SCIENTIFIC NAME: *Neothremma genella* Denning
COMMON NAME: Golden-horned caddisfly
CLASS, FAMILY: Insecta, Uenoidae

ORIGINAL DESCRIPTION: Denning, D.G. 1966. New and interesting Trichoptera. Pan-Pacific Entomologist 42(3):233, fig. 6, 6A (lateral view of male genitalia, ventral view of claspers).

TYPE MATERIAL: *Holotype*: Adult male - California: Plumas Co.; Nelson Creek, southwest of Johnsville, 1 Sep 1965, J.S. Buckett; deposited at the Bohart Museum, University of California, Davis.

RANKING/STATUS: G1?S1? (NatureServe – CNDDB).

GENERAL DESCRIPTION: The holotype male was described by Denning as light brown with tan wings, antennae, and legs. His original description gives details and illustrations of the male genitalia. The tibial spur formula is 3-3-4. Wiggins and Erman (1987) described the female and larva of this species. The female is slightly larger than the male (the holotype male is about 7 mm in length), with similar light tan or golden wings. Females lack the dense tufts of setae present on the head warts of the males, and the tibial spurs are 1,3,4. Wiggins and Erman describe and illustrate the female genitalia, and describe the larva as being very similar to *N. alicia*, except for lacking a notch at the median line of the anterior edge of the pronotum of the thorax.

DIAGNOSTIC CHARACTERS: Larvae are similar to those of *Farula praelonga*, but the fifth-instar larvae of *N. genella* can be recognized by the darkened posterolateral corner of the paired sclerites on the mesonotum of the thorax, which is characteristic for the genus. Features of the larval case also separate these two species, that of *F. praelonga* being dark brown and possessing intermittent bands of silken areas lacking sand, while the case of *N. genella* is golden in color, and is solid sand covered in silk.

OTHER ILLUSTRATIONS:
Wiggins, 1996. Fig. 26.3A-E. Illustrates the larva of *N. alicia*, showing some generic characters such as the mesonotum of the larval thorax, larval case shape, and median prothoracic sternellum.
Wiggins and Erman, 1997. Fig. 3A-B (lateral and ventral views of female genitalia).

DISTRIBUTION: Sierra Nevada (Madera, Plumas, and Sierra Counties).

HABITAT: Found on rocks in rapid portions of second- and occasionally first-order streams. The species has been found at a wide range of elevations, from 3500' to 7800' (Erman and Nagano, 1992).

LIFE HISTORY/BEHAVIOR: Larvae are found on rocks in rapid water. The common name comes from the golden color and horn-like shape of the larval case. The case is

slender, up to 9 mm in length, and made from sand grains covered with silk, but lacks the intermittent, plain silken areas common in the cases of *Farula praelonga*, which sometimes occur in the same habitat. A network of silk is spun over the rock surface, and before pupation occurs, the larvae cluster on the undersides of rocks. Adults emerge from mid-August to early October, while those of *Farula praelonga* emerge in late March. Gut content analysis indicates that the diet consists mainly of diatoms.

Neothremma genella and *Farula praelonga* larvae can be very abundant locally, yet absent from apparently similar nearby streams.

SELECTED REFERENCES:

Erman, N.A. and C.D. Nagano. 1992. A review of the California caddisflies (Trichoptera) listed as candidate species on the 1989 federal "Endangered and threatened wildlife and plants; Animal notice of review." California Fish and Game 78(2):45-56.

Wiggins, G.B. 1996. Larvae of the North American caddisfly genera. 2nd Edition. University of Toronto Press, Toronto. 457 pp.

Wiggins, G.B. and N.A. Erman. 1987. Additions to the systematics and biology of the caddisfly Uenoidae (Trichoptera). Canadian Entomologist 119(10):867-872.

Wiggins, G.B., Weaver, J.S. III, and J.D. Unzicker. 1985. Revision of the caddisfly family Uenoidae (Trichoptera). Canadian Entomologist 117(6)763-800.

Written by Sandra Shanks, California Department of Fish and Game, Natural Diversity Database