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

WESTERN RATTLESNAKE *Crotalus oreganus*
Family: VIPERIDAE Order: SQUAMATA Class: REPTILIA
R076

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

This common snake ranges widely in California including Santa Catalina Island. It is absent only from true desert regions. Found in virtually all habitats, except desert. Elevation sea level to 3350 m (11,000 ft).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Western rattlesnakes forage in or near brushy areas, rock outcrops, mammal burrows, around and under surface objects, and in the open. Adult rattlesnakes take primarily rodents, especially ground squirrels. A variety of rodents, rabbits, birds, and even carrion are also taken (Cunningham 1959, Stebbins 1972 Diller 1981, Lillywhite 1982). Juvenile snakes take mostiy lizards, especially western fence lizards and side-blotched lizards. Young rodents are also taken. Prey is subdued largely by poisonous venom produced in modified salivary glands, and delivered by long, hollow fangs.

Cover: When inactive, western rattlesnakes seek cover in crevices in rock outcrops, under surface objects, beneath dense vegetation, and in mammal burrows. At high elevations rattlesnakes hibernate for up to several months, usually in crevices in rocky accumulations.

Reproduction: Young are born alive without a nest often in a secluded site.

Water: No information on water requirements. The western rattlesnake occurs in moister habitats than other rattlesnakes found in California.

Pattern: Found in all but desert habitat types.

SPECIES LIFE HISTORY

Activity Patterns: Mostly nocturnal and crepuscular, rattlesnakes may be active whenever temperatures are favorable. At high elevations in the Sierra activity is almost exclusively diurnal. Periods of inactivity during cool weather occur at all localities.

Seasonal Movements/Migration: Although little is known about the seasonal movements of western rattlesnakes in California they are thought to aggregate, sometimes in large numbers, at suitable hibernation sites (Stebbins 1954). In Utah, Parker and Brown (1973) found that western rattlesnakes make annual movements to and from known hibernacula. It is probable that western rattlesnakes from inland montane localities in California make similar migrations. In lowland and coastal California migration is not expected.

Home Range: Fitch and Glading (1947) estimated an average home range size for the western rattlesnake in the Sierra foothills to be about 1.2 ha (3 ac). Most individuals move over an area of less than 3 m (10 ft) during a day.

Territory: The nature of territoriality, if it exists at all in this species, is not well understood. Combat between males is common, especially during the breeding season (Klauber 1972).

Reproduction: Courtship and mating occur after emergence from winter inactivity (March to May). Live young are born in the fall. Litter sizes range from 1 to 25 but 3 to 12 are most common.

Niche: Rattlesnakes are taken by mammals, predatory birds, and other snakes. An interesting defensive behavior

is exhibited by rattlesnakes when in the presence of kingsnakes (Carpenter and Gillingham 1975). The behavior involves the raising of parts of the body in loops above the head, supposedly to fend off direct attacks from kingsnakes. The diet and habitat preferences overlap to some extent with some other snake species, especially gopher snakes.

REFERENCES

Carpenter, C. C., and J. C. Gillingham. 1975. Postural responses to kingsnakes by crotaline snakes. Herpetologica 31:293-302.

Cunningham, J. D. 1959. Reproduction and food of some California snakes. Herpetologica 15:17-19.

Diller, L. V. 1981. Comparative ecology of Great Basin rattlesnakes (Crotalus viridis lutosus) and Great Basin gopher snakes (Pituophis melanoleucus deserticola) and their impact on small mammal populations in the Snake River Birds of Prey Natural Area. Ph.D. Disser. Univ. Idaho, Moscow. 89pp.

Fitch, H. S., and B. Glading. 1947. A study of a rattlesnake population. Calif. Fish and Game 33:103-123.

Klauber, L. M. 1972. Rattlesnakes: their habits, life histories, and influence on mankind. 2nd ed. Univ. California Press, Berkeley. 1533pp.

Lillywhite, H. B. 1982. Cannibalistic carrion ingestion by the rattlesnake, Crotalus viridis. J. Herpetol. 16:95.

Parker, W. S., and W. S. Brown. 1973. Species composition and population changes in two complexes of snake hibernacula in northern Utah. Herpetologica 29:319-326.

Stebbins, R. C. 1954. Amphibians and reptiles of western North America. McGraw-Hill, New York. 536pp.

Stebbins, R. C. 1972. California amphibians and reptiles. Univ. California Press, Berkeley. 152pp.

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