want to eat fish. That makes the groups of wild fish smaller. This means there are not as many fish to create new young. Because of this, genetic variation shrinks.The more genetic variation the better. It helps species survive habitat changes. It helps them survive diseases, too.The Red ListOne environmental group keeps a "Red List of Threatened Species." This list has seven levels. It tells which species are in the most trouble. Maybe the population is shrinking fast. Maybe its habitat is disappearing.Here are the different levels.Least Concern and Near ThreatenedLeast concern is one level. Species of least concern have little chance of dying out. This level includes brown bears.A near threatened species is one that may be in trouble soon. For instance, American bison are near threatened. They were almost all killed in the 1800s. Bison lived in grasslands, but the U.S. government wanted to turn the grasslands into farms. They killed a lot of bison. Now some indigenous people are protecting the bison. The Eastern Shoshone tribe is one group of indigenous people protecting the bison. They make sure bison can live in the wild. But the number of bison is still small. This is why they are a near threatened species.Vulnerable, Endangered and Critically EndangeredThese three levels include species facing bigger trouble.Vulnerable Species: Ethiopian Banana FrogThis small frog lives in Africa. People are cutting down its forest habitat to build homes and farms.Endangered Species: Big Leaf MahoganyA mahogany is a tall tree. People use it to make furniture and floors for houses. But people have cut down too many trees. That is why this species is endangered.Critically Endangered Species: Bolivian Chinchilla RatThis rat lives in South America. The big threat is the loss of its forest habitat. People are cutting down the forest to make farms.Extinct in the Wild and ExtinctA species is extinct in the wild when it can no longer live in its natural home. An animal may still live in zoos or wildlife refuges, though. Or a plant may grow with special care.Extinct in the Wild: Wyoming ToadsWyoming toads are small amphibians. They lived in ponds in Wyoming and Colorado. There were farms near the ponds where people used chemicals to kill bugs and other pests. Rain would wash the chemicals into the water where the toads lived. This killed many wild Wyoming toads. There was also a disease that killed a lot of the wild toads.A species goes extinct when the last of its kind dies.Extinct: Cuban MacawThe Cuban macaw was a tropical parrot. They lived on the island of Cuba. People hunted them and made them pets. The last one died about 150 years ago.Protecting Endangered SpeciesWhy is it important to know if a species is endangered? If people know, they can take action. They can pass laws to stop hunting. They may stop people from destroying important habitats. Some species have survived because humans helped.The brown pelican is a good example. This seabird lives on the coasts of North and South America. In 1970, it was listed as endangered.People took action. They raised baby pelicans and released them into the wild. They banned chemicals that harmed the birds. The number of brown pelicans climbed. Today, it is safe from extinction.There are other ways people can take action. They can give money to groups that help animals. They can grow a garden with local plants. They can go to a national park. It is also important to vote for people in government who want to help animals. WorldAnimalFound