

ON COLLECTIONS OF SHORE FISHES FROM THE
COROMANDEL COAST, PALK BAY AND GULF OF MANNAR

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INTRODUCTION

During the years 1955 and 1960-62, the Zoological Survey of India carried out 5 intensive surveys of the Coromandel Coast, Palk Bay and Gulf of Mannar. As a Research Trainee in the marine fish section of the Zoological Survey of India under the Government of India Research Training Scheme 1962-63, the author identified the above shore fish collections and a systematic account of the species is given in the paper. The data under each species includes its first reference, number of specimens collected, their size ranges in total length, area of collection (arranged from north to south), date of collection, collector's name and geographical distribution.

In all, there are 153 species in the present collections. Three species, *Brotula jerdoni* Day, *Lepidotrigla spiloptera* Günther, *Dactyloptena orientalis* (C.V.) were reported as rare forms (Menon and Rao, 1963) and one species, *Omobranchus kallsoma* (Bleeker) was reported as new to Indian waters (Menon and Rao, 1963).

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SYSTEMATIC ACCOUNT

Class I. ELASMOBRANCHII

Order 1. LAMNIFORMES

Family 1. ORECTOLOBIDAE

1. *Chiloscyllium griseum* Müller and Henle

1841. *Chiloscyllium griseum* Müller and Henle, *Syst. Besch.*
Plagiostomen, p. 19 (India; Japan).

Material.—One, 160.0 mm., Marina beach, 11.viii.1961, S.R.S*, Z.S.I., Coll. One, 35.0 mm., Tondiarpet beach, 7.x.1960, A. Daniel Coll.

Distribution.—Red Sea, South Africa, India to Malay Peninsula, China and Japan.

Family 2. CARCHARHINIDAE

2. *Scoliodon palasorrah* (Cuvier)

1829. *Carcharias palasorrah* Cuvier, *Regne Animal*, 2 (ed. 2), 388 (On *Palasorrah* Russell 1803, *Fish. Coromandel*, 1, 9, pl. 15 Vizagapatnam).

Material.—One, 300.0 mm., Off Kundukal point, 15.iii.1955, M. A. S. Menon Coll. One, 407.0 mm., Pamban Bridge (Pamban), 29.ix.1960, A. Daniel Coll.

Distribution.—Red Sea, Arabia, South Africa, India, Ceylon, Malay Peninsula, Gulf of Siam, South China Sea, China, Japan, Java Sea, Philippines.

3. *Scoliodon sorrakowah* (Cuvier)

1829. *Carcharias sorrakowah* Cuvier, *Regne Animal*, 2 (ed. 2), p. 388 (On *Sorrakowah* Russell 1803, *Fish. Coromandel*, 1, p. 9, Vizagapatnam).

Material.—Four, 190.0-190.5 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Makran Coast, India, Ceylon, Burma, Malay Peninsula, Gulf of Siam, South China Sea, Japan, Java Sea, Philippines.

Order 2. RAJIFORMES

Family 3. RHINOBATIDAE

4. *Rhinobatos thouniana* (Shaw)

1804. *Raja thouniana* Shaw, *Gen. Zool.*, 5: 318 (locality unknown).

Material.—One, 185.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—Red Sea, India, Gulf of Siam, Malay Archipelago.

Family 4. TRYGONIDAE

5. *Dasyatis (Himantura) favus* (Annandale)

1909. *Trygon favus* Annandale, *Mem. Indian Mus.*, 2: 25 (Off Orissa)

*Southern Regional Station, Zoological Survey of India Collections.

Material.—Two, 141.0 & 215.0 mm.. Marina beach,
22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Philippines.

Order 3. TORPEDINIFORMES

Family 5. TORPEDINIDAE

6. *Bengalichthys impennis* Annandale

1909. *Bengalichthys impennis* Annandale, *Mem. Indian Mus.*, 2: 48.
(Orissa coast).

Material.—One, 113.0 mm.. Marina beach, 21.ix.1961,
S.R.S., Z.S.I., Coll.

Distribution.—India, Philippines.

7. *Narcine brunnea* Annandale

1909. *Narcine brunnea* Annandale, *Mem. Indian Mus.*, 2: 45.
(Hooghly river mouth).

Material.—Two, 107.0 & 116.0 mm., Marina beach,
11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Ceylon, Philippines.

8. *Narcine timlei* (Bloch and Schneider)

1801. *Raja timlei* Bloch and Schneider, *Syst. Ichth.*, Berlin, 359
(Tranquebar)

Material.—Two, 130.0 & 150.0 mm., Marina beach,
5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Ceylon, Malay Archipelago, China,
Philippines, Japan.

9. *Narke dipterygia* (Bloch and Schneider)

1801. *Raja dipterygia* Bloch and Schneider, *Syst. Ichth.*, Berlin, 359
(Tranquebar).

Material.—Three, 113.0-160.0 mm., Marina beach,
21.ix.1961, S.R.S., Z.S.I., Coll.

Distribution.—Arabian Sea, India, Ceylon, Malay Penin-
sula, Gulf of Siam, South China Sea, China, Philippines.
Japan.

Class II. TELEOSTOMI

Order 4. CLUPEIFORMES

Family 6. ELOPIDAE

10. *Elops saurus* Linnaeus

1766. *Elops saurus* Linnaeus, *Syst. Nat.*, 1, ed. 12: 518 (Carolina).

Material.—One, 205.0 mm., Porto Novo. 7 v. 1960, A. Daniel Coll.

Distribution.—Arabia, Red Sea, East Coast of Africa, Mauritius, Madagascar, India, Ceylon, Andamans, Malay Peninsula, Malay Archipelago, China, Philippines, Queensland, Japan, Hawaii.

Family 7. MEGALOPIDAE

11. *Megalops cyprinoides* (Broussonet)

1782. *Clupea cyprinoides* Broussonet, *Ichth.*, (Oceans between the tropics).

Material.—Two, 181.0 & 188.0 mm., Porto Novo, 7 v. 1960, A. Daniel Coll.

Distribution.—East Africa, Zanzibar, Natal, Madagascar, India, Ceylon, Burma, Malay Peninsula, Malay Archipelago, Gulf of Siam, China, Taiwan, Japan, Australia, Melanesia, Micronesia, Polynesia.

Family 8. CLUPEIDAE

12. *Dussumieria acuta* Cuvier and Valenciennes

1847. *Dussumieria acuta* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 20: 467 (Bombay; Coromandel coast).

Material.—One, 148.0 mm., Chepauk beach, 11. x. 1960, A. Daniel Coll. One, 140.0 mm., Triplicane beach, 9. viii. 1961, S.R.S., Z.S.I., Coll. Two, 60.0 & 78.0 mm., Tiruchendur, 28. ii. 1962, V K. Prem Kumar Coll.

Distribution.—South Arabia, India, Ceylon, Malay Peninsula, Malay Archipelago, China, Philippines.

13. *Harengula vittata* (Cuvier and Valenciennes)

1847. *Clupeonia vittata* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 20: 352 (Vanikora).

Material.—One, 90.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.

Distribution.—Reunion, Zanzibar, Madagascar, India, Malay Archipelago, Gulf of Siam, Oceanic Islands of Pacific.

14. *Sardinella fimbriata* (Cuvier and Valenciennes)

1847. *Sparatella fimbriata* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 20: 359 (Malabar).

Material.—One, 137.0 mm., Off Kundugal point, 15. iii. 1955 ; Three, 141.0-148.0 mm., Thangachimadam, 14. iii. 1955, all *M.A.S. Menon* Coll.

Distribution.—India, Ceylon, Burma, Singapore, Malay Archipelago, Gulf of Siam, South China Sea, China.

15. *Sardinella longiceps* Cuvier and Valenciennes

1847. *Sardinella longiceps* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 20: 273 (Pondicherry).

Material.—Ten, 113.0-120 mm., Tiruchendur, 28. ii. 1962, *V K. Prem Kumar* Coll.

Distribution.—Arabia, Seychelles, India, Ceylon, Andamans, Malay Archipelago, Philippines.

16. *Hilsa kanagurta* (Bleeker)

1852. *Alausa kanagurta* Bleeker, *Verh. Bat. Gen.*, 24: 13, 34 (Batavia, Muntok, East Indies).

Material.—Eighteen, 65.0-113.0 mm., Porto Novo, 8. v. 1960 ; Four, 73.0-103.0 mm., Vellar Estuary (Porto Novo), 5. v. 1960, all *A. Daniel* Coll.

Distribution.—Aden, Zanzibar, India, Ceylon, Malaya, Gulf of Siam, Malay Archipelago, Philippines.

17. *Ilisha elongata* (Bennett)

1830. *Alosa elongata* Bennett, *Mem. Life Raffles*, 691 (Sumatra).

Material.—One, 213.0 mm., Thangachimadam, 14. iii. 1955, *M. A. S. Menon* Coll.

Distribution.—India, Ceylon, Malaya, Gulf of Siam, Malay Archipelago, Taiwan, China, Japan.

18. *Ilisha indica* (Swainson)

1839. *Platygaster indicus* Swainson, *Nat. Hist. Animals*, 2: 294 (On *Ditchoee* Russell 1803, *Fish. Coromandel*, 2: 74, Vizagapatnam)

Material.—Four, 79.0-90.0 mm., Off Kundugal point, 15. iii. 1955, *M. A. S. Menon* Coll.

Distribution.—East Africa, India, Burma, Malay Peninsula, Malay Archipelago, Gulf of Siam, China.

19. *Pellona ditchela* Cuvier and Valenciennes

1847. *Pellona ditchela* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 20: 314 (On *Ditchelee* Russell 1803, *Fish. Coromandel* 2: 72).

Material.—Two, 128.0 & 131.0 mm., Tondiarpet beach, 7 x. 1960; Two, 136.0 & 138.0 mm., Chepauk beach, 11. x. 1960, all A. Daniel Coll.

Distribution.—East Africa, Madagascar, India, Ceylon, Burma, Malaya, Malay Archipelago, Gulf of Siam, Queensland.

20. *Opisthopterus tardoore* (Cuvier)

1829. *Pristigaster tardoore* Cuvier, *Regne Animal*, 2 (ed. 2): 321 (On *Tartoore* Russell 1803, *Fish. Coromandel*, 2: 74, Vizagapatnam).

Material.—Two, 74.0 & 80.0 mm., Chepauk beach, 11. x. 1960, A. Daniel Coll.

Distribution.—India, Ceylon, Burma, Malaya, Malay Archipelago, Gulf of Siam, China.

21. *Nematalosa nasus* (Bloch)

1795. *Clupea nasus* Bloch, *Naturg. Ausland. Fische*, 9: 116, (Malabar).

Material.—One, 95.0 mm., Point Calimere, 7. ii. 1962, V K. Prem Kumar Coll. One, 166.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.

Distribution.—Iraq, India, Ceylon, Burma, Philippines.

22. *Anodontostoma chacunda* (Hamilton)

1822. *Clupanodon chacunda* Hamilton, *Fish. Ganges*, 246, 383 (Gangetic estuaries).

Material.—One, 98.0 mm., Triplicane beach, 9. viii. 1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Andamans, Burma, Malay Peninsula, Malay Archipelago, Gulf of Siam, Philippines, Oceanic Islands of Pacific.

Family 9. ENGRAULIDAE

23. *Coilia dussumieri* Cuvier and Valenciennes

1848. *Coilia dussumieri* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 21: 81 (Bombay; Mahe; Pondicherry).

Material.—One, 101.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.

Distribution.—India, Malaya, Malay Archipelago, Gulf of Siam.

24. *Anchoviella commersonii* (Lacépède)

1803. *Stolephorous commersonii* Lacépède, *Hist. Nat. Poiss.*, 5: 381, 382 (type locality not mentioned).

Material.—Four, 51.0-70.0 mm., Chepauk beach, 11.x.1960, A. Daniel Coll.

Distribution.—Zanzibar, Mauritius, India, Ceylon, Malaya, Malay Archipelago, Philippines, China, Oceanic Islands of Pacific.

25. *Anchoviella indica* (van Hasselt)

1823. *Engraulis indica* van Hasselt, *Algem. Konst. Letterbode*: 329 (Java).

Material.—Nineteen, 36.0-75.0 mm., Marina beach, 19.iii.1961, S.R.S., Z.S.I., Coll. One, 65.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll. Two, 55.0 & 80.0 mm., Tiruchendur, 28.ii.1962, V. K. Prem Kumar Coll.

Distribution.—Zanzibar, India, Andamans, Malay Peninsula, Malay Archipelago, Gulf of Siam, China, Philippines, Oceanic Islands of Pacific.

26. *Anchoviella tri* (Bleeker)

1852. *Engraulis tri* Bleeker, *Verh. Bat. Gen.*, 24: 40 (Batavia).

Material.—Two, 68.0 & 70.0 mm., Tiruchendur, 28.ii.1962, V. K. Prem Kumar Coll.

Distribution.—India, Malay Peninsula, Malay Archipelago, Philippines.

27 *Thrissocles hamiltonii* (Gray)

- 1833-34. *Thrissa hamiltonii* Gray, *Illust. Indian Zool. Hardwicke*, 2: 92 (India).

Material.—Two, 68.0 & 83.0 mm., Point Calimere, 11.ii.1962, V. K. Prem Kumar Coll.

Distribution.—India, Ceylon, Malaya, Malay Archipelago, Gulf of Siam, Philippines.

28. *Thrissocles mystax* (Bloch and Schneider)

1801. *Clupea mystax* Bloch and Schneider, *Syst. Ichth.*: 426 (Malabar).

Material.—Two, 122.0 & 150.0 mm., Tondiarpet beach, 7 x.1960; One, 148.0 mm., Chepauk beach, 11. x.1960,

all *A. Daniel* Coll.; Two, 118.0 & 140.0 mm., Rayapuram beach, 23. xi. 1961, *S.R.S.*, *Z.S.I.*, Coll.

Distribution.—From India and Ceylon to Malaya, Malay Archipelago, Gulf of Siam, China and also Queensland (Coastal Waters)

29. *Thrissocles setirostris* (Broussonet)

1782. *Clupea setirostris* Broussonet, *Ichth.*, 1: pl. 11 (Tanna, New Hebrides).

Material.—One, 141.0 mm., Tondiarpet beach, 7 x. 1960; One, 122.0 mm., Elliots beach, 9. x. 1960, all *A. Daniel* Coll. One, 138.0 mm., Triplicane beach, 9. viii. 1961, *S.R.S.*, *Z.S.I.*, Coll.

Distribution.—Red Sea, Arabia, east coast of Africa, India, Burma, Malaya, Gulf of Siam, Malay Archipelago, Philippines.

Order 5. SCOPELIFORMES

Family 10. SYNODIDAE

30. *Saurida tumbil* (Bloch)

1795. *Salmo tumbil* Bloch, *Naturg. Ausland. Fische*, 9: 112 (type locality not given).

Material.—Four, 90.0-131.0 mm., Tiruchendur, 28. ii. 1962, *V K. Prem Kumar* Coll.

Distribution.—Red Sea, Madagascar, Zanzibar, India, Andamans, Ceylon, Malay Archipelago, Taiwan, China, Philippines, Japan, Australia, Sandwich. Island.

31. *Trachinocephalus myops* (Bloch and Schneider)

1801. *Salmo myops* Bloch and Schneider, *Syst. Ichth.*: 421 (St. Helena).

Material.—One, 163.0 mm., Marina beach, 22. v. 1961, *S.R.S.*, *Z.S.I.*, Coll.

Distribution.—Natal, India, Malay Archipelago, Taiwan, China, Philippines, Japan, Oceania.

Order 6. CYPRINIFORMES

Family 11. ARIIDAE

32. *Tachysurus sona* (Hamilton)

1822. *Pimelodus sona* Hamilton, *Fish. Ganges*: 172, 376 (Estuaries of Bengal).

Material.—One, 155.0 mm., Thangachimadam, 14. iii. 1955,
M. A. S. Menon Coll.

Distribution.—From Bombay, through the seas of India
entering estuaries and tidal rivers.

Family 12. PLOTOSIDAE

33. *Plotosus anguillaris* (Bloch)

1794. *Platystacus anguillaris* Bloch, *Naturg. Ausland. Fische*, 8: 61
(type locality not given).

Material.—Seven, 45.0-60.0 mm., Triplicane beach,
19. iii. 1961, S.R.S., Z.S.I., Coll.

Distribution.—Widely distributed in Indo-West Pacific
ranging from Red Sea and east coast of Africa to
Australia, Japan and Philippines (seas, estuaries and
rivers).

34. *Plotosus canius* Hamilton

1822. *Plotosus canius* Hamilton, *Fish. Ganges*: 142, 374 (rivers of
Southern Bengal).

Material.—Two, 96.0 & 101.0 mm., Marina beach,
22. v. 1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Ceylon, Burma to Malay Archipelago
(seas, estuaries and rivers)

Family 13. BAGRIDAE

35. *Mystus gulio* (Hamilton)

1822. *Pimelodus gulio* Hamilton, *Fish. Ganges*: 201, 379 (Gangetic
estuaries).

Material.—Eight, 95.0-193.0 mm., Porto Novo, 7 v. 1960,
A. Daniel Coll. Three, 78.0-105.0 mm., Point Calimere,
7 ii. 1962, V K. Prem Kumar Coll.

Distribution.—From the coast of India, Ceylon to Malay
Archipelago (estuaries and tidal rivers).

Order 7 ANGUILLIFORMES

Family 14. ANGUILLIDAE

36. *Anguilla bicolor* McClelland

1845. *Anguilla bicolor* McClelland, *Cal. Journ. Nat. Hist.*, 5: 178
(Sandoway on the Malay coast).

Material.—One, 216.0 mm., Marina beach, 21.ix.1961; Three, 81.0-140.0 mm., Adayar river, 20.iv.1961, all S.R.S., Z.S.I., Coll.

Distribution.—India, Andamans, Malay Archipelago (catadromous inhabiting in fresh waters of coastal plains and spawning at sea).

Family 15. MURAENIDAE

37 ***Evenchelys macrurus*** (Bleeker)

1854. *Muraena macrurus* Bleeker, *Nat. Tijds. Ned. Ind.*, 7: 324 (Java).
Material.—One, 360.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Natal, India, Ceylon, Malay Archipelago, Taiwan, New Guinea, Queensland (coastal and estuarine waters entering fresh waters).

Family 16. MURAENESOCIDAE

38. ***Muraenesox talabonoides*** (Bleeker)

1853. *Conger talabonoides* Bleeker, *Verh. Batavia Genootsch.*, 25: 20 (Batavia, Java).

Material.—One, 225.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll.

Distribution.—India, east to East Indian Archipelago, north to Philippines and China.

Family 17. CONGRIDAE

39. ***Ariosoma anago*** (Schlegel)

1846. *Conger anago* Schlegel, *Fauna Japan Poiss.*: 259 (Nagasaki Bay, Japan).

Material.—One, 250.5 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—From the coast of Coromandel to Malay Archipelago and Japan.

40. ***Uroconger lepturus*** (Richardson)

1844-45. *Conger lepturus* Richardson, *Zool. Voy. Sulphur.*: 106, pl. 56, figs. 1-6 (coasts of China).

Material.—One, 240.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—From the coast of Oman, India to Malay Archipelago, China and Philippines.

Family 18. OPHICHTHYIDAE

41 *Ophichthys apicalis* (Bennett)

1830. *Ophisurus apicalis* Bennett, *Cat. Zool. Spec.*, (in *Memoir Life Raffles*): 692 (Java).

Material.—One, 240.0 mm., Santhome beach, 8. x. 1960, A. Daniel Coll.

Distribution.—India, China, East Indian Archipelago, Philippines.

42. *Pisoodonophis boro* (Hamilton)

1822. *Ophisurus boro* Hamilton, *Fish. Ganges*: 20, 363 (Ganges River, Bengal).

Material.—Three, 160.0-530.0 mm., Marina beach, 22. xi. 1961, S.R.S., Z.S.I., Coll.

Distribution.—From India to Malay Archipelago, Taiwan, New Guinea (seas and estuaries ascending large rivers far above the tidal influences).

43. *Pisoodonophis cancrivorus* (Richardson)

1844-48. *Ophisurus cancrivorus* Richardson, *Voy. "Erebus and Terror"*, *Ichth.*: 97 (Port Essington, Northern Territory).

Material.—Two, 150.0 & 408.0 mm., Elliots beach, 9.x.1960; One, 270.0 mm., Krusadi Island, 1.x.1960, all A. Daniel Coll.

Distribution.—Arabia, Madagascar, India to Malay Archipelago, China, South to Australia and Samoa (salt and brackish waters)

Order 8. BELONIFORMES

Family 19. HEMIRHAMPHIDAE

44. *Hemirhamphus far* (Forsk.)

1775. *Esox far* Forskal, *Descript. Animal, Hauniae*: 67 (Lohaja, Red Sea).

Material.—Four, 152.0-192.0 mm., Marina beach, 6. x. 1960, A. Daniel Coll.

Distribution.—Widely distributed in the Indo-West Pacific, ranging from the Red Sea and east coast of Africa to

Riu Kiu Islands in the north and the Society Island in the east.

45. **Hemirhamphus gaimardi** Cuvier and Valenciennes

1846. *Hemirhamphus gaimardi* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 19: 36 (Moluccas, Ambonia, New Guinea, Port Jackson).
Material.—Three, 113.0-157.0 mm., Point Calimere, 11. ii. 1962 ; One, 100.0 mm., Tiruchendur, 28. ii. 1962, all A. Daniel Coll.

Distribution.—From Iran, India, Burma to Malay Archipelago, Ambonia, New Guinea, Philippines and Australia (seas and estuaries).

Family 20. EXOCOETIDAE

46. **Cypselurus spilopterus** (Cuvier and Valenciennes)

1846. *Exocoetus spilopterus* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 19: 113 (Oualan, Caroline Islands).
Material.—One, 175.0 mm., Marina beach, 5. vi. 1961, S.R.S., Z.S.I., Coll.

Distribution.—Seas of India to the Malay Archipelago, Oceanic Islands of Pacific.

Order 9. SYNGNATHIFORMES

Family 21. SYNGNATHIDAE

47 **Doryichthys cunculus** Hamilton

1822. *Doryichthys cunculus* Hamilton, *Fish. Ganges*: 12, 362 (estuaries near Calcutta).
Material.—Two, 143.0 & 155.0 mm., Madavakkum Kalleys, 19. vii. 1961, S.R.S., Z.S.I., Coll.

Distribution.—India (estuaries and tidal rivers ascending far above the tidal influence).

48. **Microphis brachyurus** (Bleeker)

1853. *Syngnathus brachyurus* Bleeker, *Verh. Bat. Gen.*, (East Indian Archipelago).
Material.—Five, 115.0-130.0 mm., Triplicane beach, 19. iii. 1961, S.R.S., Z.S.I., Coll.

Distribution.—Tropical Indo-West Pacific from east coast of Africa to the East Indian Archipelago, Philippines, Japan and south east to Society Islands (In fresh, brackish and salt water of rivers and estuaries).

49. *Syngnathoides biaculeatus* (Bloch)

1785. *Syngnathus biaculeatus* Bloch, *Naturg. Ausland. Fische*, **1**: 10 (East Indies).

Material.—One, 175.0 mm., Off Vedalai fishing village, 17 iii.1955, M. A. S. Menon Coll.

Distribution.—Red Sea, east coast of Africa, seas of India, Malay Archipelago, China, Australia.

50. *Syngnathus cyanospilosus* Bleeker

1854. *Syngnathus cyanospilosus* Bleeker, *Nat. Tijds. Ned. Ind.*, **6**: 114 (Banda Islands).

Material.—One, 75.0 mm., Porto Novo, 5.v.1960, A. Daniel Coll.

Distribution.—From the east coast of Africa to seas of India to the Malay Archipelago, Philippines and Taiwan.

51. *Tachyrhampus serratus* (Schlegel)

1850. *Syngnathus serratus* Schlegel, *Fauna Japan Poiss.*, 272, (Nagasaki, Japan).

Material.—One, 225.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll. One, 181.0 mm., Vellar estuary (Porto Novo), 8. v. 1960, A. Daniel Coll.

Distribution.—From India, Ceylon, Gulf of Siam, Singapore, China and Japan.

Order 10. MUGILIFORMES**Family 22. SPHYRAENIDAE****52. *Sphyraena acutipinnis* Day**

1878. *Sphyraena acutipinnis* Day, *Fish. India*: 342 (Sind).

Material.—One, 201.0 mm., Off Kundugal point, 15.iii.1955, M. A. S. Menon Coll.

Distribution.—Indian seas.

53. *Sphyraena obtusa* Cuvier and Valenciennes

1803. *Sphyraena obtusa* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, **3**: 324 (Pondicherry, Malabar, India; Bourbon Island; Port Jackson, Australia).

Material.—One, 148.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—All over the tropical Indian Ocean from the Red Sea and east coast of Africa to Riu Kiu Islands, Philippines, south Australia, New Zealand and Fiji Islands (coastal waters).

Family 23. MUGILIDAE

54. ***Liza macrolepis*** (Smith)

1849. *Mugil macrolepis* Smith, *Ill. Zool. South Africa*, 4 (no pagination) (rivers and fresh water lakes of South Africa).
Material.—Three, 83.0-86.0 mm., Porto Novo, 8. v. 1960 ; One, 105.0 mm., Vellar estuary, Porto Novo, 5. v. 1960, all A. Daniel Coll. Three, 168.0-22.0 mm., Point Calimere, 11. ii. 1962, V K. Prem Kumar Coll. One, 260.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.
Distribution.—From East Africa, Madagascar to China and Japan, the Marshall and Tuamotu Islands (in the sea, in rivers and lakes).

55. ***Liza vaigiensis*** (Quoy and Gaimard)

1825. *Mugil vaigiensis* Quoy and Gaimard, *Voy. "Uraïne" Zool.*, : 337, (Waïgiu).
Material.—Five, 125.0-135.0 mm., Inshore area of Palk Bay, 28. ix. 1960, A. Daniel Coll.
Distribution.—From the east coast of Africa to the East Indian Archipelago, China, throughout the Philippines, east to Marshall and Tuamotu Islands, south to Australia.

56. ***Mugil cephalus*** Linnaeus

1758. *Mugil cephalus* Linnaeus, *Syst. Nat.*, London, ed. 10, p. 316 (European Ocean).
Material.—Two, 117.0 & 136.0 mm., Porto Novo, 8. v. 1960, A. Daniel Coll.
Distribution.—Widely distributed in the tropical and temperate waters of the Indian, S. Atlantic and S. Pacific Oceans (common in estuaries entering fresh water).

57 ***Mugil tade*** Forskal

1775. *Mugil tade* Forskal, *Descript. Animal*, Hauniae : 14, 74 (Arabia).
Material.—Four, 125.0-210 mm., Porto Novo, 7 v. 1960, A. Daniel Coll.

Distribution.—Tropical Indo-Pacific, from the Red Sea to the Philippines, China, Guam and Australia (marine, entering rivers).

Order 11. POLYNEMIFORMES

Family 24. POLYNEMIDAE

58. *Eleutheronema tetradactylus* (Shaw)

1804. *Polynemus tetradactylus* Shaw, *Gen. Zool.* 5: 155 (On *Wagajelle* Russell 1803, *Fish. Coromandel*, 2: 67 Vizagapatnam).

Material.—Two, 99.0 & 162.0 mm., Point Calimere, 11. ii. 1962, V K. Prem Kumar Coll.

Distribution.—Seas of India to the Malay Archipelago, China, Taiwan, Philippines and south to Australia.

Order 12. PERCIFORMES

Family 25. LATIDAE

59. *Lates calcarifer* (Bloch)

1790. *Holocentrus calcarifer* Bloch, *Naturf. Ausland. Fische*, 4: 100, pl. 244 (Japan).

Material.—One, 137.0 mm., Pamban bridge (Pamban), 29. ix. 1960, A. Daniel Coll.

Distribution.—Persian Gulf, India, Burma, Ceylon, Malaya, Gulf of Siam, Amoy, Hainan, Canton, Philippines, Japan, Queensland, Oceanic Islands of Pacific (shallow coasts and river mouths).

Family 26. THERAPONIDAE

60. *Pelates quadrilineatus* (Bloch)

1790. *Holocentrus quadrilineatus* Bloch, *Naturg. Ausland. Fische*, 4: 82 ("The Orient").

Material.—Two, 124.0 & 136.0 mm., Tondiarpet beach, 7. x. 1960; Three, 45.0-120.0 mm., Pamban, 29. ix. 1960; Thirty-two, 27.0-42.0 mm., Krusadi Island, 1. x. 1960, all A. Daniel Coll. Three, 104.0-110.00 mm., Off Kundugal point, 15. iii. 1955, M. A. S. Menon Coll.

Distribution.—Widely spread in the Indo-West Pacific extending from Red Sea, east coast of Africa through Malay Archipelago to Japan, Philippines and Australia (coastal and brackish waters)

61. *Therapon jarbua* (Forsk.)

1775. *Sciaena jarbua* Forskal, *Descript. Animal, Hauniaae*, 12: 50 (Djedda, Red Sea).

Material.—One, 115.0 mm., Marina beach, 4.x.1961, S.R.S., Z.S.I., Coll. Nine, 35.0-70.0 mm., Point Calimere, 7 xii.1962; Two, 40.0 & 70.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll. One, 131.0 mm., Pamban bridge (Pamban), 29.ix.1960; Eighty-five, 24.0-72.0 mm., Kundugal point, 2.x.1960, A. Daniel Coll.

Distribution.—Widely distributed in the Indo-West Pacific ranging from Red Sea and east coast of Africa to Fiji and Samoa, north to Japan, south to Australia (coastal waters and estuaries).

62. *Therapon puta* Cuvier and Valenciennes

1829. *Therapon puta* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 3: 131 (Pondicherry; Mahe).

Material.—One hundred and twenty-six, 23.0-51.0 mm., Palk Bay (near lagoon), 3.x.1960, A. Daniel Coll.

Distribution.—Indo-West Pacific ranging from Red Sea and east coast of Africa to New Britain (Bismark Archipelago), and Queensland (coastal and brackish waters).

Family 27. SILLAGINIDAE

63. *Sillago sihama* (Forsk.)

1775. *Atherina sihama* Forskal, *Descript. Animal, Hauniaae*: 13, 70 (Lohaja, Red Sea).

Material.—Three, 54.0-80.0 mm., Point Calimere, 7 ii.1962; Three, 81.0-89.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll. One, 193.0 mm., Palk Bay, 28.ix.1960, A. Daniel Coll. Three, 131.0-173.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll.

Distribution.—Widely spread from Red Sea and east coast of Africa to Australia, Japan and Oceanic Islands of Pacific (coastal waters and estuaries).

Family 28. CARANGIDAE

64. *Alectis ciliaris* (Bloch)

1787. *Zeus ciliaris* Bloch, *Naturg. Ausland. Fischè*, 6: 29, pl. 191 (East Indies; Surat).

Material.—One, 60.0 mm., Santhome beach, 8.x.1960, A. Daniel Coll. Six, 55.0-65.0 mm., Marina beach 5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—From the Red Sea and Natal to Japan, Australia and Tahiti.

65. *Alectis indica* (Rüppell)

1828. *Scyris indicus* Rüppell, *Atlas Fische Roth. Meer.*, Frankfurt: 128 (Djedda, Red Sea).

Material.—One, 50.0 mm., Vedalai, 17 iii.1955, M. A. S. Menon Coll.

Distribution.—From the Red Sea and east coast of Africa to China, Australia, the Society Islands and Hawaii.

66. *Atule kalla* (Cuvier and Valenciennes)

1833. *Caranx kalla* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 9: 49 (Malabar; Mahe; Red Sea).

Material.—One, 129.0 mm., Porto Novo, 9.v.1960, A. Daniel Coll. Twenty-one, 78.0-92.0 mm., Tiruchendur, 28. ii. 1962, V K. Prem Kumar Coll.

Distribution.—All over the tropical Indo-Pacific, from Red Sea and east coast of Africa to Australia, Japan, and Oceanic Islands of Pacific.

67. *Atule malam* (Bleeker)

1851. *Selar malam* Bleeker, *Nat. Tijds. Ned. Ind.*, 1: 362 (Batavia, Java).

Material.—One, 152.0 mm., Off Kundugal point, 15. iii. 1955, M. A. S. Menon Coll.

Distribution.—India, Andamans, Malay Archipelago, north to China and Taiwan, south to Queensland, Australia.

68. *Atule mate* (Cuvier and Valenciennes)

1833. *Caranx mate* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 9: 54 (Pondicherry; Seychelles; New Guinea; Anjer Strait).

Material.—One, 155.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—From the Red Sea and Natal to the Hawaiian Islands and Tahiti, north to Riu Kiu Islands, south to Australia.

69. *Caranx chrysophrys* Cuvier and Valenciennes

1833. *Caranx chrysophrys* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, **9**, 77 (Seychelles).
Material.—One, 160.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.
Distribution.—From the east coast of Africa to the Malay Archipelago, Philippines, China, Taiwan, Queensland.

70. *Citula armata* (Forsk.)

1775. *Sciaena armata* Forskal, *Descript. Animal*: 53 (Red Sea).
Material.—One, 160.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.
Distribution.—From the Red Sea and Madagascar to the Philippines, Japan, Australia and Samoa.

71. *Megalaspis cordyla* (Linnaeus)

1758. *Scomber cordyla* Linnaeus, *Syst. Nat.* ed. 10: 298 (East Indies).
Material.—One, 85.0 mm., Marina beach, 5. vi. 1961, S.R.S., Z.S.I., Coll.
Distribution.—Widely distributed in the Indo-West Pacific ranging from Red Sea, east coast of Africa to Oceanic Islands of Pacific.

72. *Scomberoides tol* (Cuvier and Valenciennes)

1831. *Cnorinemus tol* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, **8**: 385 (Pondicherry).
Material.—One, 255.0 mm., Sinnur (Porto Novo), 9. v. 1960, A. Daniel Coll. One, 248.0 mm., Off Kundugal point, 15. iii. 1955, M. A. S. Menon Coll.
Distribution.—From Red Sea and east coast of Africa to Formosa, Philippines and Japan.

73. *Selaroides leptolepis* (Cuvier and Valenciennes)

1833. *Caranx leptolepis* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, **9**: 63 (Java)
Material.—Four, 127.0-134.0 mm., Off Kundugal point, 15. iii. 1955, M. A. S. Menon Coll.
Distribution.—From the coast of Arabia, India, Ceylon to China, Taiwan, Philippines, Riu Kiu Islands, south to Australia and Queensland.

Family 29. LACTARIIDAE

74. *Lactarius lactarius* (Bloch and Schneider)

1801. *Scomber lactarius* Bloch and Schneider, *Syst. Ichth.*, 31 (Tranquebar).

Material.—Five, 41.0-89.0 mm., Chepauk beach, 11. x. 1960, A. Daniel Coll. Two, 161.0 & 196.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll.

Distribution.—Widely distributed from Red Sea and east coast of Africa to Japan, Australia and Oceanic Islands of Pacific (coastal waters).

Family 30. LUTIANIDAE

75. *Lutianus fulviflamma* (Forsk.)

1775. *Sciaena fulviflamma* Forskal, *Descript. Animal.*: 45 (Arabia).

Material.—Two, 155.0 & 178.0 mm., Vedalai, 11. iii. 1955; One, 180.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.

Distribution.—From the Red Sea, east coast of Africa, seas of India to the Malay Archipelago, Philippines, Taiwan, Australia, Fiji and Tahiti.

76. *Lutianus johnii* (Bloch)

1792. *Anthias johnii* Bloch *Naturg. Ausland. Fische*, 6: 113.

Material.—Three, 92.0-117.0 mm., Mandapam Camp, 27 ix. 1960, A. Daniel Coll.

Distribution.—Coasts of Africa to Philippines, China, Australia and Tahiti.

Family 31. NEMIPTERIDAE

77. *Nemipterus bleekeri* (Day)

1875. *Synagris bleekeri* Day, *Fish. India*: 92 (Madras).

Material.—Five, 71.0-126.0 mm., Tiruchendur, 28. ii. 1962, V K. Prem Kumar Coll.

Distribution.—Seas of India, Ceylon and Malaya.

Family 32. LEIOGNATHIDAE

78. *Leiognathus dussumieri* (Cuvier and Valenciennes)

1835. *Equula dussumieri* Cuvier and Valenciennes, *Hist. Nat. Poiss.* 10: p. 77 (Coromandel coast).

Material.—One, 95.0 mm., Elliots beach, 9. x. 1960, A. Daniel Coll.

Distribution.—From Madagascar, coasts of India, Ceylon, Andamans to Australia and Oceanic Islands of Pacific.

79. *Leiognathus insidiator* (Bloch)

1787. *Zeus insidiator* Bloch, *Naturg. Ausland. Fische*, 3: 41, 192 (Suratt, India).

Material.—Fifteen, 25.0-63.0 mm., Triplicane beach, 9. iii. 1961, S.R.S., Z.S.I., Coll.

Distribution.—Widespread from the coast of Africa to China, Philippines, and Oceanic Islands of Pacific.

80. *Leiognathus lineolatus* (Cuvier and Valenciennes)

1835. *Equula lineolata* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 10: 86 (Java; Anjer).

Material.—One, 123.0 mm., Elliots beach, 9. x. 1960; Three, 75.0-78.0 mm., Santhome beach, 11. x. 1960, A. Daniel Coll. Thirty-three, 31.0-60.0 mm., Rayapuram beach, 23. xi. 1961, S.R.S., Z.S.I., Coll.; One, 131.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.

Distribution.—From Madagascar, India and Ceylon to Malaya, Malay Archipelago, Japan and Queensland.

81. *Leiognathus ruconius* (Hamilton)

1822. *Chanda ruconius* Hamilton, *Fish. Ganges*: 106, 371 (Ganges estuaries).

Material.—One, 55.0 mm., Ennur bridge, 5. xii. 1961, S.R.S., Z.S.I., Coll.; Eight, 32.0-66.0 mm., Santhome beach, 8. x. 1960, A. Daniel Coll. Four, 57.0-72.0 mm., Thangachimadam, 14. iii. 1955, M. A. S. Menon Coll.; Six, 21.0-103.0 mm., Tiruchendur, 7. xii. 1962, V K. Prem Kumar Coll.

Distribution.—Widespread in Indo-West Pacific ranging from South Africa to Australia, Philippines and Taiwan (shallow coastal and estuarine waters).

82. *Leiognathus splendens* (Cuvier)

1829. *Equula splendens* Cuvier, *Regne Animal*, 2: 212 (on Gomorah korah Russell 1803, *Fish. Coromandel.*, 1: 48, fig. 61, Vizagapatnam).

Material.—Five, 47.0-67.0 mm., Marina beach, 8.iii.1961, S.R.S., Z.S.I., Coll.

Distribution.—From Red Sea, Madagascar, Mauritius, coasts of India, Ceylon to Malay Archipelago, Gulf of Siam, China, Taiwan, Philippines, Queensland and Oceanic Islands of Pacific.

Family 33. GERRIDAE

83. *Gerres filamentosus* Cuvier

1829. *Gerres filamentosus* Cuvier, *Regne Animal*, 2 (ed. 2): 188 (on *Wodowahah* Russell 1803, *Fish. Coromandel*, 1: 52, Vizagapatnam.)

Material.—Two, 103.0 & 123.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll.

Distribution.—Widespread from the Red Sea and east coast of Africa to Philippines, Japan, Queensland and Oceanic Islands of Pacific.

84. *Gerres limbatus* Cuvier and Valenciennes

1830. *Gerres limbatus* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 6: 476 (Malabar; Pondicherry).

Material.—Two, 62.0 & 66.0 mm., Point Calimere, 11.ii.1962, M. A. S. Menon Coll. One, 137.0 mm., Mandapam Camp, 28.ix.1960, A. Daniel Coll.

Distribution.—Seas of India, Burma, Malaya, Hainan.

85. *Gerres oyena* (Forsk.)

1775. *Labrus oyena* Forskal, *Descript. Animal*,: 35 (Suea; Djedda).

Material.—One, 135.0 mm., Mandapam Camp, 27 ix.1960, A. Daniel Coll.

Distribution.—Red Sea, Zanzibar, Madagascar, India, East Indies, Philippines, Caroline Islands, Fiji, Australia.

86. *Gerres poieti* Cuvier

1829. *Gerres poieti* Cuvier, *Regne. Animal*, 2 (ed. 2): 188 (Moluccas).

Material.—One, 75.0 mm., Mandapam Camp, 28. ix. 1960, A. Daniel Coll.

Distribution.—The Indian Ocean to East Indian Archipelago and Philippines.

87 **Gerres setifer** (Hamilton)

1822. *Chanda setifer* Hamilton, *Fish. Ganges*: 105, 370 (Ganges estuaries).

Material.—Thirty-two, 32.0-63.0 mm., Point Calimere, 7 ii. 1962; Two, 48.0-50.0 mm., Point Calimere, 11. ii. 1962, all V K. Prem Kumar Coll.

Distribution.—Seas of India, Burma, Ceylon, Malaya, Gulf of Siam, Hongkong.

Family 34. POMADASYIDAE

88. **Pomadasys guoraca** (Cuvier and Valenciennes)

1830. *Pristipoma guoraca* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 5: 256 (on *Guoraca* Russell 1803, *Fish. Coromandel*, 2, p. 24, pl. 132, Vizagapatnam, India).

Material.—One, 87.0 mm., Mandapam Camp, 27. ix. 1960, A. Daniel Coll.

Distribution.—East Coast of Africa to the East Indian Archipelago, and the Philippines.

Family 35. SCIAENIDAE

89. **Johnius dussumieri** (Cuvier and Valenciennes)

1830. *Corvina dussumieri* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 5: 119 (Malabar).

Material.—Four, 78.0-94.0 mm., Chepauk beach, 11. x. 1960, A. Daniel Coll.

Distribution.—From the coast of Natal to India, Malaya, Malay Archipelago, Gulf of Siam, South China Sea, Korea, Philippines, Oceanic Islands of Pacific.

90. **Johnius semiluctosus** (Cuvier and Valenciennes)

1830. *Corvina semiluctosa* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 5: p. 106 (Malabar; Goa; Pondicherry).

Material.—One, 92.0 mm., Tiruchendur, 28. ii. 1962, V K. Prem Kumar Coll.

Distribution.—Seas of India to Malay Archipelago, China and Philippines.

91. **Sciaena dussumieri** (Cuvier and Valenciennes)

1833. *Umbrina dissumieri* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 9: 481 (Coromandel coast).

Material.—One, 122.0 mm., Rayapuram beach, 10.x.1961, S.R.S., Z.S.I., Coll.

Distribution.—East coast of Africa, Madagascar, India, Ceylon, Malaya, Malay Archipelago, Gulf of Siam, South China Sea, Canton, Taiwan, Philippines.

Family 36. LETHRINIDAE

92. *Lethrinus microdon* Cuvier and Valenciennes

1830. *Lethrinus microdon* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 6 : 295 (Buru).

Material.—Five, 46.0-121.0 mm., Pamban, 29.ix.1960, A. Daniel Coll.

Distribution.—Tropical Indian Ocean to the East Indian Archipelago and the Philippines.

Family 37. MULLIDAE

93. *Mulloidichthys auriflamma* (Forsk.)

1775. *Mullus auriflamma* Forskal, *Descript. Animal*: 10, 30 (Djedda, Red Sea).

Material.—Three, 97.0-107.0 mm., Tiruchendur, 28.ii.1962, V K. Prem Kumar Coll.

Distribution.—Tropical Indo-Pacific from Africa to Hawaii and Marquesas Islands.

94. *Parupeneus indicus* (Shaw)

1803. *Mullus indicus* Shaw, *Gen. Zool.*, 4: 611 (Indian Sea).

Material.—One, 113.0 mm., Pamban bridge, 29.ix.1960, A. Daniel Coll.

Distribution.—Red Sea and east coast of Africa to Philippines, Southern Japan, Samoa and Tonga Islands (marine, entering river mouths).

95. *Upeneus bensasi* (Schlegel)

1842. *Mullus bensasi* Schlegel, *Fauna Japan Poiss.*: 30 (Bay of Nagasaki).

Material.—One, 69.0 mm., Tiruchendur, 28.ii.1962, V K. Prem Kumar Coll.

Distribution.—From east coast of Africa to India, Malay Archipelago, China, Japan to Philippines.

96. *Upeneus vittatus* (Forsk.)

1775. *Mullus vittatus* Forskal, *Descript. Animal.*: 10, 31 (Djedda, Red Sea).

Material.—One, 134.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll.

Distribution.—Widespread in the Indo-West Pacific, ranging from Red Sea and east coast of Africa to Japan, Philippines, Australia and Oceanic Islands of Pacific.

Family 38. DREPANIDAE

97 *Drepane punctata* (Linnaeus)

1758. *Chaetodon punctata* Linnaeus, *Syst. Nat.*, 1, ed. 10, p. 273 (Asia).

Material.—One, 124.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll. Two, 44.0 & 51.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll. Three, 78.0-105.0 mm., Point Calimere, 7.ii.1962, V K. Prem Kumar Coll.

Distribution.—Red Sea and east coast of Africa to Australia, China, Taiwan, Philippines, Queensland, Oceanic Islands of Pacific (coastal and estuarine waters).

Family 39. SCATOPHAGIDAE

98. *Scatophagus argus* (Linnaeus)

1766. *Chaetodon argus* Linnaeus, *Syst. Nat.*, 1, ed. 12: 464 (India).

Material.—Two, 33.0 & 48.0 mm., Point Calimere, 7.ii.1962, V K. Prem Kumar Coll.

Distribution.—Coasts of India, Ceylon, Burma, Malaya, Malay Archipelago, Gulf of Siam, China, Taiwan, Philippines, Australia, Queensland, Oceanic Islands of Pacific (coastal waters entering estuaries, rivers, and lakes).

Family 40. CHAETODONTIDAE

99. *Chaetodon collaris* Bloch

1787. *Chaetodon collaris* Bloch, *Naturg. Ausland. Fische*, 3: 116, pl. 216 (Japan).

Material.—One, 56.0 mm., Vedalai, 17.iii.1955, M. A. S. Menon Coll.

Distribution.—Tropical Indian Ocean to East Indian Archipelago and the Philippines.

Family 41. SCARIDAE

100. **Scarus harid** Forskal

1775. *Scarus harid* Forskal, *Descript. Animal*: 10, 30 (Red Sea, Arabia).

Material.—Three, 115.0-147.0 mm., Thangachimadam, 14.iii.1955, M. A. S. Menon Coll.

Distribution.—In the tropical Indo-Pacific, from Red Sea, east coast of Africa, Madagascar to the Caroline, Samoa and Tuamotu Islands.

Family 42. BLENNIIDAE

101. **Omobranchus kallosoma** (Bleeker)

1858. *Petroscirtes kallosoma* Bleeker, *Nat. Tijds. Ned. Ind.*, 15: 227 (Billiton).

Material.—One, 47.0 mm., Madras Harbour, 7.x.1960, A. Daniel Coll.; One, 54.0 mm., Palk Bay (Mandapam), 13.iii.1955, M. A. S. Menon Coll.

Distribution.—India, East Indian Archipelago, Philippines and Hawaii Islands.

Family 43. BROTULIDAE

102. **Brotula jerdoni** Day

1888. *Brotula jerdoni* Day, *Fish. India Suppl.*: 804 (Madras).

Material.—One, 125.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Madras coast (Bay of Bengal).

Family 44. SIGANIDAE

103. **Siganus javus** Linnaeus

1766. *Siganus javus* Linnaeus, *Syst. Nat.*, 1, ed. 12: 507 (Java).

Material.—One, 78.0 mm., Pamban bridge, 29.ix.1960, A. Daniel Coll.

Distribution.—Indo-Pacific, from India to the East

Indian Archipelago and Philippines, south to Australia.

104. **Siganus oramin** (Bloch and Schneider)

1801. *Amphacanthus guttatus* var. *oramin* Bloch and Schneider, *Syst. Ichth.*,: 207 (Tranquebar, India).
Material.—One, 123.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.; Two, 116.0 & 118.0 mm., Mandapam Camp, 27 ix.1960, A. Daniel Coll.
Distribution.—Widespread in Indo-West Pacific, ranging from east coast of Africa to Japan, Australia, Queensland and Oceanic Islands of Pacific.

Family 45. TRICHIURIDAE

105. **Trichiurus haumela** (Forsk.)

1775. *Clupea haumela* Forskal, *Descript. Animal*: 72 (Mochha, Red Sea).
Material.—Three, 220.0-340.0 mm., Tondiarpet beach, 7.x.1960, A. Daniel Coll.
Distribution.—Red Sea, South Africa, India, Ceylon, Malaya, Malay Archipelago, Gulf of Siam, China, Taiwan, Philippines, Japan, Riu Kiu Islands.

106. **Trichiurus savala** Cuvier

1829. *Trichiurus savala* Cuvier, *Regne Animal*, 2 (ed. 2): 219 (Sea of the Indies).
Material.—One, 250.0 mm., Marina beach, 5.ix.1961, S.R.S., Z.S.I., Coll. Three, 145.0-293.0 mm., Sinnar (Porto Novo), 9.v.1960, A. Daniel Coll.
Distribution.—From India and Ceylon to Malaya, Malay Archipelago, Gulf of Siam, China, Japan, Philippines, Queensland (coastal waters entering estuaries).

Family 46. SCOMBRIDAE

107 **Rastrelliger kanagurta** (Cuvier)

1829. *Scomber kanagurta* Cuvier, *Regne Animal*, 2 (ed. 2): 197 (foot note based on *kanagurta* Russell 1803, *Fish. Coromandel*, 2: 28 (Vizagapatnam, India).
Material.—One, 210.0 mm., Off Kundugal point, 15.iii.1955, M.A.S. Menon Coll,

Distribution.—Widespread in Indo-West Pacific ranging from Red Sea and east coast of Africa to Japan, Australia, Oceanic Islands of the Pacific (open sea and coastal waters).

Family 47. CYBIIDAE

108. *Scomberomorus commerson* (Lacépède)

1800. *Scomber commerson* Lacepede, *Hist. Nat. Poiss.*, 2: 598, 600, (type locality not given).

Material.—Two, 80.0 & 165.0 mm., Triplicane beach, 19.iii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Widely distributed in Indo-West Pacific, ranging from Red Sea and east and south coast of Africa to Japan, Australia, Oceanic Islands of the Pacific (coastal and brackish waters).

109. *Scomberomorus guttatus* (Bloch and Schneider)

1801. *Scomber guttatus* Bloch and Schneider, *Syst. Ichth.*: 23 (Tranquebar).

Material.—One, 81.0 mm., Triplicane beach, 19.iii.1961, S.R.S., Z.S.I., Coll.

Distribution.—From Persian Gulf through India and Ceylon to Malay Archipelago, Gulf of Siam, China Taiwan, Philippines (open sea and coastal waters enters rivers)

Family 48. STROMATEIDAE

110. *Pampus argenteus* (Euphrasen)

1788. *Stromateus argenteus* Euphrasen, *Kon. Vet. Akad. Nya. Handl. Stockholm*, Stockholm, 9: 49 (Sea of China)

Material.—Three, 51.0-75.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Ceylon, Malay Archipelago, Gulf of Siam, South China Sea, China, Korea, Japan, Riu Kiu Islands, Philippines and Hawaii.

Family 49. ELEOTRIDAE

111. *Eleotris fusca* (Bloch and Schneider)

1801. *Poecilia fusca* Bloch and Schneider, *Syst. Ichth.*: 453 (New Hebrides, in streams).

Material.—Fourteen, 45.0-64.0 mm., Adayar river, 20.iv.1961, S.R.S., Z.S.I., Coll.

Distribution.—From the east coast of Africa to the Philippines, Guam and through Polynesia to the Hawaiian and Marquesas Islands, north to Riu Kiu Islands.

Family 50. GOBIIDAE

112. **Acentrogobius madraspatensis** (Day)

1868. *Gobius madraspatensis* Day, *Proc. zool. Soc. London*: 152 (Madras back waters).

Material.—One, 63.0 mm., Krusadi Island, 1.x.1960, A. Daniel, Coll.

Distribution.—Coromandel coast of India.

113. **Acentrogobius neilli** (Day)

1868. *Gobius neilli* Day, *Proc. zool. Soc. London*: 152 (Madras).

Material.—One, 72.0 mm., Krusadi Island, 1.x.1960, A. Daniel Coll.

Distribution.—Coromandel coast of India.

114. **Apocryptes dentatus** Cuvier and Valenciennes

1837. *Apocryptes dentatus* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 12: 392 (Pondicherry; Calcutta).

Material.—Two, 138.0 & 140.0 mm., Hare Island, 16.iii.1955, M.A.S. Menon Coll.

Distribution.—Coromandel coast of India.

115. **Ctenogobius nebulosus** (Forsk.)

1775. *Gobius nebulosus* Forskal, *Descript. Animal*: 10, 24 (Djedda, Red Sea).

Material.—One, 80.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—East coast of Africa, Seas of India, Malay Archipelago, Philippines, New Guinea and north-west coast of Australia.

116. **Ctenotrypauchen microcephalus** (Bleeker)

1860. *Trypauchen microcephalus* Bleeker, *Act. Soc. Sci. Indo-Neerl.*, 8, 62 (Sangi-duri, Borneo; in freshwater).

Material.—Two, 85.0 & 88.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—From Persian Gulf, India, Andamans to Gulf of Siam, Malay Archipelago and Philippines.

117 *Glossogobius giuris* (Hamilton)

1822. *Gobius giuris* Hamilton, *Fish. Ganges*: 51 (ponds and fresh water rivers of the Gangetic provinces).

Material.—Four, 148.0-216.0 mm., Porto Novo, 7.v.1960, A. Daniel Coll.

Distribution.—From east coast of Africa to Australia and New Caledonia, Philippines, China and Japan (fresh and salt waters).

118. *Oligolepis acutipennis* (Cuvier and Valenciennes)

1837. *Gobius acutipennis* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 12: 60 (Malabar).

Material.—Six, 51.0-81.0 mm., Marina beach, 26.iv.1961, S.R.S., Z.S.I., Coll.

Distribution.—Natal, India, Ceylon, Andamans to Malay Archipelago, Philippines, New Hebrides (seas and estuaries).

119. *Pseudopocryptes lanceolatus* (Bloch and Schneider)

1801. *Eleotris lanceolata* Bloch and Schneider, *Syst. Ichth*: 67 (Tranquebar).

Material.—Thirteen, 173.0-180.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll.

Distribution.—Seas of India to Malay Archipelago.

Family 51. SCORPAENIDAE

120. *Pterois russellii* (Bennett)

1831. *Pterois russellii* Bennett, *Proc. zool. Soc. London*, 1: 128 (on Kodipungi Russell 1803, *Fish. Coromandel*, 2: 25, Vizagapatnam, India).

Material.—One, 130.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—From the east coast of Africa to India, East Indian Archipelago, Philippines, south east to Australia.

121. Sebastichthys strongia (Cuvier and Valenciennes)*

1829. *Scorpaena strongia* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 4: 323 (Caroline Islands).

Material.—Six, 64.0-81.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—From India, Ceylon to Polynesia and Hawaii (coastal waters).

Family 52. SYNANCEIIDAE

122. Minous monodactylus (Bloch and Schneider)

1801. *Scorpaena monodactyla* Bloch and Schneider, *Syst. Ichth.*: 194 (type locality not given).

Material.—Two, 60.0 & 65.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—Red Sea, Mauritius, Maldives, Iranian Gulf, Coasts of India, Ceylon, South China Sea, Malaya, Malay Archipelago, China and Japan.

Family 53. TRIGLIDAE

123. Lepidotrigla spiloptera Günther

1880. *Lepidotrigla spiloptera* Günther, *Challenger Shore Fishes*, 1: 42 (Ki Islands, 140 fathoms).

Material.—One, 120.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Zanzibar, Natal, Arabian Sea, Bay of Bengal, Sulu Islands, Borneo, Timor Sea, Arafura sea, Off Kei Island, Philippines.

Family 54. PLATYCEPHALIDAE

124. Platycephalus macracanthus Bleeker

1869. *Platycephalus macracanthus* Bleeker, *Akad. Wet. Amsterdam Verslag.*, 3(2): 253 (Ambonia).

Material.—One, 147.0 mm., Triplicane beach, 19.iii.1961, S.R.S., Z.S.I., Coll.

Distribution.—India to the Malay Archipelago.

125. Platycephalus scaber (Linnaeus)

1758. *Cottus scaber* Linnaeus, *Syst. Nat.*, ed. 10, pt. 1: 451 (East Indies).

Material.—Five, 80.0-175.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Coasts of Natal and Zululand, Madagascar, India, Ceylon, Andamans, East Indian Archipelago, Gulf of Siam, South China, China, Taiwan (seas and estuaries)

Order 13. DACTYLOPTERIFORMES

Family 55. DACTYLOPTERIDAE

126. *Dactyloptera orientalis* (Cuvier and Valenciennes)

1829. *Dactylopterus orientalis* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, 4: 134 (Mauritius; Waigiu).

Material.—Two, 140.0 & 170 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—Widely distributed in the Indo West Pacific from east coast of Africa, Madagascar, Somalia, Mauritius to coast of India, Ceylon, Malay Archipelago, China, Japan, Korea, Taiwan, Philippines, coasts of Queensland, New South Wales, New Hebrides, New Caledonia, Riu Kiu Islands, eastwards to Hawaii and Tuamotu Islands.

Order 14. PLEURONECTIFORMES

Family 56. PSETTODIDAE

127 *Psettodes erumei* (Bloch and Schneider)

1801. *Pleuronectes erumei* Bloch and Schneider, *Syst. Ichth.*: 150 (Tranquebar).

Material.—One, 103.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—Widespread from Red Sea and east coast of Africa to Australia, Philippines, Japan.

Family 57. BOTHIDAE

128. *Citharichthys aureus* Day

1878. *Citharichthys aureus* Day, *Fish. India*: 422 (Madras).

Material.—One, 58.0 mm., Sinnur (Porto Novo), 9.v.1960, 9.v.1960, A. Daniel Coll.

Distribution.—Coromandel coast.

129. Pseudorhombus triocellatus (Bloch and Schneider)

1801. *Pleuronectes triocellatus* Bloch and Schneider, *Syst. Ichth.*: 145 (East Indian Seas).

Material.—Three, 102.0-108.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Burma, Ceylon, Malay Archipelago, Polynesia.

Family 58. SOLEIDAE

130. Brachirus albomaculatus (Kaup)

1858. *Synaptura albomaculata* Kaup, *Arch. Naturg.*, 24: 96 (Coromandel Coast).

Material.—One, 145.0 mm., Triplicane beach, 19.iii.1961, S.R.S., Z.S.I., Coll.

Distribution.—India, Burma, Malaya.

131. Microbuglossus ovatus (Richardson)

1846. *Solea ovata* Richardson, *Ichth. China Japan*: 279 (China).

Material.—One, 44.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll.

Distribution.—India, Malaya, Malay Archipelago, China, Philippines.

Family 59. CYNOGLOSSIDAE

132. Cynoglossus bilineatus (Lacépède)

1802. *Achirus bilineatus* Lacépède, *Hist. Nat. Poiss.*, 4: 659, 663 (China).

Material.—Three, 115.0-135.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I. Coll.

Distribution.—Red Sea, Zanzibar, Seychelles, Malaya, Malay Archipelago, China, Japan, Philippines and Queensland.

133. Cynoglossus brevirostris Day

1878. *Cynoglossus brevirostris* Day, *Fish. India*: 437 (Madras).

Material.—One, 90.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—Coromandel coast.

134. *Cynoglossus cynoglossus* (Hamilton)

1822. *Achirus cynoglossus* Hamilton, *Fish. Ganges*: 132, 373 (Ganges tidal mouths).

Material.—Three, 65.0-70.0 mm., Tiruchendur, 28.ii.1962, V K. Prem Kumar Coll.

Distribution.—Seas and estuaries of India, Penang, Malay Peninsula, Singapore.

135. *Cynoglossus semifasciatus* Day

1878. *Cynoglossus semifasciatus* Day, *Fish. India*: 436 (Madras).

Material.—Two, 78.0 & 113.0.0 mm., Tondiarpet beach, 7.x.1960, A. Daniel Coll.

Distribution.—Coromandel coast.

Order 15. TETRAODONTIFORMES**Family 60. TRIACANTHIDAE****136. *Pseudotriacanthus striglifer* (Cantor)**

1850. *Triacanthus striglifer* Cantor, *Journ. Asiat. Soc. Bengal*, 18 (2): 1345 (Penang).

Material.—One, 150.0 mm., Off Vedalai coast, 17.iii.1955, M. A. S. Menon Coll.

Distribution.—Persian Gulf, Coasts of India, Malaya Malay Archipelago, Gulf of Siam, China, Philippines.

137 *Triacanthus brevirostris* Schlegel

1850. *Triacanthus brevirostris* Schlegel, *Fauna Japan Poiss.*: 294 (Nagasaki).

Material.—One, 66.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll.

Distribution.—Seas of India to Malay Archipelago, Malaca, Gulf of Siam, Tonkin, China, Korea, Southern Japan, Philippines (sea and brackish waters).

138. *Triacanthus indicus* Regan

1903. *Triacanthus indicus* Regan, *Proc. zool. Soc. London*: 184 (India).

Material.—One, 115.0 mm., Marina beach, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—From Gulf of Iran, India, Ceylon, Penang (coastal waters).

Family 61: BALISTIDAE

139. **Abalistes stellaris** (Bloch and Schneider)

1801. *Balistes stellaris* Bloch and Schneider, *Syst. Ichth.*: 476 (Mauritius).

Material.—Two, 40.0 & 90.0 mm., Madras, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—Red Sea, Zanzibar, Mauritius, east and south coast of Africa, India, Malaya, Malay Archipelago, Gulf of Siam, China, Philippines, West Australia, Queensland, Oceanic Islands of Pacific.

Family 62. MONACANTHIDAE

140. **Monacanthus choirocephalus** Bleeker

1852. *Monacanthus choirocephalus* Bleeker, *Verh. Bat. Gen.*, 24: 19 (Batavia).

Material.—Two, 100.0 & 105.0 mm., Marina beach, 11.viii.1961. S.R.S., Z.S.I., Coll. Two, 71.0 & 80.0 mm., Off Vedalai coast, 17.iii.1955, M. A. S. Menon Coll.

Distribution.—India, Ceylon, Malay Archipelago, Gulf of Siam.

141. **Psilocephalus barbatus** (Gray)

1831. *Anacanthus barbatus* Gray, *Zool. Misc.*: 8 (Singapore).

Material.—Two, 188.0 & 220.0 mm., Off Vedalai coast, 17.iii.1955, M. A. S. Menon Coll.

Distribution.—Coasts of India, Ceylon, Andamans, Penang, Philippines, Queensland, West Australia.

Family 63. OSTRACIONTIDAE

142. **Ostracion cornutus** Linnaeus

1758. *Ostracion cornutus* Linnaeus, *Syst. Nat.*, London, ed. 10: 331 (India).

Material.—One, 238.0 mm., Off Vedalai coast, 17.iii.1955, M.A.S. Menon Coll.

Distribution.—Tropical Indo-Pacific from Natal, Africa to the Philippines, Japan, Australia, the Hawaiian, Society, Tuamotu and Marquesas Islands.

143. *Ostracion gibbosus* Linnaeus

1758. *Ostracion gibbosus* Linnaeus, *Syst. Nat.*, London, ed. 10: 322 (India).

Material.—One, 63.0 mm., Elliots beach, 9.x.1960, A. Daniel Coll. Four, 52.0-152.0 mm., Marina beach, 4.x.1961, S.R.S., Z.S.I., Coll. Two, 137.0 & 151.0 mm., Point Calimere, 11.ii.1962, V K. Prem Kumar Coll.

Distribution.—Indo-Pacific from the Red Sea, Aden, Zanzibar to the East Indian Archipelago and Philippines and north to Japan.

144. *Ostracion nasus* Bloch

1785. *Ostracion nasus* Bloch, *Naturg. Ausland. Fische*, 1: 118 (Nile-evidently an error).

Material.—One, 32.0 mm., Tondiarpet shore, 7.x.1960; One, 42.0 mm., Palk Bay, 3.x.1960, all A. Daniel Coll.

Distribution.—Coasts of India, Ceylon, Andamans, Penang, Malay Archipelago, Gulf of Siam, Philippines, W Australia, Queensland, the Pelew, Fiji, Cook, Society and Marquesas Islands.

Family 64. TETRAODONTIDAE

145. *Chelonodon fluviatilis* (Hamilton)

1822. *Tetrodon fluviatilis* Hamilton, *Fish. Ganges*: 6, 362 (fresh waters of lower Bengal).

Material.—One, 91.0 mm., Marina beach, 11.viii.1961, S.R.S., Z.S.I., Coll.

Distribution.—From India and Ceylon to the Philippines (coastal waters entering rivers and lagoons).

146. *Chelonodon patoca* (Hamilton)

1822. *Tetrodon patoca* Hamilton *Fish. Ganges*: 7, 362 (Gangetic estuaries).

Material.—One, 120.0 mm., Chepauk beach, 16.v.1960; Two, 108.0 mm., Santhome beach, 8.x.1960; Two, 95.0 & 115.0 mm., Elliots beach, 9.x.1960, all A. Daniel Coll.

Distribution.—Widespread Indo-West Pacific ranging from east coast of Africa to the Philippines and south to Australia (coastal waters, estuaries and lagoons).

147 **Sphoeroides inermis** (Schlegel)

1846. *Tetrodon inermis* Schlegel, *Fauna Japan Poiss.*: 278, (Japan).
Material.—One, 23.0 mm., Elliots beach, 20.x.1961, S.R.S., Z.S.I., Coll.
Distribution.—Widespread in Indo-West Pacific ranging from east coast of Africa to Japan (coastal waters).

148. **Sphoeroides lunaris** (Bloch and Schneider)

1801. *Tetrodon lunaris* Bloch and Schneider, *Syst. Nat.*: 505 (Malabar).
Material.—One, 150.0 mm., Santhome beach, 8.x.1960 ; One, 161.0 mm., Elliots beach, 9.x.1960, all A. Daniel Coll. Seventeen, 67.0-145.0 mm., Rayapuram beach, 1.xii.1961, S.R.S., Z.S.I., Coll.
Distribution.—Widespread in Indo-West Pacific ranging from east coast of Africa to Philippines, north to Japan, Queensland, New South Wales, Fiji and Solomon Islands.

149. **Sphoeroides oblongus** (Bloch)

1786. *Tetrodon oblongus* Bloch, *Naturg. Ausland. Fische*, 2: 6, (East Indies).
Material.—One, 70.0 mm., Marina beach, 5.vi.1961, S.R.S., Z.S.I., Coll.
Distribution.—Widespread in Indo-West ranging from Red Sea, east coast of Africa to Japan, Philippines, West Australia, New South Wales, New Hebrides, the Woodlark, Lord Howe, Kermadec and Samoa Island.

150. **Tetraodon immaculatus** Bloch and Schneider

1801. *Tetrodon immaculatus* Bloch and Schneider, *Syst. Ichth.*: 507 (no type locality).
Material.—Five, 40.0-125.0 mm., Vedalai, 13.iii.1955, M. A. S. Menon Coll.
Distribution. From Red Sea and east coast of Africa to the Philippines, Australia, Guam, Marshall, Gilbert, Samoa and Fiji Islands.

151 **Tetraodon reticularis** Bloch and Schneider

1801. *Tetrodon reticularis* Bloch and Schneider, *Syst. Ichth.*: 506 (Malabar).

Material.—Three, 32.0-81.0 mm., Krusadai Island, 1.x.1960; Two, 51.0 & 78.0 mm., Kundugal point (Pamban), 2.x.1960, all A. Daniel Coll.

Distribution.—Coasts of India, Ceylon, Andamans, Penang, Malay Archipelago, Taiwan, China, Philippines, Guam, New Britan, Queensland, Fiji and Thornton Islands.

Order 16. LOPHIIFORMES

Family 65. ANTENNARIIDAE

152. *Antennarius hispidus* (Bloch and Schneider)

1801. *Lophius hispidus* Bloch and Schneider, *Syst. Ichth.*: 142 (Coromandel coast, India).

Material.—Four, 35.0-110.0 mm., Madras, 22.v.1961, S.R.S., Z.S.I., Coll.

Distribution.—Coasts of Natal, Madagascar, Mauritius, Coasts of India, Ceylon, Penang, Malay Archipelago, Gulf of Siam, South China Sea, Hongkong, Philippines, Solomon, Fiji Islands, eastwards to Laysan, Hawaii and Society Islands.

153. *Antennarius nummifer* (Cuvier)

1817. *Chironectes nummifer* Cuvier, *Mem. Mus. Hist. Nat.*, 3: 430 (no type locality).

Material.—One, 70.0 mm., Madras, 5.vi.1961, S.R.S., Z.S.I., Coll.

Distribution.—Red Sea, Persian Gulf, Aden, Maldives, Coasts of India, Ceylon, China, Japan, Philippines, North Australia, the Carolus, Gilbert and Samoa Islands.

ZOOGEOGRAPHICAL REMARKS

The range of distribution of each species in the collection has been carefully investigated and analysed in order to give an idea as to the zoogeographical affinities of the shore fish fauna of the Coromandel coast, Palk Bay and Gulf of Mannar. The shore fishes in the collections are arranged in the following 6 groups according to their zoogeographical relationships.

Group I

The 10 species listed below are endemic to the Indian area.

1. *Tachysurus sona* (Ham.)
2. *Doryichthys cunculus* (Ham.)
3. *Sphyraena acutipinnis* Day
4. *Brotula jerdoni* Day
5. *Acentrogobius madraspatensis* (Day)
6. *Acentrogobius neilli* (Day)
7. *Cynoglossus brevirostris* Day
8. *Cynoglossus semifasciatus* Day
9. *Citharichthys aureus* Day
10. *Apocryptes dentatus* C. V

Group II

The 25 species listed below are found in the Indian and Malayan area only.

1. *Rhinobatos thouniana* (Shaw)
2. *Dasyatis (Himantura) favus* (Ann.)
3. *Bengalichthys impennis* Ann.
4. *Narcine brunea* Ann.
5. *Sardinella fimbriata* (C. V.)
6. *Opisthopterus tardoore* (C.)
7. *Coilia dossumieri* (C. V.)
8. *Anchoviella tri* (Blkr.)
9. *Thrissocles hamiltonii* (Gray)
10. *Plotosus canius* (Ham.)
11. *Mystus gulio* (Ham.)
12. *Muraenesox talabonoides* (Blkr.)
13. *Anguilla bicolor* McClell.
14. *Pisodonophis boꝛo* (Ham.)
15. *Ophichthys apicalis* (Bennett)
16. *Gerres limbatus* C. V
17. *Gerres setifer* (Ham.)
18. *Nemipterus bleekeri* (Day)
19. *Cypselurus spilopterus* (C. V.)
20. *Cynoglossus cynoglossus* (Ham.)
21. *Pseudopocryptes lanceolatus* (Bl. Schn.)
22. *Brachiurus albomaculatus* (Kaup)
23. *Platycephalus macracanthus* Blkr.

24. *Tetraodon fluviatilis* Ham.
25. *Monocanthus choirocephalus* (Blkr.)

Group III

The 22 species listed below are common to the Indian and Malayan area including one or more areas (Japanese, Australian or Polynesian) of the West Pacific.

1. *Scoliodon sorrakowah* (C.)
2. *Narcine tinlei* (Bl. Schn.)
3. *Ilisha elongata* (Bennett)
4. *Anodontostoma chacunda* (Ham.)
5. *Thrissocles mystax* (Bl. Schn.)
6. *Arisoma anago* (Schlg.)
7. *Tachyrhamphus serratus* (Schlg.)
8. *Eletheronema tetradactylus* (Shaw)
9. *Atule malam* (Blkr.)
10. *Johinus semiluctosus* (C.V.)
11. *Scatophagus argus* (L.)
12. *Trichiurus savala* C.
13. *Omobranchus kallosoma* (Blkr.)
14. *Siganus javus* (L.)
15. *Pampus argenteus* (Euphr.)
16. *Sebastichthys strongia* (C. V.)
17. *Pseudorhombus triocellatus* (Bl. Schn.)
18. *Microbuglossus ovatus* (Richardson)
19. *Triacanthus brevirostris* Schlg.
20. *Psilocephalus barbatus* (Gray)
21. *Ostracion nasus* Bl.
22. *Tetraodon reticularis* Bl. Schn.

Group IV

The 70 species listed below are spread from the East African area (Persian gulf, Arabia and Red sea) to the Malayan area including one or more West Pacific areas (Japanese, Australian or Polynesian).

1. *Chiloscyllium griseum* M. H.
2. *Scoliodon palasorrah* (C.)
3. *Narke dipterygia* (Bl. Schn.)
4. *Dussumieria acuta* (V.)

5. *Harengula vittata* (C. V.)
6. *Sardinella longiceps* C. V
7. *Hilsa kanagurta* (Blkr.)
8. *Ilisha indica* (Swainson)
9. *Pellona ditchella* C. V
10. *Nematalosa nasus* (Bl.)
11. *Anchoviella commersonii* (Lac.)
12. *Anchoviella indica* (V Hass.)
13. *Thrissocles setirostris* (Brouss.)
14. *Trachinocephalus myops* (Bl. Schn.)
15. *Evenchelys macrurus* (Blkr.)
16. *Uroconger lepturus* (Richardson)
17. *Posodonophis cancrivorous* (Richardson)
18. *Hemirhamphus far* (Forsk.)
19. *Hemirhamphus gaimardi* C. V
20. *Syngnathoides biaculeatus* (Bl.)
21. *Microphis brachyurus* (Blkr.)
22. *Syngnathus cyanospilosus* (Bl.)
23. *Sphyraena obtusa* C. V
24. *Liza macrolepis* (Smith)
25. *Liza vaigiensis* (Q. G.)
26. *Mugil tade* (Forsk.)
27. *Therapon putta* C. V
28. *Pelates quadrilineatus* (Bl.)
29. *Atule mate* (C. V.)
30. *Caranx chrysophrys* C. V
31. *Megalaspis cordyla* (L.)
32. *Selaroides leptolepis* (C. V.)
33. *Alectis indica* (Rupp.)
34. *Scomberoides tol* (C. V.)
35. *Lutianus johnii* (Bl.)
36. *Lutianus fulviflamma* (Forsk.)
37. *Leiognathus dussumieri* (C. V.)
38. *Leiognathus insidiator* (Bl.)
39. *Leiognathus lineolatus* (C. V.)
40. *Leiognathus ruconius* (Ham.)
41. *Gerres poieti* C.
42. *Pomadasys guroca* (C.)
43. *Johnius dussumieri* (C. V.)
44. *Sciaena dussumieri* (C. V.)
45. *Lethrinus microdon* C.V
46. *Mulloidichthys auriflamma* (Forsk.)

47. *Paraupeneus indicus* (Shaw)
48. *Upeneus bensasi* Schlg.
49. *Chaetodon collaris* Bl.
50. *Scarus harid* (Forsk.)
51. *Trichiurus haumela* (Forsk.)
52. *Scomberomorous guttatus* (Bl. Schn.)
53. *Eleotris fusca* (Bl. Schn.)
54. *Ctenogobius nebulosus* (Forsk.)
55. *Ctenotrypauchen microcephalus* (Blkr.)
56. *Oligolepis acutipennis* (C. V.)
57. *Pterois russellii* Bennett
58. *Minous monodactylus* (Bl. Schn.)
59. *Lepidotrigla spiloptera* Gunther
60. *Platycephalus scaber* (L.)
61. *Psettodes erumei* (Bl. Schn.)
62. *Cynoglossus bilineatus* (Lac.)
63. *Abalistis stellaris* (Bl. Schn.)
64. *Triacanthus indicus* Regan
65. *Pseudotriacanthus strigifer* (Cantor)
66. *Ostracion gibbosus* L.
67. *Chaelonodon patoca* (Ham.)
68. *Tetraodon immaculatus* (Bl. Schn.)
69. *Sphoeroides inermis* (Schlg.)
70. *Antennarius hispidus* (Bl. Schn.)

Group V

The 25 species listed below are wide spread throughout the Indo-West Pacific region ranging from east coast of Africa to the Australian, Japanese and Polynesian areas.

1. *Elop saurus* L.
2. *Megalops cyprinoides* (Brouss.)
3. *Saurida tumbil* (Bl.)
4. *Plotosus anguillaris* (Bl.)
5. *Therapon jarbua* (Forsk.)
6. *Sillago sihama* (Forsk.)
7. *Lactarius lactarius* (Bl. Schn.)
8. *Alectis ciliaris* (Bl.)
9. *Atule kalla* (C. V.)
10. *Citula armata* (Forsk.)
11. *Leiognathus splendens* (C.)

12. *Gerres filamentosus* C.
13. *Gerres oyena* (Forsk.)
14. *Lates calcarifer* (Bl.)
15. *Upeneus vittatus* (Forsk.)
16. *Drepane punctata* (L.)
17. *Siganus oramin* (Bl. Schn.)
18. *Rastrelliger kanagurta* (C.)
19. *Scomberomorous commersonii* (Lac.)
20. *Glossogobius giuris* (Ham.)
21. *Dactyloptena orientalis* (C. V.)
22. *Ostracion cornutus* L.
23. *Sphoeroides lunaris* (Bl. Schn.)
24. *Sphoeroides oblongus* (Bl.)
25. *Antennarius numifer* (C.)

Group VI

This group consists of a single species which is circumtropical in distribution.

1. *Mugil cephalus* L.

The above analysis revealed that out of the 153 species of shore fishes, 10 species or 6.5% are endemic to the Indian area, 25 species or 16.3% are found in the Indian and Malayan area only, 22 species or 14.5% are common to the Indian and Malayan area including one or more areas of the West Pacific, 70 species or 45.8% are spread from the Western Indian Ocean to the Malayan area including one or more areas of the West Pacific, 25 species or 16.3% are widely distributed throughout the Indo-West Pacific region. Only one species *Mugil cephalus* L. forming 0.6% is circumtropical in distribution.

It is clear from the above analysis that excluding endemic forms, 93.5% of the species of shore fishes in the collections are also found in the Malayan area. Menon (1966) pointed out that about 94.0% of the species of shore fishes from Pondicherry and Karaikkal areas, forming the intervening strip of the Coromandel Coast of India, are also found in the Malayan area. Thus, the present study indicates that the shore fish fauna of the Coromandel Coast, Palk Bay and Gulf of Mannar has a very close Malayan affinity.

SUMMARY

In all 153 species of shore fishes are listed including three rare forms and one new record from the fish collections of the Coromandel Coast, Palk Bay and Gulf of Mannar made during the years 1955 and 1960-62. Zoogeography of the shore fishes is briefly discussed.

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