

SCIENTIFIC NAME: *Anthicus sacramento*
COMMON NAME: Sacramento anthicid beetle
CLASS, FAMILY: Insecta, Anthicidae

ORIGINAL DESCRIPTION: Chandler, D.S. 1978. A new *Anthicus* from California (Coleoptera: Anthicidae). Pan-Pacific Entomologist 54:15, figs. 1-3 (lateral view of right metatibia of male, ventral and left lateral views of male genitalia).

TYPE MATERIAL: *Holotype:* Adult male – California: Sacramento County; Grand Island, 1 mile west of Isleton, 13 July 1975, collected by J. Doyen, P. Opler, and J. Powell. Deposited in California Academy of Sciences type #13149. *Paratypes:* Solano County: 8 males, 3 females, Rio Vista, 21 August 1974, D.S. Chandler, collected in sand dune area (D.S. Chandler collection); 6 males, 4 females, 2 miles southwest of Rio Vista, 18 August 1974, J. Doyen and P. Opler (University of California, Berkeley). Sacramento County: 10 males, 2 females, same data as holotype (University of California, Berkeley); 1 male, 1 female, Grand Island, 23 March 1966, collected by M. Wasbauer (California State Collection of Arthropods).

RANKING/STATUS: G1S1 (NatureServe- CNDDDB), EN/B1+2c (IUCN).

GENERAL DESCRIPTION: Anthicid beetles somewhat resemble ants in general appearance, and have a strongly deflexed head which is narrowly constricted behind the eyes. Adults of *Anthicus sacramento* are 3.18-3.63 mm long. The elytra are yellowish-brown to blackish, with large yellowish-brown areas at the humeri and on the apical fourth, and the legs are yellowish-brown. The head, pronotum, and underside of body are covered with faintly reticulated sculpturing. The body and elytra are covered with moderately dense, subdecumbent setae.

DIAGNOSTIC CHARACTERS: Chandler gives characters for separating this species from other *Anthicus* in Werner's (1964) key. If the reticulation of the head and thorax is visible, it can be separated from *A. maritimus* by the prominent elytral humeri and elongate antennal segments, and from *A. custodiae* by its fainter reticulation and denser setae. If not, it can be distinguished from other *Anthicus* by the rounded basal angles of the head and a body length of greater than 3.00 mm. (*Anthicus maritimus* is only found in marine/coastal dune/sand areas in California and the northern portion of Baja California Norte; *A. custodiae* is found under beach debris in sandy beach areas in the Gulf of California. Neither are sympatric with *A. sacramento*.)

OTHER ILLUSTRATIONS: Davis (1991) illustrates the adult in Fig. 1 and the larva in Fig. 9.

DISTRIBUTION: *Anthicus sacramento* is found in several locations along the Sacramento and San Joaquin rivers, from Shasta to San Joaquin counties, and at one site along the Feather River at Nicolaus. The species may once have been more widely distributed in loose sands along the Sacramento River, but man-made

alterations to the riverbank have probably reduced its preferred habitat. However, dredging of the river channel has also created suitable habitat by depositing loose dredge material along the banks.

HABITAT: Interior sand dunes and sand bars; has also been found in dredge spoil heaps.

LIFE HISTORY/BEHAVIOR: Although the common name of the family is “antlike flower beetles,” species in the genus *Anthicus* are not found on flowers. Adults of other *Anthicus* species are known to be microscavengers, feeding readily on dead insects (Werner 1964); the larvae probably eat similar diets as the adults, and also feed on soil fungi. Hagen (1986, cited in Davis 1991) observed that the species produced at least one generation a year, and possibly two. Adults overwinter, emerge in the spring to lay eggs from which the larvae hatch, and the next generation of adults emerge in early summer. The collection of larvae in the fall indicates a second generation may be produced. Adults are most commonly collected in June, July, and August (Davis 1991). Little is known of the larval biology, but most anthicid larvae are scavengers or fungivores. Although reported occurring in loose sand among *Arundo* and *Salix*, it is unclear what, if any, vegetation association *Anthicus sacramento* requires.

Unlike many other anthicid beetles, the adults are not attracted to ultraviolet light (Davis 1991). Though the species has fully developed hind wings, no individuals have been observed flying. (The hardened front wings, or elytra, of beetles are held out of the way when the insect flies.)

SELECTED REFERENCES:

- Davis, M.G. 1991. Aspects of the ecology of *Anthicus sacramento* Chandler and *Anthicus antiochensis* Werner (Coleoptera: Anthicidae). Master of Science thesis, Sacramento State University, 113 pp.
- Hagen, K.S. 1986. Habitats of Sacramento and Antioch anthicid beetles. Unpublished report contracted by California Department of Parks and Recreation.
- Werner, F.G. 1964. A revision of the North American species of *Anthicus*, s. str. (Coleoptera: Anthicidae). Entomological Society of America, Miscellaneous Publications 4(5):197-242.

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