

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

FLAT-TAILED HORNED LIZARD

Phrynosoma mcallii

Family: PHRYNOSOMATIDAE
R032

Order: SQUAMATA

Class: REPTILIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

This lizard is restricted to areas of fine sand and sparse vegetation in desert washes and desert flats in central Riverside, eastern San Diego and Imperial cos. (Turner and Medica 1982). Its elevational range extends from below sea level to about 180 m (600 ft) (Stebbins 1985). It is probably most abundant in areas of creosote bush (Turner and Medica 1982) and is found in desert scrub, wash, succulent shrub, and alkalai scrub habitats. The present range and abundance in that range has been greatly reduced over recent times by human activities such as development and recreational use of prime habitat.

SPECIFIC HABITAT REQUIREMENTS

Feeding: These lizards are ant specialists, as are all horned lizards. Harvester ants are the most common food item though other arthropods are occasionally eaten (Pianka and Parker 1975, Turner and Medica 1982).

Cover: Fine sand for cover is a critical habitat element. Lizards burrow into the sand to avoid temperature extremes and remain for hours buried just below the surface (Stebbins 1985). Shrubs and clumps of grass often serve as sources of shade during the hottest parts of the day, and lizards have been observed climbing into bushes and clumps of dried grass presumably to avoid contact with the hot substrate.

Reproduction: Little is known about habitat requirements for reproduction, but other lizards generally require well-drained, sandy or friable soil for nest construction.

Water: Permanent water is not required.

Pattern: This species requires fine sand for shelter, moderately flat terrain, some vegetative cover and the presence of ants.

SPECIES LIFE HISTORY

Activity Patterns: They may be active any time of the year that temperatures are mild, but peaks of activity occur in spring, early-summer and in the fall. In mild weather lizards may be active all day but in hotter weather activity is restricted to mornings and late afternoons (Pianka and Parker 1975). Activity consists mainly of waiting near ant nests, occasionally eating an ant or moving between nests. Social interactions are rare.

Seasonal Movements/Migration: None.

Home Range: Home ranges for 9 lizards were from 0.02-0.21 ha (0.04-0.52 ac) with

those of females being smaller than males (Turner and Medica 1982).

Territory: Not thought to be territorial.

Reproduction: Courtship and breeding probably take place in the early spring following winter emergence but this has not been confirmed. Mean clutch size is 5 eggs (Fitch 1970) and more than one clutch per year may be laid (Turner and Medica 1982). In 1978, young from the first clutch appeared in early July and those from the second clutch appeared in late August and early September.

Niche: This lizard occurs with other ant-eating lizards and birds, but does not seem to be limited by competition or food scarcity. Predators are loggerhead shrikes (Turner and Medica 1982) and probably other avian predators (roadrunners, falcons, crows, ravens, etc.) and mammalian predators (coyotes, kit foxes, etc.), though little is known about predators.

REFERENCES

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- Pianka, E. R., and W. S. Parker. 1975. Ecology of horned lizards: a review with special reference to *Phrynosoma platyrhinos*. Copeia 1975:141-162.
- Stebbins, R. C. 1985. A field guide to western reptiles and amphibians. 2nd ed., revised. Houghton Mifflin, Boston. 336pp.
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