

***Stenothoe estacola*, new species**

**Fig. 17**

DIAGNOSIS OF MALE: Gnathopod 1 with article 4 scarcely projecting behind, with article 6 almost twice as long as article 5, the palm quite oblique but well defined by 3 spines; gnathopod 2 rather small, stout, its article 6 not elongated, the palm oblique but well defined by a large shallow bump and with 3 small blunt cusps; telson with 3 lateral spines on each side; back not carinate; peduncle of uropod 3 shorter than ramus, the second article of ramus straight, armed with rows of minute serrations; fourth articles of pereopods 3-5 of intermediate expansion.

FEMALE: Gnathopod 1 like that of male; gnathopod 2 smaller and more slender than in male, the palm lacking ornamentation, longer than hind margin of article 6 but well defined by several spines.

HOLOTYPE: AHF No. 556, male, 3.0 mm.

TYPE LOCALITY: Barnard sta. 6, Corona del Mar, California, February 6, 1955, intertidal wash of crustaceans from reef-like beds built by the polychaete worm, *Phragmatopoma* sp.

MATERIAL: Barnard stas. 4 (29), 6 (22), 23 (1).

RELATIONSHIP: This species differs from *Stenothoe monoculoides* (Montagu) (see Sars 1895: pl. 82, fig. 1, and Chevreux and Fage 1925: fig. 132) by the stouter male second gnathopod, its palm being armed with short cusps and by the multispinose telson; the female differs by its longer palm of gnathopod 2; from *S. brevicornis* Sars (1895: pl. 82, fig. 2) it differs by the shorter peduncle of uropod 3 and the less produced fourth article of gnathopod 1. From *S. barrowensis* Shoemaker (1955) it differs by the relatively elongated sixth article of gnathopod 1 and the stouter second gnathopod with larger and fewer palmar cusps. From *S. adhaerans* Stebbing (1888: pl. 39) it differs by the defining spines on the palm of female gnathopod 2 and the much shorter peduncle of uropod 3.

ECOLOGY: An intertidal species recovered from Corona del Mar and Pt. Fermin in formalin washings of 3 kinds of materials, sponge (*Sphero-spongia* sp.), beds of arenaceous encrusting polychaete, *Phragmatopoma* sp., and in calcareous algae.

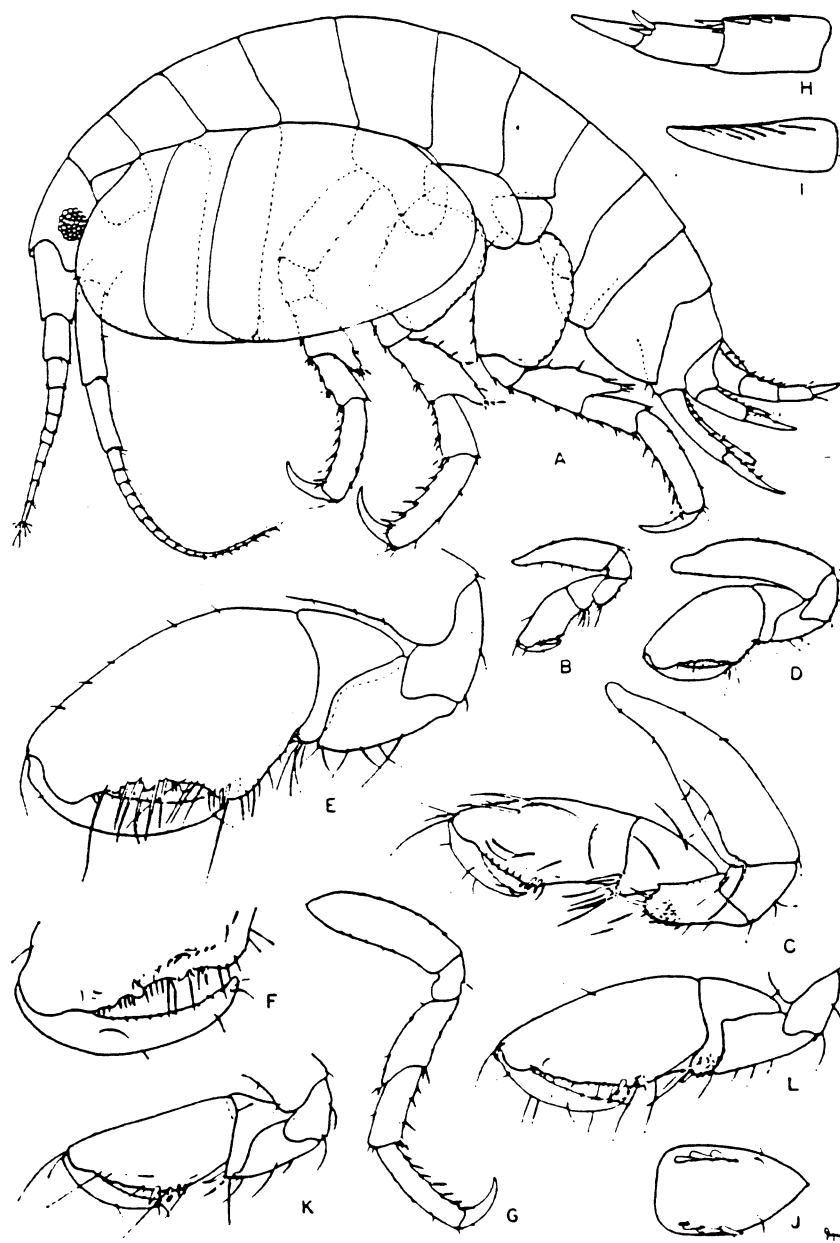


Fig. 17. *Stenothoe estacola*, n. sp. Holotype, male, 3.0 mm, Barnard sta. 6: A, lateral view, B.C. gnathopod 1, D.E.F. gnathopod 2, G, peracopod 1, H, uropod 3, I, detail of second ramal article of uropod 3, J, telson. Female, 2.0 mm. K.L. gnathopods 1, 2.

*Stenothoe festacola* J. L. Barnard

FIGURE 61

?*Stenothoe festacola* J. L. Barnard, 1962c, p. 149, fig. 17.

No adults as fully developed as the male shown by Barnard (1962c) have been collected in the present survey. The original material was obtained at Pt. Fermin and Corona del Mar in mass washes of sponges, phragmatopomids, and corallines. Presumably the specimens assigned herein belong with that species, subadult males having gnathopod 2 in a youthful stage, showing minutely a single middle palmar hump, two of which occur in the adult originally described. All of the subadult specimens have antenna 1 very slightly longer than antenna 2 (by the length of 2 flagellar articles), and all members of the type series (reexamined), except the figured holotype, correspond. None of the present specimens, subadult females and males, has the pectinal rows on article 2 of the third uropodal ramus but faint indications of their presence are seen. Gnathopods of both sexes differ in their medial and lateral aspects rather strongly and several views contrasted to those drawn by Barnard (1962c) are included herein. The second maxilla has the inner and outer plates attached in tandem; the outer plate of maxilla 1 has only 6 spines, the size and arrangement of which seem unusual but which are duplicated in other species of stenothoids; the outer plate of the maxilliped is obsolete, the slight projection that is present being hidden by a spine, the inner plates being strongly fused at their bases but separated for about half their theoretical lengths.

MATERIAL.—GOLETA: *Phyllospadix*-pelvetiid grid, scarce (10 per sq. m.). PT. DUME: short brown algae, abundant (176 per sq. m.); coralline algae, abundant (330 per sq. m.); green-brown algae, rare; *Egregia*, rare. PT. FERMIN: Barnard station 23, October 21, 1949, abundant in calcareous algae. CORONA DEL MAR: *Phyllospadix*-coralline grid, rare (4 per sq. m.); calcareous worm tubes, rare; tunicate colonies at base of *Phyllospadix* leaves, rare; tunicates and polychaete tubes, rare. LA JOLLA: sample 45-K-1 (1). CATALINA ISLAND: "Velero" station 1370, shore, 4 specimens.

DISTRIBUTION.—Goleta to La Jolla, California, intertidal.



FIGURE 61.—*Stenothoe estacola* J. L. Barnard, male, 2.5 mm., station 46-G-10: *a, b*, mandible; *c, d*, gnathopods 1, 2; *e, f*, maxillae 1, 2; *g*, maxilliped, palp terminally unflattened; *h*, upper lip; *i*, outer lobe of maxilla 1. Female, 2.4 mm., station 47-B-3: *j*, uropod 3; *k, l*, gnathopod 1, lateral and medial views; *m*, gnathopod 2; *n*, maxillipedal palp, flattened.