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ELASMOPUS BALKOMANUS, A NEW SPECIES FROM THE FLORIDA KEYS (CRUSTACEA, AMPHIPODA)

James Darwin Thomas and J. L. Barnard

Abstract.—*Elasmopus balkomanus* is described from Looe Key Reef in the Florida Keys. The species is very close to the eastern Pacific *E. antennatus* but in the male has equally extending rami on uropod 3, only 2 (versus 4-6) spines on each lobe of the telson in adults, a lateral ridge on the propodus of male gnathopod 2 and very heavily armed flagella of antenna 2 in the male.

This species lives in a short-tufted algal turf community on coral rubble but apparently is rare because it has only been collected once in 10 years of sampling in the Florida Keys.

Elasmopus balkomanus, new species

Figs. 1-3

Etymology.—A.S. balko, ridge; L, manus, hand.

Diagnosis of male.—Eyes ordinary, brownish-purple in alcohol. Flagellum of male antenna 2 densely setose. Mandibular palp article 3 deeply falcate. Palm of male gnathopod 2 with weak, sparsely spinose hump near dactylar hinge, no marginal teeth, inner face with longitudinal, cuspidate ridge, setae all posterior ("below") ridge and not organized into rows perpendicular to ridge; dactyl overriding palm onto face of propodus. Article 2 of pereopods 5-7 with only tiny setules and tiny serrations posteriorly; locking spines of pereopods 3-7 thin and almost straight, smooth; main subapical spine-seta on dactyl of medium thickness, smooth, with 2 accessory thin setules. Epimera 1-2 with medium sharp posteroventral tooth, all ventral spines short, rarely paired. Uropod 3 with "long" rami (in generic context), inner almost as long as outer. Telson with sharply and deeply incised apices each bearing pair of spines, one spine elongate, other spine short.

Description of male.—Body generally as in other species of genus (for side views of body form in *Elasmopus* see Sars 1895, Barnard 1962, Bousfield 1973). Antenna 1

elongate, slender, article 1 with 3 ventral spines in tandem, accessory flagellum 3-articulate. Flagellum of antenna 2 densely armed with flags of setae. Upper lip rounded below, projecting slightly in front of epistome from side view. Incisors of right and left mandibles with 2 teeth, right lacinia mobilis bifid, proximal branch simple, distal branch with 7 teeth, left lacinia mobilis with 4 teeth; right rakers 3, left 4; molars moderately triturative, each with plumose seta; palp article 1 weakly elongate, article 2 with 2-3 short medial setae, 2-3 apico-medial long setae, article 3 with 1-1 A setae, many D setae forming comb on falcate invagination, 3 E setae. Lower lip, maxilla 2 and maxilliped like figure 35 of Barnard (1979) with following minor exceptions. Inner plate of maxilla 1 with 2 apical setae and 4 apicolateral setules, outer plate with 7 spines, palp article 2 with 2 sharp cusps, one apicolateral seta, 4 apicomедial marginal elements (2 thick, 2 thin) and 4 facial setae. Both lobes of maxilla 2 equally thin, inner plate with only single apicomедial seta no longer than apical setae, outer plates asymmetrical, no cusps, 3 facial 5 apicomедial, 3 apicolateral setae. Inner plate of maxilliped with weak apicomедial cusp, 8 apical setae, 6 medial setae, outer plate with 10 medial blades, 5 apicolateral setae, palp article 3 with scaly apicolateral irregular

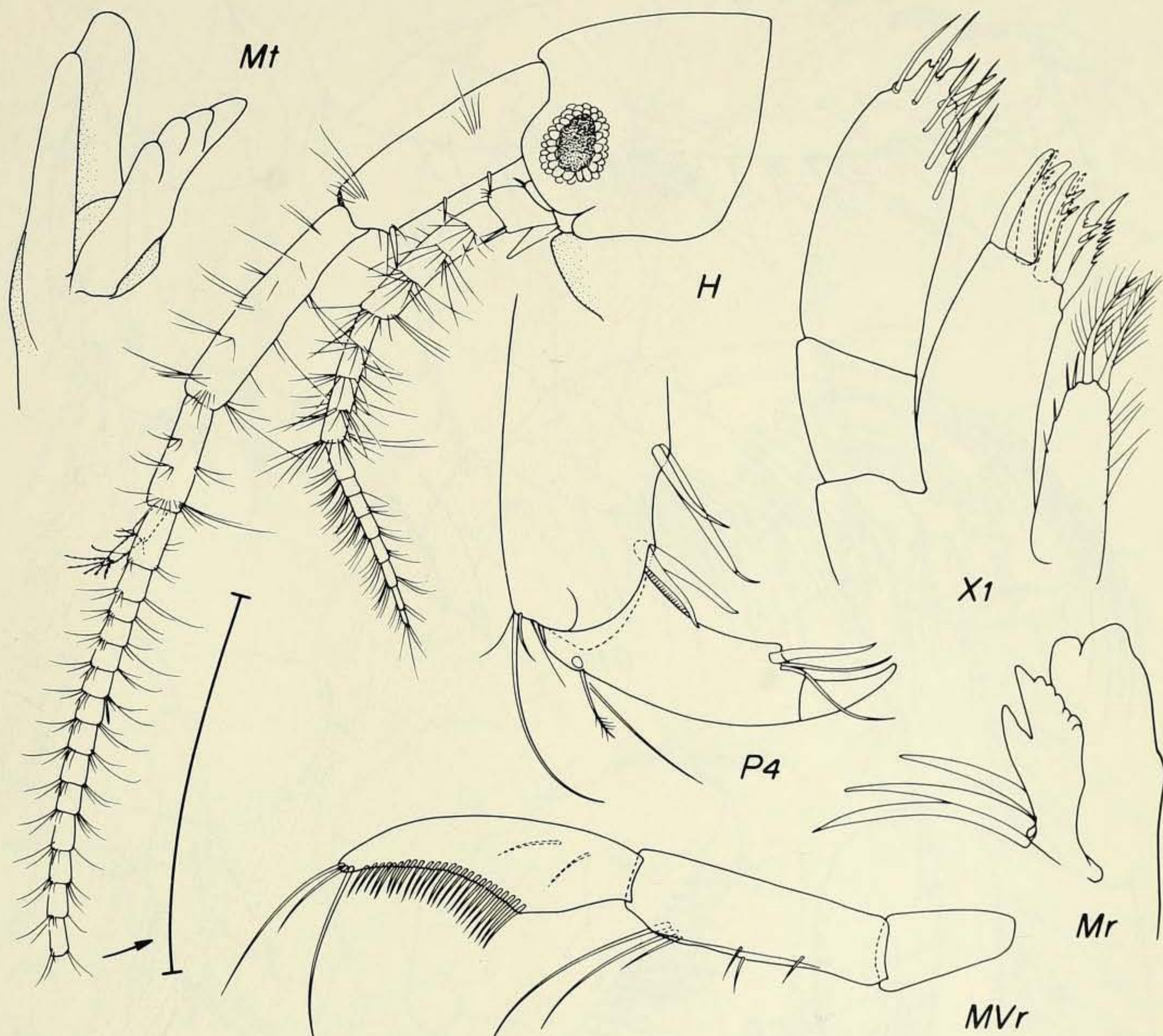


Fig. 1. *Elasmopus balkomanus*, male holotype "m" 7.13 mm. Capital letters refer to parts; lower case letters to left of capital letters refer to specimens and to the right refer to adjectives as: C, coxa; G, gnathopod; H, head; M, mandible; O, outer pate or ramus; P, pereopod; R, uropod; T, telson; V, palp; W, pleon; X, maxilla; Z, gill; m, medial; r, right; s, setae removed; t, left.

lobe, dactyl with thick nail and 4 accessory setules.

Anterior margin of coxa 1 and posterior margin of coxa 4 weakly excavate, long setae on coxae 1-4 = 3-2-0-0. Gnathopod 1 ordinary, see illustrations. Article 2 of gnathopod 2 with weak lateral ridge and hollow. Pereopods 3-4 slender, 4 smaller than 3, article 6 with 6-7 posterior sets of spine pairs including locking spines.

Posterior margin of article 2 on pereopod 5 weakly excavate, posteroventral corner of

weak lobe sharp; pereopods 5-7 relatively slender in generic context, serrations on article 2 tiny and numerous, dactyl relatively elongate. Broad gills present on coxae 2-6.

Dorsolateral margin of peduncle on uropod 2 with only 1 spine.

Female "f."—Like male but gnathopod 2 of female form, see illustration; merus with sharp tooth. Narrow oostegites present on coxae 2-5. Inner ramus of uropod 3 shortened.

Illustrations.—Telson magnified more

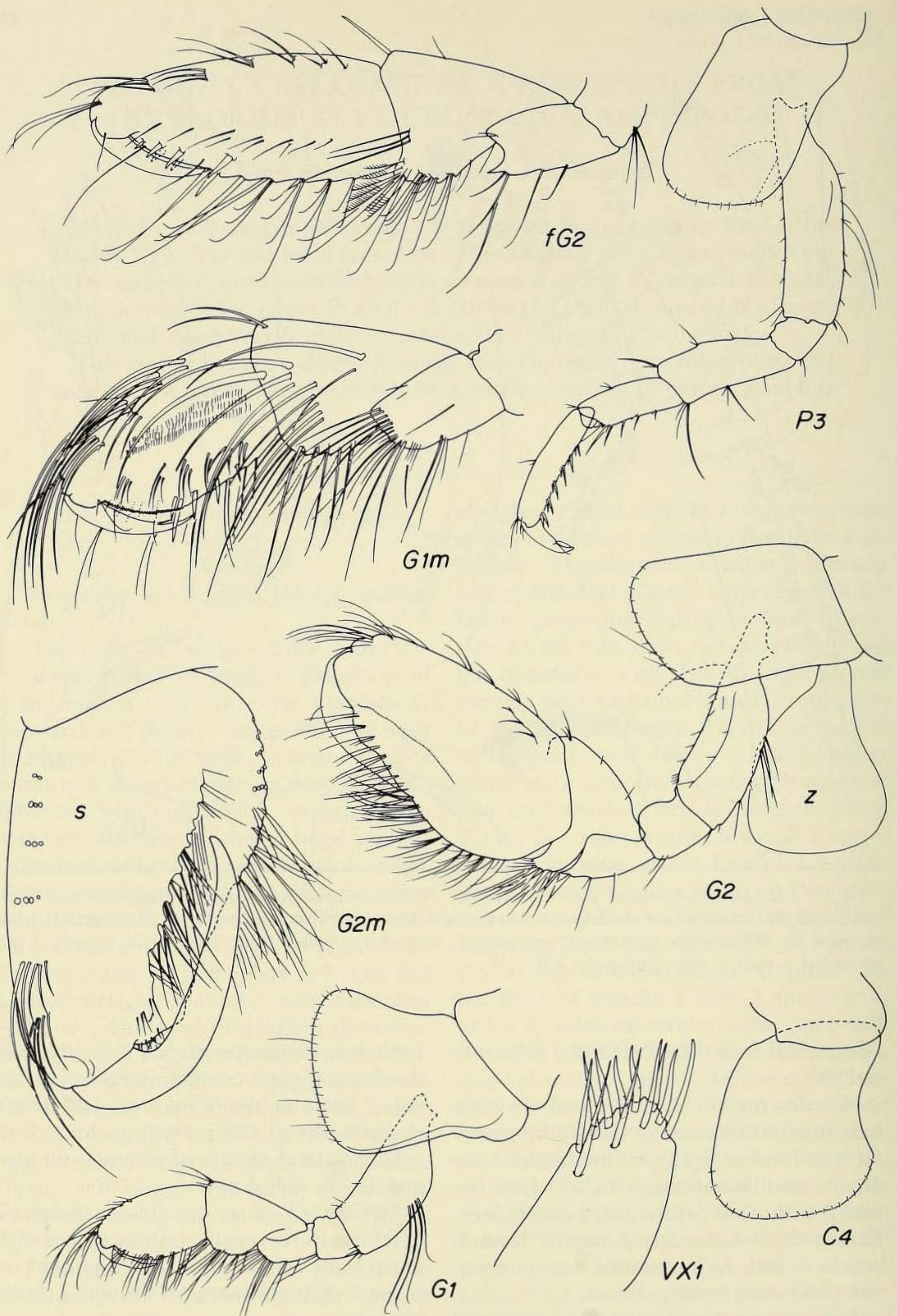


Fig. 2. *Elasmopus balkomanus*, unattributed figures = male holotype "m" 7.13 mm; f = female "f" 6.15 mm. Letter codes, see Fig. 1.

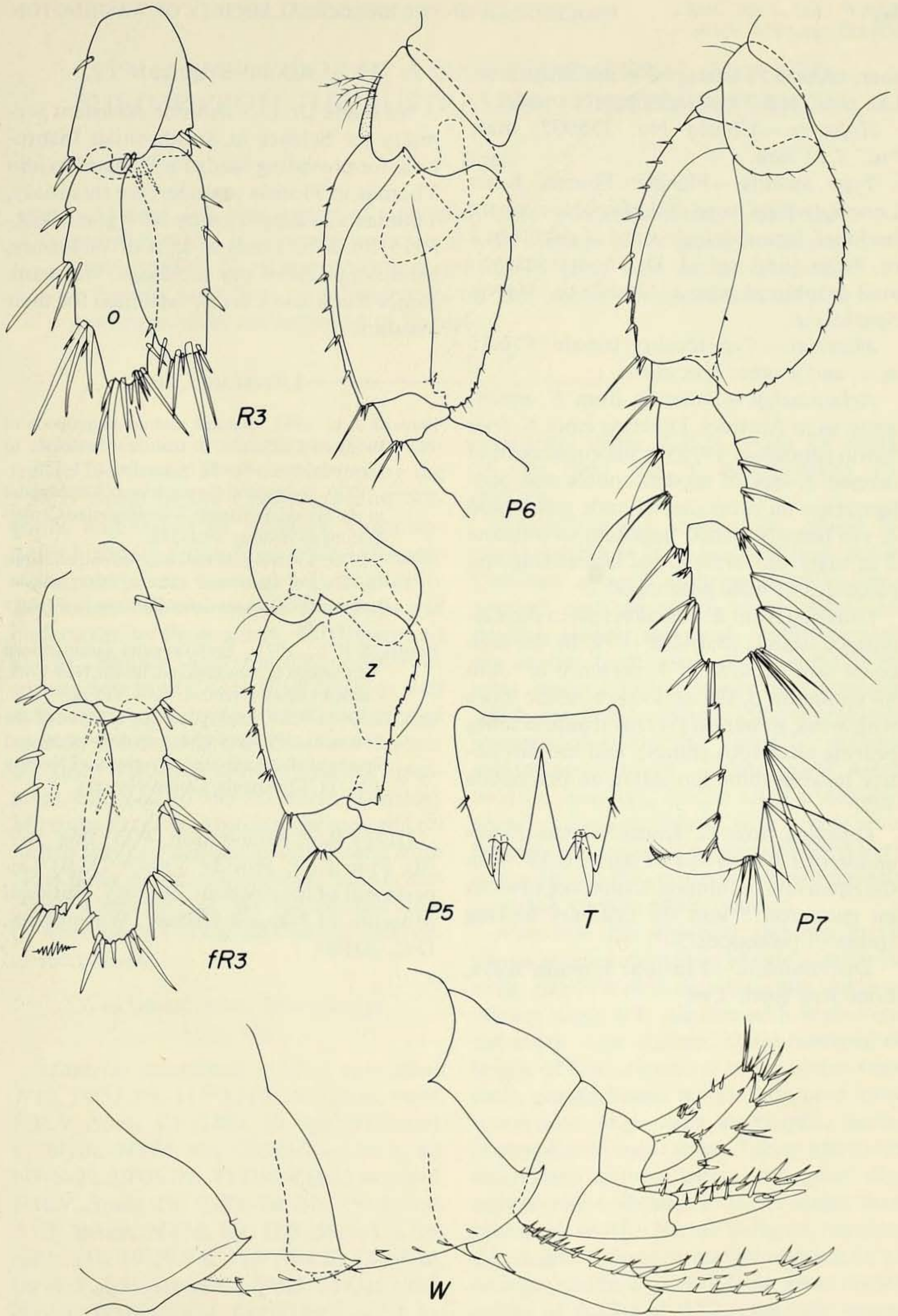


Fig. 3. *Elasmopus balkomanus*, unattributed figures = male holotype "m" 7.13 mm; f = female "f" 6.15 mm. Letter codes, see Fig. 1.

than uropod 3. Pereopod 4 not illustrated, like pereopod 3 but significantly smaller.

Holotype.—USNM No. 235007, male "m" 7.13 mm.

Type locality.—Florida: Florida Keys; Looe Key Reef, west end of rubble zone on backreef, formaldehyde wash of rubble in 2 m, 9 Oct 1983, coll. J. D. Thomas, associated amphipod genera, *Ceradocus*, *Maera*, *Spathiopus*.

Material.—Type locality, female "f" 6.15 mm, and 4 other specimens.

Relationship.—Differing from *E. antennatus* as in Abstract. Differing from *E. levis* Smith (Bousfield 1973) in the equal rami of uropod 3, lack of medial hollow and configuration on propodus of male gnathopod 2; the heavily armed flagellum of antenna 2 in male and presence of lateral ridge on propodus of male gnathopod 2.

Differing from *E. ecuadorensis* in the Galapagos Islands (Barnard 1979) by the subequal rami of uropod 3, presence of tooth on epimeron 3, the excavate telsonic lobes with weak spination (versus truncate lobes bearing numerous spines), and the distinctive locking spine formation on pereopods 3–7.

Differing from *E. hawaiiensis* (as *E. ecuadorensis hawaiiensis* in Barnard 1970) in the equal rami of uropod 3, presence of tooth on epimeron 3 and the ordinary locking spines of pereopods 3–7.

Distribution.—Florida: Florida Keys; Looe Key Reef, 2 m.

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