

Threatened and Endangered Species Profile Cards



Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*): The western yellow-billed cuckoo historically ranged west of the Continental Divide from southern Canada to northern Mexico, yet they are now found primarily in California, Arizona, and New Mexico. These birds are declining in numbers due to habitat loss as riparian areas (habitat next to streams and rivers) are altered or converted for other uses, such as agriculture. Western yellow-billed cuckoos breed in late spring and early summer, when large insects are abundant for feeding upon. Pesticides used on insects may be thinning the shells of their eggs. Females lay one to five eggs that are incubated by both parents. In August the birds migrate long distances to their wintering grounds in South America. Warming temperatures have the potential to further impact this species. If insects emerge earlier in the spring, food may not be as abundant when the birds arrive for breeding season. (THREATENED)

Loggerhead sea turtle (*Caretta caretta*): The carnivorous loggerhead sea turtle is one of seven species of sea turtles alive today. The loggerhead has a vast range and can be found in the Pacific, Atlantic, and Indian Oceans, as well as the Mediterranean and Caribbean seas. It ranges from the open ocean to bays, lagoons, and estuaries (where rivers flow out to the sea). Female loggerheads do not begin laying eggs until they are between 15-30 years old. Once a female begins breeding, she will often return to the same site where she hatched to lay her eggs. The female loggerhead sea turtle lays an average of 100 eggs in a clutch (group of eggs), typically laying three to four clutches each nesting season. When the season is over, females do not breed again for two to three years. They migrate back from the nesting beaches to marine waters. Sea turtle numbers (loggerhead and all other types of sea turtles) have declined due to a variety of threats. Humans have collected eggs and other body parts for food and decoration. Turtles' nesting habitat is degraded as beaches are developed. Artificial lights installed on the beaches confuse newly hatched turtles, due to their instinct to move toward moonlight reflected off the ocean's surface. The artificial lights frequently lead hatchling turtles away from the ocean—the habitat they need to survive. Climate change could further affect turtles as sea levels rise and flood nesting areas. The temperature of the turtle's nest determines which eggs become female or male. As temperatures warm, it will likely mean fewer males and thus reduce genetic diversity in the species. (Some populations are THREATENED and others are ENDANGERED.)



Red-cockaded woodpecker (*Picoides borealis*): This woodpecker inhabits old growth pine forests year-round in the southeast United States. Each year, female and male breeding pairs work together to incubate a clutch of three to five eggs. Young male siblings also help raise the young birds. The red-cockaded woodpecker is considered a keystone species, since the nesting cavities they excavate are used by so many other animals. Many of the forests where these birds live are used for timber harvesting, which limits the number of old trees that are suitable for nesting, and which also fragments the birds' habitat. The specific habitat upon which this woodpecker relies has been reduced by 97 percent from its original range. This has caused the species' numbers to significantly decline. Woodpeckers frequently use the same nesting sites from year to year, which may make them less resilient in the face of changing habitat. Impacts of climate change further threaten the woodpecker, as some populations have been devastated

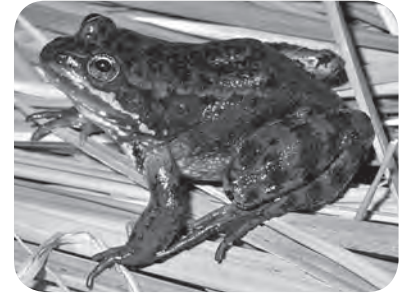


by hurricanes and loss of trees due to pine park beetle infestations. Some birds have also been unable to adapt the timing of their breeding to the earlier emergence of insects. (ENDANGERED)



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Oregon spotted frog (*Rana pretiosa*): This aquatic frog has been known to inhabit British Columbia, Washington, Oregon, and California. It prefers permanent, still waters with shallow areas where aquatic plants grow, which the frogs use for cover and for basking in sunlight. Females lay one mass of eggs each year, which are fertilized by males and undergo complete metamorphosis. Habitat loss, invasive species outcompeting with them for food, isolation, alterations to rivers and aquatic habitats, and other threats have caused the population to be reduced to only 10-30 percent of their former range. Oregon spotted frogs are limited in their ability to move long distances, especially outside of aquatic habitats. Two diseases that have been detrimental to other amphibians have been observed in the Oregon spotted frog; at this time, however, the extent and impact of these diseases in the population is unknown. (THREATENED)



American burying beetle (*Nicrophorus americanus*): The American burying beetle is a large, nocturnal orange and black beetle that feeds on carrion (decaying flesh). Adult breeding pairs bury dead carcasses to protect them from competitors. The female lays her eggs underground and feeds the carrion to the larvae once they hatch. Once widespread throughout eastern North America, the beetle is now reduced to less than 10 percent of its historical range. Habitat fragmentation has led to increased competition for carrion with other scavengers, which in conjunction with the use of pesticides has caused beetle numbers to decline. Artificial lighting also poses a threat to this nocturnal insect. The beetle is highly vulnerable to climate change in part due to sensitivity to decreased humidity and drought, as well as temperature changes. (ENDANGERED)

Jaguar (*Panthera onca*): This solitary spotted cat is the third largest in the world and the largest in the Western Hemisphere. Jaguars live in South America, Central America, and the southwestern United States. They are known to breed throughout the year, with females usually giving birth to one to four kittens. In its southern range the jaguar lives in rainforests and tropical lowlands, though it will follow riparian areas (near rivers) into different types of habitat. This mobility and adaptability have helped the jaguar endure through previous climate changes, and these characteristics will likely help them in the face of current global warming. Human actions, however, including deforestation, forest fragmentation, and poaching for pelts and to protect livestock have all caused a decline in the extent of this species. (ENDANGERED)



Canada lynx (*Lynx canadensis*): This nocturnal and crepuscular (active at twilight) medium-sized cat once ranged throughout forested areas in Canada and the northern United States. Numbers have declined due to habitat loss and fragmentation. Trapping in past decades also contributed to decline in some populations, with hides being sold for up to \$600. Females typically give birth once per year, with the litter size ranging from one to five kittens. This solitary species relies heavily on the snowshoe hare, whose population in turn is dependent on sufficient winter habitat. Since the lynx lives in cold habitats at high elevations, it is especially vulnerable to warming global temperatures. As forested areas are predicted to move north in latitude and upwards in elevation, it is likely that populations will become more isolated. (THREATENED)

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Shortnose sturgeon (*Acipenser brevirostrum*): This large, bony fish lives in rivers and estuaries along the eastern coast of North America from Canada to Florida. Shortnose sturgeon have relatively long life spans—one female lived to be 67 years old! Males do not live as long as females, but they can live to be 30 years of age. These fish grow slowly, and different populations of this fish mature at different ages. Females reach maturity between the ages of 6-12, while males reach maturity between ages 2-11. After reaching maturity, every few years sturgeon migrate short distances upstream to spawn. The species has experienced significant decline due to dams and their



impacts, pollution, dredging, and other habitat alterations. The larger Atlantic sturgeon was once heavily fished for meat and caviar, and many shortnose sturgeon were caught accidentally, since fishermen did not distinguish between the two species. Climate change may threaten some populations of this species, as warming water temperatures and rising sea levels could decrease the available freshwater habitat in some rivers, which are critical spawning grounds for shortnose sturgeon. (ENDANGERED)

Karner blue butterfly (*Lycaeides melissa samuelis*): The caterpillars of this small blue butterfly feed exclusively on the foliage of wild blue lupine plants. As a result, Karner blue butterflies only live in places where the wild lupine grows. The butterflies can be seen in open savannas in the northern parts of the Midwest and eastern United States. In the spring, butterfly eggs laid during the previous year hatch, and caterpillars emerge to feed on the lupine leaves. Once the caterpillars metamorphose, the adults lay their eggs later that spring; before summer's end the eggs hatch and caterpillars emerge to feed on the lupine. This second generation of butterflies will lay the eggs that will hatch in the spring of the following year. Losses of habitat due to development, lack of natural disturbance (e.g., wildfires), and abundant deer grazing have significantly reduced their numbers. The collection of these rare butterflies has also contributed to their decline. (ENDANGERED)



Kiwikiu (Maui Parrotbill) (*Pseudonestor xanthophrys*): The Maui parrotbill, or kiwikiu, is one of the most endangered bird species in the world. Once thought to be extinct, it was rediscovered in the 1950s on the island of Maui in Hawaii. Named after its large, curved, parrot-like beak, the parrotbill uses its beak to pull away tree bark concealing insect larvae—the kiwikiu's favorite food. Pairs of kiwikius mate for life, and the female typically lays one egg each year. Deforestation and the introduction of non-native plants and animals (invasive species) have reduced the kiwikiu's habitat. It now only occupies an area of about 19 square miles in a high-elevation forest in Maui; the number of birds is thought to be around 500 individuals. Climate change is anticipated to further threaten the kiwikiu, as mosquitoes and other animals that carry avian diseases begin to spread to the higher elevations where the kiwikiu lives. (ENDANGERED)

