Mohave Desert Tortoise (*Gopherus agassizii*)

Species Status Statement.

Distribution

Until recently (Murphy et al. 2011), the western-most tortoises in North America were thought to comprise a single species, desert tortoise (*Gopherus agassizii*). Now, due to genetic, morphometric, and behavioral differences, these animals are described as two distinct species. Mohave desert tortoise (*Gopherus agassizii*) occurs solely in the United States, in portions of Utah, Nevada, California, and Arizona. Sonoran desert tortoise (*Gopherus morafkai*) is found south and east of the Colorado River in Arizona, and in parts of several states in Mexico.

Table 1. Utah counties currently occupied by this species.

Mohave Desert Tortoise
WASHINGTON

Abundance and Trends

In 1989, the USFWS emergency-listed the Beaver Dam Slope population of desert tortoise as endangered due to severe declines in abundance caused by habitat destruction and degradation, collection for pets, road mortality, and competition with grazing or feral animals. In 1990, the USFWS listed the entire Mojave Desert portion of the tortoise's range as threatened due to declines throughout its range (USFWS 1990). In 1994 a recovery plan was developed for the species, and critical habitat was designated (USFWS 1994).

In Utah, tortoises have experienced declines up to 50% in some parts of their range. These declines have occurred primarily due to habitat loss, drought, disease, wildfires, and human related mortality. Due to extensive and sustained management actions including habitat acquisition, highway fencing, law enforcement presence, and land management designations (e.g., Red Cliffs and Beaver Dam Wash National Conservation Areas) some high-density populations within these areas appear to have stabilized, and there is no evidence of further declines (McLuckie et al. 2018).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Mohave desert tortoises can occasionally be found up to 5,000 feet above sea level, but elevations from 1,000 to 3,000 feet are more typical. Tortoises often occur on gently sloping terrain with soils ranging from sandy-gravel. However, they also utilize steep rocky areas, particularly in the Red Cliffs Conservation Area. Prime habitat for the species includes creosote

bush scrub, and includes diverse perennial plants with a high production of ephemerals. They can also occur in blackbrush, mixed desert scrub, saltbush, and semidesert grassland habitats. At the individual home range scale, desert tortoises must have shelter sites for protection from predators and environmental extremes, suitable substrate for burrowing, nesting and overwintering, and adequate areas for movement and dispersal. Individuals remain in winter dens from October to March. These dens are often located along ephemeral washes, and can be up to 30 feet deep.

Threats to the Species

Declines are primarily attributed to habitat loss, fragmentation, and degradation (in particular, large-scale wildfires due to the spread of invasive weeds), disease, human-caused mortality including road kill and illegal collection, and predation by problematic native wildlife (in particular, ravens and coyotes) (USFWS 2011).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Mohave Desert Tortoise
Very High
Droughts
Inappropriate Fire Frequency and Intensity
Invasive Plant Species – Non-native
Temperature Extremes
High
Commercial and Industrial Areas
Disease – Alien Organisms
Housing and Urban Areas
Improper Grazing (current)
Roads – Transportation Network

Rationale for Designation.

This species faces continued threats and is already managed under the Endangered Species Act as a Threatened species (USFWS 1990).

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, which is required to reverse ESA listing and lessen related economic impacts. Mohave desert tortoise is currently listed as endangered under the ESA. This listing has resulted in significant costs to mitigate road development, urban and industrial development, and nonnative species introductions in Washington County. Development will continue to be affected by the need to mitigate impacts of habitat loss and degradation, drought, and disease. If the species is downlisted or delisted, continued efforts will be required to mitigate threats and maintain stronger populations.

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