

Fig. 16. *Cirolana crenulitelson*: A, Uropod; B, Pereopod 1; C, Pereopod 2; D, Pereopod 7; E, Pleopod 1; F, Pleopod 2; G, Pleopod 3; H, Pleopod 4; I, Pleopod 5.

of propodus; latter elongate-rectangular, with 3 pairs of small spines on posterior margin; carpus with entire distal margin bearing spines of varying length, some elongate and distally fringed, with group of 3 spines on posterior margin; merus with group of spines at antero- and posterodistal corners, former more elongate, group of 3 spines on posterior margin; ischium with group of anterodistal spines, group of 4 short posterodistal spines and several spines scattered on posterior margin.

Pleopods with all rami bearing marginal plumose setae. Pleopod 1 peduncle roughly rectangular, with 5 coupling hooks; endopod parallel-sided in proximal half; exopod ovate. Pleopod 2, peduncle with 4 coupling hooks; endopod with basally articulating copulatory stylet reaching by $\frac{1}{4}$ its length beyond rami, apically acute. Pleopods 3–5, exopods with indistinct transverse articulation at about midlength.

Uropodal exopod tapering, elongate-triangular, with 5 sensory spines on outer margin, 3 spines on medial margin, apically bifid, with short rounded tooth and longer acute tooth; endopod broad, somewhat tapering, with 3 spines on medial margin, 2 spines on outer margin, both margins with irregular serrations between spines, apically bifid, with 2 subequal triangular teeth.

Remarks.—The present species bears a close superficial similarity to *Cirolana obtruncata* Richardson, 1901, recorded from Jamaica, and Puerto Rico. Examination of the holotype of this species, as well as material from Puerto Rico and the Gulf of Mexico reveal several consistent differences. These include the posterior margin of the telson, which in *C. crenulitelson* is clearly crenulate, but entire in the earlier species; Richardson (1905:108, fig. 87b) figures spines on the posterior margin of the telson; these are not present in *C. crenulitelson*. The uropodal rami are distally broadly rounded in *C. obtruncata*, but tapering, marginally serrate, and distally acute-

bifid in *C. crenulitelson*. The overall size of the two species also differs: *C. crenulitelson* ovig. ♀ 6.2–6.8 mm, *C. obtruncata* ♀ up to 11.2 mm. The antennular flagellum has two fewer articles, the antennal flagellum six fewer articles in *C. crenulitelson*.

Etymology.—The specific name refers to the faint crenulations on the posterior margin of the telson.

Family Sphaeromatidae

Ancinus belizensis, new species

Figs. 17A, B, 18, 19

Material.—HOLOTYPE, USNM 211401, ♀ tl 2.8 mm; sta CBC-K-153, near Colson Point, north of Dangriga, Belize, sweepings in seagrass beds, 0.5 m, 20 Nov 1985.

PARATYPES, USNM 211402, 2 ♂ tl 4.1, 4.1 mm, 2 juvs. tl 2.4, 2.0 mm; sta AC-CBC-600, between Colson Point and Salt Creek, north of Dangriga, Belize, sweepings in seagrass beds, 0.1–0.2 m, 7 Jun 1981, coll. A. Cohen.

Description.—Male: Dorsal integument, especially of cephalon and pleon strongly pitted. Cephalon narrower than pereonites, line of fusion with pereonite 1 marked dorsally by impressed line; rostrum anteriorly rounded, about two-thirds middorsal length of rest of cephalon. Pereonites all of equal width; coxae in dorsal view becoming more elongate posteriorly, except for that of pereonite 7, latter shorter than preceding coxa. Pleon somewhat inflated, lateral margins convex, curled ventrally; posterior margin (apex of triangular pleon) narrowly truncate.

Antennule with basal peduncular article flexed at right angle, article 3 twice length of, but narrower than, article 2; flagellum of 12 articles, single aesthetasc on 7 distal articles. Antennal peduncular articles increasing in length distally, flagellum of 10 articles, numerous brush setae on anterior (medial) surfaces of peduncular and 4 proximal flagellar articles. Mandibular palp of 3 articles, article 2 about twice length of article 3, bearing 8' fringed spines; article 3

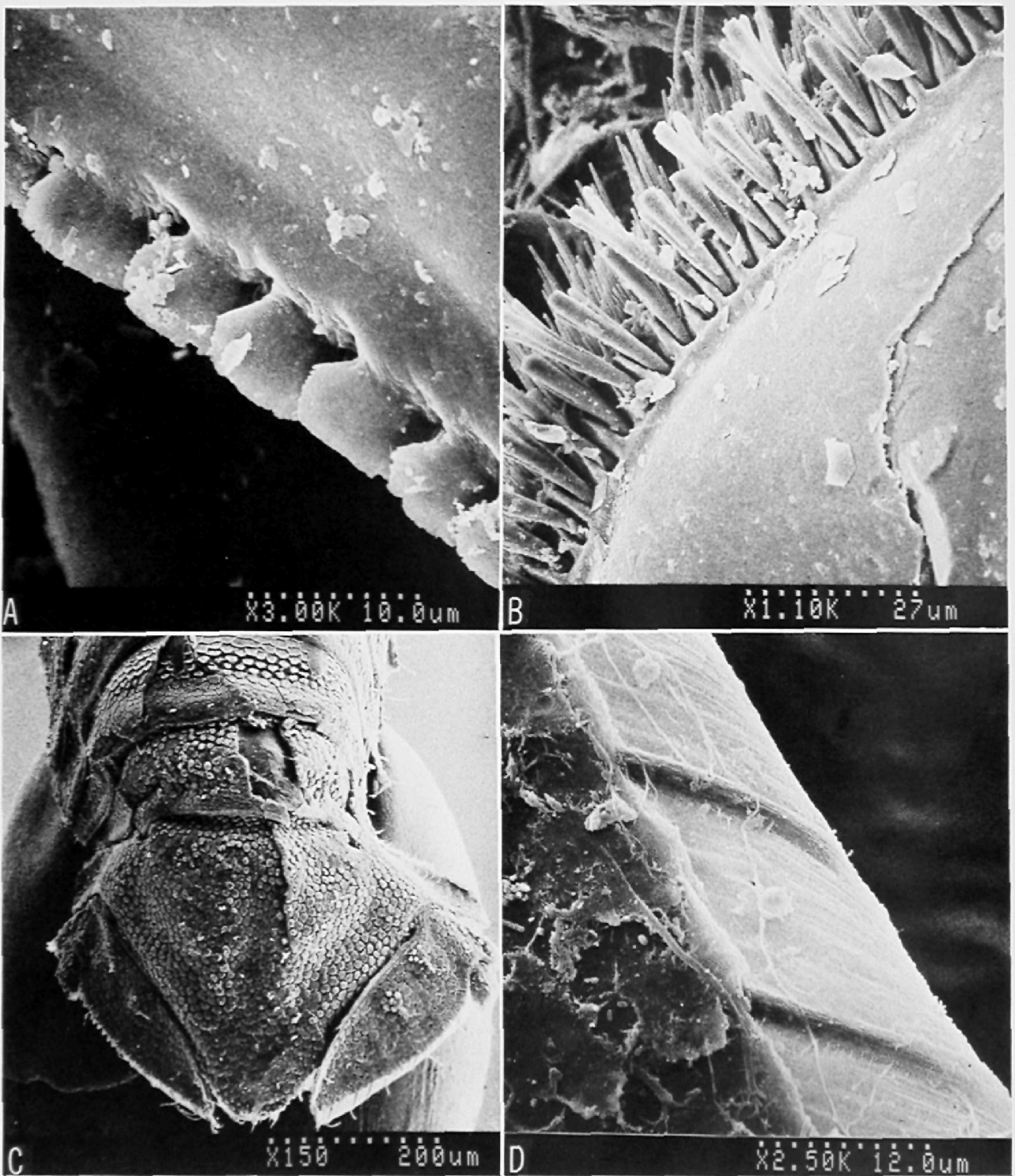


Fig. 17. *Ancinus belizensis*: A, Pereopod 1, tubercles of proximal cutting edge; B, Pereopod 1, spination of propodal margin. *Casidinidea mosaica*: C, Pleotelson in dorsal view; D, Fused setal fringe of uropod.

curved, bearing 5 fringed spines in distal half; left mandibular incisor of 3 sclerotized and 2 non-sclerotized cusps; lacinia mobilis non-sclerotized, with 2 distal cusps; spine row represented by single stout serrate spine.

Right mandibular incisor as in left, lacinia mobilis with 2 sclerotized cusps; spine row with 2 serrate spines. Maxilla 1, outer ramus bearing 4 stout serrate spines and 8 smaller and more slender simple spines distally.

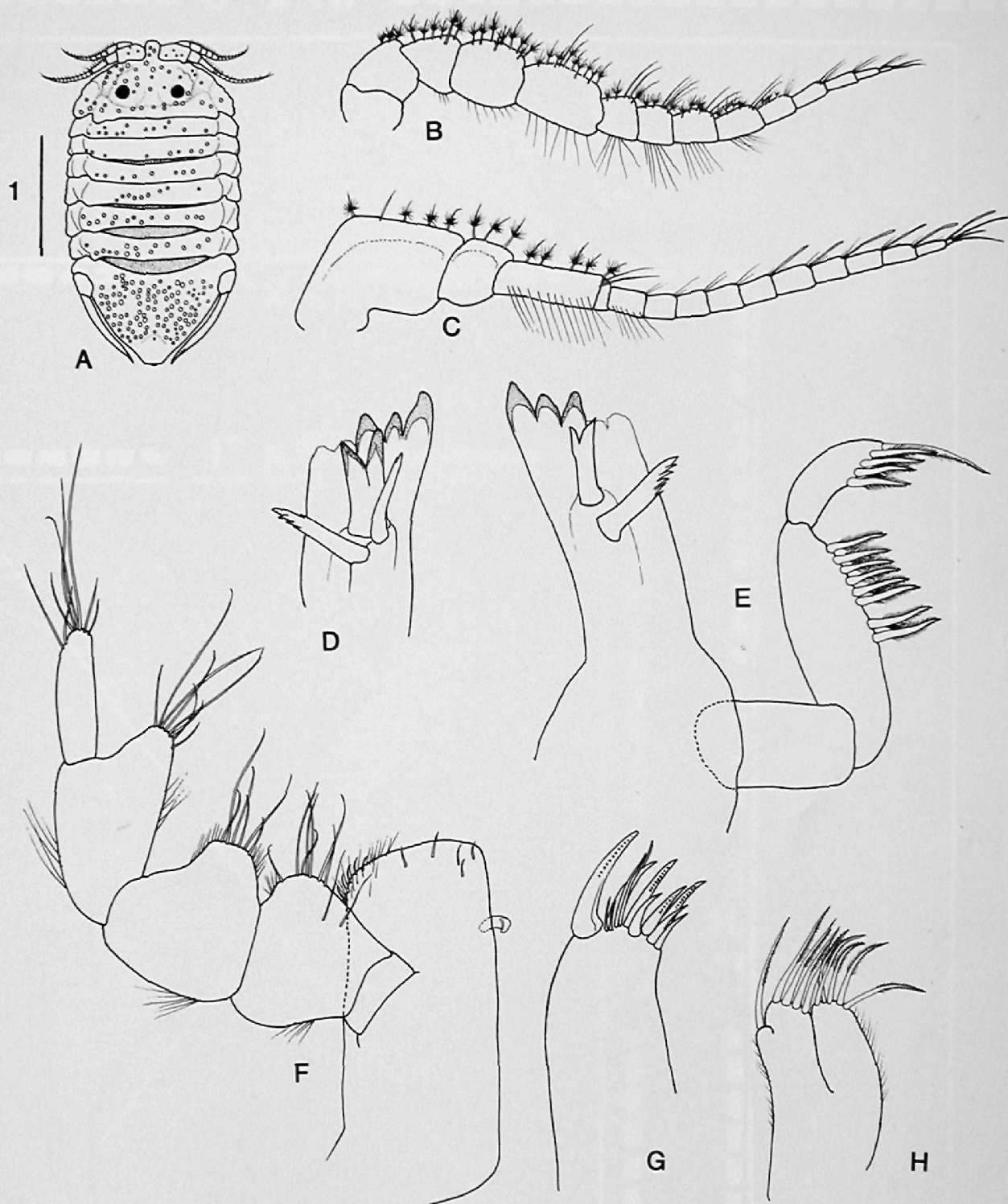


Fig. 18. *Ancinus belizensis*: A, Adult in dorsal view; B, Antenna; C, Antennule; D, Distal part of right mandible; E, Left mandible; F, Maxilliped; G, Maxilla 1; H, Maxilla 2.

Maxilla 2, inner ramus with 5 elongate fringed distal setae; outer ramus with 4 distal fringed setae, plus single setae on rudimentary outer lobe. Maxillipedal endite distally bluntly rounded to subtruncate; single

retinaculum on medial margin; basal palp article short, $2\frac{1}{2}$ times wider than long; articles 2-5 bearing elongate simple setae on anterior (medial) lobed margins; terminal article slender, $3\frac{1}{2}$ times longer than broad.

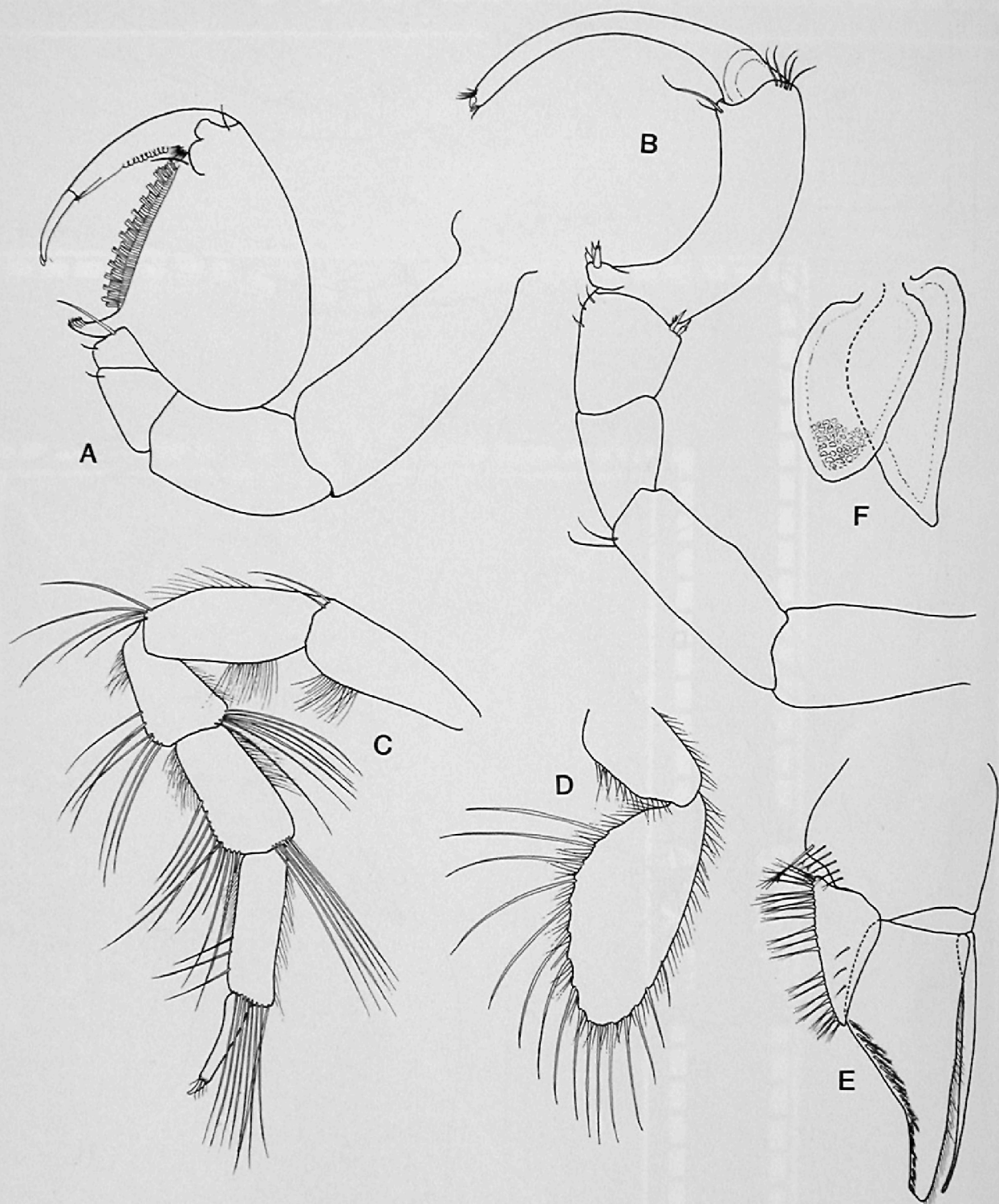


Fig. 19. *Ancinus belizensis* ♂: A, Pereopod 1; B, Pereopod 2; C, Pereopod 7; D, Pleopod 1; E, Pleopod 2; F, Pleopod 3.

Pereopod 1, unguis about half length of rest of dactyl, with elongate accessory spine at base; proximal half of dactyl bearing row of rounded scales on posterior margin; propodus proximally inflated; palm bearing

series of densely-packed long and short distally widened setae; proximal digitiform process curved, reaching beyond carpus. Pereopod 2, dactyl elongate, curved, tip reaching proximal lobe of propodus, latter

bearing 3 stubby spines; propodus strongly curved, palm strongly concave. Pereopod 7, dactyl $\frac{2}{3}$ length of propodus; latter parallel-sided, with about 8 elongate setae on distal margin; carpus, merus, and ischium each bearing elongate setae on antero- and posterodistal margins.

Pleopod 2, exopod triangular, less than half length of distally tapered endopod; copulatory stylet elongate-slender, just falling short of apex of endopod. Pleopods 3–5 typical of genus. Uropodal ramus reaching to pleotelsonic apex, tapering, following lateral margin of pleotelson closely, with faint distal flexure.

Remarks.—The present species differs from the five species discussed by Glynn and Glynn (1974) in several features:

In *A. panamensis* Glynn & Glynn, 1974, from Pacific Panama and Colombia, the dactyl of pereopod 2 of the male is short and closes on the propodus; in *A. belizensis* the dactyl closes (i.e., the apex reaches) the carpus. The antennular flagellum has 13 articles, the antennal flagellum nine (*A. belizensis*: 12 and 10 articles, resp.). The proximal digitiform process of pereopod 1 in the male is short (relatively elongate in *A. belizensis*). The two distal articles of the mandibular palp bear 9 and 10 setae as against 8 and 5 in *A. belizensis*. The coarse and obvious integumental pitting of the latter species is distinctive; the pitting in *A. panamensis* is finer and less obvious (see Brusca and Iverson 1985).

In *A. brasiliensis* Lemos de Castro, 1959, the pleotelson is as long as its basal width, and apically narrowly truncate; in *A. belizensis* the pleotelson is wider than long, more broadly truncate, and the dactyl of pereopod 2 of the male is relatively longer, reaching to the midlength of the carpus; the antennular flagellum has 14–16 articles, the antennal flagellum 8–10 articles.

Ancinus granulatus Holmes & Gay, 1909, of California (with its synonym *S. seticornus* Frask, 1970), has a densely granulate integument.

Ancinus depressus (Say, 1818) of the east coast of the U.S.A. and Gulf of Mexico is a large species (at least three times longer than *A. belizensis*), having the uropodal ramus distinctly shorter than the pleotelson.

Etymology.—The specific name refers to the country of Belize, where the present species, as well as several others in this paper, was collected.

Cassidinidea mosaica, new species

Figs. 17C, D, 20, 21

Material.—HOLOTYPE, USNM 211403, ♂ tl 1.8 mm; sta CBC-K-158, Carrie Bow Cay, Belize, rubble and coarse sediments at base of spur and groove buttress, 8–10 m, 24 Nov 1985.

PARATYPES, USNM 211404, 10 specimens (incl. 1 ovig. ♀ tl 1.6 mm); same data as holotype.—USNM 211405, 15 specimens (incl. 3 ovig. ♀ tl 1.5 mm); sta CBC-AC-610-B, Carrie Bow Cay, Belize, silty sand from patch reefs, 1.5 m, 14 Jun 1981, coll. A. Cohen.

Description.—Body oval in outline, about twice longer than wide. Dorsal integument finely tuberculate. Lateral margins fringed with transparent setose flange. Cephalon embedded in pereonite 1; eyes dorsal, well pigmented. Pereonites 2–7 subequal in length and width. Pleonite 1 free, middorsally somewhat inflated, with free lateral margin. Pleotelson triangular, basally slightly inflated, posteriorly apex narrowly rounded. Frontal lamina visible between antennal bases.

Basal antennular peduncle article flexed, rest of appendage directed laterally; 2 distal peduncular articles becoming progressively shorter; flagellum of 3 articles, distal article bearing single aesthetasc. Antennal peduncular articles becoming progressively longer distally; flagellum of 7 setose articles. Mandible with strong dentate molar, 4 spines in spine-row, 3 cusps in incisor; palp of 3 articles, article 2 with 2 distal fringed spines, article 3 with 5 distal fringed spines. Maxilla 1, inner ramus with 4 fringed setae, outer

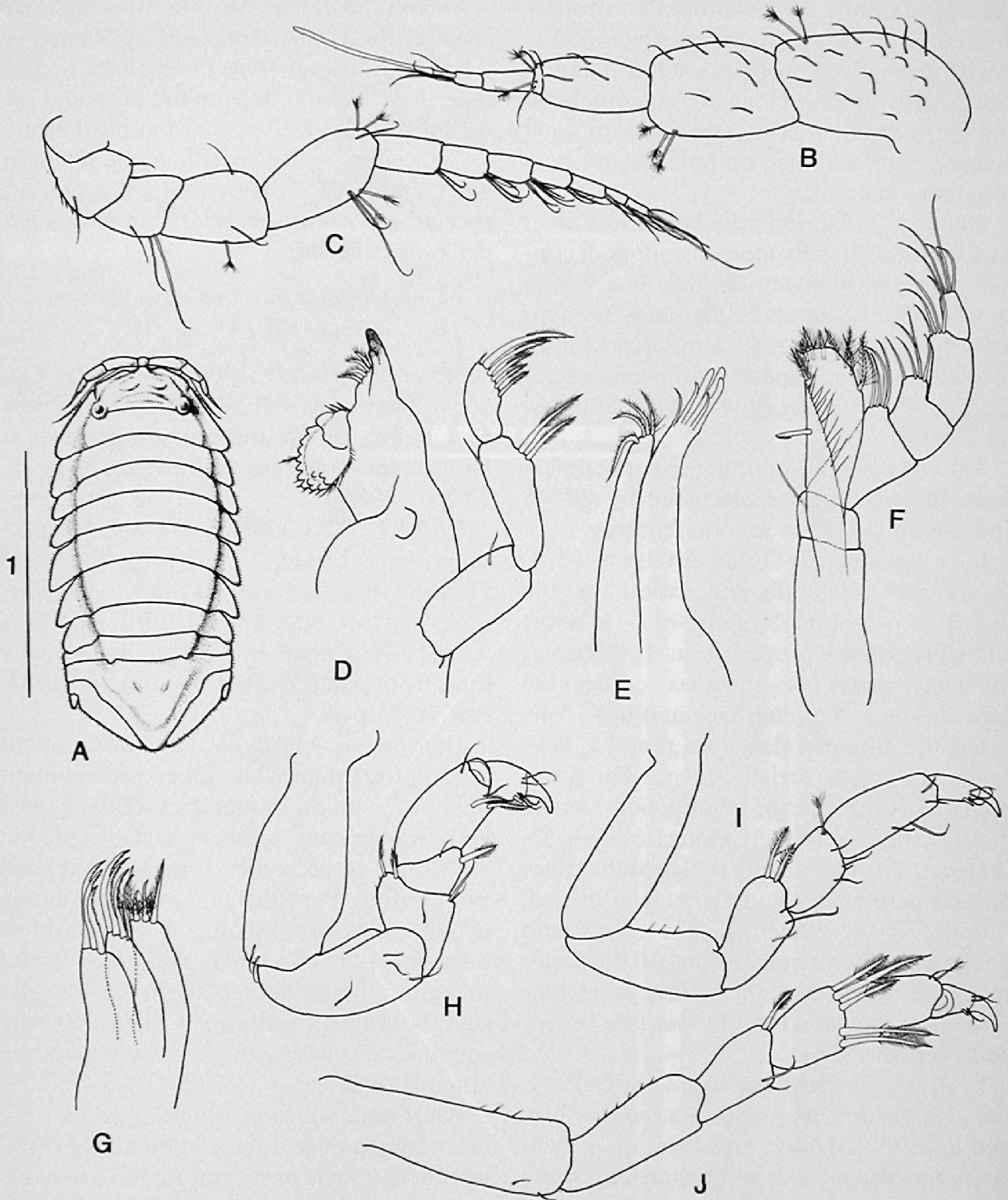


Fig. 20. *Cassidinidea mosaica*: A, Adult in dorsal view; B, Antennule; C, Antenna; D, Mandible; E, Maxilla 1; F, Maxilliped; G, Maxilla 2; H, Pereopod 1; I, Pereopod 2; J, Pereopod 7.

ramus with 3 broad and 3 slender distal spines. Maxilla 2, inner ramus with 5 distal fringed spines; inner lobe of outer ramus with 3 dentate spines and 1 simple spine, outer lobe with 3 dentate spines. Maxillipedal endite reaching to article 4 of palp,

distally rounded, with single retinaculum on median margin, several short fringed spines distally; palp articles 2–5 with several simple setae on low inner distal lobe.

Pereopods becoming progressively longer posteriorly. Pereopod 1 with unguis equal

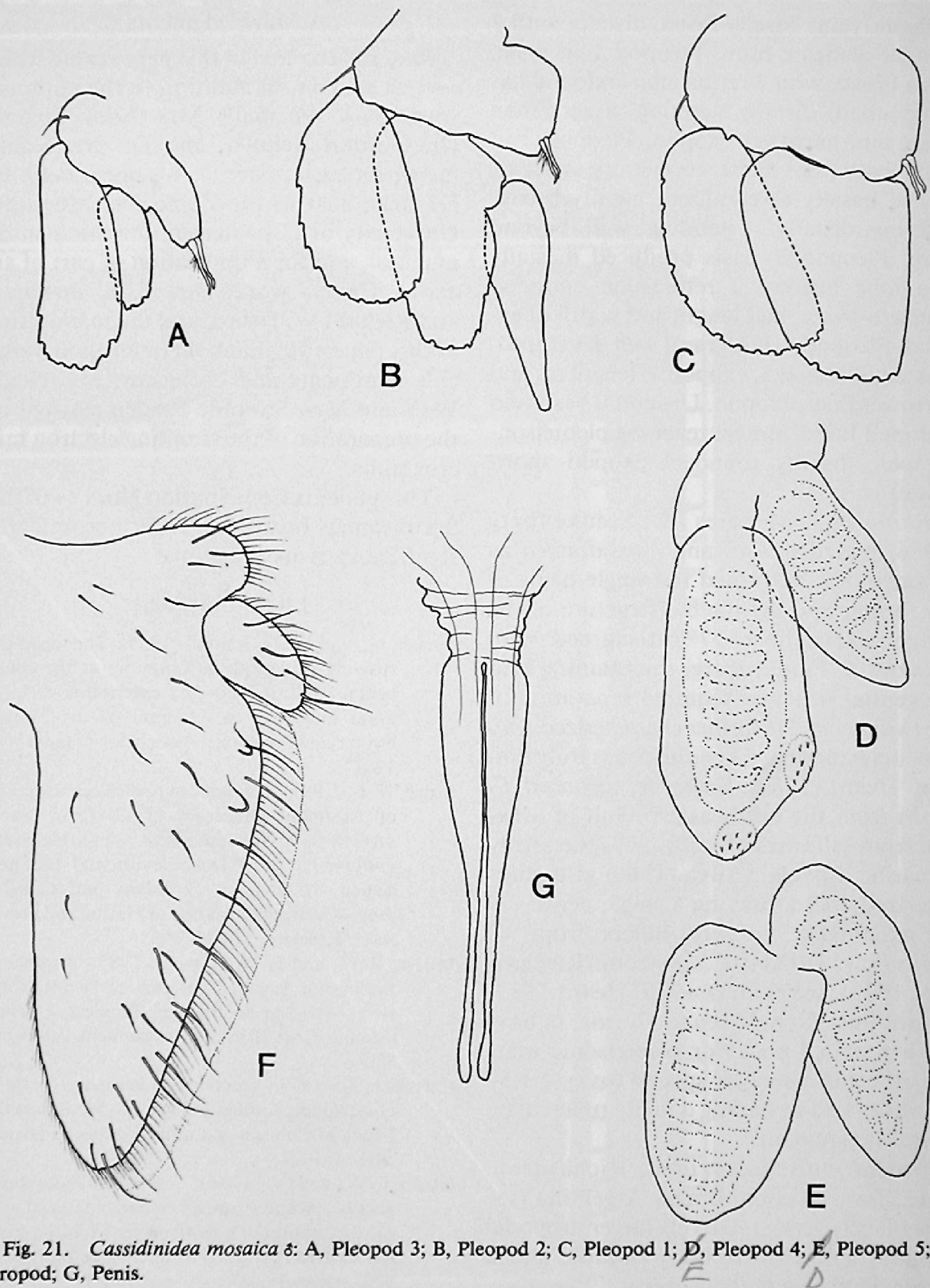


Fig. 21. *Cassidinidea mosaica* ♂: A, Pleopod 3; B, Pleopod 2; C, Pleopod 1; D, Pleopod 4; E, Pleopod 5; F, Uropod; G, Penis.

in length to rest of squat dactyl; propodus with 2 posterodistal spines; carpus triangular, with single posterodistal spine; merus with 2 anterodistal spines. Pereopod 2, dac-

tyl less squat than that of pereopod 1, propodus and carpus lacking spines. Pereopod 7, carpus rectangular with 2 posterodistal, and 3 anterodistal stout fringed spines.