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EUSARSIELLA THOMINX, A NEW SPECIES OF MYODOCOPID OSTRACODA FROM THE CONTINENTAL SHELF OF SOUTHERN CALIFORNIA

Louis S. Kornicker

Abstract.—A new species of myodocopid Ostracoda, *Eusarsiella thominx,* is described from the continental shelf of Southern California. It differs from *Eusarsiella tubipora* (Darby, 1965), the species to which the specimens studied had previously been referred, in having tapering rather than flaring bristles on the carapace.

In a prior study of *Eusarsiella tubipora* (Darby, 1965) living on the Atlantic and Gulf of Mexico continental shelves of North America, I reported specimens that had been collected off Southern California and identified as *E. tubipora* by James H. Baker (1977:43) to be an undescribed species (Kornicker 1986:124). The species is described herein as *E. thominx,* new species.

Eusarsiella thominx, new species
Figs. 1–4

Sarsiella tubipora.—Baker, 1977:43 (part).

Etymology.—From the Greek *thominx* (=thread).

Holotype.—Ovigerous female in alcohol and on 1 slide.

Type locality.—*Velero, IV,* sta 5710; 18 Apr 1958; 33°56′00″N, 118°29′17″W, 42.8 m.

Paratypes.—*Velero IV*: 1 adult female, sta 3389, 23 Aug 1955, 33°52′03″N, 118°32′33″W, 11.8 m. 1 adult female, sta 4817, 16 Jan 1957, 34°30′20″N, 120°32′45″W, 51.2 m. 1 A-2 female, length 1.14 mm, sta 4939, 9 Apr 1957, 34°23′20″N, 120°24′30″W, 119.4 m. 1 A-1 female, length 1.20 mm, sta 4984, 11 Apr 1957, 34°24′15″N, 119°34′35″W, 18 m. 1 adult female, sta 5161, 2 Jul 1957, 34°24′35″N, 119°54′00″W, 20.8 m. 1 ovig. female, sta 5583, 30 Jan 1958, 34°23′15″N, 119°32′25″W, 19.8 m. 1 ?A-3 female, length 0.80 mm, sta 5617, 20 Feb 1968, 32°42′45″N, 117°16′43″W, 32.2 m. 1 ovig. female, sta 5654, 19 Mar 1958, 33°36′12″N, 117°59′02″W, 24.8 m. 1 ovig. female, sta 5729, 15 May 1958, 34°01′00″N, 118°35′00″W, 33.5 m. 1 adult female, sta 5732, 15 May 1958, 33°59′10″N, 118°32′00″W, 35.3 m. 1 adult female, sta 5743, 16 May 1958, 33°38′20″N, 118°07′47″W, 33.5 m. 2 ovig. females, sta 5759, 30 Jul 1958, 32°37′16″N, 117°11′10″W, 24.5 m. 1 ovig. female, sta 5968, 22 Nov 1958, 34°02′00″N, 118°35′32″W, 13.2 m. 1 ovig. female, sta 6000, 16 Dec 1968, 34°27′35″N, 120°08′25″W, 34.4 m. 1 ovig. female, sta 6155, 11 Mar 1959, 34°14′00″N, 119°23′25″W, 26.4 m.

Depository.—Allan Hancock Foundation, University of California.

Distribution.—Continental shelf off Southern California, between 32°37′16″N-34°30′20″N, and at depths of 11.8–119.4 m.

Description of adult female (Figs. 1–4).—Carapace oval in lateral view with tapering and well developed posteroventral caudal process (Fig. 1). Incisur absent. Lateral surface with several ribs (Fig. 1): dorsal rib

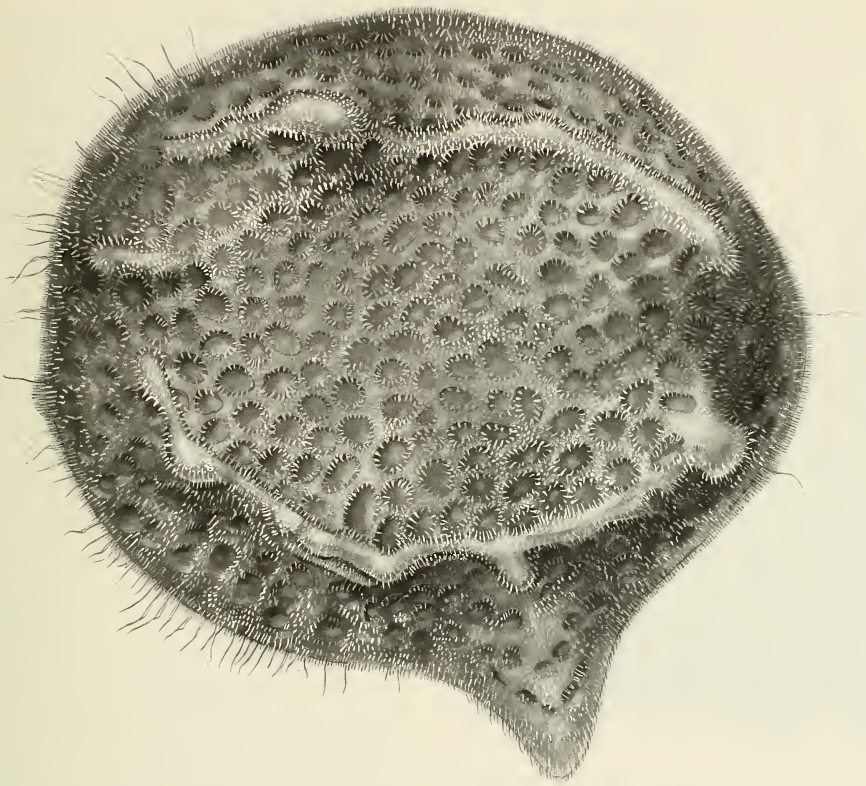

Fig. 1. *Eusarsiella thominx,* lateral view of holotype, length 1.44 mm.

paralleling dorsal margin and in some specimens divided at midlength into anterior and posterior segments; ventral rib paralleling ventral margin and with broad and narrow parts; very short horizontal anterior rib between anterior terminals of dorsal and ventral ribs and near midheight of anterior margin more evident on some specimens. Surface of carapace with abundant tapering spines between and bordering numerous shallow fossae (Fig. 2); bottom of fossae bare. Anterior and ventral edges of carapace with long bristles with a broad proximal segment (segment not shown on long bristles in Fig. 2). Surface of valves with transparent film embedding all but tips of bristles.

Infold (Fig. 3a, b): Anterior infold with minute bristle at midheight near inner edge (Fig. 3a). Infold of caudal process with 7–9 small bristles forming irregular row near base of process (Fig. 3b). Inner margin of infold anterior to caudal process with few minute bristles (Fig. 3b). Posterior infold with 2 setal bristles (Fig. 3b).

Selvage: Anterior, ventral, and posterior selvage with broad lamellar prolongation with bare outer edge; selvage extending outward from tip of caudal process with square end (Fig. 3b).

Size: Holotype, right valve under cover slip: length 1.44 mm, height including caudal process, 1.43 mm, height excluding caudal process 1.25 mm. Paratypes: adult female from sta 3389, length 1.33 mm, height including caudal process 1.21 mm; adult female from sta 4817, length 1.44 mm, height including caudal process 1.41 mm, height excluding caudal process 1.27 mm; oviger-

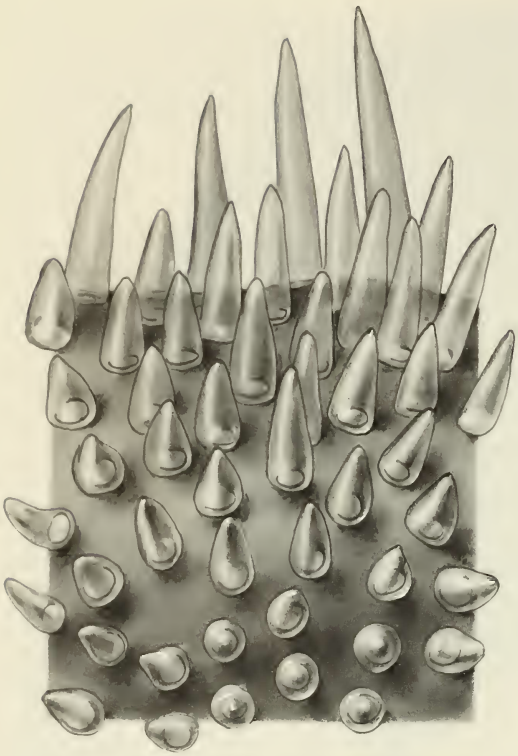

Fig. 2. *Eusarsiella thominx,* detail of bristles on carapace of holotype, width of detail 0.025 mm.

ous female from sta 5583, length 1.55 mm, height including caudal process 1.40 mm, height excluding caudal process 1.32 mm; 2 ovigerous females from sta 5759, length 1.50 mm, height including caudal process 1.45 mm, height excluding caudal process 1.27 mm; length 1.44 mm, height including caudal process 1.35 mm, height excluding caudal process 1.22 mm; 1 ovigerous female from sta 6155, length 1.33 mm, height including caudal process 1.32 mm, height excluding caudal process 1.17 mm.

First antenna (Fig. 3c): 1st joint bare. 2nd joint with few dorsal spines and spinous dorsal bristle. 3rd joint fused to 4th, with 2 bristles (1 dorsal, 1 ventral); 4th joint with 3 terminal bristles (1 dorsal, 2 ventral (1 ventral twice length of other)). Sensory bristle of 5th joint with 2 minute dorsal spines and terminal spine. 6th joint fused to 5th, with minute medial bristle near dorsal margin. 7th joint: a-bristle about 3 times length of bristle of 6th joint; b-bristle about 1½ times length of a-bristle, bare; c-bristle about same length as bristle of 5th joint, with 2 minute dorsal spines and terminal spine. 8th joint: d- and e-bristles long, bare, with blunt tips; f-bristle slightly shorter than c-bristle, with terminal spine; g-bristle almost same length as c-bristle, with terminal spine and possibly 1 or 2 minute dorsal spines (obscure).

Second antenna (Fig. 3d): Protopodite bare. Endopodite 2-jointed: 1st joint with 1 or 2 small anterior bristles; 2nd joint small, cylindrical, with short terminal bristle. Exopodite: 1st joint with short, recurved, medial spine on distal margin; bristle of 2nd joint long with slender proximal ventral spines, and natatory hairs proximally on dorsal margin and distally on both margins; bristles of joints 3–8 with natatory hairs, no spines; 9th joint with 2 bristles (ventral long, dorsal short, both with natatory hairs); joints 3–7 with faint spines forming distal row.

Mandible (Fig. 4a): Coxale endite comprising single spine with drawn-out tip; ventral margin of coxale with slender proximal spines. Basale with 5 small bristles near ventral margin and minute subterminal bristle on dorsal margin. Endopodite: medial surface of 1st joint with spines forming distal cluster and also forming row in distal dorsal corner; dorsal margin with spines forming distal row; ventral margin with stout terminal claw with faint teeth proximally along dorsal margin; minute medial bristle present near base of claw; dorsal margin of 2nd joint with small unringed subterminal bristle; ventral margin with stout terminal claw; end joint with stout terminal claw and fairly long ventral bristle, and small dorsal bristle near base of terminal claw.

Maxilla (Fig. 4b): Coxale with short dorsal bristles; endites I–III each with 5–6 bristles. Exopodite with 2 bristles (inner bare

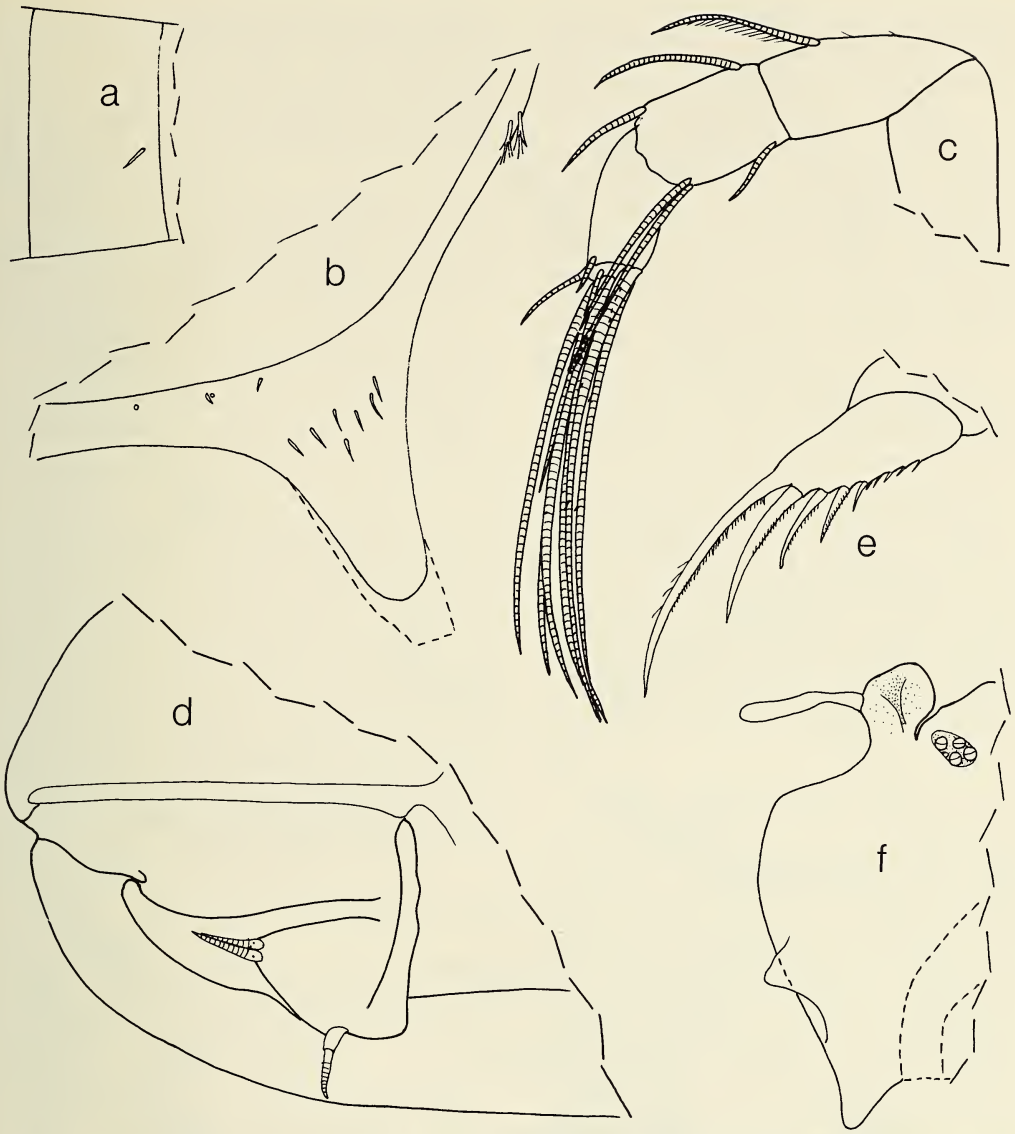

Fig. 3. *Eusarsiella thominx,* holotype, a, Inside view of anterior infold of right valve showing bristle; b, Inside view of posterior infold showing bristles and selvage (dashed); c, Medial view of right 1st antenna; d, Medial view of right 2nd antenna showing distal part of protopodite, endopodite, and part of 1st exopodial joint; e, Left lamella of furca; f, Anterior of body showing left lateral eye, medial eye and bellonci organ, anterior process below midheight, upper lip and part of esophagus (dashed).

bristle about half length of outer spinous bristle). Endopodite: alpha-bristle of 1st joint with 2–4 pairs of spines on proximal unringed part and numerous spines on ringed part; beta-bristle with about 4 pairs of spines on proximal unringed part and numerous spines on ringed part; end joint with 3 bare a-bristles, 1 bare c-bristle, and 5 stout end bristles (anterior end bristle with 6 pairs of stout proximal teeth on unringed part and

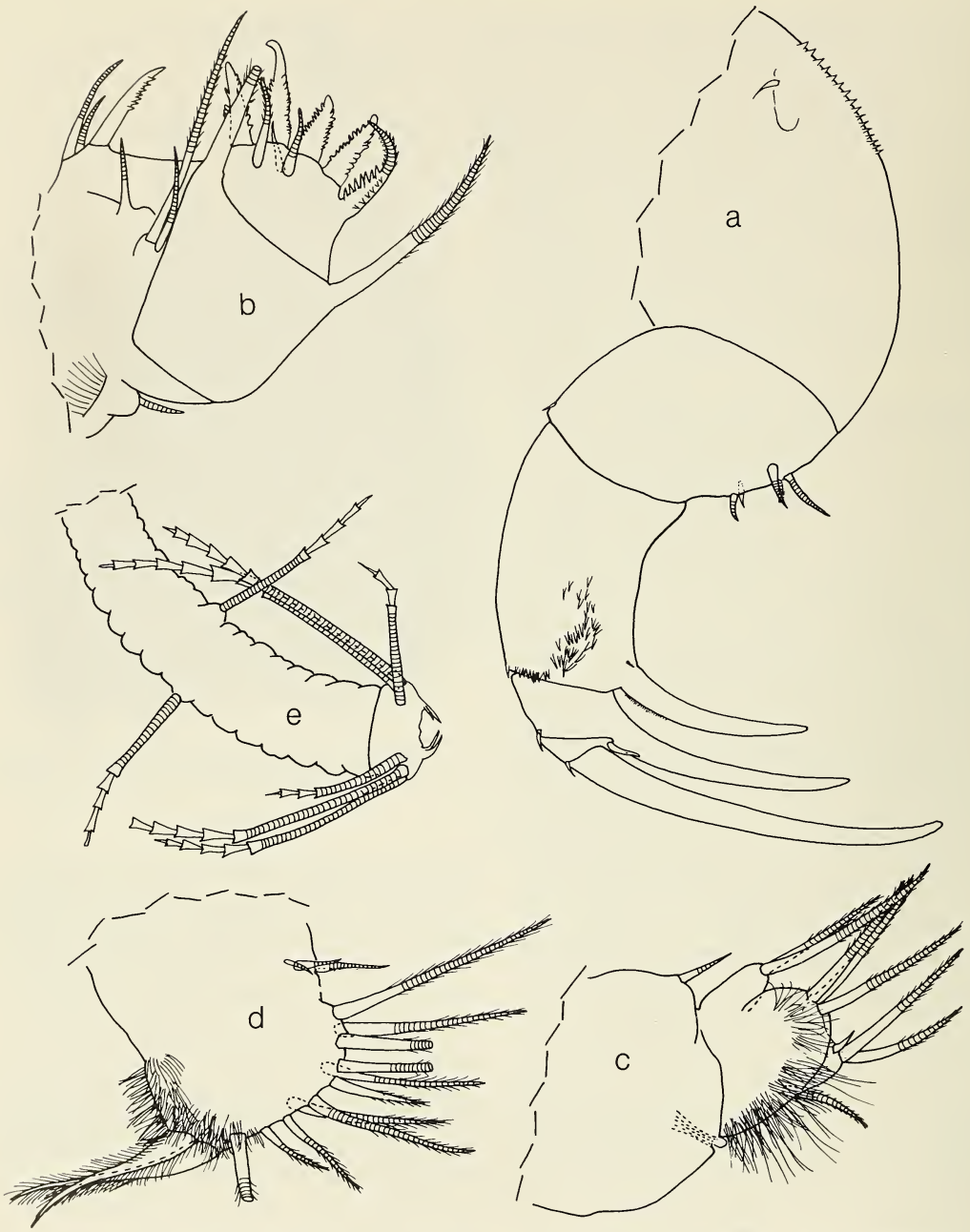

Fig. 4. *Eusarsiella thominx,* holotype, a, Medial view of right mandible; b, Lateral view of left maxilla; c, 5th limb; d, 6th limb; e, 7th limb.

about 12 pairs of more slender teeth on distal ringed part, remaining end bristles with 4–12 stout teeth on each side and without rings).

Fifth limb (Fig. 4c): Single endite with 1 short bristle. Protopodite with small glandular peg on outer edge near border with exopodite. Exopodite: 1st joint with 2 spi-

nous bristles; 2nd joint forming lobe weakly separated outwardly from remaining joints but not by suture, hirsute with 3 spinous bristles; remaining fused joints hirsute, with 1 proximal and 3 terminal bristles. Epipodite with 29 bristles.

Sixth limb (Fig. 4d): Single endite with 3 small bristles; end joint hirsute near posterior margin, with 11 bristles with short marginal spines followed by 2 hirsute posterior bristles.

Seventh limb (Fig. 4e): Proximal group comprising 2 bristles, each with 4 bells; distal group with 6 bristles, each with 3–6 bells. Terminus with opposing combs, each with 3–4 teeth.

Furca (Fig. 3e): Each lamella with 5 claws followed by about 4 minute spines; claw 1 fused to lamella, remaining claws separated from lamella by suture; claws 1–4 with short and long teeth along posterior margin, claw 5 with only short teeth; claw 1 with few hairs along anterior margin; anterior margin of right lamella with faint spines; holotype with 5 fairly stout spines on left lamellae following claw 5, only 2 spines on right lamella; claws of right lamella slightly anterior to those of left.

Bellonci organ (Fig. 3f): Elongate with broadly rounded tip.

Eyes (Fig. 3f): Medial eye pigmented, bare; lateral eye smaller than medial eye, with brown pigment and 5 ommatidia (4 large divided, 1 smaller, undivided).

Upper lip (Fig. 3f): Helmet shaped, bare.

Genitalia: Oval with sclerotized rim (typical for genus).

Y-sclerite: Typical for genus.

Eggs in marsupium: Holotype, 5 eggs. Paratypes: sta 5583, 5–6 eggs; 2 specimens, sta 5759, 6 eggs in each (1 specimen also with smaller unextruded eggs); sta 6000, 6 eggs; sta 6155, 3 eggs.

Faunal composition.—17 specimens of *E. thominx* were in the collection, including 14 adult females, of which about half were ovigerous, and three juveniles. One of the ovigerous females also contained small eggs in the ovaries indicating that the species is capable of having at least two broods. Only two of the three juveniles were examined, both were females.

Comparisons.—The new species *E. thominx* differs from *E. tubipora* (Darby, 1965) in having carapace bristles with tips tapering to a point rather than being flared. The endopodite of the 2nd antenna of the female *E. thominx* differs from that of *Eusarsiella pseudospinosa* (Baker, 1977) in having a terminal bristle.

Three specimens (2 ovigerous females and 1 juvenile from *Velero IV* stations 4718 (female), 5109 (juvenile, length 0.97 mm), 5180 (ovigerous female with 9 eggs, length 1.38 mm)) that had been identified as *E. tubipora* by Baker do not belong to either that species or to *E. thominx,* but the condition of the specimens does not warrant their description. The endopodite of the female 2nd antenna of the 3 specimens differs from that of *E. thominx* in not having a terminal bristle.

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Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.