

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

MOHAVE DESERT TORTOISE

Gopherus agassizii

Family: TESTUDINIDAE
R005

Order: TESTUDINES

Class: REPTILIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

This species is widely distributed in the Mojave, Sonoran and Colorado deserts from below sea level to 2200 m (7220 ft) (Grover and DeFalco 1995). Most common in desert scrub, desert wash, and Joshua tree habitats, but occurs in almost every desert habitat except those on the most precipitous slopes.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Tortoises are herbivorous, eating annual forbs and grasses; many species are taken, but forbs are preferred over grasses and green vegetation is preferred over dry. Desert tortoises have been observed eating carrion and feces as well as excavating and eating calcium carbonate mineral deposits (Marlow 1979, Marlow and Tollestrup 1982).

Cover: This species normally excavates a burrow under bushes, overhanging soil or rock formations, or digs into the soil in the open. Burrows are most extensive in the northern part of the range where winter temperatures are coldest. On occasion, a tortoise will take cover under a bush or any natural shelter. The burrows are often crucial to survival, especially in hot weather when the direct rays of the sun can kill a tortoise in an hour or less (Marlow 1979).

Reproduction: This species requires friable, sandy, well-drained soil for excavation of nests.

Water: Not required, but tortoises will drink if water is available.

Pattern: Desert tortoises occur in a wide variety of habitats in arid and semiarid regions. They require friable soil for burrow and nest construction. Highest densities are achieved in creosote bush communities with extensive annual wildflower blooms, such as occur in the western Mojave. However, tortoises can be found in areas of extensive lava formations, alkali flats and most other desert habitats.

SPECIES LIFE HISTORY

Activity Patterns: Tortoises may be active at any time of year, but most activity takes place between March and June, and to a lesser extent in late summer in areas with summer rains (eastern Mojave). In early spring, tortoises may be active all day but by late spring, activity is reduced to less than an hour in early morning, 1 out of 4 days (Marlow 1979).

Seasonal Movements/Migration: In Utah, tortoises migrate from winter dens to summer feeding areas but this is not known to happen in California (Woodbury and Hardy 1948).

Home Range: Home range size seems to depend upon the quality of the habitat. In the western Mojave, home ranges are 2-15 ha (5-38 ac), but in the eastern Mojave, home ranges

may be 10 times as large. Densities range from 3.5 per km² (9.2 per mi²) in the eastern Mojave to more than 1000 per km² (2600 per mi²) in the western Mojave near California City (Stebbins 1954, Marlow 1979).

Territory: Tortoises are aggressive but there is no evidence that they defend territories.

Reproduction: Copulation begins shortly after the tortoises become active in late March or early April. Eggs are laid in early summer (late May to July). Clutches average 5 (range 2-9) eggs and take 3-4 months to hatch (Miller 1932, Woodbury and Hardy 1948, Stebbins 1954). Nests are often constructed at the entrance to burrows. Failure of rainfall and consequent scarcity of annual plants may result in reproductive failure.

Niche: When tortoises are young and vulnerable, they are eaten by many predators (eagles, coyotes, foxes, etc.). When mature, they have few enemies (very hungry coyotes may attack an adult tortoise). Captive tortoises are subject to respiratory infections but this has not been observed in wild populations. Nothing is known about serious parasite problems. Rabbits and a few rodents may compete with tortoises for food but this has not been established (Marlow 1979).

General Comments: See Bramble (1982) for a proposed revision of this genus.

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