

30 YEARS OF THE ENDANGERED SPECIES ACT

DESERT TORTOISE

With a host of dangers threatening the desert, even an ancient species can be pushed toward extinction.

HISTORY OF ENDANGERMENT

The desert tortoise is not adapted to many threats perpetuated by humans, including development, mining, livestock grazing, off-road vehicle use, vandalism, and military expansion into critical habitat areas. For example, garbage dumps near human settlements bring with them ravens that prey on young tortoises. Each of these changes to the native ecosystem has contributed to the tortoise's decline.

Introduced plants threaten the tortoise by competing with its preferred native plants and propagating desert fires.

In addition, livestock tramples baby tortoises and competes with them for food.



Beth Jackson/FWS

ROAD TO RECOVERY

In 1980, the tortoises on Utah's Beaver Dam Slope were listed as threatened under the Endangered Species Act. In 1984, conservationists proposed listing all desert tortoises, but it was not until 1990 that tortoises west and north of the Colorado River were listed as threatened.

The U.S. Fish and Wildlife Service (FWS) completed a recovery plan to protect the species and its habitat. Scientists found that viable tortoise populations require large areas of habitat.

Thus, the FWS recovery team recommended establishing fourteen 2,000 square mile reserves. So far, FWS has designated approximately 16,000 square miles as critical habitat in Arizona, California, Nevada, and Utah.

CONSERVATION TODAY

To implement the recovery plan, the National Park Service has protected areas within California's Joshua Tree National Park and the Lake Mead National Recreation Area in Nevada and Arizona. The Bureau of Land Management has established a Desert Tortoise Research Natural Area in California and protected additional land in Nevada. There are ongoing efforts to protect even more land in the future.

The FWS also has approved habitat conservation plans (HCPs) for the tortoise. HCPs are agreements with government agencies, private companies, and individuals that allow development on nonfederal lands containing tortoise habitat in return for habitat protections elsewhere. Also important for recovery, sheep grazing has been banned from most critical habitat and cattle grazing has been greatly reduced.

ECOLOGICAL VALUE

The tortoise illustrates how cumulative impacts can jeopardize the survival of a species and an ecosystem. For a creature with a thick shell for defense and a 100-year lifespan, the tortoise should be a great survivor of the desert. Its unfortunate decline could spell disaster for the entire desert ecosystem, for tortoises disperse undigested seeds through their feces, ensuring that desert plants are renewed for another generation.

OUTLOOK FOR THE FUTURE

The Endangered Species Act prompted federal agencies to protect tortoises.

Active management of desert habitat must continue. Desert tortoises may require barriers to protect their habitat from human disturbance, as well as patrols to enforce restrictions on activity in tortoise habitat. In addition, fencing along highways could keep tortoises away from traffic. A possible solution to tortoises being killed on the road is the creation of tunnels that allow tortoises to cross under the highway.

Overall, however, a better long-term solution would be to reduce the amount of development that takes place in close proximity to tortoise habitat and for the Bureau of Land Management to fully implement the recovery plan.



California Bureau of Land Management



Beth Jackson/FWS