DESCRIPTIONS OF STOMATOPOD LARVAE FROM THE ARABIAN SEA WITH A LIST OF STOMATOPOD LARVAE AND ADULTS FROM THE INDIAN OCEAN AND A KEY FOR THEIR IDENTIFICATION — PART II*

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ABSTRACT

Studies on stomatopods from seas around India have brought to light the need for an assessment of stomatopod fauna known from the Indian Ocean. No recent work fulfils this need and so an attempt has been made in the present paper to list all the known species of adults which are at present 115 from the Indian Ocean proper and to provide identification keys for them.

INTRODUCTION

The stomatopod fauna from the Indian Ocean region is fairly well known mainly due to the excellent monograph of Kemp (1913). He reported 97 species and varieties from the Indo-Pacific and 54 from seas around India. Under the Indo-Pacific region, he included all localities from Suez and S. Africa to Australia, New Zealand, Oceania and Japan.

The major contributions from the Indian Ocean region prior to Kemp's monograph are that of Lanchester (1903) in which he reported 2 species. In one of them, namely Gonodactylus chiragra, he described 21 varieties from the Maldive and Laccadive Archipelagoes many of which have been later given the specific rank. Tattersall (1906) reported 10 species from Sri Lanka. From the Western Indian Ocean, Borradaile (1907) reported 15 species.

Kemp (1913) treated the subject in great detail and his work was so comprehensive that not many publications of importance appeared on the subject after that year.

In 1921, Kemp and Chopra reported 15 species from the region under review. From the coral reefs of Krusadi Island in the Gulf of Mannar, Gravely (1927) reported two species. Chopra (1934) reported 13 species from the Sandheads, off the mouth of the Hugli River. The John Murray Expedition collected 16 species and varieties which have been reported by Chopra (1939). Holthuis (1941) reported 14 species from the collections of the Snellius Expedition. In his report on the stomatopods from South Africa, Barnard (1950) reported 17 species. Tiwari and Biswas (1951) described two new species and added notes on 8 species. From the Karachi Coast, Baig (1954) reported 4 species.

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The Australian stomatopod fauna is fairly well known through the works of Stephenson and Mc Neill (1955) and Manning (1966) who reported 48 species.

Manning (1962) reported 10 species collected by the Yale Seychelles Expedition. The stomatopods occurring in the Red Sea have been reviewed by Ingle (1963) who lists 20 species. Holthuis (1967) reported 20 species from Red Sea, of which two were new to science, and most of the specimens reported there were collected by the 1962 and 1965 Israel South Red Sea Expeditions. Chhapgar and Sane (1966) published a key to stomatopods of Bombay, listing 17 species. From Madagascar, Manning (1968) reported 28 species of which six were new to science.

In an important contribution from Madras Coast on the post-larvae Alikunhi (1967) reported 18 species. The extensive studies mainly pertain to the detailed description of post-larval stages, frequency of molts, growth and age at different sizes. The studies also include observations on shrinkage in length during metamorphosis, relative sizes of adults and post-larvae, the post-larval characters and their relation to adult characters, relative growth during post-larval stages, duration of post-larval stages and inter-generic relationships in stomatopods.

In the present account a check list with keys for identification of all the known species of adult stomatopods from the Indian Ocean region is given for the first time. The 115 species listed below fall under 27 genera of 4 families. The area covered is roughly from 20°E to 125°E and 45°S. The following publications have been mainly consulted for the preparation of the keys presented here and liberal use is made of them; Miers (1880); Kemp (1913); Stephenson and Mc Neill (1955); Ingle (1963); Manning (1966, 1968, 1968 a). Keys to families and genera are from Manning (1968 a). The key to species of Gonodactylus is compiled from Manning (1966, 1967 a) incorporating the new species described in 1968. The keys for the species belonging to the following genera are reproduced as such from the following sources, Odontodactylus from Manning (1967 b); Acanthosquilla, Lysiosquilla, Clorida and Harpiosquilla from Manning (1968). The keys for the species of the following genera include all the species so far known; Odontodactylus, Carinosquilla, Clorida, Harpiosquilla and Squilloides. The genera Bathysquilla, Eurysquilla, Hoplosquilla, Austrosquilla, Coronula, Nannotaquilla, Dictyosquilla, Leptosquilla, Lophosquilla and Piergosquilla are known from a single species in the Indian Ocean and only these are mentioned here. The species which were recently described have been included at appropriate places in the keys.

In the recent years, many revisions of the group have appeared at the generic and family levels and a large number of new species have been described from different parts of the world. In all about 275 species of stomatopods are recognised at present and the number is increasing, indicating that there are still many undescribed ones.

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LIST OF SPECIES OF STOMATOPODA KNOWN FROM THE INDIAN OCEAN

1. **Bathysquillidae** Manning, 1968
   1. 1 **Bathysquilla** Manning, 1963
      (1) **Bathysquilla crassispinosa** (Fukuda) 1910
      (2) **Eurysquilla** Manning, 1963

2. 2 **Gonodactylus** Berthold, 1827
   (3) **G. bicornatus** Manning, 1968
   (4) **G. chalactus** (Fabricius) 1781
   (5) **G. chaperoni** Manning, 1967
   (6) **G. chasemeyr** Manning, 1967
   (7) **G. duryi** Henderson, 1893
   (8) **G. fujinari** (Forsskål) 1775
   (9) **G. gratus** (Miers) 1880
   (10) **G. hendersoni** Manning, 1967
   (11) **G. helminth** Manning, 1967
   (12) **G. hermannii** Manning, 1967
   (13) **G. hominiformis** Wood-Mason, 1895
   (14) **G. nipponicus** Manning, 1967
   (15) **G. smithii** Pocock, 1893
   (16) **G. spicatus** Wood-Mason, 1895
   (17) **G. sulcatus** Wood-Mason, 1895

2. 3 **Hoplosquilla** Holthuis, 1964
   (18) **Manningia** Serene, 1962
   (19) **M. pilaensis** (de Man) 1888
   (20) **M. acanthurus** (Tattersall) 1906
   (21) **M. crinitus** (Manning) 1962
   (22) **M. drepanophorus** (de Man) 1902
   (23) **M. fimbriatus** (Lenz) 1905
   (24) **M. herdmani** (Tanersall) 1906
   (25) **M. brevisquamatus** (Paulson) 1875
   (26) **M. crenulatus** (Miers) 1880
   (27) **M. crenulatus** (Miers) 1880
   (28) **M. crenulatus** (Miers) 1880
   (29) **M. crenulatus** (Miers) 1880
   (30) **M. crenulatus** (Miers) 1880
   (31) **M. crenulatus** (Miers) 1880
   (32) **M. crenulatus** (Miers) 1880
   (33) **M. crenulatus** (Miers) 1880
   (34) **M. crenulatus** (Miers) 1880

2. 4 **Mesacturus** Miers, 1880
   (20) **M. brevisquamatus** (Paulson) 1875
   (21) **M. crenulatus** (Miers) 1880
   (22) **M. crenulatus** (Miers) 1880
   (23) **M. crenulatus** (Miers) 1880
   (24) **M. crenulatus** (Miers) 1880
   (25) **M. crenulatus** (Miers) 1880
   (26) **M. crenulatus** (Miers) 1880
   (27) **M. crenulatus** (Miers) 1880
   (28) **M. crenulatus** (Miers) 1880
   (29) **M. crenulatus** (Miers) 1880
   (30) **M. crenulatus** (Miers) 1880
   (31) **M. crenulatus** (Miers) 1880
   (32) **M. crenulatus** (Miers) 1880
   (33) **M. crenulatus** (Miers) 1880
   (34) **M. crenulatus** (Miers) 1880

2. 5 **Odontodactylus** Bigelow, 1893
   (25) **O. brevis** (Fabricius) 1781
   (26) **O. brevirostris** (Fabricius) 1781
   (27) **O. brevirostris** (Fabricius) 1781
   (28) **O. brevirostris** (Fabricius) 1781
   (29) **O. brevirostris** (Fabricius) 1781
   (30) **O. brevirostris** (Fabricius) 1781
   (31) **O. brevirostris** (Fabricius) 1781
   (32) **O. brevirostris** (Fabricius) 1781
   (33) **O. brevirostris** (Fabricius) 1781
   (34) **O. brevirostris** (Fabricius) 1781

2. 6 **Pseudosquilla** Brooks, 1886
   (41) **P. ciliata** (Fabricius) 1787
   (42) **P. ciliata** (Fabricius) 1787
   (43) **P. ciliata** (Fabricius) 1787
   (44) **P. ciliata** (Fabricius) 1787
   (45) **P. ciliata** (Fabricius) 1787
   (46) **P. ciliata** (Fabricius) 1787
   (47) **P. ciliata** (Fabricius) 1787
   (48) **P. ciliata** (Fabricius) 1787
   (49) **P. ciliata** (Fabricius) 1787
   (50) **P. ciliata** (Fabricius) 1787

2. 7 **Pseudosquilla** Brooks, 1886
   (41) **P. ciliata** (Fabricius) 1787
   (42) **P. ciliata** (Fabricius) 1787
   (43) **P. ciliata** (Fabricius) 1787
   (44) **P. ciliata** (Fabricius) 1787
   (45) **P. ciliata** (Fabricius) 1787
   (46) **P. ciliata** (Fabricius) 1787
   (47) **P. ciliata** (Fabricius) 1787

3. **Lysiosquillidae** Giesbrecht, 1910

3. 1 **Acanthosquilla** Manning, 1963
   (45) **A. acanthocarpus** (Miers) 1880
   (46) **A. acanthocarpus** (Miers) 1880
   (47) **A. acanthocarpus** (Miers) 1880
   (48) **A. acanthocarpus** (Miers) 1880
   (49) **A. acanthocarpus** (Miers) 1880
   (50) **A. acanthocarpus** (Miers) 1880

3. 2 **Coronida** Brooks, 1886
   (45) **C. trachura** (Von Martens) 1881
   (46) **C. trachura** (Von Martens) 1881
   (47) **C. trachura** (Von Martens) 1881

3. 3 **Heterosquilla** Manning, 1963
   (52) **H. insignis** (Kemp) 1911
   (53) **H. insignis** (Kemp) 1911
   (54) **H. insignis** (Kemp) 1911
   (55) **H. insignis** (Kemp) 1911

3. 4 **Lysiosquilla** Dana, 1852
   (55) **L. capensis** Hansen, 1895
   (56) **L. capensis** Hansen, 1895
   (57) **L. capensis** Hansen, 1895
3. 6 Nannosquilla Manning, 1963

(58) Nannosquilla hystroctelson (Barnard) 1958

4. Squillidae Latreille, 1803

4. 1 Alima Leach, 1817

(59) Alima hieroglyphica (Kemp) 1911
A. hildebrandi (Schmitt), 1940 = A. hieroglyphica
A. alba (Bigelow) 1894 = A. hystroctelson
A. labiatus (Ingle) 1960 = A. hieroglyphica
(60) A. jacinthus (Hess) 1865
(62) A. supplex (Wood-Mason) 1875

4. 2 Anchisquilla Manning, 1968

(63) Anchisquilla fasciata (de Haan) 1844
(65) A. miles (Hess) 1865
(64) A. macmillani (Stephenson) 1953

4. 3 Carinosquilla Manning, 1968

(66) Carinosquilla carinata (Serene) 1950
(68) C. multiscutata (White) 1847
(67) C. chloris (Kemp & Chopra) 1921

4. 4 Chlorida Eydoux and Souleyet, 1842

(69) Chlorida bombayensis (Chhapgar & Sane) 1967
(75) C. granii (Stephenson) 1953
(70) C. chloris (Brooks) 1886
(76) C. latreillii Eydoux et Souleyet, 1841
(71) choral (Tweedie) 1935
(77) C. merguiensis (Tiwari & Biswas) 1952
(72) C. decorata Wood-Mason, 1876
(78) C. microphthalmus H. Milne Edwards, 1837
(73) C. denticauda (Chhapgar & Sane) 1967
(79) C. margale (Bouvier) 1914
(74) C. ambigua (Hansen) 1926 = C. fallax

4. 5 Chlorida Eydoux and Souleyet, 1842

(80) Chlorida bengalensis (Tiwari & Biswas) 1952
(82) C. scorpio (Latreille) 1825
(81) C. immaculata (Kemp) 1913
(83) C. teres (Stephenson) 1953

4. 6 Dictyosquilla Manning, 1968

(84) Dictyosquilla foveolata (Wood-Mason) 1895

4. 7 Harpiosquilla Holthuis, 1964

(85) Harpiosquilla annandalei (Kemp) 1911
(87) H. melanosoma Manning, 1968
(86) H. harpax (de Haan) 1844
(88) H. rapheles (Fabricius) 1798

4. 8 Leptosquilla Miens, 1880

4. 9 Leposquilla Manning, 1968

(89) Leposquilla schencki (A. Milne Edwards) 1873
(90) L. costata (de Haan) 1844

4. 10 Orostosquilla Manning, 1968

(91) Orostosquilla fabricii (Holthuis) 1941
(101) O. mikado (Kemp & Chopra) 1921
(92) O. pterygotes (Kemp) 1911
(102) O. nega (Latreille) 1825
(93) O. hesperis (Manning) 1968
(103) O. cognita (de Haan) 1844
(94) O. holochista (Wood-Mason) 1895
(104) O. permisso (Kemp) 1911
(95) O. indicus (Hansen) 1926
(105) O. quadratica (Fukuda) 1910
(96) O. inornata (Tate) 1885
(106) O. spinifera (Brooks) 1885
(97) O. interrupta (Wood-Mason) 1895
(107) O. similans (Holthuis) 1967
(98) O. investitatorius (Lloyd) 1907
(108) O. striatula (Wood-Mason) 1894
(99) O. m. serpula (Kossmann) 1880
(109) O. woodmasoni (Kemp) 1911
(100) O. mauretiana (Kemp) 1913
(110) O. juxtaoratoria (Ward) 1942 = O. mauretiana

4. 11 Pterygosquilla Hilgendorf, 1890

(110) Pterygosquilla armata (H. Milne-Edwards) 1837

4. 12 Squillidae Manning, 1968

(111) Squillidae gilesii (Kemp) 1911
(114) S. minor (Jurich) 1904
(112) S. lata (Brooks) 1886
(115) S. tenacispina (Wood-Mason) 1891.
(113) S. leptosquilla (Brooks) 1886
Key for Identification

1. Exopod of uropods one-segmented, with movable spines on outer margin; fossil, Jurassic to Cretaceous. Family: Sculidae Dames, 1886

Exopods of uropods two-segmented, proximal only with movable spines; fossil and recent. 2

2. (1) Telson lacking sharp median carina; propodi of last 3 maxillipeds broad beaded or ribbed ventrally. Family: Lysiosquillidae Giesbrecht, 1910

Telson with sharp median carina; propodi of last 3 maxillipeds elongate, not beaded or ribbed ventrally. 3

Family: Lysiosquillidae

3. (2) Distal segment of endopod of first 2 walking legs elongate; proximal portion of outer margin of uropodal endopod at most angled inward, not folded. 4

Distal segment of endopod of first 2 walking legs ovate or subcircular; proximal portion of outer margin of uropodal endopod folded. 5

4. (3) Dactylus of raptorial claw inflated basally; propodus of claw pectinate proximally only; rostral plate rounded or subrectangular. Genus: Coronis Brooks, 1886. Coronis trachura (Von Martens) 1881

Dactylus of raptorial claw not inflated basally; propodus fully pectinate; rostral plate cordiform or triangular. 6

5. (4) Median dorsal surface of telson with at most a low triangular boss; movable submedian teeth rarely present; marginal teeth of telson usually fused. Genus: Lysiosquilla Dana, 1852. 6

Median dorsal surface of telson with raised median projection, lobed or spined posteriorly; movable submedian marginal teeth of telson always present, remainder of teeth and denticles distinct, not fused. Genus: Heterosquilla Manning, 1963. 9

Key to Indo-West Pacific Species of Lysiosquilla

6. (5) Rostral plate triangular, greatest width at base; median carina of plate flanked by longitudinal grooves; dactylus of claw with 8 teeth. L. sulcirostris Kemp, 1913

Rostral plate cordiform, greatest width in advance of base; median carina of plate, when present, not flanked by longitudinal grooves; dactylus of claw with more than 8 teeth. 7
7. (6) Antennal scale oval, less than twice as long as broad; anterior margin of antennal protopod lacking projection; ventral keel of eighth thoracic somite rounded. \textit{L. maculata} (Fabricius) 1793

Antennal scale slender, elongate, more than twice as long as broad; anterior margin of antennal protopod with projection; ventral keel of eighth thoracic somite acute, sharp, posteriorly. 8

8. (7) Rostral plate lacking median carina; ventral surface of uropodal protopod with slender spine at articulation of endopod. \textit{L. capensis} Hansen, 1895

Rostral plate with median carina; ventral surface of uropodal protopod lacking spine at articulation of endopod. \textit{L. tridecimdentata} Holthuis, 1941

**Key to Species of Heterosquilla Known from the Indian Ocean**

9. (5) Two intermediate marginal denticles present on telson \textit{H. spinosa} (Wood-Mason) 1895

Four intermediate marginal denticles present on telson \textit{H. insignis} (Kemp) 1911

10. (3) Dorsal surface of telson with fan-shaped series of 5 or more spines. Genus: \textit{Acanthosquilla} Manning, 1963 11

Dorsal surface of telson unarmed or with at most a single median projection. 15

**Key to Indo-West Pacific Species of Acanthosquilla**

11. (10) Telson with 4 pairs of fixed marginal teeth 12

Telson with 2 pairs of fixed marginal teeth 14

12. (11) Ventral margin of sixth abdominal somite with posterior spines \textit{A. tigrina} (Nobili) 1903

Ventral margin of sixth abdominal somite unarmed 13

13. (12) Rostral plate trispinous; dactylus of claw with 10-11 teeth; submedian denticles arranged in semicircle \textit{A. vicina} (Nobili) 1904

Rostral plate angled anterolaterally, with median spine; dactylus of claw with 7 teeth; submedian denticles in transverse row \textit{A. humesi} Manning, 1968

14. (11) Lobes on outer margin of dactylus subequal; submedian denticles in transverse row; first and third intermediate denticles larger than second and fourth \textit{A. acenthoacerpus} (Miers) 1980

Distal lobe on outer margin of dactylus much larger than proximal; submedian denticles in oblique row; second and fourth intermediate denticles larger than first and third \textit{A. multifasciata} (Wood-Mason) 1895.
15. (10) Posterior margin of dorsal surface of telson produced into false eave overhanging true posterior armature.................................16

Posterior margin of dorsal surface of telson with single median projection, not produced into false eave....................................................17

16. (15) Antennal protopod with papillae; 5 epipods present; spines on uropodal exopod not spatulate......................... Hadrosquilla Manning, 1966

Antennal protopod without papillae; 4 epipods present; spines on uropodal exopod spatulate. Genus: Nannosquilla Manning, 1963............

Nannosquilla hystericotelson (Barnard) 1958

17. (15) Mandibular palp present; telson with 1 pair of fixed marginal teeth .......................................................... Coronis Desmarest, 1823

Mandibular palp absent; telson with more than 1 pair of fixed marginal teeth..............................................................................18

18. (17) Telson with 4 pairs of fixed marginal teeth; inferodistal angle of ischium of raptorial claw unarmed .............. Platysquilla Manning, 1967

Telson with 2 pairs of fixed marginal teeth; inferodistal angle of ischium of claw with strong spine. Genus: Austrosquilla Manning, 1966........

Austrosquilla osculans (Hale) 1924


At most, submedian marginal teeth with movable apices.................................................20

20. (19) More than 4 intermediate denticles present on telson. Family: Squillidae Latreille, 1803..........................................................21

No more than 2 intermediate denticles present on telson Family: Gonodactylidae Ciesbrecht, 1910.................................................................83

21. (20) Propodus of raptorial claw with erect spines; posterolateral margin of carapace with deep excavation. Genus: Harpiosquilla Holthuis, 1964...22

Propodus of claw pectinate, without erect spines; posterolateral margins of carapace entire ..........................................................52

KEY TO SPECIES OF HARPIOSQUILLA

22. (21) Fifth thoracic somite with a lateral spine..............................................................23

Fifth thoracic somite rounded laterally..............................................................................24

23. (22) Submedian carinae of fifth abdominal somite armed posteriorly; distal segment of uropodal exopod black with a white midrib........H. annandalei (Kemp) 1911

Submedian carinae of fifth abdominal somite unarmed; distal segment of uropodal exopod with inner half only dark, not black..................................H. raphidea (Fabricius) 1798
24. (22) Carapace with median carina; first 5 abdominal somites with submedian carinae..........................H. harpax (de Haan) 1844
   Carapace lacking median carina; first 5 abdominal somites lacking submedian carinae..........................H. melanoura Manning, 1968

25 (21) Lateral process of fifth thoracic somite with a single spine or lobe ........26
   Lateral process of fifth thoracic somite bilobed.................................57

26. (25) Submedian teeth of telson with movable apices..............................27
   Submedian teeth of telson with fixed apices....................................48

27. (26) Antennular somite greatly elongated, rostral plate not extending to midlength; cornea subglobular. Genus: Leptosquilla Miers, 1880...........
   Antennular somite not elongated, rostral plate extending beyond midlength; cornea flattened or bilobed...........................28

28. (27) Ocular scales each produced into an erect spine; sub-Antarctic. Genus: Pterygosquilla Hilgendorf, 1890.................................Pterygosquilla armata (H. Milne-Edwards) 1837
   Ocular scales rounded or subtruncate, never produced into erect spines; tropical or temperate.................................29

29. (28) Eyes very small, stalk usually inflated, cornea rarely broader than stalk; ocular scales fused. Genus: Clorida Eydoux and Souleyet, 1842........30
   Eyes small or of moderate size, stalk not inflated, cornea always broader than stalk; ocular scales separate.........................45

KEY TO SPECIES OF CLORIDA

30. (29) Mandibular palp absent..........................................................31
   Mandibular palp present...............................................................35

31. (30) One rounded lobe present between spines of basal prolongation of uropod.................................32
   Two rounded lobes present between spines of basal prolongation of uropod.........................................................34

32. (31) Cornea broader than stalk; rostral plate with median carina..............Clorida incerta (Hansen) 1926
   Cornea not as broad as stalk; rostral plate lacking median carina........33

33. (32) Lateral margins of intermediate teeth of telson with prominent denticles; inner margin of basal prolongation of uropod with 3-4 spines........C. denticornus (Chhapgar and Sane) 1967
Lateral margins of intermediate teeth of telson not denticulate; inner margin of basal prolongation of uropod with 6-9 spines. ... C. granti (Stephenson) 1953

34. (31) Sixth abdominal somite with supplementary spinules on posterior margin in addition to spines of dorsal carinae. ... C. maulana (Bigelow) 1931

Sixth abdominal somite armed at most with spines of dorsal carinae. ... C. fallax (Bouvier) 1914

35. (30) First 5 abdominal somites lacking submedian carinae. ... 36

Submedian carinae present on one or more of the first 5 abdominal somites. ... 37

36. (35) Carapace lacking anterolateral spines. ... C. rotundicauda (Miers) 1880

Carapace with anterolateral spines. ... 37

37. (36) Postanal carina absent. ... 38

Postanal carina present. ... 39

38. (37) Marginal carinae of abdomen unarmed. ... C. choprai (Tweedie) 1935

Marginal carinae of at least second through fifth abdominal somites with posterior spine. ... C. depressa (Miers) 1880

39. (37) Cornea broader than stalk. ... C. miersi Manning, 1968

Cornea not as broad as stalk. ... 40

40. (39) Width of cornea about one-third eye length; lateral margin of carapace, posterior to anterolateral spine, straight or convex; rostral plate longer than broad. ... C. micropthalmus (H. Milne-Edwards) 1837

Width of cornea about one-half eye length; lateral margin of carapace, posterior to anterolateral spine, concave; rostral plate broader than long. ... C. chlorida (Brooks) 1886

41. (35) No submedian carinae on first through third abdominal somites. ... 42

All 6 abdominal somites with submedian carinae. ... 43

42. (41) Fifth and sixth abdominal somites with submedian carinae. ... C. merguensis (Tiwari and Biswas) 1952

Fourth, fifth and sixth abdominal somites with submedian carinae. ... C. verrucosa (Hansen) 1926

43. (41) Lateral processes of sixth and seventh thoracic somites with posterolateral spine. ... C. bombayensis (Chhappag and Sane) 1967

[9]
44. (43) Lateral processes of sixth and seventh thoracic somites unarmed........44

45. (29) Ventral surface of telson smooth on either side of postanal carina......................C. latreillei Eydoux and Souleyet, 1842

46. (45) Ventral surface of telson tuberculate and carinate on either side of postanal carina........C. decorata Wood-Mason, 1875

47. (12) Telson lacking prelateral lobes; first to fifth abdominal somites without submedian carinae...............................Meliosquilla Manning, 1968

48. (26) Prelateral lobes of telson usually present; if absent, submedian carinae present on first 5 abdominal somites. Genus: Anchisquilla Manning, 1968........46

49. (49) Mandibular palp present.................................................................50

50. (49) Raptorial claw with six teeth........C. bengalensis (Tiwari and Biswas) 1951

51. (49) Lateral process of fifth thoracic somite with a large black dorsal spot......................C. scorpio (Latreille) 1825

52. (48) Carapace with full complement of carinae; inner margin of basal prolongation of uropod usually serrate, if spined, telson with dorsal tubercles..............................Squilla Fabricius, 1787

[10]

KEY TO SPECIES OF Anchisquilla KNOWN FROM THE INDIAN OCEAN

46. (45) No longitudinal carinae on either side of median crest of telson other than the thickenings of the marginal teeth....................................................Anchisquilla menelli (Stephenson) 1953

47. (46) Anterolateral angles of carapace rounded........A. miles (Hess) 1865

48. (26) No more than 3 epipods present. Genus: Cloridopsis Manning, 1968....49

50. (49) Raptorial claw with five teeth.........C. terradreginensis (Stephenson) 1953

51. (49) Lateral process of fifth thoracic somite without a black dorsal spot..............................C. immaculata (Kemp) 1913

52. (48) Carapace usually with reduced complement of carinae; inner margin of basal prolongation of uropod with spines; telson without dorsal tubercles. Genus: Squilloides Manning, 1968......................53

KEY TO SPECIES OF Cloridopsis KNOWN FROM THE INDIAN OCEAN

49. (48) Mandibular palp absent……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………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KEY TO SPECIES OF *SQUILLOIDES*

53. (52) Telson with long intermediate marginal teeth

Telson with intermediate marginal teeth of normal length

54. (55) Median and lateral carinae sharp and distinct in anterior half of carapace; lateral process of fifth thoracic somite directed straightly outwards

..............Squilloides leptosquilla (Brooks) 1886

Median and lateral carinae entirely absent from anterior half of carapace; lateral process of fifth thoracic somite trending obliquely forwards

..............S. tenispinis (Wood-Mason) 1891

55. (53) Submedian carinae present on all abdominal somites

..............S. gilesi (Kemp) 1911

Submedian carinae absent from at least first three abdominal somites....56

56. (55) The rostrum is about one and a half times as long as broad; on the carapace fine intermediate carinae are found on either side of the gastric groove

..............S. lata (Brooks) 1886

The rostrum is little broader than long; intermediate carinae on carapace absent

..............S. minor (Jurich) 1904

57. (25) Lateral processes of sixth and seventh thoracic somites not bilobed. Genus: *Alima* Leach, 1817

..............Alima upplex (Wood-Mason) 1875

Lateral processes of sixth and seventh thoracic somites bilobed

..............A. laevis (Hess) 1685

..............A. hieroglyphica (Kemp) 1911

..............A. hyalina Leach, 1817

..............Dictyosquilla foveolata (Wood-Mason) 1895

Eye small, stalk inflated, much broader than cornea; body covered with raised carinae forming mesh-like reticulations. Genus: *Dictyosquilla* Manning, 1968

Eye large, stalk not inflated, cornea broader than stalk; body not covered with carinae forming mesh-like reticulations

Abdomen with numerous longitudinal carinae, more than eight........80

**Key to Species of *Oratosquilla* Known from the Indian Ocean**

63. (62) Raptorial dactylus with five teeth........................................64
   Raptorial dactylus with six teeth.............................................66
   Raptorial dactylus with 7 or more teeth....................................79

64. (63) Rostrum with median carina; breadth of cornea more than 1/3 median length of carapace; lateral margin of seventh thoracic somite not bilobed......................*Oratosquilla quadrangularis* (Fukuda) 1910
   Rostrum without median carina; breadth of cornea much less than 1/3 of median length of carapace, lateral margin of seventh thoracic somite distinctly bilobed..................65

65. (64) Cornea set almost at right angles to eyestalk; outer inferior margin of raptorial merus terminating in a sharp tooth; anterior lobe of seventh thoracic somite short...........*O. quinquedentata* (Brooks) 1886
   Cornea set obliquely on eyestalk; outer inferior margin of raptorial merus not terminating in a tooth; anterior lobe of 7th thoracic somite well developed and more than half as long as posterior lobe..................*O. gonypetes* (Kemp) 1911

66. (63) Cornea set almost at right angles to eyestalk........................................67
   Cornea set obliquely on eyestalk..............................................68

67. (66) Posterior half of median carina of carapace anterior to cervical groove, simple; submedian carinae of fourth abdominal somite ending in spines 
  ...............*O. nepa* (Latreille) 1825
   Posterior half of median carina of carapace anterior to cervical groove, finely bicarinate throughout its entire length; submedian carinae of fourth abdominal somite not ending in spines........*O. holoschista* (Wood-Mason) 1895

68. (66) Lateral carinae of first 5 abdominal somites bicarinate.................69
   Lateral carinae of first 5 abdominal somites simple, not bicarinate........70

69. (68) Rostrum with an obscure mid-dorsal tubercle. Undivided portion of mid-dorsal carina of carapace, anterior to dorsal pit, less than 1/3 as long as bifurcated portion............*O. stridulans* (Wood-Mason) 1894
   Rostrum with a well defined median carina. Undivided portion of mid-dorsal carina of carapace, anterior to dorsal pit about half as long as bifurcated portion...............*O. mikado* (Kemp & Chopra) 1921
70. (68) Tubercles on either side of median crest of telson present............71
   Tubercles on either side of median crest of telson absent............72

71. (70) Submedian carinae of abdomen divergent on each somite and very few
   tubercles on the dorsal surface of telson........O. hesperia (Manning) 1968

   Submedian carinae of abdomen subparallel on each somite and many
   tubercles in rows on the dorsal surface of telson....................O. massavensis (Kossmann) 1880

72. (70) Carapace broad with its breadth behind the anterolateral angles more
   than half its median length, including the rostrum; anterior margin of
   ophthalmic somite with a minute median point......................O. woodmasoni (Kemp) 1911

   Carapace narrow, with its breadth behind the anterolateral angles less
   than half its median length, including the rostrum; anterior margin of
   ophthalmic somite various, but never with a median point............73

73. (72) Median carina of carapace sharp and distinct throughout its course;
   dorsal carina of raptorial carpus with 3-5 tubercles.................74

   Median carina of carapace interrupted at base of anterior bifurcation
   (rarely, the anterior bifurcation is obsolete): dorsal carina of raptorial
   carpus with less than three tubercles..................................75

74. (73) Submedian carinae of the fourth and the lateral carinae of the first and
   second abdominal somites not spined posteriorly......................O. oratorio (de Haan) 1844

   Submedian carinae of the fourth and the lateral carinae of the first and
   second abdominal somites spined posteriorly.........................O. mauritiana (Kemp) 1913

75. (73) Margin of longer spine of bifurcate process of uropods, in front of external
   lobe, convex.............................O. interrupta (Kemp) 1911

   Margin of longer spine of bifurcate process of uropods, in front of
   external lobe, concave..................................................76

76. (75) Dorsal margin of raptorial carpus with two tubercles................O. faberii (Holthuis) 1941

   Dorsal margin of raptorial carpus with an entire carina..............77

77. (76) Merus of raptorial claw with the distoventral angle rounded........O. simulans (Holthuis) 1967

   Merus of raptorial claw with the distoventral angle sharply pointed....78
78. (77) Rostral plate slender, longer than broad; the anterior lobe of the lateral process of the sixth thoracic somite is more truncate; the distal segment of the outer branch of the uropod is divided into a clear outer half and a dark inner half. 

\[ \ldots O. \text{inornata (Tate) 1883} \]

Rostral plate is short, blunt, broader than long; the anterior lobe of the lateral process of the sixth thoracic somite is less truncate; the distal segment of the outer branch of the uropod has the inner half suffused with dark pigment but there is no sharp line dividing inner and outer halves. 

\[ \ldots O. \text{perpensa (Kemp) 1911} \]

79. (63) Raptorial dactylus with 7 or 8 teeth. 

\[ O. \text{indica (Hansen) 1926} \]

Raptorial dactylus with 10 to 18 teeth. 

\[ O. \text{investigatoris (Lloyd) 1807} \]

80. (62) Carapace with more than 7 longitudinal carinae. Genus: \textit{Carinosquilla} Manning, 1968

\[ \ldots \text{Carinosquilla} \]

Carapace with no more than 7 longitudinal carinae. Genus: \textit{Lophosquilla} Manning, 1968

\[ \ldots \text{Lophosquilla costata (de Haan) 1844} \]

**KEY TO SPECIES OF \textit{CARINOSQUILLA}**

81. (80) Mandibular palp is absent. 

\[ \ldots \text{Carinosquilla lirata (Kemp and Chopra) 1921} \]

Mandibular palp is present. 

\[ \ldots \text{Carinosquilla} \]

82. (81) Ocular peduncles irregularly and strongly carinate; ophthalmic process usually bifurcated at extremities. 

\[ C. \text{carinata (Serène) 1950} \]

Ocular peduncles smooth, without carinae; ophthalmic processes not bifurcated at extremities. 

\[ C. \text{multicarinata (White) 1847} \]

**FAMILY: GONODACTYLIDAE**

83. (20) Ischiomeral articulation terminal; merus grooved inferiorly throughout its length. 

\[ \ldots \text{Hemisquilla} \]

Ischiomeral articulation subterminal, merus projecting posteriorly beyond articulation; inferior groove on merus incomplete. 

\[ \ldots \text{Hemisquilla} \]

84. (83) Dactylus unarmed; sixth abdominal somite unarmed posteriorly. 

\[ \ldots \text{Hemisquilla} \]

Dactylus with teeth; sixth abdominal somite with armed carinae or with posterior spines. 

\[ \ldots \text{Hemisquilla} \]

85. (84) Outer spine of basal prolongation of uropod longer than or subequal to inner. 

\[ \ldots \text{Hemisquilla} \]

Inner spine of basal prolongation of uropod longer than outer. 

\[ \ldots \text{Hemisquilla} \]
86. (85) Basal prolongation of uropod with 2 spines, inner margin unarmed; carapace without carinae. Genus: *Pseudosquilla* Dana, 1852.............87

Basal prolongation of uropod with 3 spines, proximal smallest, with or without additional spinules on inner margin; carapace with marginal carina present on posterior portion of each lateral plate.............90

**KEY TO SPECIES OF *PSEUDOSQUILLA* KNOWN FROM THE INDIAN OCEAN**

87. (86) Telson with only three carinae on either side of median crest, the intermediate being absent..................................................88

Telson with four carinae on either side of median crest, the intermediate present..................................................89

88. (87) Eyes long and cylindrical; cornea set very obliquely on stalk..................................................*Pseudosquilla ciliata* (Fabricius) 1787

Eyes shot and flattened; cornea set transversely on stalk..................................................*P. ornata* Miers, 1880

89. (87) Breadth of cornea scarcely equal to whole length of eye; six posterior spines on last abdominal somite; intermediate carinae of telson parallel, terminating behind base of intermediate marginal teeth..................................................*P. oculata* (Brulle) 1836-'44

Breadth of cornea greater than whole length of eye; eight posterior spines on last abdominal somite; intermediate carinae of telson posteriorly divergent, coterminous with lateral marginal teeth..................................................*P. megalophthalma* Bigelow, 1894

90. (86) First 5 abdominal somites with prominent carinae; telson with submedian denticles..................................................*Parasquilla* Manning, 1961

First 5 abdominal somites not carinate; telson lacking submedian denticles..................................................*Pseudosquillopsis* Serène, 1962

91. (85) Rostral plate with 2 apical spines..................*Coronidopsis* Hansen, 1926

Rostral plate with or without 1 apical spine..................................................92

92. (91) Dactylus of claw with 4 teeth; rostral plate pentagonal. Genus: *Manningia* Serène, 1962..................................................93

Dactylus of claw with more than 4 teeth; rostral plate variable in shape but not pentagonal..................................................94

**KEY TO SPECIES OF *MANNINGIA* KNOWN FROM THE INDIAN OCEAN**

93. (92) Rostrum anteriorly produced in a long and slender tooth which reaches beyond eyes..................................................*Manningia pilaensis* (de Man) 1888

Rostrum anteriorly not produced in a long and slender tooth..................*M. amabilis* Holthuis, 1967

[15]
94. (92) Antennular somite greatly elongated; telson with submedian denticles

..............................................................................Euryxilloides Manning, 1963
Antennular somite not elongate; telson without submedian denticles.
Genus: Euryxilla Manning, 1963......Euryxilla sewelli (Chopra) 1939

95. (83) Dactylus of claw with teeth; rostral plate without slender median spine.
Genus: Odontodactylus Bigelow, 1893.........................................................96
Dactylus of claw unarmed; rostral plate with slender median spine.....100

KEY TO SPECIES OF ODONTODACTYLUS

96. (95) Ocular scales appressed along median line; telson with two pairs of accessory median carinae.................................................................97
Ocular scales separate; telson with one pair of accessory median carinae.................................................................99

97. (96) Fifth abdominal somite unarmed posterolaterally; telson with longitudinal carina extending anteriorly from inner intermediate denticle

..............................................................................Odontodactylus japonicus (de Haan) 1844
Fifth abdominal somite with posterolateral spines; telson lacking longitudinal carina extending anteriorly from inner intermediate denticle.....98

98. (97) Dactylus of claw with less than five teeth; movable spines of uropodal exopod broad, inflated distally...........O. scyllarus (Linnaeus) 1758
Dactylus of claw with more than five teeth; movable spines of uropodal exopod tapering distally..............................O. hawaiiensis Manning, 1967

99. (96) Median carina of telson thin, high; dactylus of claw with less than 5 teeth; posteriorly recurved portion of submedian carinae of fifth abdominal somite absent..............................................O. cultrifer (White) 1850
Median carina of telson not noticeably thin or high; dactylus of claw with more than 5 teeth; submedian carinae of fifth abdominal somite recurved posteriorly..............................O. brevirostris (Miers) 1884

100. (95) Anterolateral angles of carapace anterior to base of rostral plate.....101
Anterolateral angles of carapace not anterior to base of rostral plate.................................................................119

101. (100) Rostral plate with anterolateral angles rounded or acute; distal spines on uropodal exopod not strongly recurved. Genus: Gonodactylus Berthold, 1827.........................................................102
Rostral plate sharply trispinous; distal spines of uropodal exopod strongly recurved. Genus: Mesacturus Miers, 1880.................115
Key to Species of *Gonodactylus* Known from the Indian Ocean

102. (101) Central area of telson with 5 longitudinal carinae ............................................. 103
    Central area of telson with 3 longitudinal carinae ............................................. 104

103. (102) First 5 abdominal somites each with a fine transverse groove.........................
    .................................................... *Gonodactylus graphurus* Miers, 1875
    Abdominal somites not grooved............. *G. falcatus* (Forsskål) 1775

104. (103) Dorsal process of ophthalmic somite large and subtriangular; median keel of telson not very strongly arched in lateral view, its depth less than half its greatest breadth, no spinules on dorsal surface of telson ......................................................... 105
    Dorsal process of ophthalmic somite consisting of a pair of small and inconspicuous transverse plates; median keel of telson very strongly arched in lateral view, its depth fully half its greatest breadth; dorsal surface of telson usually beset with spinules ........................................ 107

105. (104) Eye-scales, broad, extending laterally to anterolateral angles of rostral plate; lateral teeth of telson suppressed ................................................................. 106
    Eye-scales narrow; lateral teeth of telson distinct ............................................. 108

106. (105) Anterolateral angles of rostral plate sharp; uropodal inner branch convex on inner margin ........................................ *G. smithii* Pocock, 1893
    Anterolateral angles of rostral plate rounded; uropodal inner branch sinuous on inner margin ....................... *G. chiragra* (Fabricius) 1781

107. (104) Inner margin of uropodal endopod largely or completely devoid of setae, margin smooth ........................................ 108
    Inner margin of uropodal endopod completely fringed with setae, margin serrate at insertion of setae .......................... 111

108. (107) Lateral teeth on telson obscure and uropodal endopod broad which is half or more than half as broad as the telson ........................................ *G. crosnieri* Manning, 1968
    Lateral teeth on telson prominent and uropodal endopod narrow which is less than half as broad as the telson .................. 109

109. (108) Two ventral carinae on each submedian tooth and a short median postanal keel present ....................... *G. bicarinatus* Manning, 1968
    No ventral carinae on submedian tooth and postanal keel absent ................................ 110

110. (109) Rostral plate with sharp anterolateral angles; submedian teeth of telson with well-marked ventral carina; inner margin of uropodal endopod completely devoid of setae ...... *G. hendersoni* Manning, 1967

[17]
Rostral plate with rounded anterolateral angles; submedian teeth of telson poorly or not carinate; inner margin of uropodal endopod with 1-10 proximal setae.................G. demanii Henderson, 1893

111. (107) Telson with dorsol spinules or spines..................................................112
   Telson smooth dorsally..........................................................................................113

112. (111) Telson broader than long, dorsal spinules large, lateral marginal teeth prominent........................G. lanchesteri Manning, 1967
   Telson as long as broad, dorsal spinules small; lateral marginal teeth obscure.................................G. spinosus Bigelow, 1893

113. (111) Proximal segment of uropodal exopod lacking fixed distal spines ventrally; lateral process of sixth and seventh thoracic somites sub-equal..................................................C. choprai Manning, 1967
   Proximal segment of uropodal exopod with fixed distal spine ventrally; lateral process of sixth thoracic somite noticeably larger than that of seventh somite..................................................114

114. (113) Rostral plate rounded anterolaterally; endopod of uropod short, broad not much tapering..............G. incipiens Lanchester, 1903
   Rostral plate acute anterolaterally; endopod slender and distally tapering........................................G. segregatus Lanchester, 1903

Key to Species of Mesacturus Known from the Indian Ocean

115. (101) Spines on external edge of basal segment of outer uropod forming an even series throughout its length, outermost slightly recurved; inner uropod more or less crescentic in shape, apex curved inwards.................116
   On external edge of basal segment of outer uropod two or three spines at distal end form large hooks, proximal part bare or with few small straight spines; apex of inner uropod more or less curved outwards..................................................117

116. (115) Submedian teeth on telson without spinules on inner margins; lateral teeth represented by blunt rounded lobes; dorsal surface with three keels and a few rounded tubercles..................................................Mesacturus herdmani Tattersall, 1906
   Submedian teeth of telson with spinules on inner margins; lateral teeth sharp and well-formed; dorsal surface with three keels and large sharp spinules..................................................M. drepanophorus (de Man) 1902

117. (115) Telson with 11 dorsal carinae; the dorsal surface of the proximal segment of exopod of uropod without a patch of setae; the endopods without setae on the ventral surface...M. crinitus (Manning) 1962
Telson with 9 dorsal carinae; the dorsal surface of the proximal segment of uropod with a patch of setae; the endopod with setae on the ventral surface..................................................118

118. (117) No spinules on inner edges to submedian marginal teeth of telson; intermediate ridges of last abdominal somite much narrower than sub-medians; mid-dorsal portion of telson occupied by three large ridges (not reckoning the ridge that runs to the apex of the intermediate marginal teeth)...........................................M. brevisquama (Paulson) 1875

Spinules present on both edges of submedian marginal teeth of telson; intermediate and submedian ridges of last abdominal somite of equal breadth; mid-dorsal portion of telson with 3 keels closely packed together in middle with two fainter keels on either side (not reckoning the ridge that runs to the apex of the intermediate marginal teeth)...........................................M. fimbriatus (Lenz) 1905

119. (100) Mandibular palp present; posterior margin of sixth abdominal somite convex in dorsal view; sixth abdominal somite usually fused with telson. Genus: Protosquilla Brooks, 1886.................................120

Mandibular palp absent; posterior margin of sixth abdominal somite straight (transverse) in dorsal view; sixth abdominal somite not fused with telson. Genus: Hoplosquilla Holthuis, 1964.................................120

...........................................Hoplosquilla acanthurus (Tattersall) 1906

KEY TO SPECIES OF PROTOSQUILLA KNOWN FROM THE INDIAN OCEAN

120. (119) Large spines on last abdominal somite and telson with a soft fleshy process protruding from apex........Protosquilla guerini (White) 1861

Large spines on last abdominal somite and telson, if present, without fleshy process at apex........................................................................................................121

121. (120) Distal margin of telson divided into right and left halves by a long and very narrow median fissure with its edges partly in contact with one another........................................................................122

Distal margin of telson divided into right and left halves by a large wide and deep excavation .................................................122

122. (121) Three bosses in centre of telson, external boss on each side terminating in a point on distal margin.......................................................123

Three round or oval bosses in centre of telson, external boss on each side not reaching distal margin.................................................124

123. (122) Fifth abdominal somite smooth mid-dorsally; sixth with six rounded bosses; bosses of telson smooth and entire.........P. ectypa Müller, 1886

Fifth and sixth abdominal somites finely grooved; dorsal bosses of telson incised at margins by fine grooves running towards summit of each boss.................................................P. glyptocerca (Wood-Mason) 1875

[19]
124. (122) External boss on each side reaching only to middle of telson........125

External boss on each side reaching well beyond middle of telson, but not extending to distal margin ...........................................127

125. (124) Median portion of fifth abdominal somite longitudinally wrinkled......

P. trispinosa (Dana) 1852

Median portion of fifth abdominal somite entirely smooth...............126

126. (125) Rostrum sharply trispinous; dorsal process of ophthalmic somite 
produced, with acute anterolateral corners......P. pulchella (Miers) 1880

Anterolateral angles of rostrum acute but not spinous; dorsal processes of ophthalmic somite not produced anterolaterally ................P. nefanda (Kemp) 1911

127. (124) Median portion of fifth abdominal somite smooth; distal margin of 
telson with three large teeth on either side of median fissure...........

P. lenzi (Holthuis) 1941

Median portion of fifth abdominal somite furrowed; distal margin of 
telson with four large teeth on either side of median fissure.............P. stolium Müller 1886

128. (121) No spines or spinules on dorsal surface of telson..................129

Dorsal surface of telson beset with spines or spinules....................130

129. (128) Telson with three distinct mid-dorsal bosses........................

P. excavata (Miers) 1880

Telson with many longitudinal ridges and grooves.........................P. gyroa (Odhner) 1923

130. (128) Telson with long dorsal spines..............P. spinosissima (Pfeffer) 1888

Telson with short dorsal spines ..............................................131

131. (130) Distal part of telson with one wide and deep triangular excavation......

P. brooksii de Man, 1887

Distal part of telson with three wide and deep triangular excavations.....P. tuberculata Borradaile, 1907

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[22]


