



# The Threatened Desert Tortoise



## Legal Status

The desert tortoise (*Gopherus agassizii*) in the Mojave desert (north and west of the Colorado River) was Federally listed under emergency provisions of the Endangered Species Act of 1973 as endangered on August 4, 1989 and permanently listed as a threatened species on April 2, 1990. The tortoise was listed because of direct losses and threats to tortoise populations and habitat. Desert tortoises are directly impacted by increased raven predation on juveniles, collection by humans, vandalism, losses on roads and to off highway vehicle activities, and the Upper Respiratory Disease Syndrome. Tortoise habitat is lost directly to urbanization, agriculture, road construction, military activities, and other uses. Off highway vehicle use, rights-of-way, and grazing degrade habitat. All of these activities fragment tortoise habitat which may reduce a tortoise population below the level necessary to maintain a minimum viable population.

The U.S. Endangered Species Act makes it illegal to harass, collect, or harm tortoises and provides for penalties of up to \$50,000 in fines and one year in prison for each count. Nevada State law 503.080.1a also affords protection to the desert tortoise.

The Endangered Species Act allows for individuals of an endangered or threatened species to be taken incidentally to an otherwise lawful activity; as long as the conditions of the Fish and Wildlife Service's (Service) Biological Opinion are followed. "Take" includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing or collecting, or attempting to engage in any such conduct. Harm includes significant habitat modification or degradation that impacts a listed species by interfering with breeding, feeding, or sheltering behavior. The threatened listing of the desert tortoise occurred because of widespread habitat destruction and degradation, illegal collection, an upper respiratory disease, raven predation, and other factors.

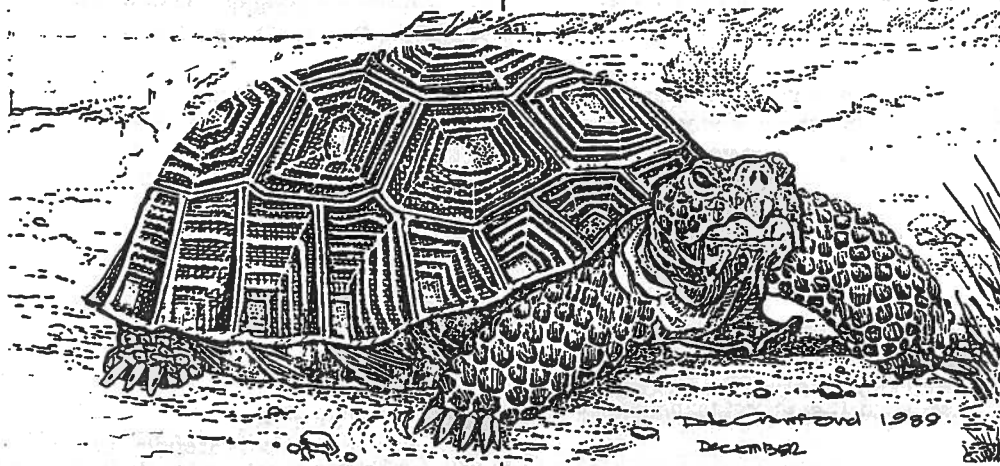
Tortoises in captivity prior to the initial listing of August 4, 1989 are not protected by the Act. If you are interested in having a pet tortoise, you may obtain one from someone that has acquired their pet legally or from Tort-Group; a private organization dedicated to preservation of wild tortoises and to the welfare of captive ones.

## Life History

The desert tortoise is the largest reptile and the only wild land tortoise found in southern Nevada. The tortoise occurs in southern Nevada, western California, southwestern Utah, western Arizona, and northwestern Mexico. In Nevada, tortoises are found in creosote bush, cactus and shadscale scrub, and Joshua tree woodland habitats below 5000' elevation.

Tortoise populations are patchily distributed and densities range from a few per square mile to 200 per square mile. A tortoise will live in the same general area of less

than one square mile during its lifespan of 50 to 100 years. This slow moving desert reptile ranges in size from 2 to 15 inches long and is soil colored. Because of their color and shape,



tortoises can be very difficult to see.

There are several clues that can be used to tell male and female tortoises apart. However, only tortoises greater than seven inches long can be sexed reliably. Males tend to be larger than females, have a longer tail, have longer upward curving gular horns, have larger chin glands, and have a concave plastron (bottom portion of shell).

Tortoises are well adapted to their desert environment and spend up to 98% of their time in burrows they dig. Burrows are crescent shaped and are most often found at the base of desert shrubs or in wash banks. A tortoise may excavate and use many burrows during the year. Some burrows are used for only a short period of time and others may be used for several years. Some researchers believe that some winter dens on the Beaver Dam Slope in Utah may be 5000 years old. Many mammals, birds, reptiles, and invertebrates utilize tortoise burrows. Burrows and tortoises in Nevada are most often found on valley floors and slopes, but they may also be found on the less precipitous slopes and ridges of desert mountain ranges.

Besides tortoises, burrows, and remains; another method that biologists use to determine if tortoises exist in an area is the presence of scat (feces). Fresh scat is dark brown or black, but turns gray as it weathers. Scat length varies, from one half to four inches, depending on the size of the tortoise. Scats usually contain coarse plant fibers.

Tortoises are inactive from mid November until February. The activity period for desert tortoises is from March until late October when they usually spend part of