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SYNISOMA WETZERAЕ, A NEW SPECIES AND THE FIRST
RECORD OF *SYNISOMA* FROM THE NEW WORLD
(CRUSTACEA: ISOPODA: VALVIFERA: IDOTEIDAE)

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Abstract.—The first species of *Synisoma* (Isopoda: Valvifera: Idoteidae), *S. wetzeræ*, to be reported from the New World is described from Catalina Island, California.

The idoteid isopod fauna of the northeast Pacific is largely summarized in Menzies (1950), Menzies & Miller (1972), Brusca & Wallerstein (1977, 1979a, 1979b), and Brusca (1983, 1984). The present study reports on a new species of the genus *Synisoma* collected by A. Chess from Catalina Island, California. This represents the first reported record of *Synisoma* from the New World.

The terminology used in this paper follows that of previous idoteid isopod literature (Menzies 1950, Brusca 1983). The following abbreviations are used: USNM, National Museum of Natural History; SDNHM, San Diego Natural History Museum; LACM, Los Angeles County Natural History Museum.

Systematics Paleontology

Order Isopoda Latreille, 1817
Suborder Valvifera Sars, 1882
Family Idoteidae Fabricius, 1798
Subfamily Idoteinae Dana, 1852
Genus *Synisoma* Collinge, 1917
Synisoma wetzeræ, new species

Fig. 1

Types.—Holotype: female, LACM 87-294.1; 6 (2 ♂, 4 ♀). Paratypes LACM 87-294.2; 8 (4 ♂, 4 ♀). Paratypes to SDNHM (2128-2135); 6 (3 ♂, 3 ♀). Paratypes to USNM (243565).

Type locality.—All specimens are from one locality: California, Santa Catalina Island (33°25.4'N, 118°30.8'W); "Isthmus

Reef"; found on the brown algae *Sargassum palmeri*, and *Cystoseira neglecta*; depth 13 m; 10 Mar 1987; collected by A. Chess (National Marine Fisheries Service, Tubiron, California).

Diagnosis.—Pleotelson longer than wide; all pleomeres fused, without lateral incisions or any trace of sutures dorsally or ventrally; coxal plates not visible in dorsal aspect; cephalon with distinct dorsal tubercle; smooth (without sculpturing), pereon without dorsal keel; antennal flagellum multiarticulate; maxillipedal palp 4-articulate (suture between second and third article obscure); maxillipedal endite with one coupling hook and distal spines and plumose setae; male appendix masculina very long, nearly twice length of pleopod rami.

Description.—Body smooth and elongate, 9-10 times longer than wide (gravid females noticeably wider, but not noticeable longer); length of specimens in type series 3.4-10.6 mm; lightly pigmented, pale brown in alcohol (Fig. 1).

Cephalon: With a distinct, slightly elongate mid-dorsal tubercle; eyes dark, round, on lateral edge of cephalon. Antennule with 3-articulate peduncle and 1-articulate flagellum; flagellum with simple setae and 7 aesthetascs. Antenna with 4-articulate peduncle and 8- to 10-articulate flagellum, the distalmost one or two articles being minute; all flagellar articles with simple setae. Right mandible with 4-toothed incisor; weakly developed lacinia mobilis with one large incisor and a 5 to 6 serrate setal row; and a

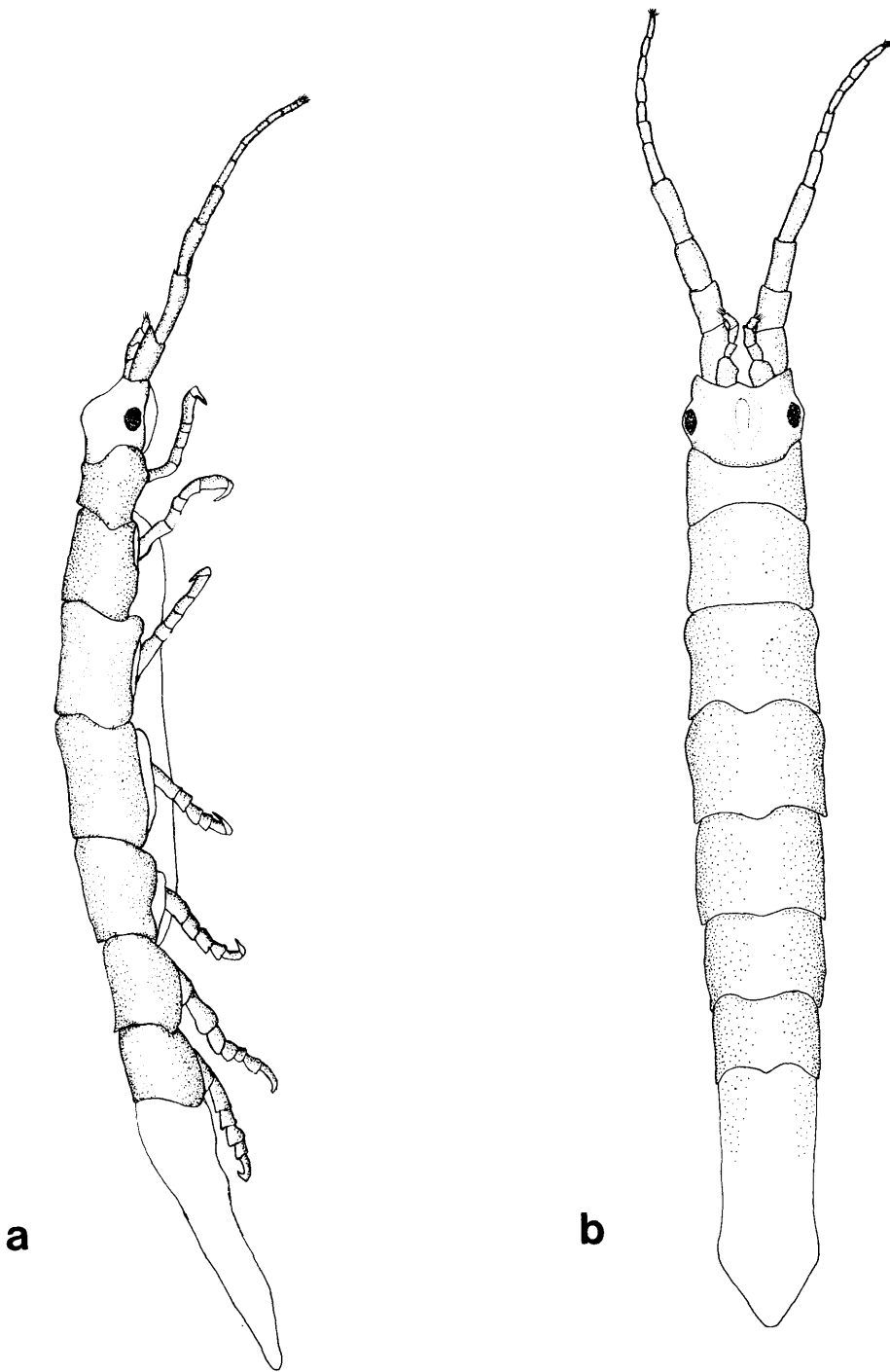


Fig. 1. *Synisoma wetzeræ*, new species (holotype, ♀, LACM (Cat. No. 87-294.1)); a, Rt lateral exterior view (coxal plates are not visible per this view on pereonites 6, 7); b, Dorsal exterior view.

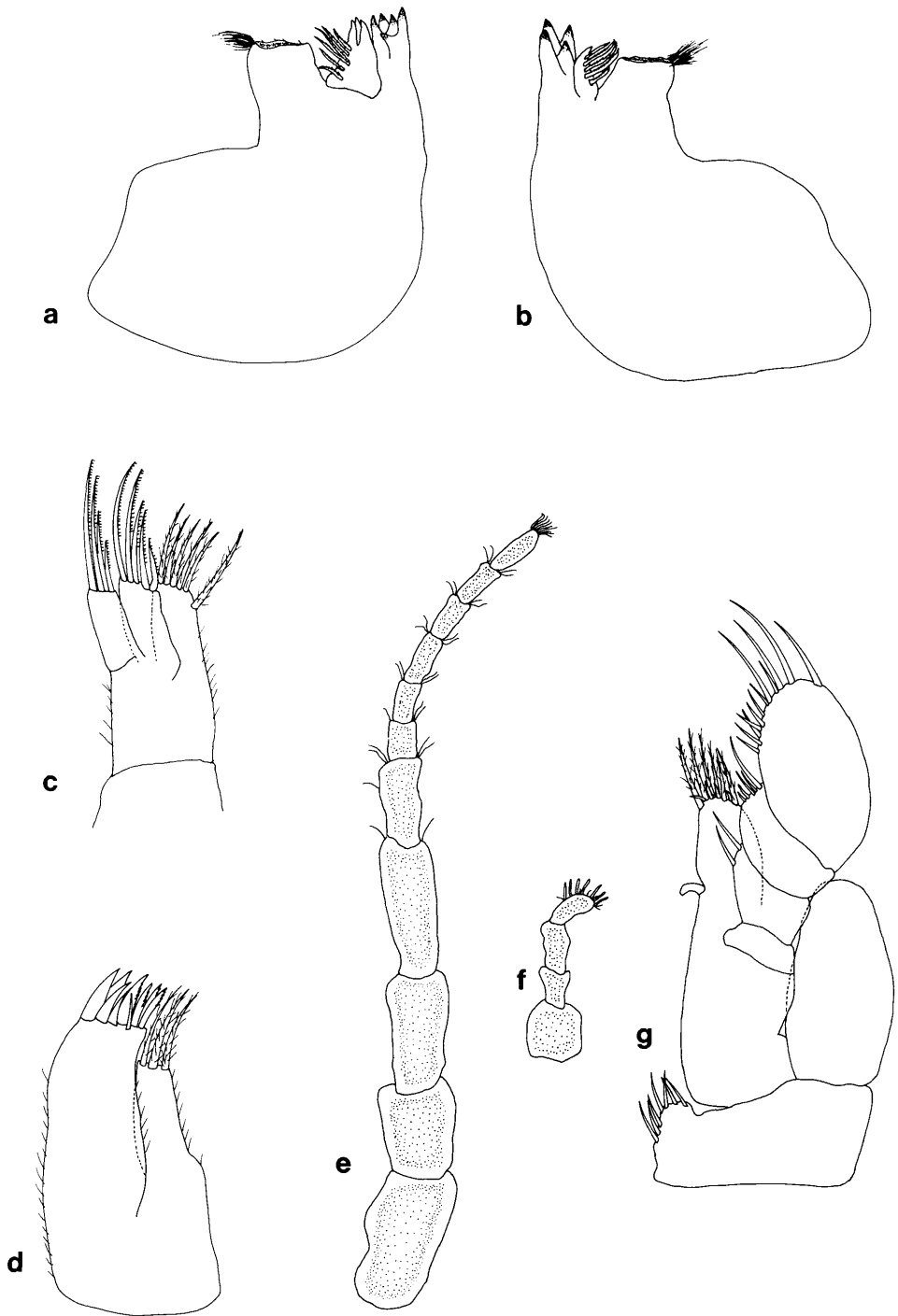


Fig. 2. Mouthparts of *Synisoma wetzeræ*, new species (holotype, ♀, Rt side); a, Lt mandible; b, Rt mandible; c, Maxillule; d, Maxilla; e, Antenna; f, Antennule; g, Maxilliped.

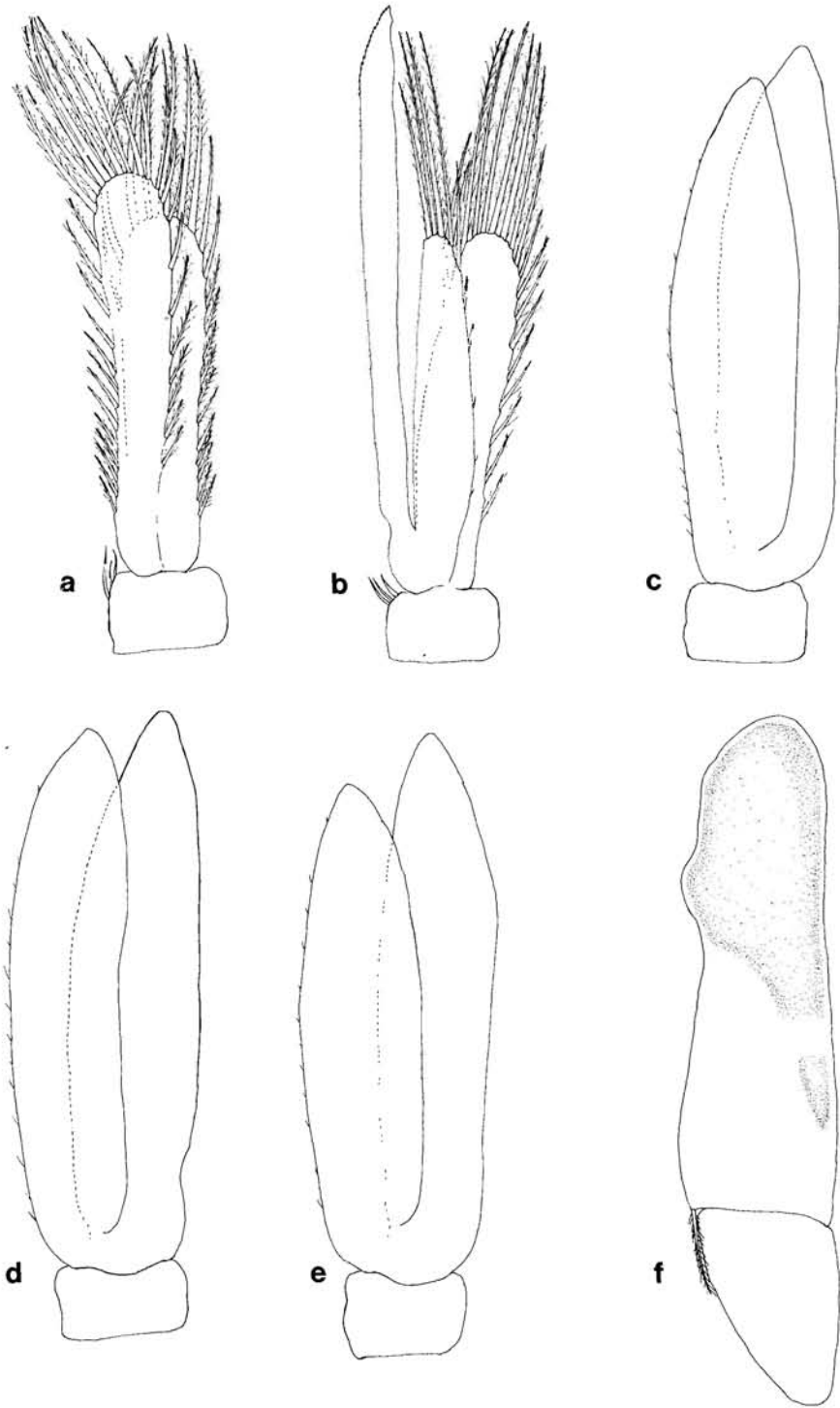


Fig. 3. *Synisoma wetzeræ*, new species (holotype, ♀ (except b-c), Rt side); a, First pleopod; b, Second pleopod (paratype, ♂, LACM (Cat. No. 87-294.2)); c-e, Pleopods 3-5; f, Uropod.

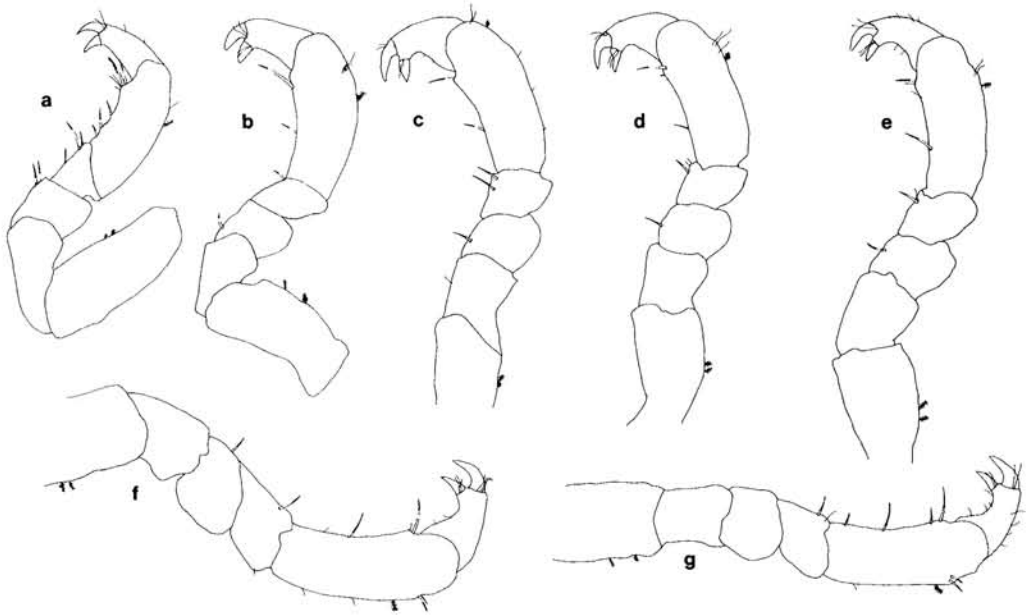


Fig. 4. *Synisoma wetzeræ*, new species (holotype, Rt side); a-g, Pereopods 1-7.

large molar process. Left mandible with 5-toothed incisor; complex lacinia mobilis with 3 large incisors and 5 to 6 serrate setal row; and a less pronounced molar process. Maxillule innerlobe with 3 distal circumplumose setae; outerlobe with 4 large and one small, stout simple setae and 4 stout serrate spines. Maxilla innerlobe with circumplumose setae; medial and outer lobe with 4 to 5 comb setae each. Maxilliped palp 4-articulate, articulation between second and third articles obscure; endite with one coupling hook, 4 apical spines, and 4 to 6 long circumplumose setae (Fig. 2).

Pleon: All pleonal segments fused; no visible sutures. Pleon margins slightly concave for three quarters of its length, but flaring somewhat distally and with subacute posterior margin. Pleotelson 2 to 3 times longer than wide. Pleopods 1-2 with plumose marginal setae on rami and simple setae on inner margins of peduncles. Pleopods 3-5 larger than 1-2, without plumose marginal setae but with a few simple setae along the inner margin of the endopod. Appendix masculinum of male is very large, blade-

shaped, and distally serrate. Uropodal peduncle with one large, stout, plumose, distomedial seta (Fig. 3).

Pereon: Pereonites II-VII longer than pereonite I. Coxal plates small and compact, not visible in dorsal aspect. Pereopods I-VII ambulatory, terminating in a biungulate dactyl with simple setae. All pereopods with small palmate setae on basis and on distal superior margin of propodus (Fig. 4).

Etymology.—*Synisoma wetzeræ* is named for Regina Wetzer, in appreciation of her many years of support and assistance, her interest in isopod systematics, and her long-standing friendship.

Discussion.—There are currently 10 nominate species of *Synisoma*: *S. acuminatum* (Leach, 1815), *S. lancifer* (Miers, 1883), *S. capito* (Rathke, 1837), *S. appendiculata* (Risso, 1816), *S. carinata* (Lucas, 1849), *S. spinosa* Amar, 1957, *S. bellonae* Daguerrre de Hureaux, 1968, *S. mediterranea* Rezig, 1989 and *S. nadejda* Rezig, 1989 found in the old world; *S. pacificum* Nunomura, 1974 occurs in Japanese waters.

Synisoma wetzeræ is most closely similar