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

ZEBRA-TAILED LIZARD Family: PHRYNOSOMATIDAE R012 *Callisaurus draconoides* Order: SQUAMATA

Class: REPTILIA

Written by: R. Marlow Reviewed by: T. Papenfuss Edited by: S. Granholm Updated by: CWHR Program Staff, March 2000

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The zebra-tailed lizard is common and widely distributed throughout the Mojave, Sonoran and Colorado deserts and its range extends north into the southern Great Basin. Found at elevations up to 1520 m (5000 ft) (Macey and Papenfuss 1991). Frequents sandy and gravelly desert flats, washes and alluvial plains in a variety of desert woodland and scrub habitats. Occasionally occurs in rocky areas, but seems to prefer flats dominated by scrub vegetation. Commonly found along the margins of dunes however seems not to prefer extensively sandy habitats (Stebbins 1954, Pianka and Parker 1972, Tanner and Krogh 1975). In areas of creosote scrub, this lizard appears to reach highest densities, 12-15 per ha (4.8-6.0 per ac) (Tanner and Krogh 1975). This lizard appears early in the spring, usually by mid-March near California City, and is active in decreasing numbers through early fall.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Food consists of arthropods such as beetles, grasshoppers, crickets, flies, ants, bees, wasps, moths, and spiders (Stebbins 1954). Often this lizard jumps several body-lengths off the ground to capture flying insects. Occasionally lizards (Coleonyx variegatus and Uta stansburiana) and the fruiting heads of plants are taken (Stebbins 1954).

Cover: This lizard burrows into fine sand for retreat at night and usually seeks day shelter in the shade of bushes.

Reproduction: Eggs are laid, presumably in friable, sandy soil.

Water: Probably not required.

Pattern: The zebra-tailed lizard is a fast-running, insectivorous inhabitant of desert flats, washes and plains. It seems to prefer areas with moderate to sparse densities of vegetation and rocks, which impede rapid locomotion for predator avoidance and prey capture.

SPECIES LIFE HISTORY

Activity Patterns: This lizard is diurnal, rising early, usually before other species, and remaining active throughout the day in all but the hottest weather. During the hottest times of day, lizards may stand alternately on two legs in the shade of bushes or climb into the bushes to avoid the heat of the substrate. This species is one of the first to emerge in the spring, usually by mid-March near California City, and remains active through the summer.

Seasonal Movements/Migration: This species is not known to migrate.

Home Range: Home range depends on season, sex, and habitat and has not been well studied. In creosote scrub in Nevada, home ranges varied from 0.35-0.60 ha (0.88-1.50 ac) (Tanner and Krogh 1975).

Territory: This species has an elaborate social system with visual and olfactory forms of communication. Males behave aggressively at times, but home ranges overlap broadly and it is not known if these territories are defended.

Reproduction: In Joshua Tree National Monument, eggs are probably laid in June (Miller and Stebbins 1964). This lizard lays an average of 4 eggs per clutch (range 2-6), and may lay as many as 5 clutches in years with greater than average rainfall (Stebbins 1954, Fitch 1970).

Niche: This species is preyed upon by carnivorous lizards (Gambelia and Crotaphytus), snakes (Crotalus cerastes, Masticophis, etc.), avian predators (logger-head shrikes) and probably mammalian predators. It has a very high reproductive potential in the face of this heavy predation. Greater than average rainfall usually results in the production of more clutches of eggs (Fitch 1970)

REFERENCES

- Fitch, H. S. 1970. Reproductive cycles in lizards and snakes. Univ. Kans. Mus. Nat. Hist. Misc. Publ. 52:1-247.
- Macey, J. R. and T. J. Papenfuss. 1991. Reptiles. Pages 291-360 in C.A. Hall, Jr., editor. Natural History of the White-Inyo Range eastern California. Univ. Calif. Press, Berkeley, California. 536 pp.
- Miller, A. H., and R. C. Stebbins. 1964. The lives of desert animals in Joshua Tree National Monument. Univ. California Press, Berkeley. 452pp.
- Pianka, E. R., and W. S. Parker. 1972. Ecology of the iguanid lizard Callisaurus draconoides. Copeia 1972:493-508.
- Stebbins, R. C. 1954. Amphibians and reptiles of western North America. McGraw-Hill, New York. 536pp.
- Tanner. W. W., and J. E. Krogh. 1975. Ecology of the zebra-tailed lizard Callisaurus draconoides at the Nevada Test Site. Herpetologica 31:302-316.

R012

Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.