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Discerceis kensleyi, n. sp., from Caribbean Colombia, the third species of the genus (Crustacea: Isopoda: Sphaeromatidae)

Marilyn Schotte

Department of Invertebrate Zoology, National Museum of Natural History, P.O. Box 37012, Smithsonian Institution, Washington, D.C. 20013-7012, U.S.A., e-mail: schottem@si.edu

Abstract.—A third species of the genus *Discerceis* is described and a new generic diagnosis is offered. The distinctions in the new species are seen in morphological characters of the male, specifically the pleotelson, which bears an elongate, deeply set, apically upturned median tooth in the pleotelsonic notch, and in the uropods, which are much longer relative to the pleotelson as compared to its two cogeners. A key to the known species of the genus is given.

At present there are about 94 known genera of Sphaeromatidae containing more than 655 species (World List of Isopod Species, Smithsonian Institution, www.nmnh.si.edu/iz/isopod). The rarely encountered genus *Discerceis* has been recorded thus far only from sublittoral waters (37–46 m) of southern California and from both coasts of Mexico, giving it a amphi-Panamic distribution. Two species are known, *D. linguicauda* (Richardson, 1901) from Cape Catoche, Yucatan, and *D. granulosa* (Richardson, 1899), whose type locality is Cerro Island, Gulf of California ranges from there to southern California (from "List of All California Marine Isopods" www.tolweb.org/tree/eukaryotes/animals/arthropoda/crustacea/isopoda/accessory/caguide/allcaisopods.html). A second Caribbean representative, the third species in the genus so far, has been collected on the coast of Colombia from the epibiota on red mangrove (*Rhizophora*) roots at intertidal depths. This new species is described herein. The type material has been deposited at the National Museum of Natural History, Smithsonian Institution and at INVEMAR (Instituto de Investigaciones Marinas de Punta de Betin), Santa Marta, Colombia.

Discerceis Richardson, 1905

Discerceis: Richardson, 1905: x, 309; Kensley & Schotte, 1989:211–213.

Diagnosis.—Male: Able to conglobate. Dorsal integument granular with larger tubercles, especially on pleotelson. Anterior rostral process present, separating antennular bases. Eyes simple, dorsolateral, ommatidia visible. Sternite 1 without mesial extensions. Coxae 2–5 narrowed ventrally, coxal sutures not readily discernible; coxae not overlapping but contiguous when animal enrolls; coxa 6 acute but not produced ventrally, coxa 7 shorter than 6, rounded. Pereonites 2–7 with double transverse row of small tubercles near posterior margin, pereon lacking setae. Pleon consisting of 4 pleonites plus pleotelson, sutures reaching to lateral margin; median boss may bear tubercles or granules. Pleotelson as wide as pleon, domed anteriorly, bearing three tubercles in a transverse line. Strong median lobe in pleotelsonic notch reaching beyond lateral margins.

Antennular peduncles in contact mesially. Antennule with 3 articles, basal article expanded, article 2 short, subtriangular; pedunclar article 1 anteriorly produced; combined length of peduncular articles subequal

to flagellar articles. Antenular peduncle articles, length all more than twice width; article 5 longest. Frontal lamina broad with posterior wings, sessile, apically acute. Mandible incisor narrow, with 3 sclerotized cusps; lacinia mobilis with 3 cusps on left side; spine row present; molar distally truncate; palp of 3 articles. Maxillule, lateral lobe with mostly smooth spine-like setae; mesial lobe with 4 robust setae. Maxilla, distal setae smooth, pectinate or circumplumose. Maxilliped palp article 2–4 lobed. Pereopods all ambulatory with simple unguis. Penes triangular, rounded apically, separated by at least basal width of single ramus. Pleopod 1 lamellar, not operculate, rami subequal in size and longer than wide. Pleopod 2, appendix masculina short, thick, apically rounded, sub-basally attached; exopod longer than endopod. Pleopod 3, exopod with complete transverse suture; longer than endopod, which lacks ridges. Pleopod 4, endopod with proximomedial lobe and plumose marginal setae; both rami with folds. Pleopod 5, exopod with incomplete transverse suture in distal third, bearing 3 scale patches on lateral/distal margins; both rami with folds. Uropodal endopod, very short and fused with protopod, suture barely discernible; exopod elongate, cylindrical.

Female: Sexual dimorphism pronounced. Body smooth, lacking tubercles and setae. Pleotelson slightly domed and lacking ornamentation; posterior margin with short, apically acute projection. Uropods biramous and lamellar, apically truncate, not reaching posterior margin of pleotelson; exopod slightly shorter than endopod. Broodpouch formed by four pairs of oostegites on pereonites 1–4; brood held in internal pouches, pockets absent. Female mouthparts metamorphosed.

Remarks.—The character states of having eubranchiate fourth and fifth pleopods, third pleopod with exopodal transverse suture, uropodal endopod fused with protopod, presence of a large lobe in the pleotelsonic notch and lacking a projection on the 6th pereonite as in *Haswellia,* led Richardson (1905) to erect a new genus distinct from *Cerceis,* in which *D. linguicauda and D. granulosa* were originally placed.

Key to Known Species of *Discerceis*

1a. Uropodal exopod bearing two apical tubercles, giving forked appearance; length of median projection in pleotelsonic notch more than 3 times width at base; median projection curving dorsally at apex ..... *Discerceis kensleyi* n. sp. ..... Caribbean Colombia

1b. Uropodal exopod tapering to blunt apex, not bearing tubercles; length of median projection subequal to or somewhat longer than width at base; median projection not curving dorsally 2

2a. Lateral teeth of pleotelsonic notch double; lateral margins of medial projection tapering to acute apex, margins not parallel ..... *Discerceis granulosa* ..... Cerro Island, Gulf of California

2b. Lateral teeth of pleotelsonic notch single; lateral margins of median projection parallel, not tapering, posterior margin triangular ... *Discerceis linguicauda* ..... Cape Catoche, Yucatan

Discerceis kensleyi, n. sp.
Figs. 1–4

Material examined.—Holotype male, INV-CRU 4879, TL 7.0 mm, Colombia, Golfo de Morrosquillo, Isla San Barnardo (9°47′N, 75°50′W), on red mangrove (*Rhizophora*) roots, in dense algal growth incl. *Halimeda,* sponges, hydroids, intertidal to 1.0 m, sta. K-COL-28, coll. B. Kensley, 7 March 1997. Allotype female, INV-CRU 4880, TL 5.1 mm, same locality data as holotype. Paratypes, INV-CRU 4881–4900, 3 males, 5 ovig. females, 10 females and 2 juvs., same locality data as holotype. Paratypes, USNM 1071581, same locality, sta. K-COL-27, *Halimeda* on mangrove roots, 6 males, 5 ovig. females, 6 females. Paratypes, USNM 1071582, same locality, K-COL-29, coralline algae, mainly *Amphiroa,* on mangrove roots, 1 male, 6 females, 2 juvs.

Description.—Male. Body about 2.2

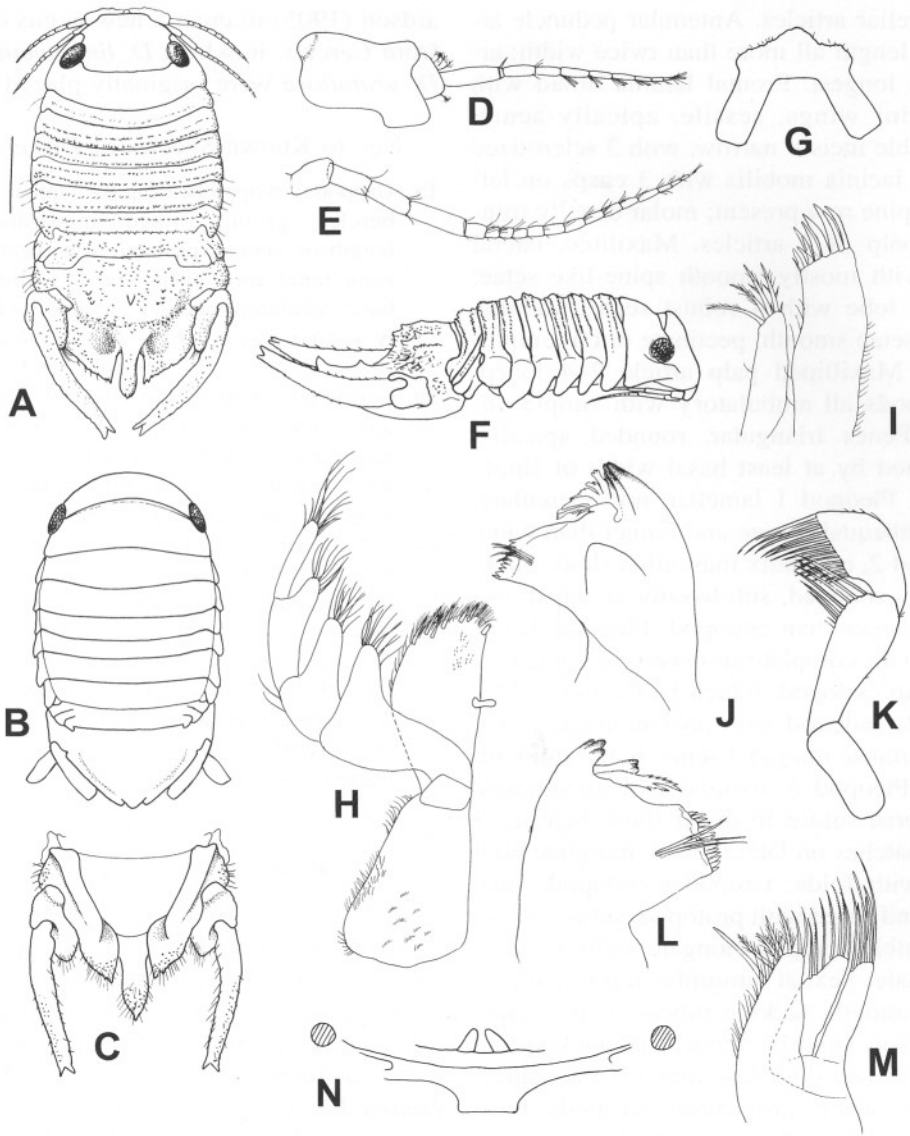

Fig. 1. *Discerceis kensleyi.* A, adult male; B, adult female; C, male, ventral pleon; D, antennule; E, antenna; F, male, lateral view; G, frontal lamina; H, maxilliped; I, maxilla; J, right mandible; K, mandibular palp; L, left mandible; M, maxillule; N, penes.

times as long as wide, cuticle of cephalon and first pereonite pitted; pereonites 2–7 coarsely granular. Coxal sutures indistinct; coxa 6 largest, posterior margin acute apically, not overlapping coxa 7. Pleon granular with slightly raised area at middle of posterior margin. Pleotelson quite granular, about 37% of body length, with medial tubercle on dome flanked by two groups of smaller tubercles; lateral regions posterior to dome depressed; posterior margin of pleotelson interrupted by long, deeply set, slightly spatulate median tooth; tooth extending somewhat past edges of medial notch and upturned apically.

Antennule peduncle more than 4 times length of article 1; third article more than twice length of second article; flagellum

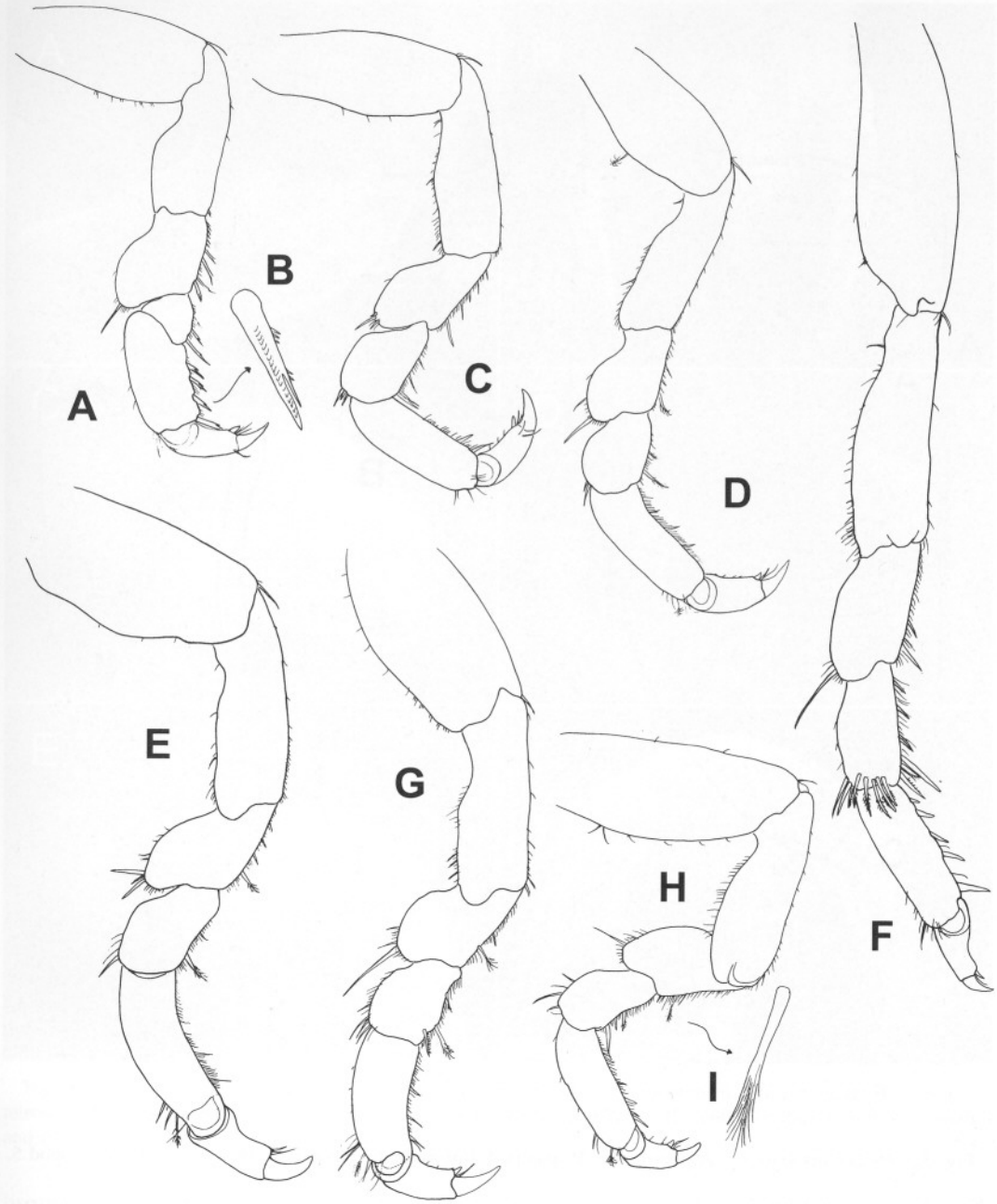

Fig. 2. *Discerceis kensleyi.* A, Pereopod 1; B, bifid, scaled seta on propodus of pereopod 1; C, pereopod 2; D, pereopod 3; E, pereopod 4; F, pereopod 7; G, pereopod 5; H, pereopod 6; I, seta on merus of pereopod 6.

with 8–9 articles. Antenna flagellum with ca. 15 articles. Frontal lamina subequal in length to labrum; molar process large, ornamented, bearing 3 long, simple setae submarginally. Right mandible similar to left, palp with ca. 14 terminal setae on third article, second article bearing 6 long and 2 short setae. Maxillule bearing 10 spine-like setae on outer lobe, 4 fringed setae on inner lobe. Maxilla, lateral lobe with 6 long,

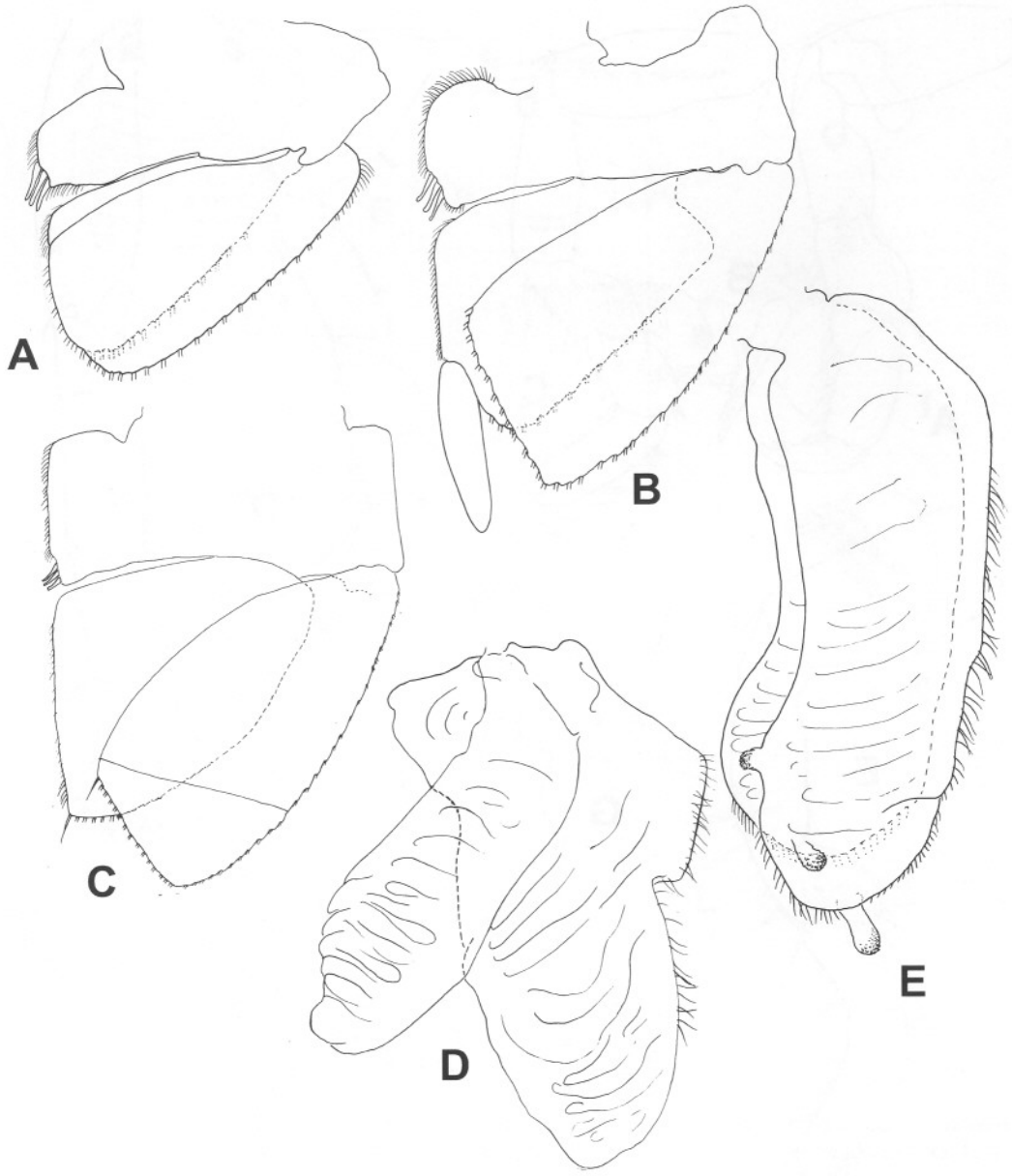

Fig. 3. *Discerceis kensleyi.* A, pleopod 1; B, pleopod 2 of male; C, pleopod 3; D, pleopod 4; N, pleopod 5.

spine-like setae; middle lobe with 7; medial lobe with 7 spine-like setae, some fringed, and several short, simple setae. Maxilliped endite with ca. 8 strong, fringed spine-like setae plus numerous simple setae on distal margin; single coupling hook.

Pereopods successively increasing in total length posteriorly. Pereopod 1 with 4 stout, spine-like setae on posterior margin of propodus, 3 on carpus and 4 on merus. Pereopod 2, spine-like setae at anterodistal corners of carpus and merus; posterior margins of propodus, carpus, merus and anterior margin of ischium with fringes of setae. Pereopod 3, similar to pereopod 2 with single plumose seta at anterodistal margin of

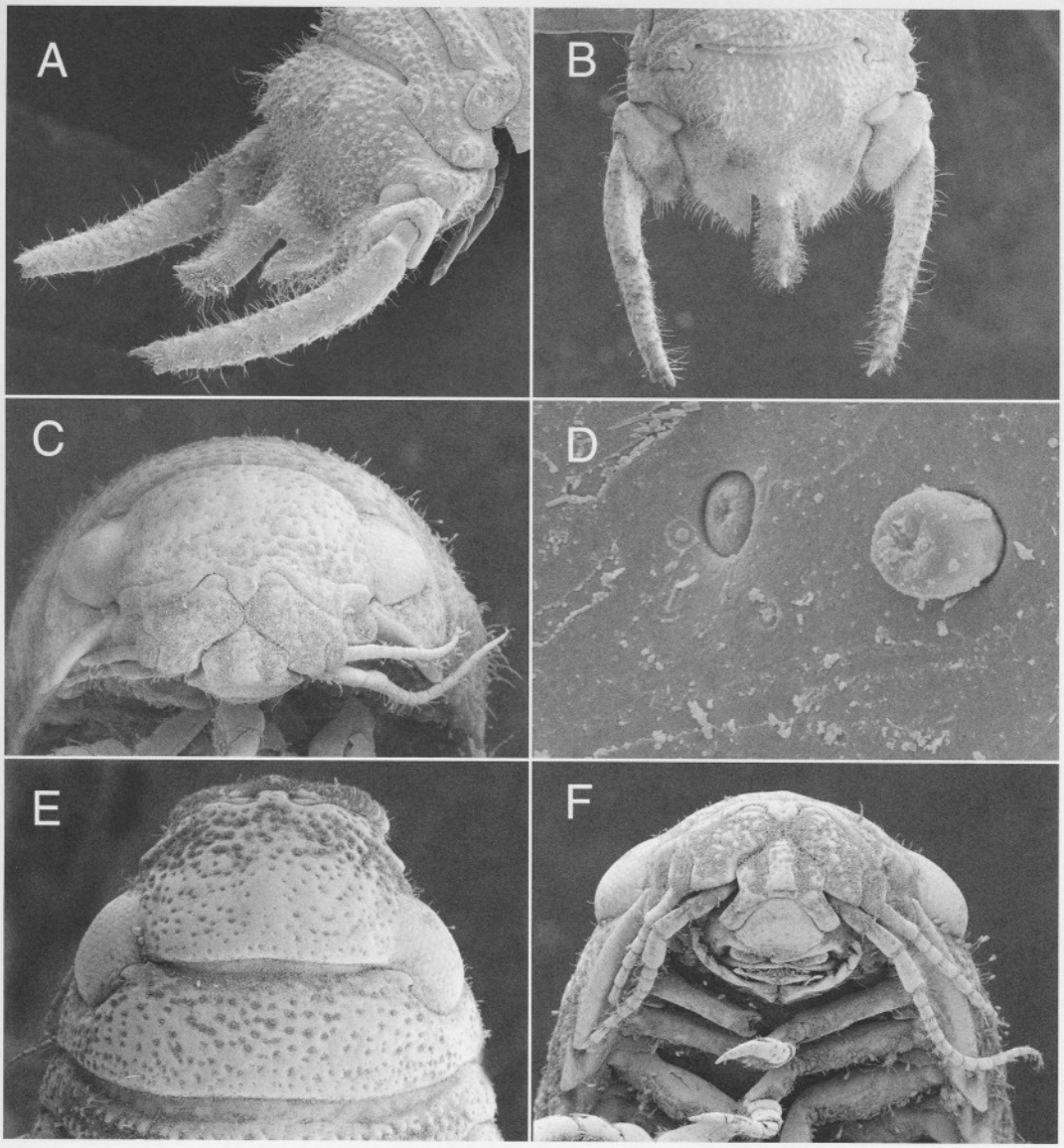

Fig. 4. *Discereis kensleyi.* Scanning Electron Micrographs: A, male pleotelson, oblique angle; B, male pleotelson; C, frons; D, detail of integument on pleotelson (sensory papillae?); E, cephalon, dorsal view; F, cephalon and frontal lamina, ventral view.

propodus, posterodistal margins of carpus and merus. Pereopods 4, 5, and 6 similar to pereopod 3 in setal pattern. Pereopod 7 with 8 stout, spine-like setae, 5 fringed, at distal margin of carpus.

Penes triangular, rounded apically, length ca. twice width at base, rami separated by more than basal width of single ramus.

Pleopods 1–3, peduncle with 3 coupling hooks. Pleopod 1 endopod bearing 35 plumose marginal setae, exopod with 17. Pleopod 2, appendix masculina inserted distally, length 4 times greatest width; exopod with about 36 plumose marginal setae, endopod with ca. 17. Pleopod 3, exopod with 43 plumose marginal setae, endopod bearing 19. Pleopod 4, exopod bearing numerous simple, marginal setae. Pleopod 5, ex-

opod with incomplete transverse suture and many simple marginal setae. Uropodal exopod granular, setose, extending well beyond posterior margin of pleotelson, slightly curved toward midline with apex distinctly bifid.

Ovigerous female.—Body length 1.9 times greatest width at pereonite 3. Dorsum smooth, lacking tubercles. Pleotelson slightly domed, apical notch occupied by short, apically acute projection. Uropods biramous, not reaching posterior margin of pleotelson, exopod slightly shorter than endopod; apices truncate.

Coloration.—Both sexes devoid of pigmentation in preservation, color a uniform white.

Etymology.—The species is named for its collector, Brian Kensley, of the National Museum of Natural History, respected carcinologist, known world-wide for his work on Isopoda and Decapoda, and my mentor for more than twenty years.

Remarks.—The three known species of *Discerceis* differ chiefly in characters of the pleotelson and uropods. The median tooth in the pleotelsonic notch of the new species is longer relative to the pleotelson, more deeply set than in the others, as well as being slightly spatulate and slightly upcurved apically, two characters not present in the other species. The uropods extend beyond the end of the median tooth by almost 50% of their length in *D. kensleyi.* In *D. granulosa* and *D. linguicauda,* the uropods extend beyond by less than one-third of their length.

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