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Podocerus kleidus, New Species from the Florida Keys (Crustacea, Amphipoda, Dulichiidae)

James Darwin Thomas
Smithsonian Institution, thomasjd@nova.edu

J. L. Barnard
Smithsonian Institution

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PODOCERUS KLEIDUS, NEW SPECIES FROM THE FLORIDA KEYS (CRUSTACEA, AMPHIPODA, DULICHIIDAE)

James Darwin Thomas and J. L. Barnard

ABSTRACT

Podocerus kleidus, a new species from high-current channels in the Florida Keys, is described. The species is very close to *P. fulanus* from marine channels in California but differs in the strongly cleft coxa 1.

The genus *Podocerus* was reviewed recently by Thomas and Barnard (1992). The new species at hand does not alter the new diagnosis in that presentation. The species diagnosis fits the new diagnostic form presented by Thomas and Barnard (1992).

Dulichiidae
Podocerinae

Podocerus kleidus new species
Figures 1–3

Etymology.—Latinized from the Greek, "kleidos," key.

Diagnosis of Male.—Lateral cephalic lobe weakly protruding in mammilliform shape, eyes lacking dark pigment core, scarcely situated behind anterior margin of head and on lower margin; accessory flagellum 1-articulate, elongate; antenna 2 elongate, about as long as body. Antenna 2 reaching almost to end of peduncle on antenna 1, flagella of antennae moderately short and of antenna 2 with few articles, 6 on antenna 1, 3 on antenna 2, flagellum of antenna 2 only setose, no major spines present. Epistome sharply produced, anterior margin of upper lip with weakly produced anterior keel. Coxa 1 extended forward, cleft into 2 sharp unequal lobes, coxa 2 without medial stridulation flange, lacking "grit." Article 5 of gnathopod 1 as long as article 6, article 5 lacking scaliform pattern, bearing subquadrate posterior lobe, article 6 trapezoidal, lacking lateral groups of comb-like short setae, palm very oblique, defining end of palm scarcely extended and swollen, bearing 4–5 thick spines, dactyl shorter than palm, posterior margin of article 6 shorter than palm, dactyl with 4 inner spines. Outer face of article 2 on gnathopod 2 lacking stridulation humps, both anterodistal corners with mammilliform lobe, article 4 weakly extended distally and bearing 3 thick spines, article 6 large, elongate, palm oblique, less than half as long as article 6, carved into one broad minutely castellate distal hump, with weak defining acclivity bearing thick spine, palm and posterior margin sparsely furnished with short and medium setae; dactyl with basal hump fitting into distal hollow of palm. Article 2 of pereopods 3–7 poorly expanded in context of genus, anterior margins on pereopods 3–4 and posterior margins on pereopods 5–6 poorly setose (in context of genus), article 2 of pereopod 7 poorly setose; article 2 of pereopod 5 feeble, of pereopod 6 with scarcely extended posteroventral corner, of pereopod 7 with sloping, weakly setose posteroventral corner. Anterior margins of articles 4–6 on pereopods 3–4 and similar posterior margins on pereopods 5–7 with (in context) relatively sparse small clusters of setae set in weak notches, for example, setal groups on article 4 of pereopods 3–7 = 1-1-2-2-2; posterior margins on article 6

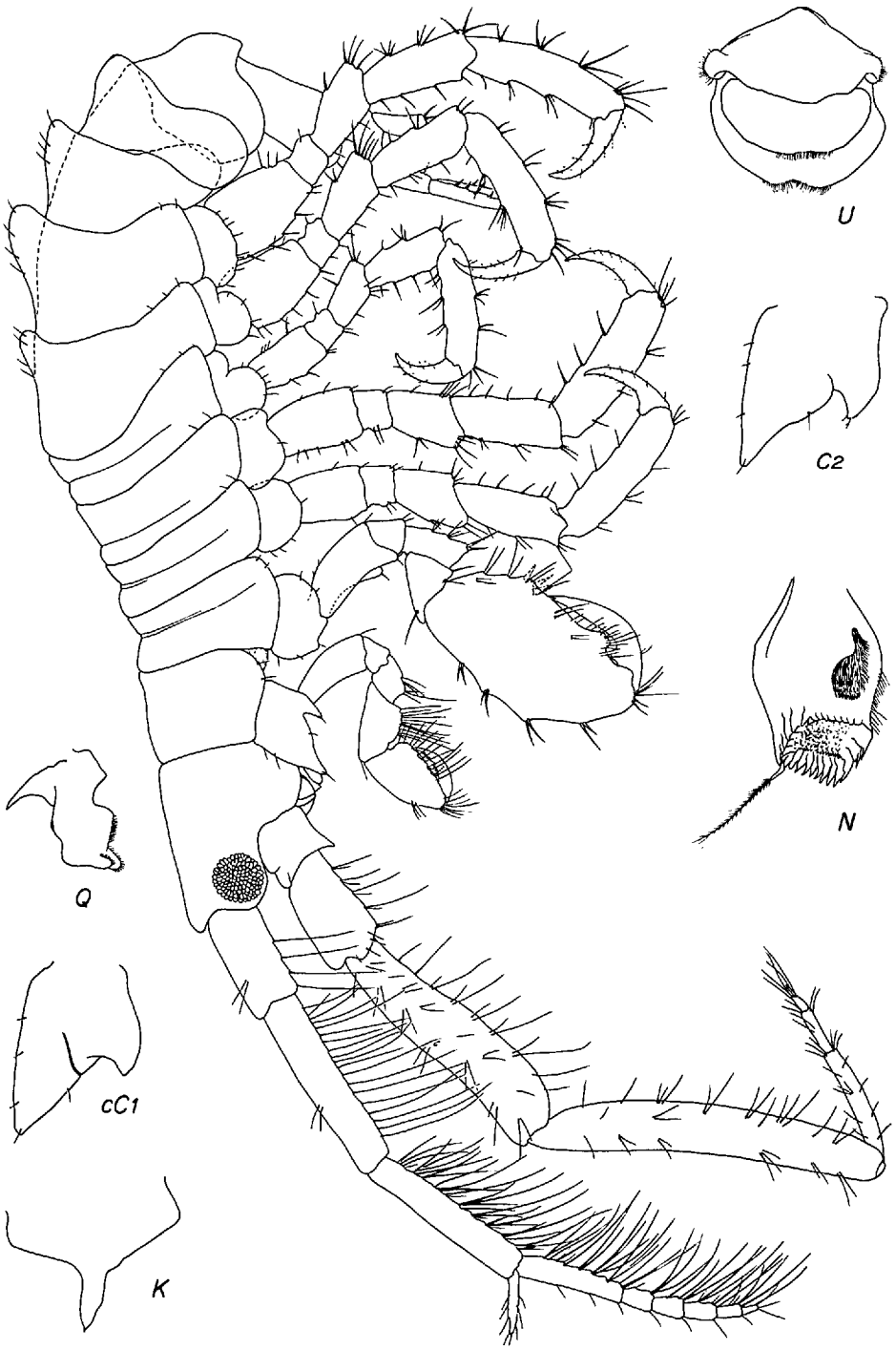

Figure 1. *Podocerus kleidus*, unattributed figures = holotype male "a" 4.46 mm; c = female "c" 3.76 mm. Legend: Capital letters in figures refer to parts; lower case letters to left of capital letters refer to specimens and to the right refer to adjectives as described below; unattributed specimens lack letters to left of capitals: B, body; C, coxa; D, dactyl; G, gnathopod; I, inner plate or ramus; J, urosome; K, sternal process on pereonite 3; L, labium; M, mandible; O, outer plate or ramus; P, pereopod; Q,

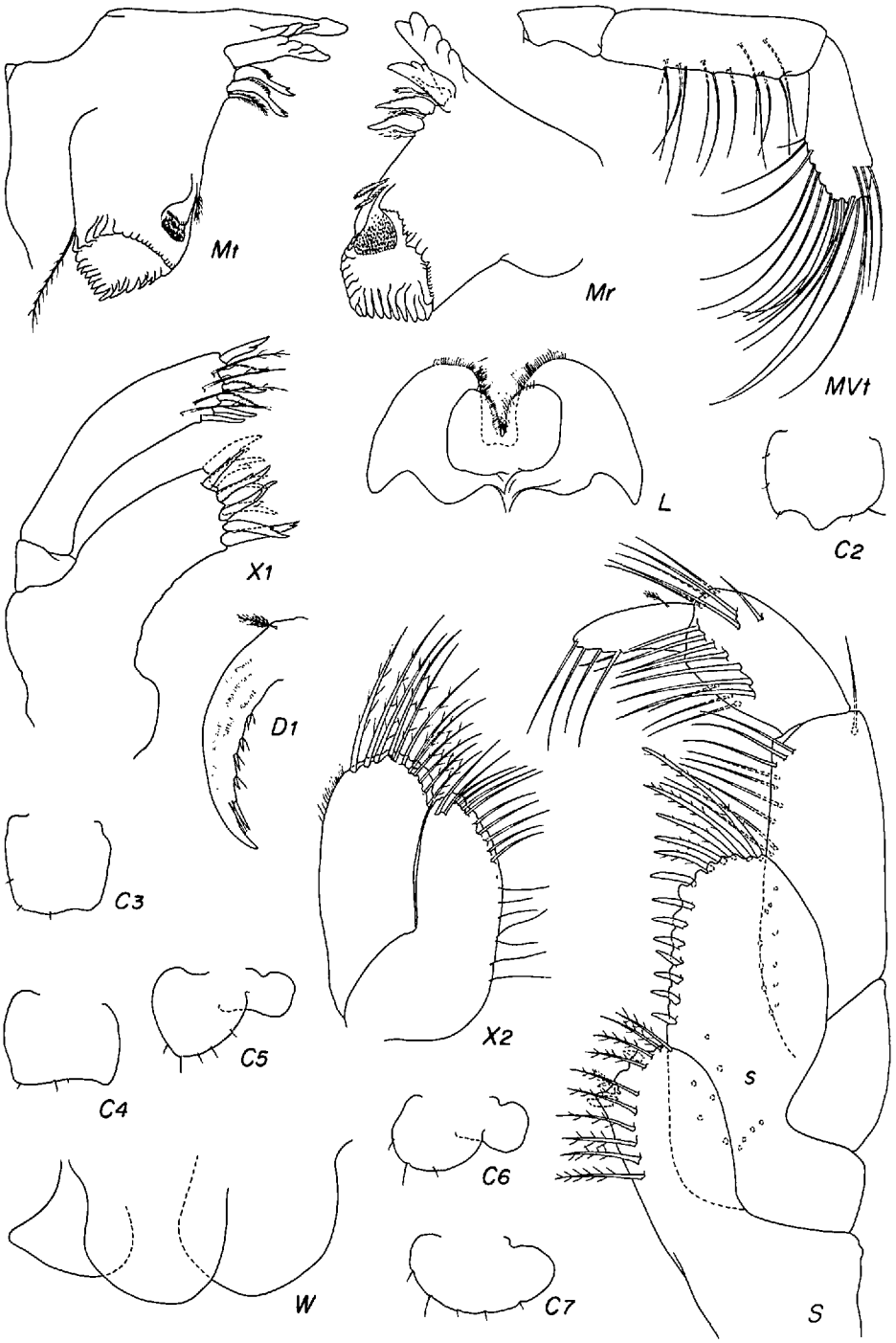

Figure 2. *Podocerus kleidus,* all figures = holotype male "a" 4.46 mm.

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epistome; R, uropod; S, maxilliped; T, telson; U, labrum; V, palp; W, epimera; X, maxilla; r, right; s, setae removed; t, left.

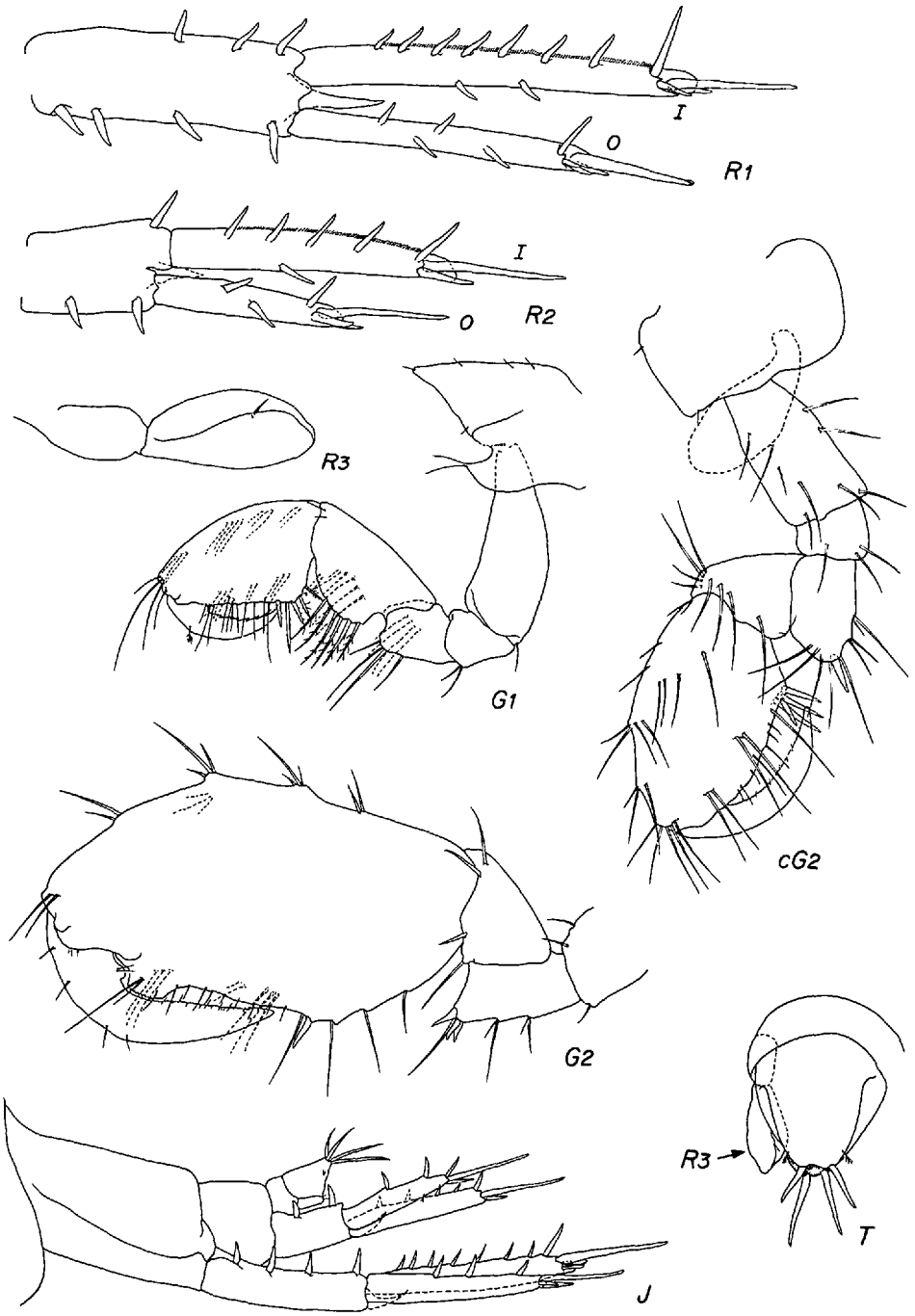

Figure 3. *Podocerus kleidus,* unattributed figures = holotype male "a" 4.46 mm; c = female "c" 3.76 mm.

of pereopods 3–4 and similar, anterior margins on pereopods 5–7 with 1–3 setae in clusters in tandem in the formula for the 5 legs of 3-3-3-3-3, each of pereopods 3–7 with apical seta-set composed of 2 setae; pereopods 3–7 not prehensile. Uropods 1–2 with interramal tooth on peduncles, outer rami of uropods 1–2 about 75 and 67 percent as long as inner rami respectively, rami normally spinose (in context of genus), for example, lateral margins of uropods 1–2 with 1 and 2 spines, medial of outer ramus on uropods 1–1 with 1 and 2 spines, medial of inner ramus with 4 and 7 spines; peduncles of uropods 1–2 normally spinose, medial apices not serrate; uropod 3 small and leaflike, with 1 short apicodorsal seta and 2 facial penicillate setules; telson with small dorsal circle of 9 spines and 1–2 tiny setules; dorsal body humps moderately developed on pereonite 7 to pleonite 3; all pereonites articulate; pleonal epimera evenly rounded below.

Description.—Gills present on coxae 2–6, small sac-like, subequal to coxae, bilobed. Length ratios of peduncles on pleopods 1–3 = 34:35:41; of inner rami = 35:42:40, of outer rami = 32:47:44; articles of inner rami = 8-8-8, of outer rami = 8-9-9.

Female.—Antenna 2 and body ornamentation similar to *P. crenulatus* Myers (1985). Coxae not relatively shorter than on male; article 2 of gnathopod 2 lacking anterodistal process, protrusion on article 4 more rounded, article 6 short, stout, palm about three-fourths as long as article 6, evenly convex, defined by 4 spines; densely setose oostegites present on coxae 3–5, large, paddle-shaped.

Holotype.—ISNM No. 253713, male "a" 4.46 mm.

Type Locality.—Florida Keys, Cudjoe Channel near Cudjoe Key, tidal channel, 6.5 m, 7 May 1989, coll. J.D. Thomas, clinging to alga *Gracilaria* sp. in association with the tubicolous amphipod, *Cerapus cudjoe* Lowry and Thomas.

Material.—USNM No. 253714, allotype, female "b" 3.71 mm; USNM 253715, paratype female "c" 3.76 mm; both from the type-locality.

Relationship.—This species appears to be a twin to *Podocerus fulanus* Barnard (1962) but differs from that species in the cleft coxa 1 and the many fewer lateral spines on the rami of uropods 1–2 and many fewer medial spines on the outer rami of uropods 1–2; for example, *P. fulanus* adult male has 4–7 spines on various lateral margins of the rami and 4–5 medial spines on the outer rami.

Another twin (or triplet member of a triad) is *P. crenulatus* Myers (1985) which differs from *P. kleidus* in the lack of cleft on coxa 1 and the lack of spines on apposing margins of the rami on uropods 1–2. The palms of the gnathopods in both sexes of *P. crenulatus* have weak processes unlike *P. fulanus* and *P. kleidus*. The main palmar tooth on gnathopod 2 of male *P. crenulatus* is narrow and acute and the dactyl does not appear to be a basal hump according to Myers' figures.

Distribution.—Florida Keys, in channels, 6.5 m.

Acknowledgments

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ADDRESS: *(J.D.T.) NHB-163, Department of Invertebrate Zoology, Smithsonian Institution, Washington, D.C. 20560; (J.L.B.) deceased.*