

comparison of ovigerous females and subadult males to the ovigerous allotype (Fig. 6A–F).

Sphaeromopsis sanctaluciae, new species
Figs. 7–9

Material examined.—Holotype, USNM 285356, 1 ♂ tl 3.1 mm, Allotype USNM 285357, 1 ♀ tl 2.0 mm, Paratypes, USNM 285358, 45 ♂, 29 ♀, 39 juvs., sta FTP-13, North Fork of St. Lucie River at Prima Vera Boulevard, Port St. Lucie, Florida, in dead, submerged wood, 0.1 m, 1 Jun 1995.

Additional material.—USNM 285359, 2 ovigerous ♀, 2 ♀, 1 juv., sta K-CUBA-64, Islas de Juventud, Ensenada de la Siguanea, Cuba, in algal carpet on *Rhizophora* roots, 0.5 m, 9 Jun 1995.—USNM 285360, 5 ♀, 1 juv., sta FTP-8, Merritt Island at boat ramp, Indian River Lagoon, on dead wood, 0.5 m, 31 May 1995.—USNM 285361, 1 ♀, 3 juvs., sta FTP-11, on ring of metal plates in Banana River off Merritt Island, Indian River Lagoon, amongst encrusting oysters, barnacles and algal turf, 0.5 m, 31 May 1995.—USNM 285362, 1 ♀, 2 juvs., sta FTP-24, mouth of North Fork of St. Lucie River at US 1 and Fern Rd., in algal turf with *Enteromorpha* on boulders, intertidal, 25 Apr 1996.—USNM 285363, 1 ♀, Indian River Lagoon at Jensen Beach, in algae in mangrove roots, 29 May 1995.—USNM 285364, 3 ♂, 1 ovigerous ♀, 1 ♀, Orange River, Lee County, Florida, coll. A. Walton, 15 Aug 1994.—USNM 285365, 1 ♂, Orange River, Lee County, Florida, coll. A. Walton, 18 Jan 1995.

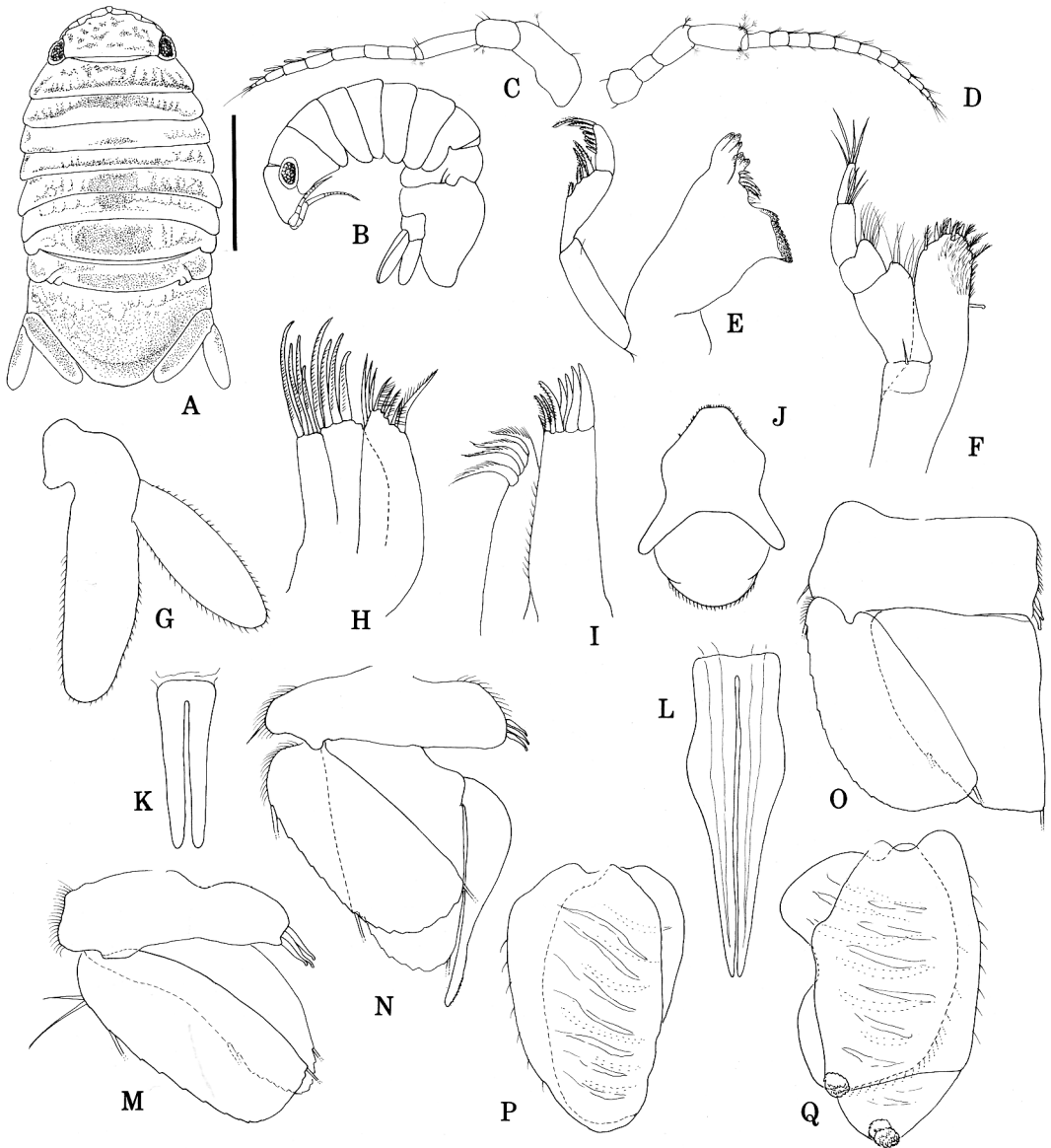
Diagnosis.—Sexes similar, cephalon and pereon smooth, pigmented; pleotelson domed, smooth, apex broadly truncate. Margins of uropodal rami entire. Appendix masculina of male broad proximally, tapering to narrowly rounded apex. Rami of penes elongate, widening in proximal half before tapering to narrowly rounded apices.

Description.—Adult male: Body length about 1.9 times greatest width. Cephalon broader than long, frontal margin undulat-

ing, rostral point small and acute. Frontal lamina narrowly truncate distally. Brown pigment pattern somewhat variable, strong in fresh specimens, densest on pleotelson. Pleon with two short suture lines reaching posterior margin. Pleotelson broadly triangular, domed, with apex broadly truncate in posterior view.

Antennule with basal article equal in length to articles 2 and 3 combined; flagellum of 9 articles; articles 5–8 each bearing single aesthetasc. Antenna with articles 1 and 2 subequal in length; article 3 shorter than 2; article 4 somewhat shorter than 2 and 3 together; article 5 longest; flagellum of 13 articles. Mandible having incisor of 3 cusps, spine row of 5 spines, 3 of which fringed, molar process with numerous small teeth; palp, article 2 having 4 fringed setae, terminal article with 7 fringed setae. Maxilla 1, inner ramus with 4 fringed setae, outer ramus with 4 stout spines and 4 slender, fringed spines. Maxilla 2 bearing 3 unarmed and 4 fringed spines on inner ramus; outer ramus having 4 fringed spines on each lobe. Maxillipedal endite with 1 coupling hook on mesial margin; dense, fine setae distally; distal margin with 5 blunt spines and several fringed setae; palp of 5 articles, articles 2 and 3 with distomesial lobe bearing several setae, article 4 longer and more slender than 3, article 5 short with terminal setae.

Pereopods with fringe of short setae on posterior margins of propodus, carpus and merus, very sparse on merus of pereopod 5. Pereopod 1, propodus and carpus each with single plumose seta at anterodistal margins; merus with anterodistal lobe bearing 3 long setae. Pereopod 2 slender, longer than 1; propodus with single plumose seta anterodistally; carpus with single plumose setae on posterodistal margin; merus having anterodistal lobe bearing 4 long setae; ischium with several long setae on anterior margin. Pereopods 3–7 equally robust, increasing in length posteriorly. Pereopod 3 shorter than 2; propodus with 2 fringed posterodistal spines; carpus triangular with



5251 Fig. 7. *Sphaeromopsis sanctaluciae*, new species: A, adult male, habitus. Scale = 1 mm; B, lateral view; C, antennule; D, antenna; E, mandible; F, maxilliped; G, uropodal rami; H, maxilla 2; I, maxilla 1; J, ventral cephalon; K, penes of sub-adult male; L, penes of adult male; M, pleopod 1; N, pleopod 2; O, pleopod 3; P, pleopod 4; Q, pleopod 5.

fringed spine at posterodistal corner; merus with small anterodistal lobe and single fringed, posterodistal spine. Pereopod 4, propodus having single plumose seta at anterodistal angle; carpus with single plumose seta at each distal margin; merus with an-

terodistal lobe bearing several long setae. Pereopod 5, carpus with single stout fringed spine at posterodistal margin; anterodistal lobe of merus having several long setae. Pereopod 6, carpus with plumose seta and stout fringed spine at antero- and poster-

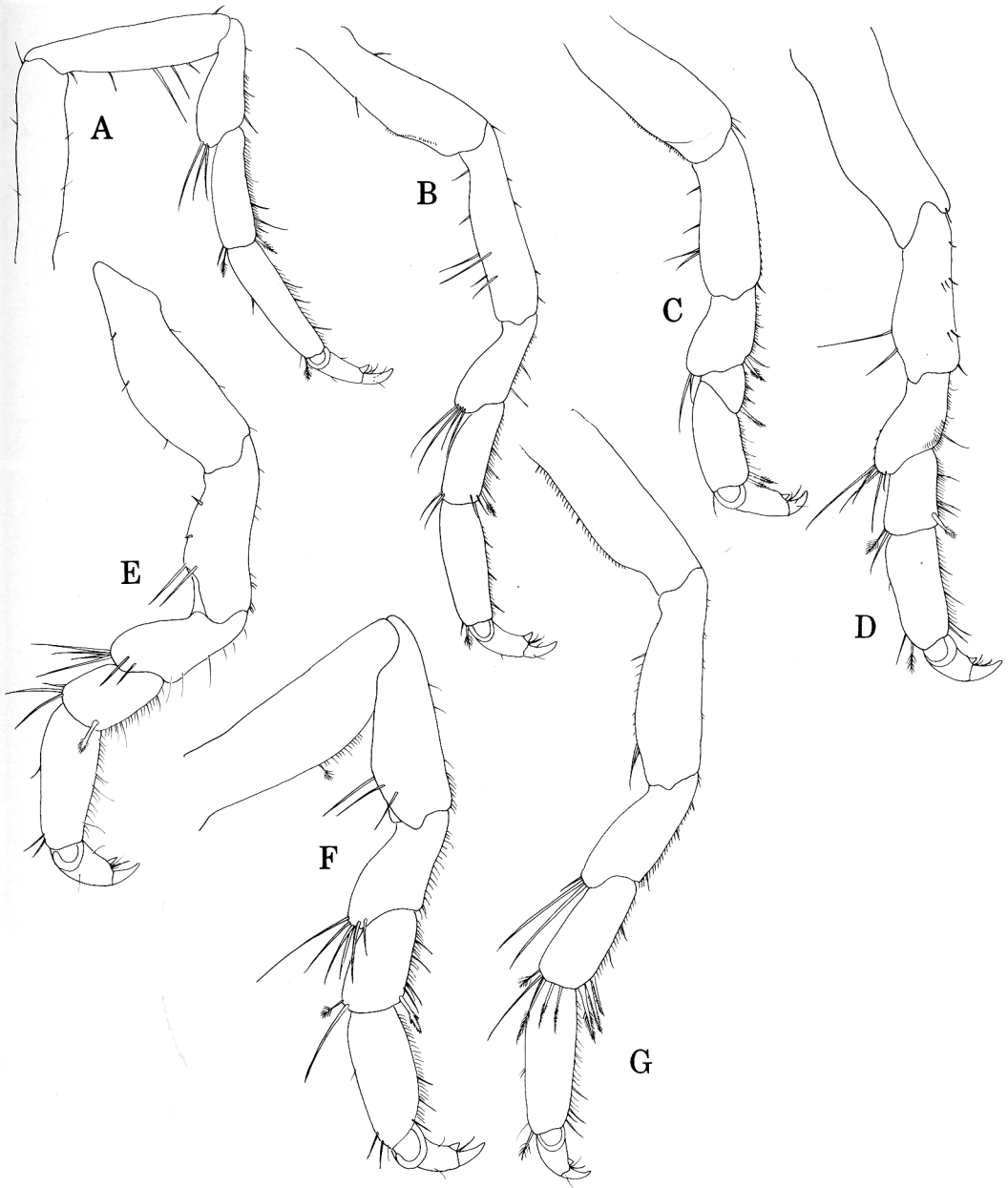
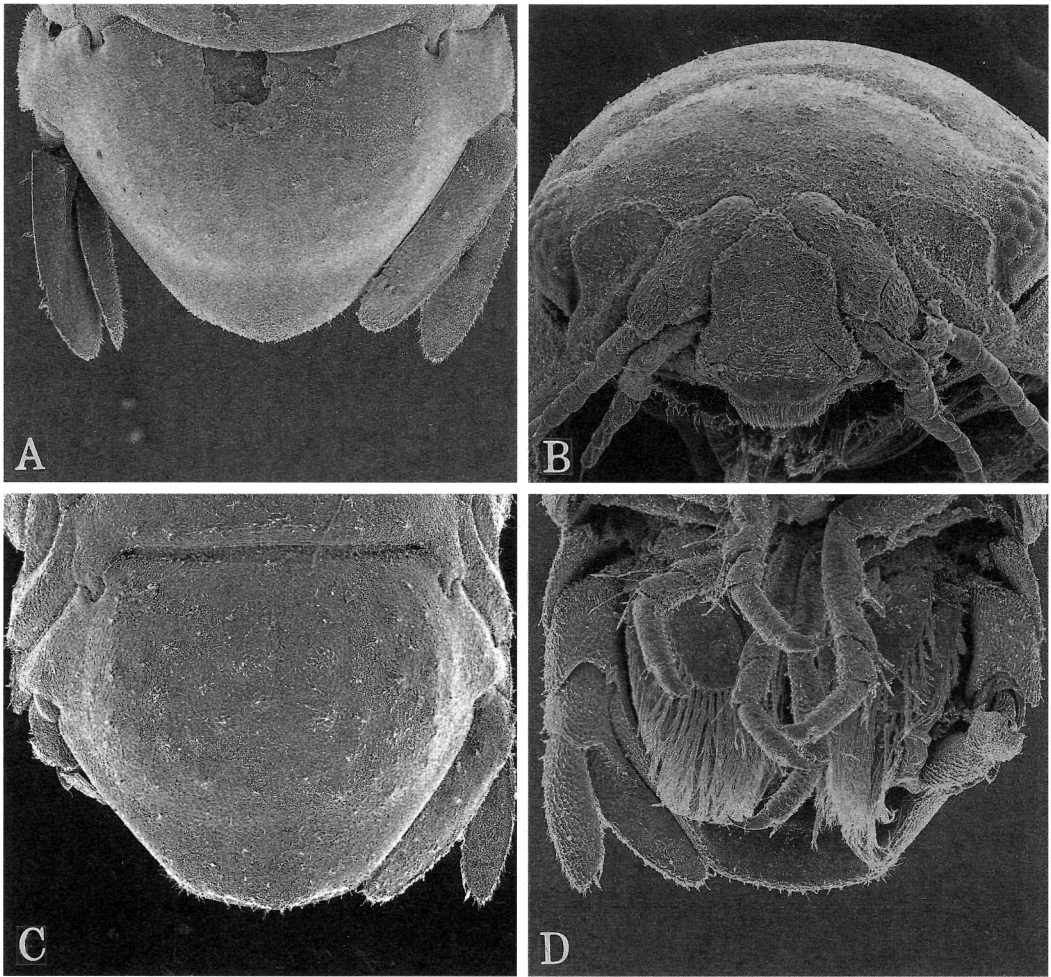


Fig. 8. *Sphaeromopsis sanctaluciae*, new species: A, pereopod 1; B, pereopod 2; C, pereopod 3; D, pereopod 4; E, pereopod 5; F, pereopod 6; G, pereopod 7.

odistal margins respectively; anterodistal lobe of merus with several long setae; ischium bearing 3 long setae on anterodistal margin. Pereopod 7, propodus with single plumose seta at anterodistal corner; distal margin of carpus with 3 fringed spines, 3

fringed, 2 unarmed, and 1 plumose setae; anterodistal margin of merus with 2 long and 1 short setae; ischium and basis with several setae on anterior margins.

Penial rami basally fused, elongate, widening at 1/3 length and tapering to narrowly



5251 Fig. 9. *Sphaeromopsis sanctaluciae*, new species: A, adult male, dorsal pleotelson; B, ventral cephalon; C, adult female, dorsal pleotelson; D, adult female, ventral pleotelson.

rounded apices. In subadult male, penial rami fused basally with subparallel margins and rounded apices. Pleopod 1, basis with 3 coupling hooks; exopod subrectangular in shape, slightly broader than endopod. Pleopod 2, basis and exopod as in pleopod 1; endopod broad, subrectangular; appendix masculina articulating basally, broad proximally, tapering to narrow apex extending somewhat beyond apex of endopod. Pleopod 3, basis broadly rectangular with 3 coupling hooks; endopod triangular without articulation; exopod somewhat ovate. Pleopod 4, both rami broad with transverse pleats. Pleopod 5, both rami with transverse

pleats and setae on mesial margins; exopod with transverse suture and 3 spinulose bosses. Rami of uropods subequal in length, margins entire, bearing short setae.

Female: As in male except in secondary sexual characters; generally smaller.

Remarks.—The new species is the seventh member of the genus to be described and the third from the western hemisphere, following *S. mourei* Loyola e Silva, 1960 and *S. heardi* Kensley & Schotte, 1994. Like *S. minutus* Javed & Yousef, 1995, it lacks the “dense pads of setae” on posterior margins of the pereopods, previously thought to be a generic character (Holdich

& Harrison 1981). The comparatively sparse nature of the setal fringe plus morphological details of the appendix masculina and penes serve to separate *S. sanctaluciae* from *S. mourei* and *S. amathitis* Holdich & Jones, 1973, both of which it superficially resembles. In contrast to the other two species, the appendix masculina in *S. sanctaluciae* is markedly inflated near the base and extends beyond the apex of the pleopod endopod.

Whereas almost all congeners have been collected from sandy beaches and intertidal habitats (Holdich & Harrison 1981), *S. sanctaluciae*, like *S. serriguberna* Holdich & Harrison 1981, can also tolerate low salinity, e.g., 2.5 ppt. in the St. Lucie River.

Etymology.—The species is named for its type locality, St. Lucie River.

Suborder Valvifera

Family Idoteidae

Erichsonella filiformis (Say, 1818)

Stenosoma filiformis Say, 1818:424.

Erichsonella filiformis: Kensley & Schotte, 1989:258, fig. 108c.—Camp et al., 1998: 137.

Material examined.—7 specimens, 1 ovigerous ♀, FTP-40, Sebastian Inlet State Park, clumps of *Caulerpa racemosa* and branching red alga on granite boulders inside of inlet, 0.5–1.0 m, 19 Sep 1996.—1 ♀, FTP-41, Sebastian Inlet State Park, south side, sheltered cove ca. 1/2 mile from mouth, small boulders with clumps of algae, 0.5–1 m, 19 Sep 1996.—3 ♀, 2 juvs., FTP-42, same locality, 50 yds. west of bridge, in *Caulerpa* sp., depth 6", 19 Sep 1996.—1 ♀, 1 juv., FTP-44, same locality, 50 ft west of bridge, mixed algae on sandy/shelly/rocky bottom, 0.5 m, 19 Sep 1996.—1 ♀, 4 juvs., FTP-51, Sebastian Inlet State Park, south side, granite boulder shore inside of bridge, algal clumps on boulders, 0.5 m, 25 June 1997.—2 ♂, 4 ♀, 7 juvs., FTP-52, same locality, south side, shallow embayment at camp site 1/2 mile from mouth in lagoon, algal clumps on stones

and rocks, 25 Jun 1997.—1 ♀, 1 juv., FTP-53, same locality, south side, boulders outside of bridge, algal clumps and sponge on boulders in strong wave and wash action, 0.5–1.0 m, 26 Jun 1997.—3 ovigerous ♀, 1 ♀, FTP-55, Sebastian Inlet State Park, lagoon near Coconut Point, algal clumps in shallow embayment, 1 m, 26 Jun 1997.—1 juv., FTP-65, Sebastian Inlet State Park, orange sponge on rocks at low tide level, inside of inlet, 0–50 cm, 18 Aug 1998.—1 ♀, FTP-68, same locality, gravel rubble, empty shells between rocks inside inlet, 0–20 cm, 18 Aug 1998.—1 ♂, FTP-69, same locality, algal turf mixed with hydroids on granite boulders inside inlet, 0–50 cm, 18 Aug 1998.

Previous records.—Brazil; Yucatan, Mexico; Puerto Rico; Turks & Caicos Is.; Bahamas; Gulf of Mexico; shallow infratidal–109 m.

Acknowledgments

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