



Cozumel curassow (*Crax rubra grisei*)
Range: Cozumel Island, Mexico

A large, black bird with a spectacular crest, the Cozumel curassow is found in only one place in the world: the small, tropical island of Cozumel off Mexico's Yucatan Peninsula. Numbering only a few hundred, this subspecies is threatened by predation from introduced boa constrictors and feral dogs, human hunting and forest habitat destruction — and now climate change is increasing hurricane risk. North Atlantic hurricane activity has increased in recent decades; frequency of storms as well as intensity of the strongest hurricanes have risen in step with warming sea surface temperatures. Because hurricanes bring the destruction of Cozumel's forests, a trend toward increasing hurricane activity significantly increases the curassow's extinction risk.



Southwestern myotis (*Myotis auriculus*)
Range: southern Mexico to southwestern United States

Myotis bats in North America are being hard-hit by a disease epidemic called white-nose syndrome. Since the disease was first observed in 2007, it has killed more than 1 million bats of nine species, including seven Myotis species, in the United States and Canada. Adding to this disease risk, increasingly frequent and severe drought due to climate change is placing bats that inhabit arid areas — like the southwestern myotis — under mounting stress. Standing water sources are important for bats in desert regions, particularly for lactating females, which need to drink much more than other bats to produce milk for their young. The loss of water sources due to climate change is predicted to hinder bat reproduction and lead to declines in regional bat populations.

To protect bats from any human-caused spread of white-nose fungus, the Center filed a petition to close federally owned caves in the United States. The Center has also petitioned for U.S. Endangered Species Act protection for two severely affected bat species.



Gray whale (*Eschrichtius robustus*)
Range: Shallow coastal waters of eastern North Pacific from Mexico to Alaska

Each year, gray whales of the eastern North Pacific make an epic 16,000- to 23,000-kilometer migration between their Arctic summer feeding grounds and their winter calving grounds in the warm lagoons of Baja California, Mexico, where they give birth. Since 1998 when gray whales reached a peak of about 30,000 animals, the population has undergone a severe 36-percent reduction which has been linked to changing ocean conditions. Rapid melting of Arctic sea ice appears to be lowering the abundance of bottom-dwelling prey in their Alaskan feeding grounds, and increasing numbers of malnourished gray whales have been observed along the migratory route. Gray whales are also beginning their southbound migration later, which means more whales give birth in route, spending less time in protected lagoons nursing their young.

To protect the gray whale's Arctic foraging grounds, the Center has litigated to halt new oil and gas drilling in waters off Alaska where an oil spill in icy waters would be catastrophic.

350 REASONS WE NEED TO GET TO 350



SAVING SPECIES FROM THE CLIMATE CRISIS MEANS RAPIDLY REDUCING GREENHOUSE GAS EMISSIONS

Atmospheric carbon dioxide concentrations currently stand at an unsafe level of 389 parts per million, already resulting in significant impacts to biodiversity and posing unacceptable future risks. Observed impacts to wildlife around the globe are wide-ranging: Essential habitats are being lost, many species are moving poleward and upward to try to keep pace with climate change, populations are declining and disappearing, and the ecosystems that people depend on are being torn apart. If current carbon pollution trends continue, scientists estimate that climate change will condemn one-third of the world's plants and animals to extinction by 2050, and threaten up to two-thirds with extinction by 2100.

However, if we can sufficiently curb greenhouse gas emissions, we can prevent many of these extinctions and give species a chance to survive and recover — *but we have to act now*. Leading climate scientists have concluded that we must rapidly reduce atmospheric CO₂ to 350 parts per million or less to prevent dangerous climate change and protect life on Earth, including ourselves.

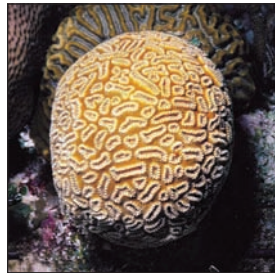
To call for action and document the incredible plants and animals at stake, the Center for Biological Diversity created the web project 350.biologicaldiversity.org, profiling 350 species whose future survival depends on meeting the challenge to reduce greenhouse emissions today. **Marking the 2010 United Nations Framework Convention on Climate Change negotiations being held in Cancún, Mexico, during the International Year of Biodiversity, this booklet highlights 10 climate-threatened plants and animals that inhabit Mexican lands and waters.**

While saving these plants and animals requires that we reduce atmospheric CO₂ to 350 parts per million first and foremost, their survival also depends upon the implementation of strong conservation measures to help them better withstand the climate-driven changes happening now as well as the unavoidable changes already in the pipeline. Such measures include increasing protected habitat areas and the corridors between them, ensuring the preservation of genetic diversity across species' ranges, and protecting species from non-climate threats. We provide examples of urgent conservation needs for the species profiled, as well as ways that the Center for Biological Diversity has used existing, time-tested legal tools, such as the U.S. Endangered Species Act, in our efforts to save these species from the climate crisis.

To read about 340 other species around the world that are threatened by climate change, visit our website at 350.biologicaldiversity.org. To learn more about the Center's work to protect species from the climate crisis, please go to www.biologicaldiversity.org/programs/climate_law_institute.

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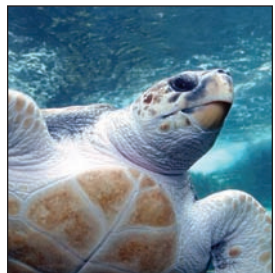
FROM MEXICO'S LANDS AND WATERS: 10 SPECIES THAT NEED US TO GET TO 350



Pineapple coral (*Dichocoenia stokesii*)
Range: Caribbean and Gulf of Mexico

Although coral reefs occupy a relatively small area of our oceans, they support an incredible diversity of life rivaling that of tropical rainforests. An estimated one-third of all known marine species inhabit coral reefs. However, climate change threatens coral reef ecosystems worldwide with collapse. As ocean temperatures rise, corals are suffering from frequent mass bleaching events that lead to widespread coral death and higher disease risk. If climate change continues unabated, coral scientists predict that most of the world's corals will be subjected to mass bleaching events at deadly frequencies within 20 years. Making matters worse, ocean acidification, caused by the ocean's absorption of carbon dioxide, impairs the ability of corals to build their protective skeletons. Scientists project that at CO₂ levels of 450 parts per million, reef erosion will eclipse the ability of corals to grow, and at 560 parts per million, all corals will start to dissolve.

In 2009, the Center filed a scientific petition to protect 83 species of corals, including the pineapple coral, under the U.S. Endangered Species Act due to threats from global warming and ocean acidification.



Loggerhead sea turtle (*Caretta caretta*)
Range: Atlantic, Pacific and Indian oceans

Endangered loggerheads make some of the longest known journeys of any sea turtle species. Along the way, they must navigate past millions of longline hooks and a maze of coastal gillnets that catch and kill thousands of turtles, seabirds, marine mammals and sharks. In the Gulf of Mexico, nesting loggerhead adults and hatchlings were hard-hit by the disastrous Deepwater Horizon oil spill that coated nesting beaches and feeding grounds. Now, rising sea levels from climate change threaten to inundate their nesting beaches. Because turtles' gender is determined by temperature, rising temperatures are predicted to dramatically tilt the balance of male and female turtles hatched, endangering this species' future reproductive success.

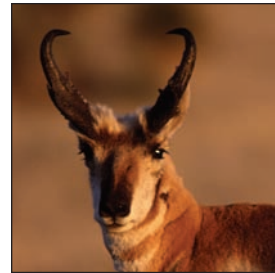
The Center petitioned to upgrade loggerheads' protected status under the U.S. Endangered Species Act, successfully litigated to curtail commercial fisheries harming this species, and filed multiple lawsuits to hold BP and the U.S. government accountable for the Deepwater Horizon oil spill.



Blue spiny lizard (*Sceloporus serrifer*)
Range: Mexico

The spiny lizards in the genus *Sceloporus* include some of the most well-known lizards in North and Central America, such as the familiar western fence lizard. However, rising temperatures from climate change are causing these lizards to disappear at an alarming rate. Spiny lizards need to bask in the sun to warm up, but if conditions get too hot, they're forced to retreat into the shade instead of spending time searching for food. Lizards that cannot get enough to eat do not have energy to lay eggs or give birth, putting populations at risk of extinction.

In Mexico, scientists found that spiny lizards had gone extinct at 12 percent of the sites where they had been present in the 1970s to 1990s, and that these extinctions tended to occur where temperatures had increased the most during the breeding season. If climate change continues unabated, scientists project that 58 percent of spiny lizard species in Mexico will go extinct by 2080, including complete loss of those species that survive only in high-elevation habitat. The blue spiny lizard and other species that are already disappearing across their range may face extinction due to climate change within the next decade.



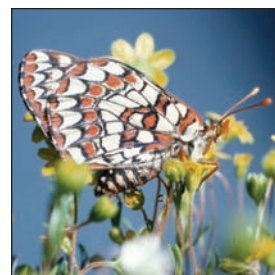
Sonoran pronghorn antelope (*Antilocapra americana sonoriensis*)
Range: Sonoran Desert in northern Mexico and southwestern United States

The pronghorn antelope, the fastest land mammal in North America, developed its amazing speed to outrun prehistoric cheetahs. Cattle grazing and habitat fragmentation reduced Sonoran pronghorn numbers to several hundred individuals scattered among three small populations. Today, more frequent and severe drought due to climate change greatly affects the survival of pronghorn adults and fawns, threatening the subspecies' recovery. Drought leaves pronghorn without enough forage or water, forcing them to concentrate in areas near surface water, which increases competition for resources and predation. Foreboding the future, more than 80 percent of the pronghorn population in Arizona died during a drought in 2002, leaving only 21 animals.



Resplendent quetzal (*Pharomachrus mocinno*)
Range: Central America from southern Mexico to Panama

With its spectacular green and red plumage and long flowing tail, the resplendent quetzal was considered sacred by Mayan civilizations. Today the quetzal is confined to small, remnant cloud forest patches in Central America due to habitat destruction from cattle ranching and agricultural land clearing. Now climate change is putting extra stress on cloud forest species; drier conditions and prolonged drought due to climate change have been linked to recent declines in cloud forest plants, while lower elevation species like the keel-billed toucan have been moving upward into high-elevation cloud forests — with the potential to displace the quetzal.



Quino checkerspot butterfly (*Euphydryas editha quino*)
Range: northern Baja California, Mexico, and southern California, United States

Once a common butterfly of the coastal slopes of northern Baja California and southern California, the striking orange and black Quino checkerspot butterfly has been severely reduced in number by the combined threats of habitat destruction and rapid climate change. As conditions have warmed and dried, the window of time in which the butterfly's host plant is edible has shortened, causing increased mortality in southern populations. Like many other butterfly species, the Quino checkerspot has undergone a significant northward range shift in response to climate change, as more southerly populations have gone extinct.

The Center's efforts led to the Quino checkerspot's protection under the U.S. Endangered Species Act in 1997.



Peirson's milk vetch (*Astragalus magdalenae* var. *peirsonii*)
Range: Gran Desierto in Sonora, Mexico, and Algodones Dunes in California, United States

With its oversized seeds and small leaves, Peirson's milk vetch is well adapted for survival in the harsh conditions of desert sand dunes. Large seeds ensure that germinated seedlings have enough nutrients to establish and survive, while small leaves conserve moisture in the dry desert heat. Although off-road vehicles are a primary threat to this plant, increased drought cycles due to climate change pose an ever-growing concern. Consecutive years of drought can lead to low reproduction that could outlast the longevity of the seedbank, so that the populations could die out completely.

In 2001, the Center won a lawsuit successfully protecting a large portion of the milk vetch's dune habitat in California from off-road vehicles.