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Revision of the genus *Gitanopsis* Sars 1895
with description of new genera *Afrogitanopsis*
and *Rostrogitanopsis* n. gen. (fam.
Amphilochidae) (Contribution to the knowledge
of the *Amphipoda* 104)

ABSTRACT

The revision of the genus *Gitanopsis* Sars 1895 is made and the detailed synonymy, distribution and short diagnosis of each species are made. A new species, *Gitanopsis petulans*, n. sp. from Bermuda Island is described and figured and the key to the species of genus *Gitanopsis* is presented.

The new genus *Afrogitanopsis* n. gen. is established for the species *G. paguri* Myers 1974 from Iwatine (Mombasa, Kenya), based on subchelate pereopods 3-7 and by progressively longer peduncular articles 1-3 of antenna 1.

The new genus *Rostrogitanopsis* n. gen. is established for the species *G. mariae* Griffiths 1973, from the South Africa (Inhaca Island, Santa Maria) based on the long probosciform rostrum, by simple gnathopod 2, by excavate lateral cephalic lobes and by shape of mandible palp.

INTRODUCTION

Thanks to prof. dr. B. Sket from the University of Ljubljana (Yugoslavia) I had a possibility to study one sample of genus *Gitanopsis* collected by dr. Iliffe from Bermuda's submarine caves. After

detailed study of the entire genus, it was established that the specimen from Bermuda belongs to the distinct new species, *Gitanopsis petulans*, n. sp.

The species *Gitanopsis mariae* Griffiths 1973 and *Gitanopsis paguri* Myers 1974, both known from Africa, differ from all other *Gitanopsis*-species by several generic characters, and two new genera, *Rostrogitanopsis* n. gen. and *Afrogitanopsis* n. gen. are established for them.

Acknowledgments. I am thankful to Dr. Boris Sket from the University of Ljubljana (Yugoslavia) and Dr. Thomas Iliffe from Bermuda for the loan of material used in this study.

PROBLEM OF GENUS GITANOPSIS

Genus *Gitanopsis* is established by Sars (1891/95) with the type species *G. hispinosa* (Boeck 1871), including in it two other species, *G. inermis* (Sars 1883) and *G. arctica* Sars 1895.

Later many other species were described i. e. removed to this genus: *G. squamosus* Thomson 1880, *G. pusilla* H. K. Barnard 1916, *G. inaequipes* Schell. 1926, *G. simplex* Schell. 1926, *G. tortugae* Shoem. 1933, *G. pusilloides* Shoem. 1942, *G. magdai* Reid 1951, *G. difficilis* J. L. Barnard 1961, *G. vilordes* J. L. Barnard 1962, *G. pele* J. L. Barnard 1970, *G. desomondi* J. L. Barnard 1972, *G. kupe* J. L. Barnard 1972, *G. subpusilla* Rabindr. 1972, *G. mariae* Griffiths 1973, *G. paguri* Myers 1974, *G. laguna* McKinney 1978.

We described here *G. petulans* n. sp. from Bermuda Island.

Genus *Amphilocheus* is very similar to the genus *Gitanopsis* Sars and differing from later only by non tritulative mandible molar. For this reason, some species of the genus *Gitanopsis* were considered for long time as members of the genus *Amphilocheus* or vice versa (*Amphilocheus marionis* etc.).

Within the genus *Gitanopsis* there are two groups of species regarding the shape of the maxilla 2: the species with maxilla 2 consisting of inner lobe much larger than outer one, provided with cca 10 distal setae; second group including species with inner lobe of maxilla 2 poorly larger than outer one, bearing only 3-4 distal setae. As the maxilla 2 of many *Gitanopsis* species is still poorly or completely unknown, it was impossible to divide the both groups of species into a distinct genera or subgenera.

The species *Gitanopsis mariae* Griffiths 1973, known from South Africa (Inhaca Island), differs from all other known *Gitanopsis*-species by probosciform rostrum, by simple gnathopod 2, by excavate lateral cephalic lobes and by the shape of the mandible palp; we created a new genus *Rostrogitanopsis* n. gen. for it.

The species *Gitanopsis paguri* Myers 1974 described from Iwaine, Kenya, differs from other *Gitanopsis*-species by subchelate pereopods 3-7 and by progressively longer peduncular articles 1-3 of antenna 1; we created a new genus *Afrogitanopsis*, n. gen. for it.

TAXONOMIC PART

AFROGITANOPSIS n. gen.

Type-species: *Gitanopsis paguri* Myers 1974.

Diagnosis: Body smooth, urosomites free. Rostrum short, lateral cephalic lobes normal. Coxa 1 hidden by coxa 2 partially, coxa 4 with large distoposterior lobe, coxa 5 remarkably shorter than 4.

Antennae 1-2 nearly subequal, short. Peduncular articles of antenna 1 progressively longer, ped. article 3 longer than 2; accessory flagellum small, 1-articulate.

Labrum unknown. Labium without inner lobes, outer lobes slightly excavated along inferior margin. Maxilla 1: inner lobe short, with one seta, outer lobe with cca 11 slender spines, palp 2-articulate, distal article dilated. Maxilla 2: lobes longer than broad, inner lobe larger than outer one bearing 10 setae, outer lobe with 4 distal setae. Maxilliped like that in *Gitanopsis*. Mandible: molar triturative, incisor toothed, palp 3-articulate, articles without setae, progressively longer.

Gnathopods 1-2 subchelate, gnathopod 1 smaller than gnathopod 2, both gnathopods with article 5 bearing distoposterior lobe (process), article 6 with well defined palm. Pereopods 5-7 stout, subchelate. Uropods 1-2 well developed, like that in *Gitanopsis*. Uropod 3 with slightly unequal rami, lanceolate. Telson short, entire, ovoid.

Taxons: only type-species is known.

Remarks: *Afrogitanopsis* differs from *Gitanopsis* Sars by subchelate pereopods 3-7 and by ped. articles 1-3 of antenna 1 progressively longer.

Afrogitanopsis paguri (Myers)

Syn.: *Gitanopsis paguri* Myers 1974: 33, fig. 1-2.

Short diagnosis: Rostrum reaching top of ped. article 1 of antenna 1. Lateral cephalic lobes subrounded, eyes present. Coxa 1 very small, coxa 2 dilated distally. Palpar articles of maxilliped stout, large, outer lobe poorly setose along inferior margin, inner lobe with 3 distal spines. Mandible-palp smooth, palp articles progressively longer. Article 5 of gnathopod 1 with lobe reaching 1/2 of posterior margin of article 6, that of gnathopod 2 almost

reaching the tip of posterior margin of article 6. Pereopods 3-7 with dilated article 6 forming with dactyl one subchela.

Epimeral plates subrounded. Uropods 1-3 with unequal rami. Inner ramus of uropod 3 slightly longer than outer one, both 1-articulate. Telson equal to about 1/2 the length of the peduncle of uropod 3, entire.

Type-locality: Iwatine, Mombasa (Kenya, E. Africa).

Localities cited: only type locality is known (4° 0.08' S, 39° 44.3' E).

Ecology: comensal on pagurid *Dardanus megistos* (Herbst) (*Decapoda*), attached to the body and in the branchial chambers of pagurid.

Genus GITANOPSIS Sars

Gitanopsis Sars 1891/5: 223; Della Valle 1893: 598; Stebbing 1906: 153; Chevreux 1912: 211; Schellenberg 1926: 301; Stephensen 1949: 6; Hurley 1955: 213; Barnard, J. L. 1962: 130; Barnard, J. L. 1969: 138.

Type-species: *Amphilocheus bispinosus* Boeck 1871 (orig. design.).

Diagnosis: Body laterally compressed, urosomites free. Rostrum short, not exceeding the tip of ped. article 1 of antenna 1, lateral cephalic lobes normal, eyes present.

Antennae 1-2 short, nearly subequal, ped. article 3 shorter than 2, accessory flagellum consisting of 0-2 articles, short. Coxa 1 small, hidden partially by coxa 2, coxae 2-4 very large, coxa 4 with well developed distoposterior lobe, coxa 5 remarkably shorter than 4.

Labrum symmetrically or asymmetrically incised. Labium without inner lobes, outer lobes with or without distal fingers. Maxilla 1: inner lobe short, with one seta, outer lobe with 7 spines intermixed with several slender spine-like setae, palp 2-articulate, usually dilated distally. Maxilla 2: inner lobe hardly to remarkably larger than outer one, bearing 2-10 setae. Maxilliped: both lobes well developed, outer lobe poorly spinose; palp 4-articulate, palp articles narrow or dilated, palp article 3 with or without distal fingers. Mandible with well developed incisor and triturative molar, palp 3-articulate, palp articles progressively longer, smooth or setose. Gnathopod 1 simple or subchelate, gnathopod 2 always subchelate; their article 5 with produced distoposterior lobe. Pereopods 3-7 normal, pereopods 5-7 with dilated, lobed article 2. Uropods 1-3 with well developed, lanceolate, unequal rami, inner ramus of uropod 3 slightly longer than outer one. Telson entire, ovoid, triangular to pentagonal.

Taxons: *arctica*, *bispinosa*, *desmondi*, *difficilis*, *inaequipes*, *inermis*, *kupe*, *magdai*, *pele*, *petulans*, *pusilla*, *pusilloides*, *simplex*, *squamosa*, *subpusilla*, *tortugae*, *vilordes*.*

KEY TO THE SPECIES OF GENUS GITANOPSIS*

- | | |
|--|-------------|
| 1. Metasomsegments 1-2 smooth | 2 |
| — Metasomsegments 1-2 with 1 dorsoposterior tooth each | |
| BISPINOSA | |
| 2. Gnathopod 1 simple, with article 6 without distinct defined palm | 3 |
| — Gnathopod 1 distinctly subchelate, with article 6 with distinct, well defined palm | 4 |
| 3. Posterior lobe of article 5 of gnathopod 2 not reaching 1/2 of posterior margin of article 6. Eyes large | SIMPLEX |
| — Posterior lobe of article 5 of gnathopod 2 reaching distoposterior tip of article 6. Eyes very small | INAEQUIPES |
| 4. Telson very long, more than twice longer than broad | 5 |
| — Telson short, less than twice longer than broad | 8 |
| 5. Lateral cephalic lobes broadly subrounded | ARCTICA |
| — Lateral cephalic lobes acute or toothed | 6 |
| 6. Distoposterior lobe (=process) of article 5 of gnathopod 2 short, reaching 1/2 of posterior margin of article 6 | SQUAMOSA |
| — Distoposterior lobe (=process) of article 5 of gnathopod 2 long, nearly reaching distoposterior tip of posterior margin of article 6 | 7 |
| 7. Telson much shorter than peduncle of uropod 3, less than 2.5 times longer than broad. Article 6 of gnathopod 2 strongly dilated distally | VILORDES |
| — Telson much longer than peduncle of uropod 3, 3 times longer than broad. Article 6 of gnathopod 2 poorly dilated distally | INERMIS |
| 8. Posterior lobe of article 5 of gnathopod 2 reaching up to 1/2 of posterior margin of article 6 | 9 |
| — Posterior lobe of article 5 of gnathopod 2 reaching 3/4 to 4/4 of posterior margin of article 6 | 10 |
| 9. Palm of gnathopods 1-2 smooth, non inclined, inferior margin of dactyl of gnathopods 1-2 smooth; posterior lobe of article 5 of gnathopod 2 reaching 1/3 of posterior margin of article 6 | PUSILLOIDES |

* During the press McKinney published also *Gitanopsis laguna* n. sp.

- Palm of gnathopods 1-2 serrate, inclined, inferior margin of dactyl of gnathopods 1-2 serrate; posterior lobe of article 5 of gnathopod 2 reaching 1/2 of posterior margin of article 6
DESMONDI
- 10. Palm of gnathopod 2 reaching 1/2 of posterior margin of article 6 11
 - Palm of gnathopod 2 reaching 1/3 to 2/5 of posterior margin of article 6 12
- 11. Article 6 of gnathopod 2 remarkably longer than broad
DIFFICILIS
 - Article 6 of gnathopod 2 hardly longer than broad, strongly dilated distally
MAGDAI
- 12. Inner lobe of maxilla 2 poorly larger than outer one, bearing 2-5 setae 13
 - Inner lobe of maxilla 2 much larger than outer one, bearing cca 10 setae 15
- 13. Eyes are smaller than the diameter of peduncle of antenna 1
TORTUGAE
 - Eyes are larger than the diameter of peduncle of antenna 1 . . 14
- 14. Epimeral plate 3 with pointed distoposterior corner. Accessory flagellum 1-articulate. Telson tapering and narrow distally
SUBPUSILLA
 - Epimeral plate 3 with subangular distoposterior corner. Accessory flagellum absent. Telson broadly subrounded distally
PETULANS
- 15. Article 6 of gnathopod 2 almost half as long as coxa 2
PELE
 - Article 6 of gnathopod 2 as long as or longer than coxa 2 . . . 16
- 16. Telson very short, less than half the length of peduncle of uropod 3
PUSILLA
 - Telson longer than half the length of peduncle of uropod 3
KUPE

Gitanopsis arctica Sars

Gitanopsis arctica Sars 1891/95: 227, pl. 77, fig. 2; Della Valle 1893: 599, pl. 59, fig. 9; Stebbing 1906: 155; Stappers 1911: 30; Stephensen 1925: 176; Stephensen 1938b: 161; Stephensen 1940: 28; Gurjanova 1951: 399, fig. 243; Dunbar 1954: 724; Shoemaker 1955: 13, fig. 3d-j, 4a-j; Barnard, J. L. 1958: 24.

Short diagnosis: Body smooth, eyes present, large, lateral cephalic lobes subrounded, accessory flagellum absent (?). Coxae 1-3 serrate ventrally. Labrum symmetrically incised; inner lobe of maxilla 2 much larger than outer one, with numerous setae (cca 10). Gnathopods 1-2 subchelate, narrow, with article 6 twice longer than broad, poorly inclined serrate palm, dactyl finely serrate along inferior margin. Posterior margin of article 2 of pereopods 5-7 almost smooth, entire. Epimeral plate 3 acute. Telson long, three times longer than broad, triangular, reaching top of peduncle of uropod 3. Oostegyts large.

Loc. typ.: Vadso in the Varangerfjord (Norway).

Localities cited: Norway (Varangerfjord), Vadso (Sars 1895), S. coast of Novaja Zemlja (70°20'N, 56°36'E, depth 90 m) (Stappers 1911), Matochkin Shar (Novaja Zemlja) (Gurjanova 1951), E. of Iceland (Faskrudfjord, depth 38-95 m), S. Greenland (Bredfjord, depth 16-17 m), Dungava Bay, depth 50 m (Canadian Eastern Arctic) (Dunbar 1954), Alaska (Point Barrow, depth 125-216 feet), Northumberland Island; Murchison Sound; North Greenland; Bay of Fundy (Shoemaker 1955).

***Gitanopsis bispinosa* (Boeck)**

Amphilochus Bispinosa Boeck 1871: 131.

Amphilochus bispinosus Boeck 1976: 435, pl. 10, fig. 1; Chevreux 1887: 299; Hansen 1888: 88.

Gitanopsis Bispinosus Robertson 1892: 214.

Gitanopsis bispinosa Sars 1891/95: 224, 690, pl. 76, fig. 2; Della Valle 1893: 598, pl. 59, fig. 6, 7; Vanhoffen 1897: 212; Norman 1900: 36; Stebbing 1906: 154; Stephensen 1913: 135; Stephensen 1925: 175; Stephensen 1926: 64; Stephensen 1928: 151, fig. 28, 17-20; Stephensen 1929: 91, fig. 22, 117; Oldevig 1933: 89; Stephensen 1938: 161; Gorbunov 1946: 43; Gurjanova 1951: 397, fig. 241; Barnard, J. L. 1958: 24; Oldevig 1959: 41; Barnard, J. L. 1969: 138.

Short diagnosis: Metasomsegments 1-2 with 1 dorso-median process. Eyes present, lateral cephalic lobes acute. Accessory flagellum absent. Labrum symmetrically incised. Outer lobe of maxilla 2 much larger than inner one, with numerous setae; Palp articles of mandible progressively longer, palp articles 2-3 setose. Gnathopods 1-2 subchelate, with article 5 bearing posterior lobe not reaching top of posterior margin of article 6, dactyl with numerous setae along outer margin, palm serrate, inclined. Article 2 of pereopods 5-7 finely serrate at posterior margin. Epimeral plate 3 angular. Rami of uropod 3 almost subequal. Telson more than twice

longer than broad, triangular, acute distally, reaching tip of peduncle of uropod 3.

Loc. typ.: Christianiafjord (Norway).

Localities cited: Christianiafjord; Haugesund; Hardangerfjord (Boeck 1871), Belle-Ile island, depth 70 m (Chevreux 1887), West Greenland (66°30'N.B., 54°50'V.L., depth 40 fathoms) (Hansen 1888), south and west coast of Norway; Trondhjemsfjord; Skraaven, Lofoten Islands (Sars 1895), off Blackwater-foot, Arran Island (Firth of Clyde), 20 fathoms, Great Britain (Norman 1900), Arctic Ocean, North Atlantic, North Sea, Skagerrak (Stebbing 1906), Oslofjord, Steeder (Stephensen 1926, 1928, 1929), Arctic Ocean (80°56'N, 72°29'E, depth 520 m) (Gorbunov 1946), Karsk Sea, northern part (Gurjanova 1951), Greenland (Sukkertoppen, 20-35 m), Norway (Alesund, 100-180 m) (Oldevig 1959).

***Gitanopsis desmondi* Barnard, J. L.**

Gitanopsis desmondi Barnard, J. L. 1972: 34.

Gitanopsis pusilloides Hurley 1955: 216, fig. 119-138 (not Shoemaker 1942).

Short diagnosis: Body smooth, eyes circular, lateral cephalic lobes broadly rounded, accessory flagellum 2-articulate. Inner lobe of maxilla 2 poorly larger than outer one, bearing 4 setae. Palp article 3 of mandible-palp with 4 distal fingers. Gnathopods 1-2 subchelate, with palm and inferior margin of dactyl finely serrate. Article 5 of gnathopod 1 reaching 2/3, that of gnathopod 2 1/2 of posterior margin of article 6. Epimeral plate 3 pointed. Rami of uropod 3 slightly unequal. Telson ovoid, less than twice longer than broad, obtuse distally.

Loc. typ.: New Zealand (Port Chalmers).

Localities cited: Kaikoura, 0.3-1.0 m depth; St. Clair, Dunedin; Leight (Barnard, J. L. 1972); Port Chalmers, New Zealand (Hurley 1955).

***Gitanopsis difficilis* Barnard, J. L.**

Gitanopsis difficilis Barnard, J. L. 1961: 76, fig. 45.

Short diagnosis: Body smooth, eyes irregularly ovoid, lateral cephalic lobes subrounded. Accessory flagellum vestigial, scale-like. Gnathopods 1-2 subchelate, with palm reaching 1/2 of posterior margin of article 6, microscopically pectinate, dactyl smooth. Article 5 of gnathopod 1 with posterior lobe reaching 1/2, that of gnathopod 2 reaching tip of posterior margin of article 6. Epimeral plate 3 with straight posterior margin and with sharply quadrate

distoposterior corner. Telson triangular, less than 2 times longer than broad.

Loc. typ.: Great Australian Bight (37°31'S, 138°44'E, depth 875 m, clay).

Localities cited: only type-loc. is known.

Gitanopsis inaequipes Schellenberg

Gitanopsis inaequipes Schellenberg 1926: 303, fig. 31; Stephensen 1949: 6; Barnard, J. L. 1958: 24.

Short diagnosis: Body smooth, lateral cephalic lobes triangular, eyes small, round. Coxae 1-3 partially serrate ventrally. Epimeral plate 3 with small ventroposterior tooth, posterior margin convex. Accessory flagellum absent. Labrum asymmetrically incised. Labium without distal fingers on outer lobe. Maxilla 2 like that of *G. squamosa*. Gnathopod 1 simple, without distinct palm, its article 5 with short posterior lobe. Gnathopod 2 subchelate, dilated distally article 6 with palm finely crenellated, its article 5 reaching tip of posterior margin of article 6; article 6 with palm reaching 1/3 of posterior margin of article 6. Rami of uropod 3 slightly unequal. Telson triangular, 2.5 times longer than broad.

Loc. typ.: Gauss-Station.

Localities cited: known only from type-loc.

Gitanopsis inermis (Sars)

Amphilocheus inermis Sars 1883: 87, pl. 3, fig. 10, 10a;

Gitanopsis inermis Sars 1981/95: 225, pl. 77, fig. 1; Della Valle 1893: 598, pl. 59, fig. 8; Vanhoffen 1897: 212; Norman 1900: 36; Stebbing 1906: 154, fig. 39; Brügger 1907: 10; Norman at Brady 1909: 308; Stephensen 1913: 135; Stephensen 1925: 175; Stephensen 1929: 91, fig. 22, 118; Uscakov 1931: 87; Stephensen 1938: 161; Stephensen 1940: 27; Stephensen 1944: 54; Gurjanova 1951: 398, fig. 242; Barnard, J. L. 1958: 24.

Gitanopsis (?inermis) Sars, Oldevig 1959: 42.

Amphilocheus oculatus Hansen 1888: 89, pl. 3, fig. 2-2c; Hansen 1895: 127; Scott 1899: 71; Stebbing 1906: 125.

Short diagnosis: Body smooth, lateral cephalic lobes acute, eyes ovoid. Accessory flagellum absent (?). Epimeral plate 3 acute, with straight posterior margin. Labrum slightly asymmetrically incised. Inner lobe of maxilla 2 much larger than outer one, with numerous setae. Palp of mandible with setose article 3. Gnathopods 1-2 subchelate, gnathopod 2 much larger than gnathopod 1,

both with serrate palm reaching $1/3-2/5$ of posterior margin of article 6. Article 5 of gnathopod 1 with posterior lobe reaching $1/2$, that of gnathopod 2 $4/4$ of posterior margin of article 6. Telson very long, much longer than peduncle of uropod 3, 3 times longer than broad, triangular.

Loc. typ.: Vadsö (Norway).

Localities cited: Vadsö, Finmark (coast of Norway, 20-50 fathoms) (Sars 1883, 1895), off Cullercoat, Northumberland (England) (Norman 1900), Greenland: Hekla Havn, 10-23 m (Hansen 1895), Kutdlek, 35 m (Stephensen 1944), Lille-Karajak Fjord (Vanhoffen 1897), Hurry Inlet (E. Greenland, 71°N), depth 38 m; W. of Greenland: $63^{\circ}30'\text{N}$, $54^{\circ}25'\text{W}$, depth 1096 m; $63^{\circ}57'\text{N}$, $52^{\circ}41'\text{W}$, depth 64 m (Stephensen 1925), Jan Mayen, depth 100 m; E. of Iceland, depth 72 m (Stephensen 1925), Sukkertoppen, depth 10-20 m; Gothaab, 47 m (Hansen 1888, Oldevig 1959), Novaja Zemlja (Uschakov 1931); E. Spitzbergen: Changing point in the Storfjord, $78^{\circ}29.5'\text{N}$, $20^{\circ}20'\text{E}$ (Brüggen 1907), Franz Joseph Land: West Bay, Cape Flora, depth 4-20 m; Cape Gertrude, 60 m (Scott 1899).

***Gitanopsis kupe* Barnard, J. L.**

Gitanopsis kupe Barnard, J. L. 1972: 34, fig. 6-7.

Short diagnosis: Body smooth, lateral cephalic lobes subrounded, eyes ovoid. Accessory flagellum 1-articulate, short. Labrum asymmetrically incised. Inner lobe of maxilla 2 much larger than outer one, bearing numerous setae. Third palp article of maxilliped with distal fingers. Dactyl of mandible palp smooth.

Gnathopods 1-2 subchelate, with palm serrate and reaching less than half of posterior margin of article 6, inferior margin of dactyl of gnathopods 1-2 finely serrate. Article 5 of gnathopod 1 with posterior lobe reaching $1/2$, that of gnathopod 2 reaching almost the top of posterior margin of article 6. Epimeral plate 3 acute, with straight posterior margin. Inner ramus of uropod 3 remarkably longer than outer one ($1/3$). Telson short, pentagonal, less than twice longer than broad, obtuse distally, reaching $1/2$ of peduncle of uropod 3.

Loc. typ.: Kaikoura, New Zealand.

Localities cited: known only from type-locality.

***Gitanopsis magdai* Reid**

Gitanopsis magdai Reid 1951: 224, fig. 23; Barnard, J. L. 1958: 24.

Short diagnosis: Body smooth, similar to *G. pusilla*. Lateral cephalic lobes and accessory flagellum not described. Eyes irregu-

larily rounded. Epimeral plate 3 produced into rounded lobe. Outer lobe of maxilla 2 poorly narrower than inner one, inner lobe with 3 setae only. Gnathopods 1-2 subchelate, gnathopod 2 much larger than gnathopod 1, trapezoid, hardly longer than broad, with palm serrate, reaching half of posterior margin of article 6, dactyl smooth. Article 5 of gnathopods 1-2 almost reaching posterior tip of article 6. Telson short.

Loc. typ.: coast of tropical West Africa, station 155 (region Cape Verde to Cape Palmas).

Localities cited: known only from type-locality.

Gitanopsis pele Barnard, J. L.

Gitanopsis pele Barnard, J. L. 1970: 40, fig. 9; Barnard, J. L. 1971: 78; Ledoyer 1972: 177, pl. 6; Ledoyer 1978: 216.

Short diagnosis: Body smooth, eyes ovoid, lateral cephalic lobes subrounded. Coxa 1 tapering distally, coxa 2 with distoposterior tooth. Accessory flagellum absent (?). Epimeral plate 3 slightly produced but with obtuse distoposterior corner. Labrum slightly asymmetrically incised. Inner lobe of maxilla 2 remarkably larger than outer one, with cca 10 setae. Palp of mandible smooth. Third palp article of mandible with distal fingers. Gnathopods 1-2 subchelate, trapezoid, article 6 of gnathopod 2 almost half as long as coxa 2. Article 5 of gnathopod 1 with posterior lobe reaching 1/2, that of gnathopod 2 nearly the tip of posterior margin of article 6. Palm of article 6 of gnathopods 1-2 reaching 1/3 of posterior margin of article 6, serrate; dactyl serrate along inferior margin. Telson short, less than twice longer than broad, triangular, obtuse distally, not reaching half of peduncle of uropod 3.

Barnard, J. L. mentioned that *G. pele* is similar with *G. tortugae* by accessory flagellum- and Ledoyer (1972) mentioned that *G. vilordes* of Ruffo 1969: 8 is maybe the same species.

Loc. typ.: Kanehona Bay, Oahu, depth 2 m (Hawaii islands).

Localities cited: loc. typ. (Barnard, J. L. 1970, 1971), Maurice Island (Ledoyer 1978), Madagascar: Tulear (Ledoyer 1972).

Gitanopsis petulaus n. sp.

figs. I-IV

Description: Male (?) 2 mm: Body smooth, urosomites free. Body laterally compressed. Coxa 1 short, as long as broad, with ventroanterior tooth (fig. III, 1), coxa 2 twice longer than coxa 1, dilated distally and with short distoposterior tooth (fig. III, 2); coxa 3 longer than coxa 2, with parallel lateral margins and with short distoposterior tooth (fig. IV, 3). Coxa 4 slightly longer than coxa 3,

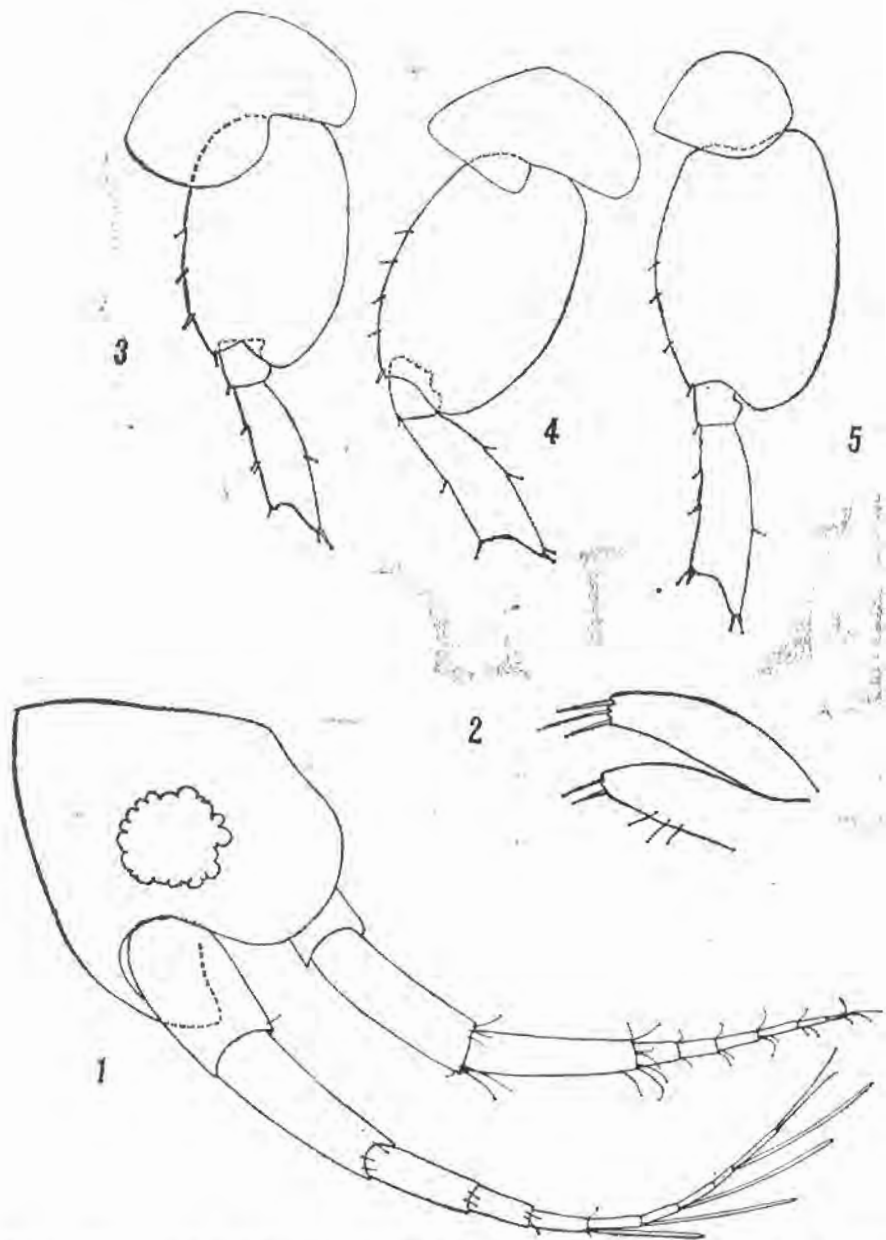


Fig. 1. *Gitanopsis petulans* n. sp., Walsingham, male 2 mm: 1 = head with antennae; 2 = maxilla 2; 3 = pereopod 5; 4 = pereopod 6; 5 = pereopod 7.

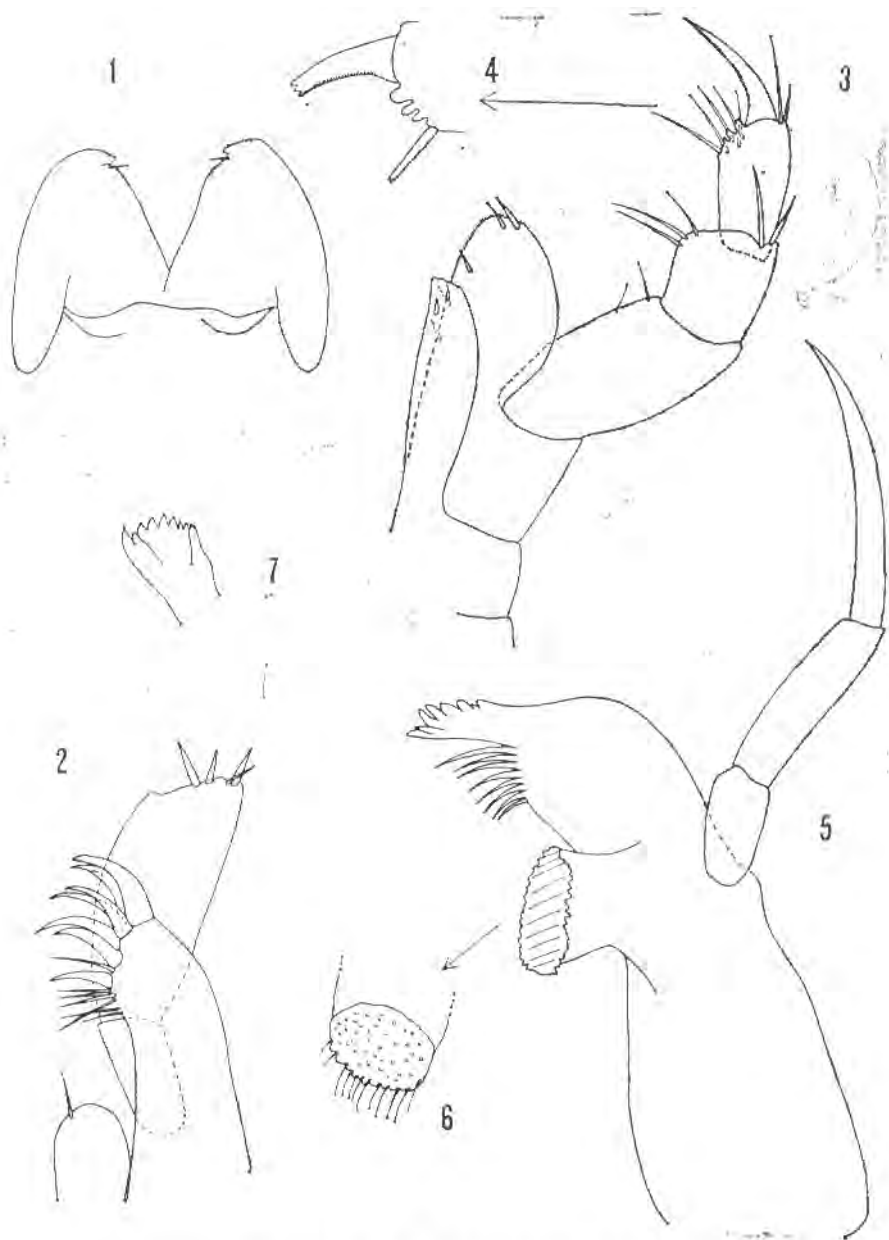


Fig. II. *Gitanopsis petulans* n. sp., Walsingham, male 2 mm: 1 = labium; 2 = maxilla 1; 3-4 = maxilliped; 5-6 = mandible; 7 = incisor.

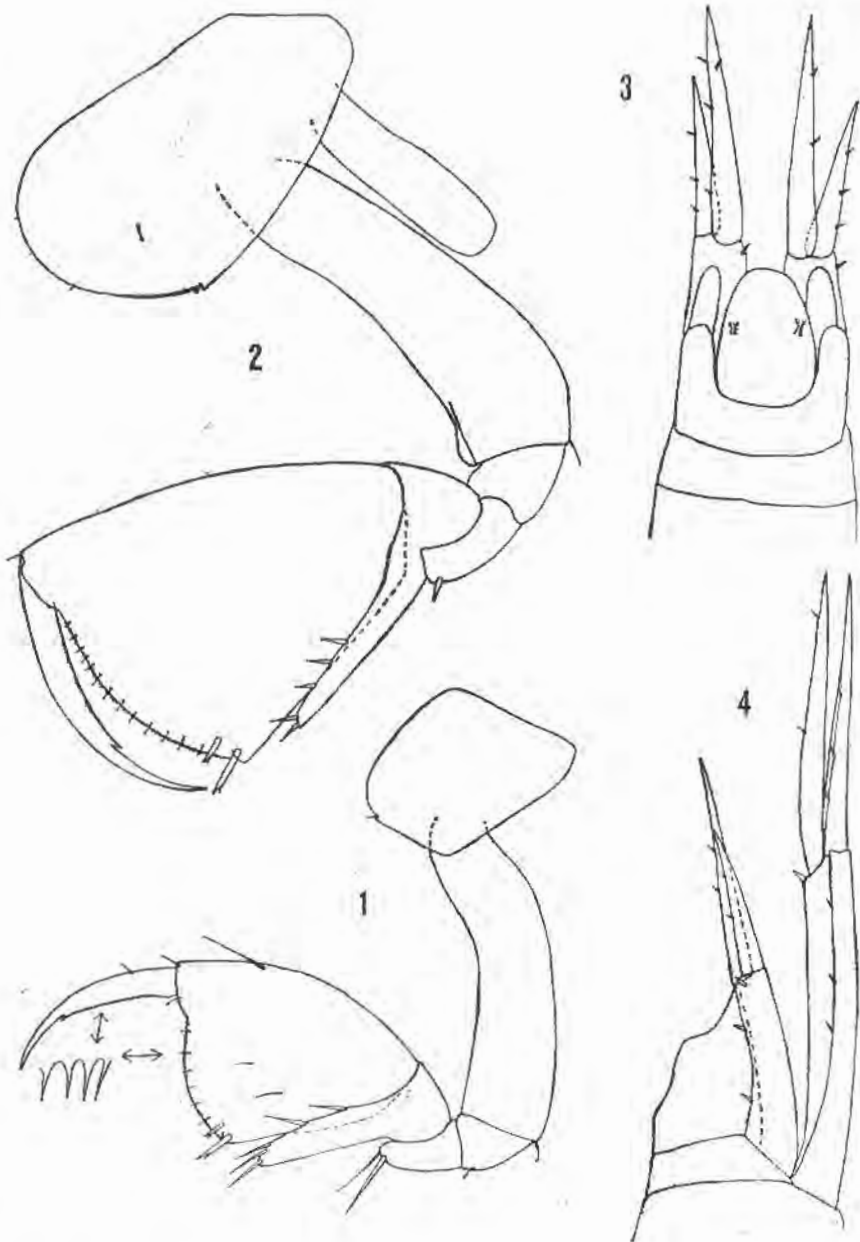


Fig. III. *Gitanopsis petulans* n. sp., Walsingham, male 2 mm: 1 = gnathopod 1; 2 = gnathopod 2; 3 = urosome, dorsal view; 4 = urosome, lateral view.

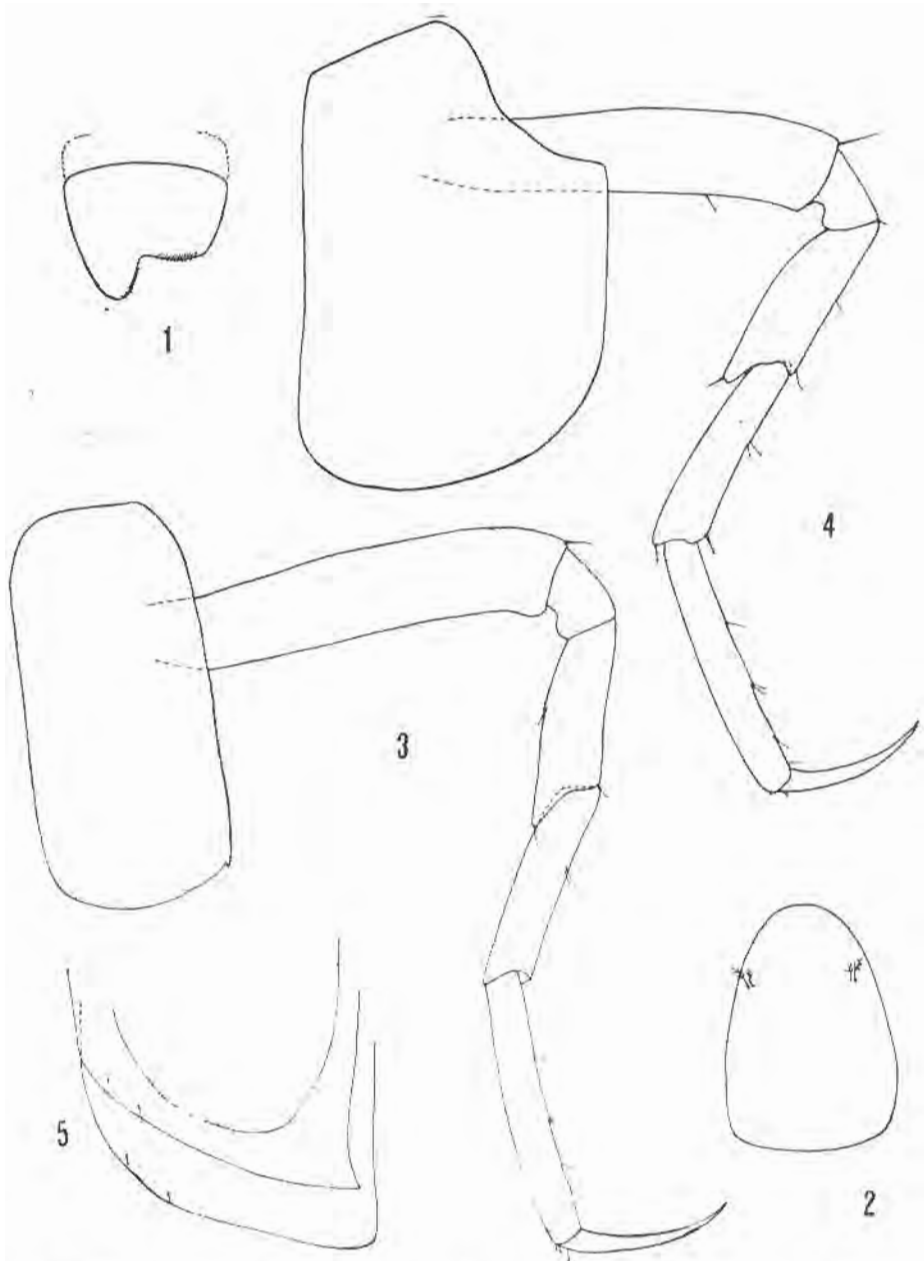


Fig. IV. *Gitanopsis petulans* n. sp., Walsingham, male 2 mm: 1 = labrum; 2 = telson; 3 = pereopod 3; 4 = pereopod 4; 5 = epimeral plates 1-3.

with large distoposterior lobe (fig. IV, 4), coxae 5-7 progressively shorter, coxae 5-6 bilobe (fig. I, 3, 4), coxa 7 entire (fig. I, 5).

Head with strong rostrum not reaching the tip of peduncle article 1 of antenna 1 (fig. I, 1), lateral cephalic lobes ovoid, ventroanterior sinus absent, eyes rounded, large (fig. I, 1).

Antennae 1-2 short, nearly subequal long. Antenna 1: ped. article 1 hardly shorter than ped. article 2, ped. article 3 slightly exceeding the half of ped. article 2; main flagellum 7-articulate, last 4 articles with 1 long aesthetasc each (fig. I, 1), accessory flagellum absent.

Antenna 2: ped. article 3 short, ped. articles 4-5 subequal, flagellum 6-articulate, poorly setose (fig. I, 1).

Labrum asymmetrically incised (fig. IV, 1). Labium with well developed outer lobes provided with distal finger, inner lobe absent (fig. II, 1).

Maxilla 1: inner lobe short, with one distal seta (fig. II, 2), outer lobe with 7 distal spines intermixed with 7 strong setae; palp 2-segmented, segment 2 dilated distally, with 3 distal spines. Left and right palps symmetric to each other.

Maxilla 2 with narrow lobes, similar to each other, inner lobe with 2 setae, outer lobe with 3 setae (fig. I, 2).

Maxilliped: inner lobe reaching half of first palp article (fig. II, 3), provided with 2 subdistal spines; outer lobe reaching tip of first palp article, with crenellated inferior margin bearing one strong distal and several lateral spine-like setae (fig. II, 3); palp 4-articulate, second article much shorter than first one (fig. II, 3), third article longer than second one, not lobed, bearing several fingers intermixed with setae (fig. II, 3-4); article 4 dactyl-like, as long as article 3, with short setules along inferior margin.

Mandible well developed, recurved distally: incisor strong, toothed (fig. II, 5, 7), molar very large and long, triturative (fig. II, 5-6); palp slender, 3-segmented, smooth, palp articles progressively longer, palp article 3 nail-shaped (fig. II, 5).

Gnathopod 1: article 2 narrow, smooth, articles 3-4 short; article 5 short, with long distoposterior process reaching $3/4$ of posterior margin of article 6, bearing 5 spines along inferior margin; article 6 trapezoid, slightly longer than broad (fig. III, 1), dilated distally, poorly setose; palm convex, finely crenellated, bearing several short setae along margin and defined by 2 corner spines; dactyl slender, finely crenellated along inferior margin provided with one subdistal tooth, outer margin with one short seta (fig. III, 1).

Gnathopod 2 much larger than gnathopod 1: article 2 elongated, articles 3-4 short; article 5 short, with long distoposterior process reaching nearly $3/4$ of posterior margin of article 6, provided with

a row of 5 spines along inferior margin (fig. III, 2); article 6 trapezoid, dilated distally, slightly longer than broad, with smooth lateral margins; palm convex, entire, finely crenellated, bearing a row of short setae along margin and defined by 2 corner spines; dactyl like that of gnathopod 1, with finely crenellated inferior margin.

Pereopods 3-4 similar to each other in the size and shape: articles slender, poorly setose (fig. IV, 3-4); article 4 with short distoanterior lobe, article 5 shorter than article 6; dactyl slender, exceeding 1/2 of article 6, smooth.

Pereopods 5-7: article 2 similar to each other, ovoid, without any spines or setae along posterior margin, with distinct posterior lobe; articles 3-4 narrow, poorly spinose; article 4-7 missing.

Pleopods normal, biramous, peduncle with 2 retinacula each.

Epimeral plate 1 subrounded, ep. plate 2 acute (fig. IV, 5), epimeral plate 3 produced but with subrounded distoposterior corner, all epimeral plates smooth, plates 2-3 with 2 short setae.

Uropods 1-2 long and slender. Uropod 1: peduncle hardly longer than rami, poorly spinose, distal spine short, rami subequal, pointed distally, bearing several small lateral spines each (fig. III, 4).

Uropod 2: it is much shorter than uropod 1: peduncle hardly shorter than inner ramus, outer ramus reaching 2/3 of inner one, both rami with several small lateral spines each.

Uropod 3 missing. Telson entire, short, less than twice longer than broad, ovoid, not reaching tip of peduncle of uropod 3 (fig. IV, 2), with 2 pairs of short plumose setae on dorsal surface.

Coxal gills normal, ovoid.

Material examined: Walsingham, (Bermuda Island), Dec. 12, 1978, one spec. (leg. Iliffe), cave with sea water.

Holotype is preserved in Karaman's collection in Titograd.

Remarks: *G. lagunae* differs from *G. petulans* by angular lateral cephalic lobes, long labrum, shape of coxae, epimere and uropods, etc.

***Gitanopsis pusilla* Barnard K. H.**

Gitanopsis pusilla Barnard, K. H. 1916: 144, pl. 26, fig. 11-12;

Barnard, K. H. 1925: 341; Schellenberg 1925: 140; Step-

hensen 1927: 589; Barnard, K. H. 1940: 444; Macnae 1953:

1025; Barnard, J. L. 1958: 24; Griffiths 1973: 277; Grif-

fiths 1974: 178; Griffiths 1974a: 273; Griffiths 1975: 105.

not *Gitanopsis pusilla* Stephensen 1949: 8, fig. 1.

? *Gitanopsis* aff. *pusilla* Vader 1972: 51.

Short diagnosis: Body smooth, lateral cephalic lobes subrounded, eyes ovoid. Epimeral plate 3 quadrangle. Accessory flagellum 1-articulate. Outer lobe of maxilla 1 with «14 spines» (pro-

bably 7 spines and 7 strong spine-like setae?). Inner lobe of maxilla 2 much larger than outer one, bearing numerous setae. Mandible palp smooth. Gnathopods 1-2 subchelate. Article 5 of gnathopod 1 with posterior process reaching $\frac{3}{5}$ of posterior margin of article 6, that of gnathopod 2 reaching almost the tip of article 6. Article 6 of gnathopods 1-2 longer than broad, poorly inclined palm serrate, dactyl serrate along inferior margin.

Telson short, pyriform, less than half the length of peduncle of uropod 3, rounded apically.

Loc. typ.: Buffels Bay (False Bay, South Africa).

Localities cited: Buffels Bay; St. James (False Bay); Sea Point near Cape Town, South Africa (Barnard, K. H. 1916); Cape Province, South Africa: 34°01'S, 25°45'E, depth 47 m; 32°33'S, 28°38'E, 55 m; 34°07'S, 23°31'E, 79 m; 35°08'S, 22°02'E, 125 m; 34°40'S, 21°39'E, 80 m; Outlet of Mbanyana River Estuary; Still Bay shore (24°23'S, 21°24'E) (Griffiths 1974a).

Atlantic coast of Cape Province: 33°S, 18°E, depth 0-29 m; 33°S, 17°E, depth 30-99 m; 34°S, 18°E (False Bay), 0-99 m (Griffiths 1975); Port Nolloth; Lambert's Bay; Still Bay (Barnard, K. H. 1940), off Cape Town, Lion's Head (Barnard, K. H. 1925); Cameroon (Souelaba) (?) (Stephensen 1927).

Southern Mocambique: 25°57'S, 33°02'E, depth 42 m; Sacó da Inhaca (Griffiths 1973);

Tristan da Cunha (Stephensen 1949, Macnae 1953), Nightingale (Stephensen 1949); W. Africa: Swakopmund; Lüderitzbucht, 0-10 m (Schellenberg 1925), Lüderitz (Penrith and Kenskey 1970).

The locality Chilka Lake, India (Chilton 1921, Sivaprakasam 1966, Vader 1972) probably regards a different species, *Amphilochus* sp.

Gitanopsis pusilloides Shoemaker

Gitanopsis pusilloides Shoemaker 1942c: 9, fig. 3; Barnard, J. L. 1958: 24; Barnard, J. L. 1969b: 188, fig. 17h-j.

? *Gitanopsis pusilloides* Barnard, J. L. 1969a: 83.

non *Gitanopsis pusilloides* Hurley 1955: 216, fig. 119-138.

Short diagnosis: Body smooth, lateral cephalic lobes subrounded, eyes round. Accessory flagellum (?), outer lobe of maxilla 2 poorly narrower than inner one, both lobes poorly setose. Mandible palp smooth, palp articles 2=3. Third palp article of maxilliped with 2 small distal fingers. Gnathopods 1-2 subchelate, with article 5 bearing short posterior process shorter than half of posterior margin of article 6. Article 6 of gnathopods 1-2 with non inclined smooth palm, dactyl with smooth inferior margin.

Epimeral plate 3 acute, with concave posterior margin. Telson less than twice longer than broad, ovoid, subrounded distally.

Loc. typ.: California: Bahia de Magdalena, 10-15 fathoms depth.

Localities cited: California: Loc. typ. (Shoemaker 1942), Bahia de Los Angeles, depth 9 m (Barnard, J. L. 1969b), Campbell station; Corona del Mar (Barnard, J. L. 1969a).

Gitanopsis simplex Schellenberg

Gitanopsis simplex Schellenberg 1926: 305, fig. 32.

Short diagnosis: Body smooth, lateral cephalic lobes triangular, with rather subrounded corner, eyes rounded, large. Epimeral plate 3 subrounded, posterior margin slightly convex.

Coxae 1-3 with one ventral tooth each. Accessory flagellum absent (?). Labrum asymmetrically incised. Inner lobe of maxilla 2 hardly larger than outer one, bearing small number of setae. Palp narrow, article 2=3, article 3 with one distal strong seta. Gnathopod 1 simple, gnathopod 2 subchelate. Article 6 of gnathopod 1 twice longer than broad, without distinct defined palm, dactyl serrate along inferior margin. Article 6 of gnathopod 2 linear, twice longer than broad, palm reaching 1/3 of posterior margin of article 6, finely serrate. Posterior lobe of article 5 of gnathopods 1-2 very short, not reaching 1/3 of posterior margin of article 6. Dactyl of gnathopod 2 finely serrate also.

Telson very long, triangular, nearly 2.5 times longer than broad, hardly exceeding tip of peduncle of uropod 3.

Loc. typ.: Gauss Station (Antarctic).

Localities cited: known only from type-locality.

Gitanopsis squamosa (Thomson)

Amphilochus squamosus Thomson 1880: 4, pl. 1, fig. 4; Thomson 1881: 214, fig. 5a-b; Della Valle 1893: 597; Stebbing 1906: 161; Chilton 1912: 479; Thomson 1913: 242; Chilton 1923: 240; Chilton 1923a: 84; non *Amphilochus squamosus* Stephensen 1927: 308.

Gitanopsis squamosa Schellenberg 1926: 301; Schellenberg 1931: 95; Hurley 1955: 213, fig. 91-118; Barnard, J. L. 1958: 24; Barnard, J. L. 1972: 36; Thurston 1974: 23; Thurston 1974a: 17; Bellan-Santini et Ledover 1974: 643, pl. 1B.

Gitanopsis antarctica Chevreux 1912a: 4; Chevreux 1912: 104, fig. 13-15; Barnard, K. H. 1932: 104; Stephensen 1947: 45; Stephensen 1949: 6.

Short diagnosis: Body smooth, accessory flagellum 1-articulate. Lateral cephalic lobes subrounded but provided with small median tooth. Labrum symmetrically incised. Inner lobe of maxilla 2 much larger than outer one, bearing numerous setae; palp articles 2-3 of mandible setose. Gnathopods 1-2 subchelate, alike in shape, with article 6 twice longer than broad, palm serrate, reaching $1/3$ of posterior margin of article 6. Article 5 of gnathopod 1 with posterior lobe reaching $1/3$ to $1/2$ of posterior margin of article 6, that of gnathopod 2 reaching $1/2$ of posterior margin of article 6; inferior margin of dactyl of gnathopods 1-2 serrate.

Telson long, triangular, 2.5 times longer than broad, almost reaching tip of peduncle of uropod 3.

Loc. typ.: Dunedin Harbour, New Zealand, depth 4-5 fathoms.

Localities cited: loc. typ. (Thomson 1881); New Zealand: Port Chalmers; Lyttelton (Hurley 1955), Eve Bay (Wellington), intertidal; Kaikoura; Clair, Dunedin; Leight (Auckland Marine Station); Huaroa Point, Whangaparaoa Peninsula (Auckland Prov.); Makorori Beach (NE. of Gisborne) (Barnard, J. L. 1972);

South Orkneys, Scotia Bay (Chilton 1912), Kerguelen (Schellenberg 1926), Puerto Pantalón; South Georgia off Grytviken (Schellenberg 1931); Scotia Bay; South Orkney Is., Wilhelmina Bay ($64^{\circ}30'S$, $62^{\circ}W$) (Hurley 1955), Otago Harbour (Thomson 1913);

Signy Island; Graham Land (Petermann Island, Port Lockroy); South Shetland Islands (Deception Island), 75 m; South Orkney Islands (Laurie Island); South Georgia (Cumberland Bay, 30-38 m); Magellan region (Kerguelen Island); Auckland Islands (Thurston 1974); Goudier Island, 0.5 m depth (Port Lockroy) (Thurston 1974a), Chat Island, baie du Morbihan (Kerguelen Is.) (Bell.-San. et Ledoyer 1974), Petermann Island, depth 3 m (Chevreux 1912, 1012a), South Georgia (Barnard, K. H. 1932), Graham region, depth 75 m (Deception), Port Lockroy, depth 20-30 m (Stephensen 1947), Tristan da Cunha; Inaccessible (Stephensen 1949).

***Gitanopsis subpusilla* Rabindranath**

Gitanopsis subpusilla Rabindranath 1972: 515, fig. 3-4.

Short diagnosis: Body smooth, lateral cephalic lobes subrounded. Accessory flagellum 1-articulate. Eyes ovoid, larger than the diameter of peduncle of antenna 1. Labrum asymmetrically incised. Inner lobe of maxilla 2 poorly larger than outer one, bearing small number of setae. Palp of mandible smooth. Gnathopods 1-2 subchelate, with article 6 slightly longer than broad, bearing crenellated palm reaching up to $1/2$ of posterior margin of article 6, dactyl serrate along inferior margin. Article 5 of gnathopod 1 with

process exceeding 1/2 of posterior margin of article 6, that of gnathopod 2 exceeding tip of article 6. Telson ovoid, short, less than twice longer than broad, obtuse distally. Epimeral plate 3 pointed.

Loc. typ.: Thankasserry, Quilon (Kerala, India).

Localities cited: known only from type-locality.

Gitanopsis tortugae Shoemaker

Gitanopsis tortugae Shoemaker 1933: 248, fig. 2.

Short diagnosis: Body smooth, eyes small, round, smaller than the diameter of peduncle of antenna 1. Accessory flagellum absent (?). Labrum asymmetrically incised. Inner lobe of maxilla 2 poorly larger than outer one, bearing 5 distal setae. Palp of mandible smooth. Gnathopods 1-2 subchelate, with article 6 trapezoid, bearing palm reaching 1/3 of posterior margin of article 6; inferior margin of dactyl and palm are serrate. Article 5 of gnathopod 1 with process reaching 1/2 of posterior margin of article 6, that of gnathopod 2 reaching almost the tip of article 6. Epimeral plate 3 subacute, with obtuse distoposterior corner and oblique posterior margin. Telson short, ovoid, less than twice longer than broad, obtuse distally.

Loc. typ.: Florida: Loggerhead Key, Tortugas.

Localities cited: only type-locality is known.

Gitanopsis vilordes Barnard, J. L.

Gitanopsis vilordes Barnard J. L. 1962: 131, fig. 6; Nagata 1965: 157; Barnard, J. L. 1966: 60; Barnard, J. L. 1969a: 83; Ruffo 1969: 8-9.

Short diagnosis: Body smooth, eyes large, larger than the diameter of peduncle of antenna 1. Accessory flagellum 1-articulate. Lateral cephalic lobes acute. Coxa 1 quadrate. Palp of mandible smooth. Gnathopods 1-2 subchelate, with article 6 trapezoid, poorly longer than broad, bearing palm finely serrate, reaching 1/2 of posterior margin of article 6. Dactyl finely serrate along inferior margin. Article 5 of gnathopod 1 with process reaching 3/4 of posterior margin of article 6, that of gnathopod 2 reaching tip of posterior margin of article 6. Epimeral plates probably like these of *G. pusilla*. Telson long, more than twice longer than broad, subacute distally.

Loc. typ.: Pt. Fermin, California, intertidal.

Localities cited: California: loc. typ. (Barnard, J. L. 1962), Dume canyon (submarine), depth 374 m (Barnard, J. L. 1966), Carmel; Cayucos; Pt. Dume; Corona del Mar; La Jolla, depth 0-27 m (Barnard, J. L. 1969);

Seto Inland Sea, Japan (Ono-Branch, Onoura, Hiroshima Pref., depth 0.8-3.9 m (Nagata 1965);

Red Sea: Romia Is. (Ruffo 1969).

Genus *ROSTROGITANOPSIS* n. gen.

Type-species: *Gitanopsis mariae* Griffiths 1973.

Diagnosis: Body smooth, urosomites free. Rostrum extremely large, probosciform, reaching tip of third ped. article of antenna 1. Antennae nearly subequal, short, peduncle article 3 of antenna 1 shorter than ped. article 2. Accessory flagellum absent. Lateral cephalic lobes excavate («quadrate» fide Griffiths). Coxa 1 very small, hidden by coxa 2, coxae 3-4 extremely large. Labrum and labium unknown. Inner lobe of maxilla 1 with 1 seta, outer lobe with 7 spines, palp 2-segmented, non dilated distally. Mx 2: inner lobe remarkably larger than outer one, bearing cca 11 spines. Maxilliped with well developed both lobes, palp 4-segmented.

Mandible: molar triturative, incisor toothed; palp 3-segmented, palp articles progressively longer, poorly setose, (palp article 3 lanceolate, dilated in the middle).

Gnathopods 1-2 feeble, simple, with article 5 much wider than article 6, bearing short distoposterior lobe. Pereopods 3-7 normal, article 2 of pereopods 5-7 dilated, lobed. Uropods 1-3 lanceolate, with unequal rami. Telson entire, narrow.

Taxons: only type-species is known.

Remarks: Genus *Rostrogitanopsis* differs from genus *Gitanopsis* by long probosciform rostrum, by simple gnathopod 2, by excavate lateral cephalic lobes and by shape of palp article 3 of mandible.

Rostrogitanopsis mariae (Griffiths)

Gitanopsis mariae Griffiths 1973: 275, fig. 4; Griffiths 1974a: 273.

Short diagnosis: Eyes present, coxa 4 with large distoposterior lobe, coxa 5 remarkably shorter than 4, bilobe. Second palp article of maxilla 1 with distal setae. Outer lobe of maxilla 2 with 4 setae, inner lobe with 11 setae. Maxilliped like that in genus *Gitanopsis*, inner lobe with several setae, outer lobe with 1 distal spine.

Gnathopods 1-2 similar to each other, gnathopod 1 slightly shorter but larger than gnathopod 2, with posterior lobe of article 5 not reaching 1/2 of posterior margin of article 6; palm non defined, dactyl smooth at inferior margin. Epimeral plates 1-3 produced

posteriorly, with subrounded/obtuse distoposterior corner. Telson long, 3 times longer than broad, but not reaching the tip of peduncle of uropod 3, triangular.

Loc. typ.: South Africa: Santa Maria, Inhaca Island.

Localities cited: loc. typ. (Griffiths 1973); Cape Province (South Africa): 35°22'S, 22°31'E, depth 200 m; 35°06'S, 22°15'E, depth 120 m (Griffiths 1974).

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Rezime

REVIZIJA RODA GITANOPSIS SARS 1895 SA OPISOM NOVIH RODOVA AFROGITANOPSIS I ROSTROGITANOPSIS N. GEN. (FAM. AMPHILOCHIDAE) (104. PRILOG POZNAVANJU AMPHIPODA)

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U radu su dati revizija roda *Gitanopsis* Sars 1895 (fam. *Amphiloichidae*, *Amphipoda*) i kratak opis, sinonimika i rasprostranjenje svake vrste ovog roda. Opisana je nova vrsta za nauku, *Gitanopsis petulans*, n. sp. iz pećina Bermuda otoka. Sastavljen je ključ za opredjeljivanje svih vrsta ovog roda.

Novi rod *Afrogitanopsis* n. gen. je opisan za vrstu *G. paguri* Myers 1974 iz Ivatine (Mombasa, Kenija). Ovaj rod se odlikuje posebnom građom trećeg do sedmog pereopoda i različitom dužinom segmenta drške prve antene (treći segment je duži od drugog segmenta).

Novi rod *Rostrogitanopsis*, n. gen. je opisan za vrstu *G. mariae* Griffiths 1973 iz Južne Afrike (Inhaka otok, Santa Maria). Ovaj rod se odlikuje jednostavnim drugim gnatopodom, jako usjećenim bočnim glavenim pločama, jako velikim rostrumom glave i specifičnim kopljastim oblikom trećeg segmenta palpusa mandibule.