

H11639

Kingdom: Ellis, Alameda Whipsnake, Masticophis lateralis euryxanthus
Masticophis lateralis euryxanthus

FIVE YEAR STATUS REPORT

I. COMMON NAME: Alameda Whipsnake
(formerly Alameda striped racer)
SCIENTIFIC NAME: Masticophis lateralis euryxanthus
CURRENT CLASSIFICATION: Threatened

II. RECOMMENDED ACTION:

Retain Threatened classification.

III. SUMMARY OF REASONS FOR RECOMMENDED ACTION:

The Alameda whipsnake (AWS) is considered to be one of the rarest snakes of the East Bay Region. Habitat has been greatly reduced by construction of homes and roads. In addition, use of biocides could endangered this oviporous snake.

A change is recommended in the common name of this species, from Alameda striped racer to Alameda whipsnake. This new name more accurately describes the species and is now recognized in the scientific community.

SUPPORTING INFORMATION

IV. NATURE AND DEGREE OF THREAT:

Major threats to AWS habitat include urban development and water impoundment. Areas of open space managed by the East Bay Regional Park District (EBRPD), the East Bay Municipal Utilities District (EBMUD), and Mount Diablo State Park probably harbor the last large populations of the AWS. Because so little is known about this species' abundance and distribution, EBRPD and EBMUD manage potential habitat areas, not actual populations. Fuel modification on south facing slopes is another possible threat. In addition, there is some evidence that biocides have adverse effects on oviporous reptiles. Although unevaluated, use of biocides is a potential threat to the AWS (letter dated 16 March 1987 from Dr. Harry W. Greene, Museum of Vertebrate Zoology, Berkeley, CA).

V. HISTORIC AND CURRENT DISTRIBUTION:

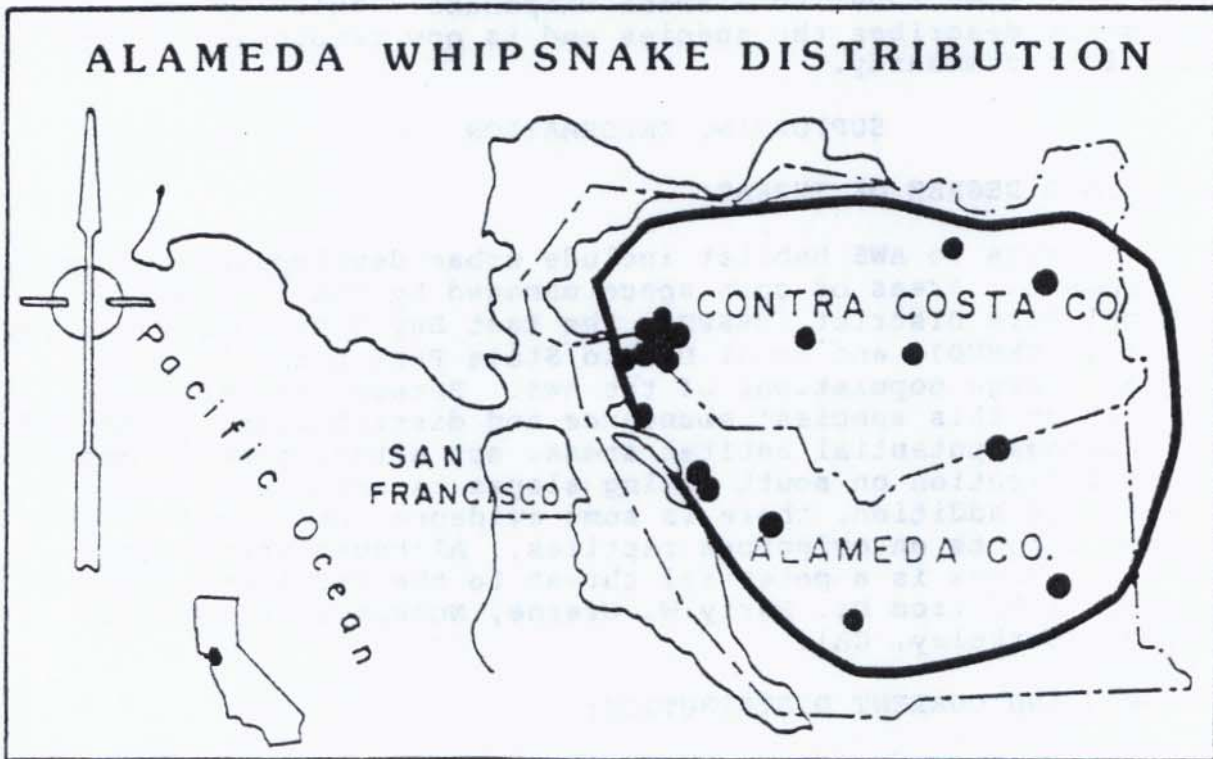
Historic

No information available.

Current

The AWS occurs in the valleys, foothills, and low mountains of the Coast Range east of the San Francisco Bay and west of the Central Valley in Alameda and Contra Costa counties (Figure 1).

FIGURE 1



At The Crossroads, 1980. Calif. Dep. of Fish and Game.
CAT. AMER. AMPHIB. REPT., 1983. M. R. Jennings.

VI. HISTORIC AND CURRENT ABUNDANCE:

Because of the elusive and solitary nature of this snake, abundance information is not available.

VII. SPECIES DESCRIPTION AND BIOLOGY:

The AWS is a slender, fast-moving daytime snake that has a narrow neck and a relatively broad head with large eyes. Color is black or dark brown above, with a distinct orange stripe down each side to or beyond the vent. In this subspecies of M. lateralis, the lateral stripe is yellow or cream and is only two half-scale rows wide. The forward portions of the ventral surface are orangish, and the posterior portions are cream grading to pinkish on the underside of the body and tail. Adults grow to a length of 3-5 ft (letter dated 16 March 1987 from Harry W. Greene, Museum of Vertebrate Zoology, Berkeley, CA).

Little information is available for the AWS. Observations made in spring, 1974 at Hayward California, on large adult snakes temporarily held in captivity, provide the best available information on thermal ecology, reproduction, seasonal activity courtship and aggressive behavior for this subspecies (Hammerson 1978, 1979). AWS consumes mainly lizards especially the fence lizard (Sceloporus) (letter dated 16 March 1987 from Harry W. Greene, Museum of Vertebrate Zoology, Berkeley, CA). Captive adult AWS on the average 2 adult fence lizards per week. Occasionally food items include rodents, birds, and snakes.

In the field, snakes were first seen in mid-April. The males used in the study were captured before the females. This may suggest a pattern of spring emergence in which the males emerge somewhat before the females. An alternative explanation may be that males are more active than females after emergence and more likely to be encountered (Hammerson 1978). In addition, the AWS is a very early morning emerger. It feeds on northwestern fence lizards in the morning by catching them before their body temperature has risen to their neuromuscular efficiency range (86 - 100°F).

The results of thermal response studies indicate that the concept of a preferred body temperature is applicable to the AWS. Mean body temperature values of active snakes were higher than those reported for any snake species adequately studied under natural or semi-natural conditions. Mean body temperature values under different weather conditions were remarkably consistent, indicating a high degree of flexibility in thermoregulatory behavior (Hammerson 1979).

VIII. HABITAT REQUIREMENTS:

This species is associated with chaparral, but may occur in any innercoast range plant community, including grasslands, open woods, on rocky slopes, and along open streams and arroyos.

IX. CURRENT AND RECOMMENDED MANAGEMENT:

A change is recommended in the common name of this species, from Alameda striped racer to Alameda whipsnake. The name change will eliminate confusion when referring to this species and is now recognized by the scientific community (Stebbins 1985).

In the EBRPD Special Protection Units have been established for AWS habitat. In these units mechanical brush clearing and prescribed fires are limited to the fall months to provide the young-of-the-year the opportunity to become familiar with their habitat and therefore be able to escape such activities. Suitable habitat is considered to be south facing slopes with a vegetative mixture of open brush and grass, rocky outcroppings and significant numbers of western fence lizards (Sceloporus occidentalis). Special Protection Units have been established in Anthony Chabot Regional Park, Wildcat Canyon Regional Park, Robert Sibley Regional Park, and Briones Regional Park (Russell Peak Wildlife Unit) and are being proposed for Tilden Park in the Land Use Plan which is now in process (telephone conversation 28 July 1986 with Tom Lindenmeyer, East Bay Municipal Park District, Oakland, CA).

In the EBMUD, when brush modification is performed on south facing slopes (potential AWS habitat), goats are generally used. When heavy equipment is necessary, modification is done late in the year to avoid nesting bird species. Modification is kept to a minimum, and mosaic corridors of natural habitat are maintained (telephone conversation 29 July 1986 with Steve Abbors, East Bay Municipal Utilities District, Orinda, CA).

Liaison should be maintained with county planners to protect potential habitat in private ownership from further human encroachment. The impacts of fire on AWS should be studied by the use of prescription burning of south facing slopes.

At this time there is insufficient material to determine precise distribution of AWS and possible intergrades. Surveys should be made to determine if this subspecies occurs north of San Francisco Bay in Solano, Napa, and southern Sonoma counties. A formal procedure should be established to save all dead specimens and to either photograph key aspects or hold briefly for examination any live specimens from areas of possible intergradation.

X. INFORMATION SOURCES:

Jennings, M. 1983. Masticophis lateralis. CAT. AMER. AMPHIB. REPT.: 343. 1-343.2.

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Reimer, W.J. 1954. A new subspecies of the snake Masticophis lateralis from California. Copeia, 1 :45-48.

Stebbins, R. C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Co., Boston.

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