

SCIENTIFIC NAME: *Caecidotea tomalensis*
COMMON NAME: Tomales isopod
CLASS, FAMILY: Crustacea, Asellidae

ORIGINAL DESCRIPTION: Harford, W.G.W. 1877. Description of a new genus and three new species of sessile-eyed Crustacea. Proceedings of the California Academy of Sciences 7:54.

TYPE MATERIAL: *Holotype:* The holotype, which had been deposited in the California Academy of Sciences, was destroyed during the 1906 San Francisco earthquake and fire. The type locality is "Tomales Bay and vicinity." Bowman (1974) pointed out that since Tomales Bay is saline, a freshwater isopod could not survive there, and the species therefore must have been collected near, but not actually in, the bay. He redescribed *C. tomalensis* using topotypic material from a shallow pond near Bolinas Lagoon.

RANKING/STATUS: G2S2 (NatureServe – CNDDDB).

GENERAL DESCRIPTION: Freshwater aquatic isopods; species in the family Asellidae have the uropods attached posterolaterally or caudally, not anterolaterally. Males measure up to 10 mm in length.

DIAGNOSTIC CHARACTERS: Bowman (1974) provides a comparison chart, reproduced here, with character states useful in distinguishing *C. tomalensis* from *C. occidentalis*:

	<i>occidentalis</i>	<i>tomalensis</i>
Head width/length	<2	ca. 2
Head, postmandibular lobes	rather acute	blunt
♂ pereonites 5-7, lateral margins	with incisures	without incisures
Telson, median caudal lobe	side steeply inclines	sides gradually inclined
♂ uropod, endopod/proctopod	1.5	1.3
♂ uropod, endopod length/width	ca. 6.0	ca. 6.5
Antenna 2 flagellar segments	more elongate	less elongate
♂ pleopod 1 exopod, anterior surface	without setae	with setae
♂ pleopod 2 exopod, setae on proximal segment	0 – 1 lateral, 0 medial	2 lateral, 1 medial
♂ pleopod 2 protopod, medial setae	ca. 10	ca. 7
♂ pleopod 2 endopod, lateral process	triangular, bent at apex	circular
♂ pleopod 2 endopod, cannula	outer lip narrow	outer lip broad
♀ pleopod 2, lateral margin	angular, w/10-17 setae	evenly rounded, with ca. 9 setae

OTHER ILLUSTRATIONS: Bowman (1974) illustrates *Caecidotea tomalensis* in figs. 1-8 (male head; pereonites 5-7 of male and female; antenna 2 - distal segments; incisor of left mandible; labium; maxilla 1 – apex of outer ramus and outer ramus), and figs. 12-17 (male telson and uropods; venter of male right uropod; venter of female left uropod; male maxilliped; male pereopod 1; distal segments of female pereopod 1).

Several drawings illustrating the morphology of *Caecidotea* are available on the web at <http://www.lander.edu/rsfox/310CaecidoteaLab.html> (accessed 2/27/2006).

A color photograph of an undetermined *Caecidotea* species is pictured at <http://gallery.cs.umb.edu/gallery/FWInverts?page=5> (accessed 2/27/2006).

DISTRIBUTION: Found in several localities from Sonoma to San Mateo counties. Most collections occurred in the 1980s and earlier, but in 2002 the species was collected in Glenbrook Creek at Point Reyes (LoBianco and Fong 2003).

HABITAT: This aquatic species prefers practically still to slow-moving, vegetated water, such as from spring-fed ponds.

LIFE HISTORY/BEHAVIOR: Although no details of the life history or behavior of this species are known, it is likely a detritovore, as are similar asellids.

SELECTED REFERENCES:

- Bowman, T.E. 1974. The California freshwater isopod, *Asellus tomalensis*, rediscovered and compared with *Asellus occidentalis*. *Hydrobiologia* 44(4):431-441.
- LoBianco, Ro, and Darren Fong. 2003. 2002 Freshwater Shrimp (*Syncaris pacifica*) Surveys Within Point Reyes National Seashore and Golden Gate National Recreation Area. Report prepared for the San Francisco Bay Area Inventory and Monitoring Network, Sausalito, California and the U.S. Fish and Wildlife Service.

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