



Questions and Answers about the Final Rule to List the Island Fox as an Endangered Species

Q. What are the four subspecies of the island fox?

The four subspecies of island fox that have been listed as endangered species are members of the family *Urocyon littoralis*. They are: Santa Cruz Island fox (*U. l. santacruzae*), San Miguel Island fox (*U. l. littoralis*), Santa Rosa Island fox (*U. l. santarosae*), and Santa Catalina Island fox (*U. l. catalinae*). The foxes are native to these four Channel Islands, which are located off the Southern California coast.

The foxes, which weigh an average of five pounds each and are no larger than house cats, likely made their way to their island home by floating on debris from the mainland as the result of a storm more than 18,000 years ago. The foxes landed on one land mass called "Santarosae" that consisted of the San Miguel, Santa Rosa and Santa Cruz islands. As sea levels rose and the northern Channel Islands separated, each fox population became genetically distinct.

Foxes on the southern Channel Islands of Catalina, San Clemente and San Nicholas are believed to have been introduced and kept as pets by Native Americans between 2,200 to 3,800 years ago. Island foxes are docile and inquisitive and generally show little fear of humans. Each island has its own subspecies.

The four subspecies, which are virtually identical in appearance, are grayish-white and black on the back and dull white on the underbelly. The base of the ears and sides of the neck and limbs are cinnamon-rust colored. Males are larger than females.

As opportunistic foragers, island foxes -- the largest native carnivore on the islands -- will eat a wide variety of plants and animals, including: summer holly, cholla cactus, rose, sumac, nightshade, native deer mice, introduced house mice, ground-nesting birds such as horned larks, and at certain times of the year, grasshoppers and crickets. They live in a wide variety of island habitats, including valley and foothill grasslands, southern coastal dunes, coastal bluffs, coastal sage scrub, oak woodland, coastal marsh, and torrey pine.

Island foxes appear to be monogamous and produce one to five pups from late April through May.

Frequently Asked Questions About the Listing of the Island Fox as an Endangered Species



When a female is ready to give birth, she does not excavate a den but will find a rock crevice or hollow stump to deliver the pups. The male and female both care for their offspring throughout the summer. The young foxes typically stay in the vicinity of their birthplace into the winter, and some stay even longer.

Q. How many island foxes are left?

Populations of the island fox on the six largest channel islands, including three subspecies that occur in Channel Islands National Park, have dropped dramatically since 1994. Their numbers have gone from 6,000 individuals six years ago to fewer than 1,650 today. On Santa Cruz Island, the fox population dropped from 1,300 animals to about 100 animals, and a captive breeding program was initiated in early 2002. Approximately 200 foxes occur in the wild on Santa Catalina Island and captive breeding is being conducted. Island foxes no longer occur in the wild on San Miguel Island, and there are seven foxes remaining in the wild on Santa Rosa Island. Captive breeding programs are underway on both of these islands.

The primary causes of the decline of these island fox subspecies are predation by golden eagles, the rapid spread of canine distemper through the Santa Catalina Island subspecies, habitat degradation caused by the introduction of sheep, goats, rabbits, deer, elk, cattle, pigs and horses, and the lack of regulations to address the threats to the fox.

Q. Why didn't the Service list the subspecies of the island fox before now?

In the late 1990s, the Service was concerned that the island fox population was in drastic decline. The Service planned to make it a candidate for the list of threatened and endangered species.

On June 1, 2000, the Service was petitioned by the Center for Biological Diversity and the Institute for Wildlife Studies to list the four subspecies. The Service entered into an agreement with the plaintiff for the proposed listing of the island fox subspecies. The island fox became candidates for the list of Threatened and Endangered Species on October 30, 2001. The fox was proposed for listing in December 2001. The four subspecies of the island fox are listed as threatened by the state of California.

Q. Why did these subspecies receive endangered status?

The four subspecies are being listed as endangered because they face threats that would likely cause their extinction throughout all or part of their range.

Q. What are the most significant threats to the island fox?

The primary cause of the decline of the San Miguel Island, Santa Rosa Island, and Santa Cruz Island foxes is predation by golden eagles. The rapid spread of canine distemper has caused Santa Catalina Island fox to decline. The primary causes of decline are exacerbated by other factors, such as habitat degradation by other non-native mammals.



Q. What is the Service doing to protect the foxes from predation by golden eagles?

A. In an attempt to halt further declines of the foxes, the National Park Service, the U.S. Fish and Wildlife Service, and the Nature Conservancy funded a golden eagle removal program, which began in August 1999. As a result, 32 golden eagles were captured from Santa Cruz Island and relocated to northern California. Currently, 14 eagles remain on the island and because of the abundance of feral pig prey, the ruggedness of the terrain, and the wariness that eagles have of traps, they have been difficult to trap. The Service is participating in a long-term study of bald eagles that are being reintroduced to the islands. Bald eagles are territorial and may discourage golden eagles from residing on the islands. Golden eagles are not endemic to the islands. Rather, they migrated there in search of food after bald eagles disappeared from the islands due to DDT poisoning in the early 1960s.

Q. Why are the other island fox species on San Clemente Island and San Nicholas Island not being listed as endangered species?

A. These subspecies are not being listed because their populations are not in steep decline. There are more than 500 foxes on each of the islands. Trapping data during a 13-year period has shown that the San Clemente island population has experienced a slow decline. The San Nicholas Island population appears to be stable, although the Service considers the species to be vulnerable due to its lack of genetic variability and lack of resistance to disease, among other potential problems.

Q. How does the island fox benefit as an endangered species?

A. Once a species is listed, the species and its habitat receive the full range of protections available under the ESA, including prohibitions against killing or harming the species. Species also are protected from any adverse effects of Federal activities and restrictions on taking, transporting, or selling a species. After a species is listed, the Service is authorized to develop recovery plans for the species in collaboration with other agencies, and to provide Federal aid to state wildlife agencies that have cooperative agreements with the Service.

Q. What is the Endangered Species Act?

A. The Endangered Species Act (Act) was passed in 1973, and is regarded as one of the most comprehensive wildlife conservation laws in the world. The purpose of the Endangered Species Act (ESA) is to conserve the ecosystems upon which endangered and threatened species depend and to conserve and recover listed species.

Section 7 of the Act requires federal agencies to consult with the Service on actions they authorize, fund or carry out that may affect a listed species. Through this consultation process, the Service can ensure that permitted actions don't change a species' habitat in such a way that it no longer can meet the physical and biological needs of the species. The Service also analyzes actions to determine if they may adversely affect or jeopardize a listed species. Federal agencies are required to consult with the Service regarding their actions on all lands inhabited by endangered species.



In addition, the Act requires that federal agencies take action not only to prevent further loss of a species, but also to recover species to the point where they no longer require protection and can be delisted.

Q. Will critical habitat be designated for the island fox?

A. The Service has entered into a settlement agreement with the Center for Biological Diversity to propose critical habitat for the four endangered island fox subspecies by October 2004.

More questions?

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