

AN ANNOTATED CHECKLIST OF THE GOBIOID FISHES OF SINGAPORE

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ABSTRACT. – Singapore records for all gobioid fish species are provided, in addition to relevant synonyms. The list includes some doubtful records from the literature and gives correct identifications of misidentified Singapore species wherever possible. A total of 149 gobioid species are now known from Singapore, including several of dubious identity. Of these, 37 have not been recently reported nor found in recent collections from the island, possibly due to habitat changes. Nine species of gobioid fishes are recorded from Singapore for the first time.

KEY WORDS. – Singapore, Gobioidae, Gobiidae, Eleotridae, Microdesmidae, checklist.

INTRODUCTION

Singapore is an island state situated at the southern tip of the Malay Peninsula, between the Straits of Malacca and the South China Sea, at a latitude of 1°21'N. Due to this very low latitude, Singapore has a typically equatorial climate, influenced by monsoon winds. Singapore's gobioid fish fauna is predominantly Indo-Malayan, and includes some widespread Indo-Pacific taxa.

Singapore is sheltered around its northern coastline by the Malay Peninsula, and to a lesser degree, by Indonesia to the south. The salinity of the waters around Singapore is quite low, about 26–28 ppt, due to the many rivers and streams pouring fresh water into the shallow sea shelf. Currents around Singapore are predominantly generated by monsoon winds. From November to April, the prevailing north-east monsoon brings about a strong current running down the east coast of west Malaysia. At the eastern mouth of the Singapore Straits, one arm of this current extends into the Straits while the other runs south into the Java Sea. From May to October, the onset of the south-west monsoon reverses the current direction. These wind-driven currents and the sheltering effect of the surrounding land masses protect Singapore from

high wave energies, enabling mangroves to develop and flourish, especially along the northern coast. The southern shores and islands of Singapore generally receive higher wave energy, resulting in a patchy distribution of mangroves.

Due to extensive reclamation since the 1960s to expand the available land area, very little of Singapore's coastline remains in its original condition. This condition is further aggravated by water pollution from industrial and domestic sources. The heavy sea traffic around Singapore also negatively affects marine water quality. All these factors, along with current reclamation projects, cause considerable amounts of siltation that tend to smother coral and other sessile marine organisms. In Singapore, coral reefs and mangroves often occur close together. The extensive stretches of mangrove vegetation which once proliferated along the northern coastline of Singapore are now reduced to a few small patches such as at Mandai, Sungei Buloh, Lim Chu Kang and Pasir Ris. Both mangrove and coral reef ecosystems are home to most of Singapore's gobioid species. The decline of these habitats may have severe impacts on many species, although continuing work by SCUBA-diving photographers on the remaining coral reefs may reveal pockets of gobioid communities.

Gobioid fishes are found almost everywhere worldwide, predominantly in shallow coastal and inland waters. Of the estimated 2,000 or more species of gobioids in the world, over a hundred species have been recorded from Singapore. The first publication on Singapore fishes was by Bleeker (1852) where he referred to just three species of gobies from Singapore. Less than 10 years later Bleeker's 1861 summary of Singapore fishes included 35 species of gobies.

Fowler's (1938) list of the fishes from Malaya (present-day Peninsular Malaysia and Singapore), compiled largely from literature, included 87 species of gobies, 60 of which were recorded from the Singapore area. Herre's publications from 1934 to 1940 included new records and new species descriptions of gobioids from the country. Of the 26 nominal species described by Herre from Singapore, eight are still considered to be valid today.

Alfred (1966), in his monograph of the freshwater fishes of Singapore, recorded a single species of goby which he referred to as *Stigmatogobius poecilosoma*. Lim & Ng (1990) also treated the common pond goby in Singapore under this name, but stated that it was only a tentative identification. An examination of Alfred's material showed that he had misidentified the freshwater gobies. The common pond gobies of Singapore actually included two species, *Pseudogobiopsis oligactis* and *Pseudogobiopsis siamensis*. The specimens illustrated in Lim & Ng (1990) as *Stigmatogobius poecilosoma* are an introduced species of *Rhinogobius*.

Lim & Larson (1994) presented a preliminary checklist of Singapore gobioids as a symposium paper, but did not include formal synonymies. Larson's list (in Randall & Lim, 2000) of 361 marine and estuarine gobioids from the South China Sea included species from Singapore as well as Malaysia, Indonesia, Brunei, western Philippines, east coast of Thailand, Vietnam, Cambodia, the south-western tip of Taiwan and the southern coast of China. They did not include a number of species which, although having an estuarine to marine larval stage, lived as adults entirely in freshwater (the sicydiine gobies were excluded, as were *Awaous* and *Rhinogobius* species, but *Eleotris* species were included).

Larson & Lim (2005) produced a colour guidebook to the gobioid fishes of Singapore, which can be read as a companion to this checklist. The book included a key to genera, and 102 species are illustrated and diagnosed. Although not explicitly stated, Larson & Lim (2005) recorded six species from Singapore for the first time. These are *Brachyamblyopus brachysoma*, *Callogobius maculipinnis*, *Gobiopsis macrostoma*, *Mahidolia mystacina*, *Oxyurichthys uronema*, and *Silhouettea* cf. *nuchipunctata*.

Presently, 149 species of gobioid fishes are known from Singapore. Of these, 37 have not been recently reported (since 1970) nor have they been found in recent collections made from the island. Habitat changes may have contributed to this apparent loss of species. However, it is very possible that mislabelling of species that were purchased by collectors in

Singapore, but not actually collected from there, has erroneously contributed to the number of species for the island. For example, among the 40 species of dubious identity are well-known species such as the bumble-bee goby, *Brachygobius doriae*, commonly sold in aquarium shops, and the river goby *Sicyopterus macrostetholepis*, which requires steep swift freshwater streams, a habitat which has never existed in Singapore.

ANNOTATED CHECKLIST

The first Singapore record for each species is listed, as well as available literature records. Relevant synonyms are included. This checklist includes all doubtful records from the literature and provides correct identifications of misidentified Singapore species wherever possible. The catalogue number of verified material at the Raffles Museum of Biodiversity Research, the National University of Singapore (ZRC) and the Bernice P. Bishop Museum in Hawaii, USA (BPBM) is provided for new records. Localities in Singapore from where specimens have been collected are listed for each species. These are arranged in a sequence following the shorelines of Singapore Island, beginning with Bedok (on the south-east) westwards, northwards, then eastwards, and ending with Pulau Tekong (off the east coast) (Fig. 1).

In this checklist, nine species of gobioid fishes are recorded from Singapore for the first time. They are *Calamiana polylepis*, *Gobiopterus panayensis*, *Amblyeleotris periophthalma*, *Cryptocentrus inexplicatus*, *Cryptocentrus strigilliceus*, two undescribed species of *Cryptocentrus*, *Myersina nigrivirgata*, and *Oplopomops diacanthus*.

FAMILY ELEOTRIDAE

SUBFAMILY BUTINAE

Bostrychus sinensis Lacepède

Bostrychus sinensis Lacepède, 1801: 140–141 (China); Bleeker, 1877: 16–17 (Singapore); Fowler, 1938: 208 (Singapore); Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 49 (Singapore).

Philypnus ocellicauda – Bleeker, 1861: 32, 57 (Singapore).

Bostrichthys sinensis – Herre & Myers, 1937: 38 (Singapore); Koumans, 1953: 286–287 (Singapore); Gomez, 1980: 96 (Singapore).

ZRC material from: Serangoon.

Butis amboinensis (Bleeker)

Eleotris amboinensis Bleeker, 1853c: 343 (rivers of Amboina); Karoli, 1882: 167 (Singapore, Selina).

Butis amboinensis – Fowler, 1938: 208 (Seletar); Lim & Larson, 1994: 258 (Singapore).

Remarks: No recent material of this species from Singapore is available.

Butis butis (Hamilton)

Cheilodipterus butis Hamilton, 1822: 57, 367 (Ganges river, below Calcutta, India).

Eleotris butis – Martens, 1876: 392 (Singapore); Karoli, 1882: 167 (Change).

Butis melanopterus – Bleeker, 1861: 32, 57 (Singapore).

Butis butis – Bleeker, 1877: 62–64 (Singapore); Fowler, 1932: 448 (Singapore); Herre & Myers, 1937: 38 (Pulau Ubin); Fowler, 1938: 208 (Changi); Koumans 1953: 306-307 (Singapore); Tham, 1973: 218 (Singapore); Chua, 1973: 526 (Ponggol Estuary); Gomez, 1980: 96 (Singapore); Lim & Larson, 1994: 258 (Singapore); Lim & Low, 1998: 137 (Siglap canal); Ng & Sivasothi, 1999: 136-137 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 50 (Siglap canal).

Butis gymnopomus (non-Bleeker) – Johnson 1973b: 133 (Singapore).

ZRC material from: Siglap Canal, Sungei Berih, Sungei Buloh, Sungei Kangkar, Sungei Kranji, Sungei Seletar, Punggol, Sungei Serangoon, Pulau Ubin, Pulau Tekong..

Butis gymnopomus (Bleeker)

Eleotris gymnopomus Bleeker, 1853a: 274 (Sumatra occidentalis).

Butis gymnopomus – Bleeker, 1859–60a,c: 216, 450 (Singapore); Bleeker, 1861: 57 (Singapore); Bleeker, 1877: 70–72 (Singapore); Fowler, 1938: 208 (Singapore); Koumans, 1953: 311312 (Singapore); Lim & Larson, 1994: 258 (Singapore).

Remarks: No recent material from Singapore has been observed, although the species is known from nearby Pulau Bintan of the Riau Islands, Indonesia.

Butis humeralis (Valenciennes)

Eleotris humeralis Valenciennes, 1837: 246 (Bengal).

Butis melanostigma – Gomez, 1980: 96 (Singapore); Anonymous, 2003: 94 (Sungei Buloh).

Butis humeralis – Lim & Larson, 1994: 258 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 51 (Sungei Khatib Bongsu).

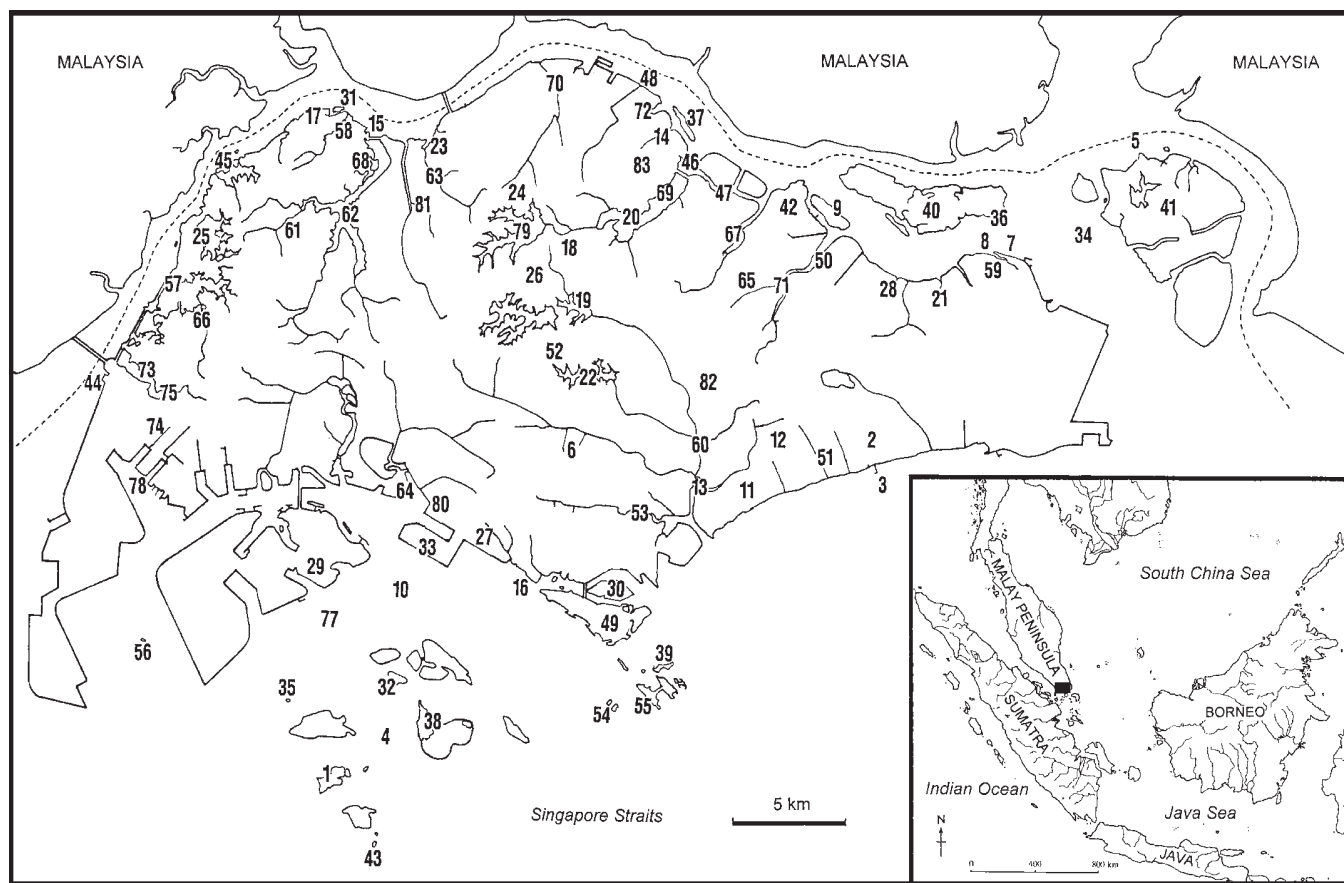


Fig. 1. Map showing Singapore and surrounding areas. Interrupted line represents the Singapore-Malaysia border. Inset is map of insular Southeast Asia with black rectangle indicating the position of Singapore. *Pulau* (island), *Sungei* (stream or river), *Terumbu* and *Berting* (reef). 1. Alligator Island (Pulau Pawai), 2. Bedok, 3. Bedok jetty, 4. Berting Bemban Laut, 5. Berting Bronok, 6. Botanic Gardens, 7. Changi beach, 8. Changi Point, 9. Coney Island (Pulau Serangoon), 10. Cyrene Reef (Terumbu Pandan), 11. Fort Road canal, 12. Geylang, 13. Kallang basin, 14. Khatib Bongsu, 15. Kranji mangroves, 16. Labrador beach, 17. Lim Chu Kang mangroves, 18. Lorong Banir, 19. Lower Peirce Reservoir, 20. Lower Seletar Reservoir, 21. Loyang mangroves, 22. MacRitchie Reservoir, 23. Mandai mangroves, 24. Mandai Road, 25. Murai Reservoir, 26. Nee Soon swamp-forest, 27. Pasir Panjang, 28. Pasir Ris, 29. Pulau Ayer Merbau, 30. Pulau Brani, 31. Pulau Buloh, 32. Pulau Hantu, 33. Pulau Retan Laut, 34. Pulau Sajahat, 35. Pulau Salu, 36. Pulau Sekudu, 37. Pulau Seletar, 38. Pulau Semakau, 39. Pulau Seringat, 40. Pulau Ubin, 41. Pulau Tekong, 42. Punggol, 43. Raffles Lighthouse, 44. Raffles Marina, 45. Sarimbun mangroves, 46. Seletar Dam, 47. Seletar Wet Gap, 48. Sembawang beach, 49. Sentosa, 50. Serangoon, 51. Siglap canal, 52. Sime Road forest, 53. Singapore River, 54. Sister's Island, 55. St. John's Island, 56. Sultan Shoal, 57. Sungei Berih (now part of Poyan Reservoir), 58. Sungei Buloh, 59. Sungei Changi, 60. Sungei Kallang, 61. Sungei Kangkar, 62. Sungei Kranji (now Kranji Reservoir), 63. Sungei Mandai, 64. Sungei Pandan, 65. Sungei Pinang, 66. Sungei Poyan (now Poyan Reservoir), 67. Sungei Punggol, 68. Sungei Sawa, 69. Sungei Seletar (now Lower Seletar Reservoir), 70. Sungei Sembawang, 71. Sungei Serangoon, 72. Sungei Simpang, 73. Sungei Tengeh (now Tengeh Reservoir), 74. Sungei Tuas, 75. Tengeh Reservoir, 77. Terumbu Pempang Laut, 78. Tuas basin, 79. Upper Seletar Reservoir, 80. West Coast Park, 81. Woodlands Road, 82. Woodleigh, 83. Yishun.

ZRC material from: Sungei Pandan, Sungei Tengeh, Pulau Buloh, Sungei Buloh, Sungei Sawa, Sungei Kangkar, Sungei Kranji, Sungei Mandai Kecil, Sungei Simpang, Khatib Bongsu, Sungei Seletar, Pulau Seletar, Punggol, Loyang mangroves, Sungei Changi.

Butis koilomatodon (Bleeker)

Eleotris koilomatodon Bleeker, 1849: 21 (Freto Madurae, prope Surabaya and Damal).

Eleotris caperata – Martens, 1876: 392 (Singapore); Karoli 1882: 167 (Selita [= Seletar]).

Prionobutis koilomatodon – Bleeker, 1877: 73–75 (Singapore); Herre & Myers, 1937: 38 (Pulau Ubin); Fowler, 1938: 210–211 (Singapore); Koumans, 1953: 313–314 (Singapore); Chua, 1973: 526 (Ponggol Estuary); Gomez, 1980: 96 (Singapore).

Butis koilomatodon – Bleeker, 1861: 32, 57 (Singapore); Lim & Larson, 1994: 258 (Singapore); Chua, 2002: 108 (Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 52 (Raffles Marina).

ZRC material from: Terumbu Pandan, Lim Chu Kang, Sungei Buloh, Johor Straits off Yishun, Sungei Simpang, Pulau Seletar, Punggol, Pulau Ubin, Pulau Sekudu, Changi.

Odonteleotris canina (Bleeker)

Eleotris canina Bleeker, 1849: 20 (Freto Madura, prope Surabaya and Kamal, W. Madurae).

Odonteleotris canina – Koumans, 1953: 331 (Singapore); Herre, 1940b: 49 (Singapore).

Remarks: No recent material known from Singapore.

Ophiocara porocephala (Valenciennes)

Eleotris porocephala Valenciennes, 1837: 237 (Seychelles and New Ireland).

Eleotris ophiocephalus – Karoli, 1882: 167 (Singapore).

Eleotris porocephalus – Bleeker, 1859–60c: 450 (Singapore); Bleeker, 1861: 57 (Singapore); Bleeker, 1877: 57 (Singapore).

Ophiocara porocephalus – Bleeker, 1877: 30–32 (Singapore).

Eleotris ophiocephalus – Bleeker, 1859–60a,c: 216, 450 (Singapore); Bleeker, 1861: 57 (Singapore).

Ophiocara ophiocephalus – Bleeker, 1877: 28–30 (Singapore); Fowler, 1938: 210 (Singapore).

Ophiocara porocephala – Fowler, 1932: 448 (Pulo Ubin); Herre & Myers, 1937: 38 (reefs at Singapore); Fowler, 1938: 209 (Pulau Ubin); Tweedie, 1940: 74 (Kranji); Koumans, 1953: 343–345 (Singapore); Chua, 1973: 526 (Ponggol Estuary); Gomez, 1980: 96 (Singapore); Lim & Larson, 1994: 260 (Singapore); Lim & Low, 1998: 138 (Sungei Buloh); Ng & Sivasothi, 1999: 136–137 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 53 (Singapore).

Ophiocara macrolepidotus – Fowler, 1938: 209 (Singapore).

ZRC material from: Siglap Canal, Sungei Kallang, West Coast Park, Sungei Pandan, Sungei Poyan, Pulau Buloh, Sungei Buloh, Kranji mangroves, Sungei Seletar, Sungei Punggol, Sungei Serangoon, Serangoon, Loyang mangroves, Pulau Ubin.

SUBFAMILY ELEOTRIDINAE

Eleotris fusca (Forster in Bloch & Schneider)

Poecilia fusca Bloch & Schneider, 1801: 453 (Oriadeae infuluae rivulis [= Pacific Seas]).

Culius fuscus – Bleeker, 1877: 40–42 (Singapore).

Culius niger – Bleeker, 1861: 32, 57 (Singapore).

Eleotris fusca – Fowler, 1938: 209 (Singapore); Koumans, 1953: 294–296 (Singapore); Gomez, 1980: 96 (Singapore); Lim & Larson, 1994: 259 (Singapore).

Remarks: No recent material from Singapore observed.

Eleotris melanosoma Bleeker

Eleotris melanosoma Bleeker, 1852b: 705 (Wahai, Ceram; Sumatra occidentalis).

Culius insulindicus Bleeker, 1875a: 107 (Padang, Sumatra; Singapore; Kajali; Buru; Amboina; Kupang, Timor); Bleeker, 1877: 48–50 (Singapore).

Culius melanosoma – Bleeker, 1877: 43–45 (Singapore).

Eleotris insulindicus Fowler, 1938: 209 (Singapore).

Eleotris melanosoma – Herre & Myers, 1937: 38 (Singapore); Fowler, 1938: 209 (Singapore); Koumans, 1953: 297–298 (Singapore); Akihito, 1967: 152 (Singapore); Gomez, 1980: 96 (Singapore); Lim & Larson, 1994: 259 (Singapore).

Eleotris insulindica – Koumans, 1953: 300–301 (Singapore); Gomez, 1980: 96 (Singapore).

Remarks: No recent material from Singapore observed.

Hypseleotris leuciscus (Bleeker)

Eleotris leuciscus Bleeker, 1853a: 278 (Sumatra occidentalis).

Asterropteryx modestus Bleeker, 1875a: 111 (Singapore and Benculen, Sumatra); Bleeker, 1877: 81–82 (Singapore); Fowler, 1938: 207 (Singapore).

Eleotris cyprinoides – Bleeker, 1861: 32, 57 (Singapore).

Hypseleotris cyprinoides – Fowler, 1938: 209 (Singapore).

Hypseleotris modestus – Koumans, 1953: 328 (Singapore); Gomez, 1980: 96 (Singapore).

Hypseleotris leuciscus – Lim & Larson, 1994: 259 (Singapore).

Remarks: No recent material from Singapore observed.

Giuris margaritacea (Valenciennes)

Eleotris margaritacea Valenciennes, 1837: 240 (Vanikolo).

Eleotris aporos – Karoli, 1882: 167 (Serangoon).

Ophiocara aporos – Fowler, 1938: 209 (Serangoon).

Ophioeleotris aporos – Lim & Larson, 1994: 260 (Singapore).

Remarks: No recent material from Singapore observed.

Oxyeleotris marmorata (Bleeker)

Eleotris marmorata Bleeker, 1852c: 424 (Borneo).

Oxyeleotris marmorata – Tweedie, 1936: 27 (Serangoon); Fowler, 1938: 266 (Serangoon); Herre, 1940b: 50 (streams on Singapore Island); Koumans, 1953: 354–355 (Singapore); Gomez, 1980: 96 (Singapore); Munro, 1990: 115, fig. 5; Lim & Ng, 1990: 112 (Singapore); Lim & Larson, 1994: 260 (Singapore); Ng & Lim, 1996: 113 (Central Catchment, Jurong Lake, Jalan Kayu); Anonymous, 2003: 95 (Sungei Buloh); Larson & Lim, 2005: 54 (MacRitchie Reservoir).

ZRC material from: Woodleigh, Sime Road forest, Lower Peirce Reservoir, Nee Soon swamp forest, Lorong Banir, Sungei Seletar, Upper Seletar Reservoir, Sungei Punggol, Serangoon.

Remarks: It is possible that this species was introduced in Singapore, as the earliest record is Tweedie's (1936) and it is unlikely that such an important large and edible species could have been overlooked by earlier collectors.

Oxyeleotris urophthalmus (Bleeker)

Eleotris urophthalmus Bleeker, 1851c: 202 (Bandjermassing, Borneo).

Oxyeleotris urophthalmus – Herre, 1940b: 51 (Kranji River); Koumans, 1953: 355–356 (Singapore); Gomez, 1980: 96 (Singapore); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 55 (Sungei Buloh, Loyang mangroves).

Oxyeleotris urophthalma – Anonymous, 2003: 94 (Sungei Buloh).

ZRC material from: Sungei Berih, Sungei Buloh, Sungei Punggol, Serangoon, Loyang mangroves.

FAMILY GOBIIDAE
SUBFAMILY AMBLYOPINAE

Brachyamblyopus brachysoma (Bleeker)

Amblyopus brachysoma Bleeker, 1853d: 510 (Priama, Sumatra).
Brachyamblyopus brachysoma – Larson & Lim, 2005: 74 (Kallang basin).

ZRC material from: Kallang Basin, Tuas Basin.

Ctenotrypauchen microcephalus (Bleeker)

Trypauchen microcephalus Bleeker, 1860a: 62 (Sungi-duri, Borneo, Indonesia); Karoli, 1882: 168 (Singapore); Lim & Larson, 1994: 261 (Singapore).

Ctenotrypauchen microcephalus – Fowler, 1938: 221 (Singapore); Herre, 1940b: 51 (brackish water in the Kranji River); Koumans, 1953: 282–283 (Singapore); Gomez, 1980: 95 (Singapore); Larson & Lim, 2005: 88 (Singapore).

ZRC material from: off Bedok jetty, off St. John's Island, off Pulau Sajahat.

Odontamblyopus rubicundus (Hamilton)

Gobioides rubicundus Hamilton, 1822: 37, 365, Pl. 5, Fig. 9 (India).
Odontamblyopus rubicundus – Koumans, 1953: 275–276 (Singapore); Lim & Larson, 1994: 260 (Singapore).

Remarks: No recent material from Singapore observed.

Taenioides gracilis (Valenciennes)

Amblyopus gracilis Valenciennes, 1837: 166 (Pondicherry, India).
Martens 1876: 392 (Singapore).

Amblyopus hermannianus – Bleeker 1861: 32, 57 (Singapore).

Taenioides coeculus Fowler, 1938: 222 (Singapore).

Taenioides gracilis – Fowler, 1938: 222 (Singapore); Lim & Larson, 1994: 261 (Singapore); Lim & Low, 1998: 142 (Singapore Straits); Larson & Lim, 2005: 153 (Jurong).

ZRC material from: Singapore River, Jurong.

Trypauchen vagina (Bloch & Schneider)

Gobius vagina Bloch & Schneider, 1801 (Tranquebar, India).

Trypauchen vagina – Bleeker, 1859–60a,c: 216, 450 (Singapore); Bleeker, 1861: 57 (Singapore); Fowler, 1938: 222 (Singapore); Koumans, 1953: 277–278 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 261 (Singapore); Lim & Low, 1999: 142 (Singapore Straits); Larson & Lim, 2005: 154 (Singapore).

ZRC material from: Kallang Basin, off Raffles Marina, off Changi Point, off Pulau Sajahat.

SUBFAMILY OXUDERCINAE

Apocryptodon madurensis (Bleeker)

Apocryptes madurensis Bleeker, 1849: 35 (Freto Madurae prope Surabaya et Bangcallang, Java, Indonesia).

Apocryptes glyphisodon – Bleeker, 1861: 32, 56 (Singapore); Fowler, 1938: 212 (Singapore).

Apocryptodon sealei – Herre & Myers, 1937: 46 (reef at Singapore).

Apocryptodon madurensis – Koumans, 1953: 254–255 (Singapore); Murdy, 1989: 9 (Singapore); Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 68 (Sarimbun).

ZRC material from: Pulau Hantu, Sarimbun mangroves, Pasir Ris, Pulau Ubin.

Boleophthalmus boddarti (Pallas)

Gobius boddarti Pallas, 1770: 11, Pl.2, Figs. 4–5 (Indian Ocean).

Boleophthalmus boddaerti – Karoli, 1882: 166 (Change [= Changi]) (lapsus); Bleeker, 1859–60b,c: 238, 450 (Singapore); Bleeker,

1861: 57 (Singapore); Fowler 1938: 213 (Singapore, Changi); Ip et al., 1990: 83 (Singapore).

Boleophthalmus boddarti – Koumans, 1953: 259–260 (Singapore); Murdy, 1989: 14 (Singapore); Lim & Larson, 1994: 258 (Singapore); Lim & Low, 1998: 139 (Singapore); Ng & Sivasothi, 1999: 139 (Singapore); Chua, 2002: 108 (Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 73 (Seletar Dam).

Boleophthalmus boddaerti – Gomez, 1980: 95 (Singapore).

ZRC material from: Sungei Pandan, Sungei Berih, Sungei Poyan, Sungei Buloh, Sungei Seletar, Pulau Seletar, Punggol, Sungei Serangoon, Pasir Ris.

Oxuderces dentatus Eydoux & Souleyet

Oxuderces dentatus Eydoux & Souleyet, 1848: 182, Pl. 8, Fig. 3 (Macao); Lim & Larson, 1994: 260 (Singapore).

Apocryptes dentatus – Martens, 1876: 392 (Singapore); Fowler, 1938: 212 (Singapore).

Remarks: No recent material from Singapore observed.

Parapocryptes serperaster (Richardson)

Apocryptes serperaster Richardson, 1846: 206 (Macao, China).

Parapocryptes macrolepis – Fowler, 1938: 219 (Singapore); Koumans, 1953: 251 (Singapore).

Apocryptes macrolepis – Bleeker, 1859–60b,c: 238, 450 (Singapore); Bleeker, 1861: 56 (Singapore).

Parapocryptes serperaster – Murdy, 1989: 24 (Singapore); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 128.

ZRC material from: Sungei Seletar.

Periophthalmodon schlosseri (Pallas)

Gobius schlosseri Pallas, 1770: 5, Pl. 1, Figs. 1–4 (Ambon, Indonesia).

Periophthalmus schlosseri – Cantor, 1850: 1173 (Singapore); Bleeker, 1852a: 58 (Singapore); Bleeker, 1861: 57 (Singapore); Duncker, 1905: 160–161 (Changi, Pulau Obi, Singapore).

Periophthalmodon schlosseri – Herre & Myers, 1937: 46 (Pulau Ubin); Fowler, 1938: 220 (Singapore); Koumans, 1953: 216–217 (Singapore); Tham, 1973: 218 (Singapore); Chua, 1973: 526 (Ponggol Estuary); Johnson, 1973b: 135 (Singapore); Gomez, 1980: 95 (Singapore); Ip et al., 1990: 83 (Singapore); Murdy, 1989: 28 (Singapore); Lim & Larson, 1994: 260 (Singapore); Lim & Low, 1998: 139 (Singapore); Ng & Sivasothi, 1999: 138139 (in part; Singapore); Chua, 2002: 109 (in part; Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Chua et al., 2003: 54 (Singapore); Larson & Lim, 2005: 129 (Pulau Ubin).

ZRC material from: Pasir Panjang, Sungei Pandan, Sungei Tengeh, Pulau Buloh, Sungei Buloh, Sungei Kranji, Mandai mangroves, Sungei Simpang, Khatib Bongsu, Sungei Seletar, Loyang mangroves, Pulau Ubin, Changi Point.

Periophthalmus argentilineatus Valenciennes

Periophthalmus argentilineatus Valenciennes, 1837: 191 (L'île de Waigio and d'Oualan and Java and New Guinea); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 130.

Periophthalmus vulgaris ceylonensis – Koumans, 1953: 212 (Singapore); Gomez, 1980: 95 (Singapore).

ZRC material from: Sungei Kallang, Sungei Sembawang, Sungei Simpang, Pulau Ubin, Changi Point.

Periophthalmus chrysospilos Bleeker

Periophthalmus chrysospilos Bleeker, 1852d: 728 (Karang, Banka Island, Indonesia); Steindachner, 1870: 563 (Singapore); Karoli, 1882: 166 (Sarangoon); Koumans, 1953: 202–203 (Singapore); Tham, 1973: 218 (Singapore); Gomez, 1980: 95 (Singapore); Ip et al., 1990: 83 (Singapore); Murdy, 1989: 36 (Singapore);

Lim & Larson, 1994: 260 (Singapore); Lim & Low, 1998: 140 (Siglap canal); Chua, 2002: 41, 59, 109 (Chek Jawa); Tan & Yeo, 2003: 40 (Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 131 (Chek Jawa).

?*Periophthalmus koelreuteri* – Karoli, 1882: 166 (Singapore).

Periophthalmus barbarus – Fowler, 1938: 220 (Serangoon, Singapore).

ZRC material from: Siglap canal, West Coast Park, Pulau Retan Laut, Raffles Lighthouse, Pulau Seletar, Pasir Ris, Pulau Ubin, Changi beach, Pulau Tekong.

Remarks: Karoli's *Periophthalmus koelreuteri* is possibly this species; he included material from Japan and Borneo under the same name.

Periophthalmus gracilis Eggert

Periophthalmus gracilis Eggert, 1935: 79 (Tjilatjap, Java; Mole, Batavia; Sumatra, Indonesia); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 132 (Singapore).

ZRC material from: Fort Road canal, St John's Island, Lim Chu Kang mangroves, Sungei Simpang, Pulau Seletar, Sungei Serangoon, Pulau Tekong.

Periophthalmus malaccensis Eggert

Periophthalmus malaccensis Eggert, 1935: 62, Figs. 3–4 (Singapore); Koumans, 1953: 205 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 260 (presumably Singapore).

Remarks: The types of this species were destroyed in WWII (Murdy, 1989). No recent material from Singapore observed.

Periophthalmus novemradiatus Hamilton

Gobius novemradiatus Hamilton, 1822: 47, 366, Pl. 2, Fig. 14 (Uttarbhag, Ganges Delta, India).

Periophthalmus novemradiatus – Lim & Larson, 1994: 260 (Singapore); Lim & Low, 1998: 140 (Singapore); Ng & Sivasothi, 1999: 139 (Singapore); Chua 2002: 109 (Chek Jawa);

Tan & Yeo, 2003: 40 (Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 133 (Sungei Simpang, Loyang mangroves).

ZRC material from: Siglap canal, St John's Island, Sungei Pandan, Lim Chu Kang mangroves, Sungei Simpang, Khatib Bongsu, Pulau Seletar, Punggol, Sungei Serangoon, Loyang mangroves, Pulau Ubin, Pulau Tekong.

Periophthalmus walailakae Darumas and Tantichodok

Periophthalmus walailakae Darumas and Tantichodok, 2001: 102–106 (Ngo, Ranong Province, southern Thailand); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 134 (Seletar Dam, Sungei Simpang).

Periophthalmodon schlosseri (non-Pallas) – Ng & Sivasothi, 1999: 138–139 (in part; Singapore); Chua, 2002 (in part; Chek Jawa).

Periophthalmus novemradiatus (non-Hamilton) – Chua et al., 2003: 54 (Singapore).

ZRC material from: Sungei Buloh, Sungei Simpang, Khatib Bongsu, Pulau Seletar, Pasir Ris, Pulau Ubin.

Remarks: Jaafar et al., (2006) discussed this species in Singapore, in comparison with *Periophthalmodon schlosseri*.

Pseudapocryptes borneensis (Bleeker)

Apocryptes borneensis Bleeker, 1855b: 421 (Bandjermassing, Borneo, Indonesia).

Pseudapocryptes borneensis – Murdy, 1989: 46 (Singapore); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 138.

Remarks: No recent material from Singapore observed.

Pseudapocryptes elongatus (Cuvier)

Gobius elongatus Cuvier, 1816: 255 (Tranquebar).

Apocryptes lanceolatus – Cantor, 1850: 1169 (Singapore); Bleeker, 1861: 56 (Singapore); Martens, 1876: 392 (Singapore); Duncker, 1905: 160 (Singapore).

Apocryptes changua – Bleeker, 1852a: 53, 58 (Singapore).

Pseudapocryptes lanceolatus – Herre & Myers, 1937: 46 (Pulau Ubin); Fowler, 1938: 220–221 (Singapore); Koumans, 1953: 248–249 (Singapore); Gomez, 1980: 95 (Singapore); Murdy, 1989: 48 (Singapore); Lim & Larson, 1994: 260 (Singapore).

Pseudopocryptes [sic] *lanceolatus* – Anonymous, 2003: 94 (Sungei Buloh).



Fig. 2. *Calamiana polylepis* from Pasir Ris, ZRC 50569: a, 21 mm SL male; b, 21 mm SL female. Photographs by Tan Heok Hui.



Fig. 3. *Amblyeleotris periophtalma* at Pulau Hantu. Photograph by Jani Thuaibah.

Pseudapocryptes elongatus – Larson & Lim, 2005: 139 (Singapore).
ZRC material from: Sungei Pandan, Sungei Buloh, Sungei Punggol, Pasir Ris, Pulau Tekong.

Scartelaos histophorus (Valenciennes)

Boleophthalmus histophorus Valenciennes, 1837: 210 (Bombay and Ganges River).

Scartelaos viridis – Gomez, 1980: 95 (Singapore); Ip et al., 1990: 83 (Singapore).

Scartelaos histophorus – Lim & Larson, 1994: 261 (Singapore); Chua, 2002: 109 (Chek Jawa); Larson & Lim, 2005: 147 (Pasir Ris).

ZRC material from: Pasir Ris, Pulau Ubin.

SUBFAMILY GOBIONELLINAE

Brachygobius doriae (Günther)

Gobius doriae Günther, 1868: 265, Pl. 12, Fig. A (Sarawak); Larson 2001: 51 (Singapore).

Remarks: The CAS material reported by Larson (2001) may have been purchased, but not actually collected, in Singapore. The species is otherwise not known from Singapore.

Brachygobius kabilensis Inger

Brachygobius kabilensis Inger, 1958: 110 (Kabili River, Sandakan District, East Coast Residency, North Borneo); Lim & Larson, 1994: 258 (Singapore); Ng & Sivasothi, 1999: 136–137 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 75 (Singapore).

Brachygobius xanthomelas Herre & Myers, 1937: 43 (Singapore) (in part); Inger, 1958: 110 (in part; Singapore).

Brachygobius nunus – Koumans, 1953: 194–195 (in part; Singapore).

Brachygobius kabilensis – Gomez, 1980: 95 (Singapore).

Brachygobius sua – Gomez, 1980: 95 (Singapore).

Brachygobius xanthomelas – Gomez, 1980: 95 (Singapore); Lim & Ng, 1990: 117 (Singapore); text refers to *B. kabilensis*, figure is *B. xanthomelas*).

ZRC material from: Sungei Tengeh, Sungei Berih, Sungei Poyan, Pulau Buloh, Sungei Buloh, Sungei Kangkar, Mandai mangroves, Sungei Simpang, Khatib Bongsu, Sungei Seletar, Pulau Seletar, Sungei Punggol, Sungei Serangoon, Sungei Pinang, Loyang mangroves.

Calamiana illota Larson

Pseudogobius sp. 4 – Lim & Larson, 1994: 260 (Singapore).

Calamiana illota Larson, 1999: 260–265 (Sungei Buloh mangroves, Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 77 (Woodlands).



Fig. 4. *Cryptocentrus inexplicatus* (BPBM 21880 - 4.7 cm SL) from Pulau Salu, 29 Jul. 1977. Photograph by J. E. Randall.

ZRC material from: Sungei Buloh, Woodlands, Mandai mangroves, Sungei Mandai, Khatib Bongsu, Loyang mangroves.

Calamiana polylepis (Wu & Ni)

Mugilogobius polylepis Wu & Ni, 1985: 95–96, Fig. 2 (Zhonggang, Fengxian, Shanghai).

ZRC material from: Pulau Tekong (1 ex.: ZRC 47532), Pasir Ris mangroves (2 ex.: ZRC 50569).

Remarks: New record for Singapore (Fig. 2).

Calamiana variegata (Peters)

Apocryptes variegatus Peters, 1868: 267 (Singapore).

Tamanka ubinensis Herre in Herre & Myers, 1937: 41, Pl. 3 (Pulau Ubin), Koumans, 1940: 153 (Pulau Ubin); Koumans, 1953: 157 (Pulu Ubin); Gomez, 1980: 95 (Singapore).

Gobiopterus variegatus – Koumans, 1953: 244–245 (Singapore); Gomez, 1980: 95 (Singapore).

Pseudogobius variegatus – Lim & Larson, 1994: 260 (Singapore).

Calamiana variegata – Larson, 1999: 273 (Pulau Ubin, Sungei Buloh); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 78 (Sungei Buloh).

ZRC material from: Pulau Buloh, Sungei Buloh, Mandai mangroves, Sungei Seletar, Seletar Dam, Pulau Seletar, Sungei Simpang, Khatib Bongsu, Pasir Ris, Loyang mangroves.

Gnatholepis anjerensis (Bleeker)

Gobius anjerensis Bleeker, 1851b: 251 (Anjer); Karoli, 1882: 164 (Singapore).

Gnatholepis anjerensis – Fowler, 1938: 216 (Singapore).

Remarks: There is no recent material known from Singapore.

Gnatholepis cauerensis (Bleeker)

Gobius cauerensis Bleeker, 1853a: 269 (Cauer, Sumatra); Fowler, 1938: 217 (Singapore).

Gobius ophthalmotaenia – Karoli, 1882: 164 (Singapore).

Acentrogobius cauerensis – Koumans, 1953: 68–70 (Singapore).

Acentrogobius caverensis – Gomez, 1980: 95 (Singapore).

Gnatholepis cauerensis – Lim & Larson, 1994: 259 (Singapore).

Remarks: There is no recent material known from Singapore.

Gobiopterus birtwistlei (Herre)

Gobiella birtwistlei Herre, 1934a: 85 (Singapore); Tweedie, 1936: 28 (Singapore); Herre & Myers, 1937: 45 (tidal creeks, Singapore); Fowler, 1938: 266 (Singapore).

Gobiopterus chuno (non-Hamilton) – Koumans, 1953: 244 (Singapore); Gomez, 1980: 95 (Singapore).

Gobiopterus cf *chuno* – Mok & Munro, 1991: 236 (in part; Sungei Buloh).

Gobiopterus birtwistlei – Lim & Larson, 1994: 259 (Sungei Buloh); Ng & Sivasothi, 1999: 136–137 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 107 (Loyang mangroves).

ZRC material from: Pulau Buloh, Sungei Buloh, Mandai mangroves, Khatib Bongsu.

Remarks: The species of this genus are under investigation by Larson and Kottelat.

Gobiopterus brachypterus (Bleeker)

Apocryptes brachypterus Bleeker, 1855a: 401 (Lacus Grati, Pasuruan Province, Java); Karoli, 1882: 166 (Singapore); Fowler, 1938: 212 (Singapore).

Gobiopterus cf *chuno* – Mok & Munro, 1991: 236 (in part; Sungei Buloh).

Gobiopterus brachypterus – Lim & Larson, 1994: 259 (Tengeh & Lower Peirce Reservoirs); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 108 (Sungei Buloh).

Gobiopterus birtwistlei (non-Herre) – Ng & Lim, 1996: 113 (Tengeh Reservoir, Lower Peirce Reservoir).

ZRC material from: Lower Peirce Reservoir, Tengeh Reservoir/Sungei Tengeh, Sungei Buloh, Sungei Mandai, Sungei Simpang, Khatib Bongsu, Pulau Seletar, Seletar Dam, Sungei Punggol, Sungei Serangoon.

Remarks: The species of this genus are under investigation by Larson and Kottelat.

Gobiopterus panayensis (Herre)

Mistichthys panayensis Herre, 1944: 108 (Capiz, Capiz Province, Panay, Philippines).

ZRC material from: Sungei Serangoon (1 ex.: ZRC 47291), Loyang mangroves (4 ex.: ZRC 47672).

Remarks: A new Singapore record.

Hemigobius hoevenii (Bleeker)

Gobius hoevenii Bleeker, 1851d: 426–427 (Sambas, in river, Borneo).

?*Pseudogobius hoevenii* – Murphy, 1990: 155 (Singapore mangroves).

Hemigobius hoevenii – Lim & Larson, 1994: 259 (Singapore); Lim & Low, 1998: 141 (Pandan); Ng & Sivasothi, 1999: 136–137 (Singapore); Larson, 2001: 74 (Sungei Buloh); Chua, 2002: 109 (Chek Jawa); Larson & Lim, 2005: 109 (Pandan mangroves, Loyang mangroves).

Hemigobius hoeveni – Anonymous, 2003: 94 (Sungei Buloh).

ZRC material from: Kallang basin, Sungei Pandan, Sungei Tengeh, Sungei Berih, Lim Chu Kang mangroves, Pulau Buloh, Sungei Buloh, Mandai mangroves, Sungei Sembawang, Sungei Simpang, Seletar Dam, Pulau Seletar, Sungei Punggol, Sungei Serangoon, Pasir Ris, Loyang mangroves, Pulau Ubin.

Remarks: Most records of *Stigmatogobius hoevenii* from Singapore refer to *Mugilogobius chulae*; the name has been misapplied in many localities.

Hemigobius mingi (Herre)

Gnatholepis mingi Herre, 1936a: 8–9, Pl. IV (Pulau Ubin); Herre & Myers, 1937: 40 (Pulau Ubin); Fowler, 1938: 266 (Pulau Ubin).

Stigmatogobius mingi – Koumans, 1953: 118–119 (Pulu Ubin); Chua, 1973: 526 (Ponggol Estuary).

Hemigobius mingi – Lim & Larson, 1994: 259 (Singapore); Larson, 2001: 74 (Pulau Ubin, Sungai Buloh, Sungei Punggol, Kranji mangroves); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 110 (Loyang mangroves).

Hemigobius melanurus – Ng & Sivasothi, 1999: 136–137 (Singapore).

ZRC material from: Sungei Pandan, Sungei Berih, Lim Chu Kang mangroves, Pulau Buloh, Sungei Buloh, Mandai mangroves, Sungei Sembawang, Sungei Punggol, Sungei Serangoon, Loyang mangroves.

Mugilogobius chulae (Smith)

Vaimosa chulae Smith, 1932: 260, Pl. 23 (Koh Samui, Gulf of Thailand).

Stigmatogobius hoeveni (non-Bleeker) – Tweedie, 1936: 28 (Geylang, Ayer Merbau Island).

Stigmatogobius hoevenii (non-Bleeker) – Fowler, 1938: 267 (Singapore); Koumans 1953: 125–126 (Singapore); Gomez, 1980: 95 (Singapore).

?*Pseudogobius hoevenii* (non-Bleeker) – Murphy, 1990: 155 (Singapore mangroves).

Mugilogobius chulae – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 117 (Singapore).

ZRC material from: Geylang, Pulau Ayer Merbau, West Coast Park, Sungei Berih, Sungei Buloh, Mandai mangroves, Sungei

Sembawang, Pulau Seletar, Punggol, Sungei Serangoon, Loyang mangroves.

Remarks: A name used earlier for this species, *Stigmatogobius hoevenii*, has been often confused with *Hemigobius hoevenii*.

Mugilogobius fasciatus Larson

Mugilogobius sp. 12 – Lim & Larson, 1994: 260 (Singapore).

Mugilogobius fasciatus Larson, 2001: 116–119 (Sungei Buloh mangroves, Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 118 (Sungei Buloh).

ZRC material from: Sungei Buloh.

Mugilogobius mertoni (Weber)

Gobius mertoni Weber, 1911: 37, Figs. 5–6 (Panua Bori River near Sungei Manumbai, Aru Island).

Mugilogobius mertoni – Larson, 2001: 144 (Sungei Pandan); Larson & Lim, 2005: 119 (Sungei Pandan).

ZRC material from: Pulau Semakau, Sungei Pandan.

Remarks: The specimens identified as *Mugilogobius* sp. 29 in Lim & Larson (1994) appear to be *M. mertoni*.

Mugilogobius platystomus (Günther)

Gobius platystoma Günther, 1872: 664, Pl. 63, Fig. B (Port Mackay, Queensland, Australia).

Mugilogobius platystomus – Larson, 2001: 165 (Serangoon).

Remarks: No recent material of this species observed in Singapore.

Mugilogobius rambaiae (Smith)

Vaimosa rambaiae Smith, 1945: 538, Pl. 9a (Bangkok, Thailand).

Mugilogobius rambaiae – Lim & Larson, 1994: 260 (Singapore); Larson, 2001: 170 (Serangoon, tidal stream near Woodlands, Sungei Buloh); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 120 (Woodlands).

ZRC material from: Sungei Buloh, Woodlands, Sungei Serangoon.

Mugilogobius tigrinus Larson

Mugilogobius sp. 12A – Lim & Larson, 1994: 260 (Singapore).

Mugilogobius tigrinus Larson, 2001: 189–192 (Sungei Pandan, Singapore); Larson & Lim, 2005: 121 (Loyang mangroves).

ZRC material from: Sungei Pandan, Loyang mangroves.

Oligolepis acutipennis (Valenciennes)

Gobius acutipennis Valenciennes, 1837: 80 (Malabar, India).

Gobius melanostigma – Bleeker, 1859–60b,c: 238, 450 (Singapore); Bleeker, 1861: 61 (Singapore).

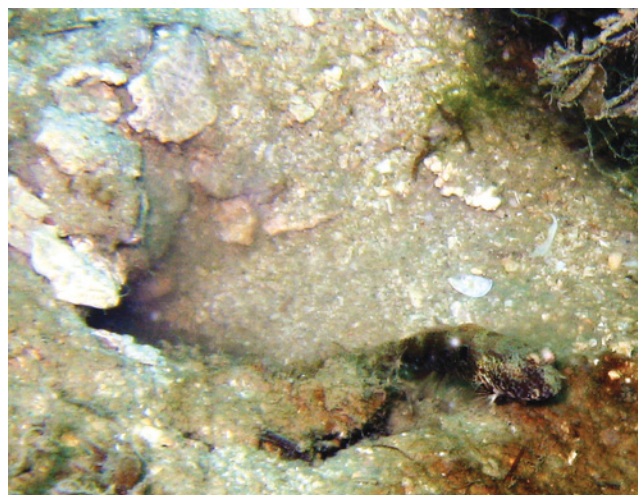


Fig. 5. *Cryptocentrus strigillicept* at Pulau Hantu. Photograph by Jani Thuaiabah.

?*Gobius temminckii* – Karoli, 1882: 165 (Singapore); Fowler, 1938: 218 (Singapore).

Aparrius acutipinnis – Herre & Myers, 1937: 45 (Singapore).

Oligolepis melanostigma – Fowler, 1938: 218–219 (Singapore).

Oligolepis acutipennis – Koumans, 1953: 92–94 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 260 (Singapore).

Remarks: There is no recent material of this genus known from Singapore. The genus is in need of revision, and the currently used species name may not be correct for the Indo–Malaysian population of this fish.

***Oxyurichthys auchenolepis* Bleeker**

Oxyurichthys auchenolepis Bleeker, 1876: 138 (Singapore); Koumans, 1953: 49–50 (Singapore); Lim & Larson, 1994: 260 (Singapore).

Oxyurichthys auchenolepis – Fowler, 1938: 219 (Singapore).

Remarks: No recent specimens known from Singapore.

***Oxyurichthys microlepis* (Bleeker)**

Gobius microlepis Bleeker, 1849: 35 (Freto Madurae prope Surabaya et Sumanap).

Oxyurichthys microlepis – Bleeker, 1861: 32, 56 (Singapore); Koumans, 1953: 41–44 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 125 (eastern Johor Straits).

Oxyurichthys microlepis – Fowler, 1938: 219 (Singapore).

ZRC material from: Johor Straits off Yishun.

***Oxyurichthys papuensis* (Valenciennes)**

Gobius papuensis Valenciennes, 1837: 106 (New Guinea).

Oxyurichthys belosso – Bleeker, 1859–60a,c: 216, 450 (Singapore); Bleeker, 1861: 56 (Singapore).

Oxyurichthys belosso – Fowler, 1938: 219 (Singapore).

Oxyurichthys papuensis – Koumans, 1953: 46–49 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 260 (Singapore).

Remarks: No recent material of this species known from Singapore.

***Oxyurichthys uronema* (Weber)**

Gobius (Oxyurichthys) uronema Weber, 1909: 153 (Bay of Bima, Sumbawa, Indonesia).



Fig. 6. *Cryptocentrus* new species I from Pulau Salu, 11 Aug. 1977, BPBM 22048: a, 5.2 cm SL; b, 4.8 cm SL. Photograph by J. E. Randall.

Oxyurichthys uronema – Larson & Lim, 2005: 124 (Singapore). ZRC material from: Bedok, Singapore River, Punggol.

***Pandaka cf. pygmaea* Herre**

Pandaka pygmaea Herre, 1927: 198, Pl. 15, Fig. 3 (Philippines); Lim & Larson, 1994: 260 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 126 (Loyang mangroves).

Pandaka trimaculata – Anonymous, 2003: 94 (Sungei Buloh).

ZRC material from: Pulau Buloh, Sungei Buloh, Sungei Simpang, Pulau Seletar, Loyang mangroves.

Remarks: The genus *Pandaka* is presently under revision by Larson.

***Pseudogobiopsis oligactis* (Bleeker)**

Gobiopsis oligactis Bleeker, 1875b: 113–114 (Amboina, Indonesia).

Stigmatogobius poicilosoma (non-Bleeker) – Alfred, 1966: 47 (in part; Singapore); Johnson, 1973a: 113–114 (in part; Singapore); Johnson, 1973b: 129 (in part; Singapore); Munro, 1990: 115, fig. 5 (Seletar reservoir).

Pseudogobiopsis oligactis – Lim & Larson, 1994: 260 (Central Catchment streams); Ng & Lim, 1996: 113 (Central Catchment area); Larson & Lim, 2005: 143 (Singapore).

ZRC material from: MacRitchie Reservoir, Sungei Kallang outlet from MacRitchie Reservoir.

Remarks: This species appears to have become extinct in Singapore, with the only known specimens having been collected in 1959. Despite recent surveys of most habitats on the island by resident biologists, *P. oligactis* has not been found since. Munro's (1990) diagrammatic Fig. 5 shows a species of *Pseudogobiopsis*; however, his discussion could also refer to *Rhinogobius giurinus*.

***Pseudogobiopsis siamensis* (Fowler)**

Vaimosa siamensis Fowler, 1934: 157, Fig. 125 (Silom Canal, Bangkok, Thailand).

Vaimosa jurongensis Herre, 1940a: 18, Pl. 13 (Jurong, Singapore); Koumans, 1953: 386–387 (Singapore).

Vaimosa singapurensis – Tweedie, 1940: 75 (Jurong).

Stigmatogobius poicilosoma (non-Bleeker) – Alfred, 1966: 47 (in part; Singapore); Johnson, 1973a: 113–114 (in part; Singapore); Johnson, 1973b: 129 (in part; Singapore).

"*Vaimosa*" *jurongensis* – Gomez, 1980: 95 (Singapore).

Pseudogobiopsis siamensis – Lim & Larson, 1994: 260 (Singapore); Ng & Lim, 1996: 113 (Sungei Seletar); Larson & Lim, 2005: 144 (outlet of MacRitchie Reservoir).

ZRC material from: Sungei Kallang outlet from MacRitchie Reservoir, Sungei Seletar.

Remarks: Tweedie (1940) refers to paratypes of *Vaimosa singapurensis* Herre lodged in the Raffles Museum. This was possibly a museum name for *Vaimosa jurongensis* Herre. The species was thought to be locally extinct (see Ng & Lim, 1996: 113) until three specimens (ZRC 50271) were collected in March 2005.

***Pseudogobius avicennia* (Herre)**

Vaimosa avicennia Herre, 1940a: 17, Pl. 12 (mangrove swamp, Kranji River, Singapore); Koumans, 1953: 386 (Singapore).

"*Vaimosa*" *avicennia* – Gomez 1980: 95 (Singapore).

Pseudogobius avicennia – Lim & Larson, 1994: 260 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 140 (Sungei Simpang).

ZRC material from: Siglap canal, Pulau Buloh, Sungei Buloh, Sungei Sembawang, Pulau Seletar, Loyang mangroves.

***Pseudogobius javanicus* (Bleeker)**

Gobius javanicus Bleeker, 1856: 88 (Patjitan, central Java).

Vaimosa piapensis Herre, 1927: 147, Pl. 10, Fig. 3 (Piapi Creek, Dumaguete, Oriental Negros, Philippines); Herre & Myers, 1937: 40 (reefs at Singapore & Pulau Ubin); Tweedie, 1940: 75 (Kranji).

Stigmatogobius poecilosoma (non-Bleeker) – Koumans, 1953: 119–120 (in part; Singapore).

Stigmatogobius javanicus – Koumans, 1953: 122 (Pulu Ubin, Singapore); Gomez, 1980: 95 (Singapore).

Pseudogobius javanicus – Lim & Larson, 1994: 260 (in part; Singapore); Lim & Low, 1998: 142 (Sungei Buloh); Ng & Sivasothi, 1999: 136–137 (Singapore); Chua, 2002: 109 (Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 141 (Sungei Simpang, Sungei Buloh).

ZRC material from: Kallang basin, West Coast Park, Sungei Pandan, Sungei Tuas, Pulau Buloh, Sungei Buloh, Mandai mangroves, Sungei Simpang, Khatib Bongsu, Seletar Dam, Pulau Seletar, Seletar Wet Gap, Pasir Ris beach, Loyang mangroves, Pulau Ubin.

Remarks: This is a widespread species being revised by Larson (in prep.). There may be another species confused with *P. javanicus*.

***Pseudogobius melanostictus* (Day)**

Gobius melanosticta Day, 1876: 290, Pl. 63, Fig. 2 (Madras, India).

Vaimosa serangoonensis Herre in Herre & Myers, 1937: 40, Pl. 2 (creek at Serangoon, Singapore).

Stigmatogobius poecilosoma – Koumans, 1953: 119–120 (in part; Singapore).

Stigmatogobius poecilostoma – Gomez, 1980: 95 (Singapore).

Pseudogobius javanicus – Lim & Larson, 1994: 260 (in part; Singapore).

Pseudogobius melanostictus – Larson & Lim, 2005: 142 (Mandai mangroves).

ZRC material from: West Coast Park, Mandai mangroves, Sungei Serangoon.

Remarks: This species is being revised by Larson (in prep.).

Pseudogobius melanostictus may not be the correct name to apply to the Singapore population.

***Redigobius isognathus* (Bleeker)**

Stigmatogobius isognathus Bleeker, 1878: 203 (Singapore); Fowler, 1938: 221 (Singapore); Koumans, 1953: 115–116 (Singapore).

?*Stigmatogobius römeri* – Koumans, 1953: 113–114 (Singapore).

Stigmatogobius romeri – Gomez, 1980: 95 (Singapore).

Redigobius isognathus – Lim & Larson, 1994: 261 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 145 (Singapore).

ZRC material from: Sungei Buloh, Sungei Simpang, Khatib Bongsu, Pulau Seletar, Pulau Ubin.

Remarks: The genus *Redigobius* is under investigation by Larson (in prep.), and *R. isognathus* may not be the correct name to apply to the Singapore species.

***Rhinogobius giurinus* (Rutter)**

Gobius giurinus Rutter, 1897: 86 (Swatow, China).

Stigmatogobius poecilosoma (non-Bleeker) – Lim & Ng, 1989: 115 (Singapore).

Rhinogobius cf. *giurinus* – Lim & Larson, 1994: 261 (Singapore); Ng & Lim, 1996: 117 (Central Catchment, Botanic Gardens, Jurong Road).

Stigmatogobius poecilosoma (non-Bleeker) – Anonymous, 2003: 95 (Sungei Buloh).

Redigobius giurinus – Anonymous, 2003: 94 (Sungei Buloh).

Rhinogobius giurinus – Larson & Lim, 2005: 146 (Upper Seletar).

ZRC material from: Lower Peirce Reservoir, Botanic Gardens, Tengoh Reservoir, Sungei Buloh, Upper Seletar Reservoir, Mandai Road at Mandai Lake Road junction, Lorong Banir.

Remarks: This introduced species from East Asia may be partly responsible for the decline and apparent disappearance of *Pseudogobiopsis* species in Singapore.

***Stigmatogobius borneensis* (Bleeker)**

Gobius borneensis Bleeker, 1851a: 10 (Banjermassing, Borneo).

Stigmatogobius singaporensis Bleeker, 1878: 204 (Singapore) – Fowler, 1938: 221 (Singapore).

?*Stigmatogobius römeri* – Koumans, 1953: 113–115 (Singapore).

Stigmatogobius borneensis – Koumans, 1953: 127 (Singapore); Gomez 1980: 95 (Singapore); Lim & Larson, 1994: 261 (in part; Singapore); Larson & Lim, 2005: 149; Larson, 2005: 351 (Singapore).

Remarks: No recent material of this species is known from Singapore.

***Stigmatogobius pleurostigma* (Bleeker)**

Gobius pleurostigma Bleeker, 1849: 28–29 (Surabaya, Java).

Stigmatogobius sadanundio (non-Hamilton) – Koumans, 1953: 111 (in part; Singapore)

Stigmatogobius pleurostigma – Lim & Larson 1994: 261 (Singapore); Anonymous 2003: 95 (Sungei Buloh); Larson & Lim, 2005: 150 (Pandan mangroves); Larson, 2005: 358, Fig. 7 (Sungei Pandan mangroves).

ZRC material from: Sungei Kallang, Sungei Pandan, Sungei Buloh, Pulau Ubin.

Remarks: This species may occur syntopically with the next species.

***Stigmatogobius sadanundio* (Hamilton)**

Gobius sadanundio Hamilton, 1822: 52 (estuaries near Calcutta); Herre & Myers, 1937: 38 (Pulau Ubin); Fowler, 1932: 448 (Singapore); Fowler, 1938: 218 (Singapore).

Stigmatogobius sadanundio – Koumans, 1953: 111–112 (in part; Singapore); Tham, 1973: 218 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Ng, 1990: 116 (Singapore); Lim & Larson, 1994: 261 (Singapore); Lim & Low, 1998: 141 (Singapore); Ng & Sivasothi, 1999: 136–137 (Singapore); Larson & Lim, 2005: 151 (Loyang mangroves); Larson, 2005: 361, Fig. 8 (Pulo Ubin, Kranji mangroves, Sungei Pandan).

Stigmatogobius sandanundio [sic] – Anonymous, 2003: 95 (Sungei Buloh).

ZRC material from: Pulau Hantu, Sungei Pandan, Pulau Buloh, Sungei Buloh, Sungei Sembawang, Sungei Simpang, Pulau Seletar, Sungei Punggol, Pasir Ris, Pulau Ubin.

Remarks: This species may be syntopic with the previous species, and may be more common in Singapore.

***Stigmatogobius sella* (Steindachner)**

Gobius sella Steindachner, 1881: 212 (Borneo).

Vaimosa brocki Herre, 1936a: 9 (Singapore Harbour); Herre & Myers, 1937: 40 (Singapore reef); Fowler, 1938: 267 (reef in Singapore Harbour).



Fig. 7. *Cryptocentrus* new species 2 at Pulau Hantu. Photograph by Jani Thuaibah.

Stigmatogobius borneensis (non-Bleeker) – Lim & Larson, 1994: 261 (in part; Singapore).

Stigmatogobius sella – Larson & Lim, 2005: 152; Larson, 2005: 363 (Singapore harbour).

Remarks: No recent material of this species is known from Singapore.

SUBFAMILY GOBIINAE

Acentrogobius caninus (Valenciennes)

Gobius caninus Valenciennes, 1837: 86 (Java); Bleeker, 1858: 242 (Singapore); Bleeker, 1861: 56 (Singapore); Martens, 1876: 391 (Singapore); Karoli 1882: 164 (Selita [= Seletar]); Duncker, 1905: 160 (Singapore); Fowler, 1932: 448 (Singapore).

Ctenogobius caninus – Herre & Myers, 1937: 43 (Singapore); Fowler, 1938: 214–215 (Seletar).

Acentrogobius caninus – Koumans, 1953: 61–63 (Singapore); Tham, 1973: 218 (Singapore); Chua, 1973: 526 (Ponggol Estuary); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 258 (Singapore); Chua 2002: 108 (Chek Jawa); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 57 (Singapore).

ZRC material from: Siglap canal, Kallang basin, Singapore River, Pulau Semakau, Pulau Hantu, West Coast Park, Sungei Tuas, Sungei Tengeh, Sungei Berih, Sungei Poyan, Sungei Sawa, Sungei Buloh, Sungei Kangkar, Sembawang beach, Sungei Simpang, Sungei Seletar, Pulau Seletar, Sungei Punggol, Pasir Ris, Pulau Ubin, Changi Point.

Acentrogobius cf caninus

Acentrogobius sp. – Larson & Lim, 2005: 56 (Singapore).

ZRC material from: Pulau Semakau, Pulau Hantu, Changi Beach. Remarks: This apparently undescribed species is usually confused with *A. caninus*.

Acentrogobius cyanomos (Bleeker)

Gobius cyanomos Bleeker, 1849: 25 (Java, Surabaya); Bleeker, 1859–60b,c: 238, 449 (Singapore); Bleeker, 1861: 56 (Singapore); Karoli, 1882: 164 (Sarangoon).

Acentrogobius cyanomos – Fowler, 1938: 211 (Sarangoon); Koumans, 1953: 64–65 (Singapore); Gomez, 1980: 95 (Singapore); Tan & Yeo, 2003: 154 (Chek Jawa).

Aulopareia cyanomos – Lim & Larson, 1994: 258 (Singapore).

Acentrogobius sp. – Chua, 2002: 108 (Chek Jawa); Larson & Lim, 2005: 58 (Singapore).

ZRC material from: Pulau Hantu, West Coast Park, Sembawang beach, Sungei Simpang, Pasir Ris, Pulau Ubin, Changi Point.

Acentrogobius gracilis (Bleeker)

Ctenogobius gracilis Bleeker, 1875b: 127 (Singapore); Koumans, 1953: 178 (Singapore); Chua, 1973: 526 (Ponggol Estuary).

Ctenogobius caninus – Fowler, 1938: 215 (in part; Singapore).

Amoya gracilis – Lim & Larson, 1994: 258 (Singapore); Anonymous, 2003: 94 (Sungei Buloh).

Acentrogobius gracilis – Larson & Lim, 2005: 59 (Sungei Simpang). ZRC material from: Siglap canal, Lim Chu Kang mangroves, Sungei Buloh, Sembawang beach, Sungei Simpang, Sungei Seletar, Sungei Punggol, Pasir Ris, Pulau Ubin.

Acentrogobius janthinopterus (Bleeker)

Gobius janthinopterus Bleeker, 1852b: 702 (Wahia, Ceram).

Creisson validus – Herre & Myers, 1937: 40 (reef at Singapore); Tweedie, 1940: 74 (Kranji); Herre, 1940b: 51 (Kranji River).

Acentrogobius janthinopterus – Koumans, 1953: 59–60 (Singapore); – Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 258 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 60 (Singapore).

ZRC material from: Sungei Pandan, Sungei Tengeh, Sungei Berih, Sungei Poyan, Pulau Buloh, Sungei Buloh, Sungei Kranji, Sungei Sawa, Sungei Kangkar, Sungei Mandai, Sungei Sembawang, Sungei Simpang, Khatib Bongsu, Seletar Dam, Pulau Seletar, Sungei Punggol, Sungei Serangoon, Pulau Ubin, Changi beach.

Acentrogobius madraspatensis (Day)

Gobius madraspatensis Day, 1868: 152 (Madras, India).

Ctenogobius grammogaster Bleeker, 1875b: 124 (Singapore); Koumans, 1953: 180–181 (Singapore).

Ctenogobius notophthalmus Bleeker, 1875b: 126 (Singapore); Fowler, 1938: 215 (Singapore); Koumans, 1953: 181–182 (Singapore).

Ctenogobius caninus – Fowler, 1938: 215 (in part; Singapore).

Acentrogobius madraspatensis – Lim & Larson, 1994: 258 (Singapore reef flats); Larson & Lim, 2005: 61 (Singapore).

ZRC material from: Pulau Semakau, Pulau Hantu.

Remarks: The female of this sexually dimorphic species was described by Bleeker as *C. grammogaster*, and the male as *C. notophthalmus*.

Acentrogobius moloanus (Herre)

Aparrius moloanus Herre, 1927: 207, Pl. 16, Fig. 3 (Molo, Iloilo Province, Panay, Philippines); Herre & Myers, 1937: 45 (a Singapore reef).

Amoya moloanus – Lim & Larson, 1994: 258 (Singapore).

Acentrogobius moloanus – Larson & Lim, 2005: 62 (Singapore).

ZRC material from: Pulau Semakau, Sarimbun mangroves.

Acentrogobius nebulosus (Forsskål)

Gobius nebulosus Forsskål, 1775: 24 (Red Sea).

Gobius criniger – Karoli, 1882: 164 (Sarangoon [= Sarangoon]). Bleeker, 1859–60b, c: 238, 449 (Singapore); Bleeker, 1861: 56 (Singapore).

Ctenogobius criniger – Herre & Myers, 1937: 43 (reef in Singapore Harbour); Koumans, 1953: 178–180 (Singapore); Tham, 1973: 218; Chua, 1973: 526 (Ponggol Estuary).

Ctenogobius nebulosus Fowler, 1938: 215 (Singapore).

Yongeichthys nebulosus – Lim & Larson, 1994: 261 (Singapore);

Lim & Low, 1998: 137 (Labrador Beach); Chua, 2002: 109 (Chek Jawa); Tan & Yeo, 2003: 154 (Chek Jawa).

Acentrogobius nebulosus – Larson & Lim, 2005: 63 (Labrador Beach).

ZRC material from: Kallang basin, Pulau Seringat, Labrador Beach, Pulau Semakau, Pulau Hantu, West Coast Park, Sungei Buloh, Kranji mangroves, Sungei Mandai, Sungei Sembawang, Sungei Simpang, Sungei Punggol, Pasir Ris, Pulau Ubin, Pulau Sekudu, Changi Point.

Acentrogobius viridipunctatus (Valenciennes)

Gobius viridipunctatus Valenciennes, 1837: 62 (Bombay, India).

Gobius chlorostigma – Bleeker, 1852a: 53, 58 (Singapore); Bleeker, 1861: 56 (Singapore).

Ctenogobius viridipunctatus – Herre & Myers, 1937: 43 (reef at Singapore); Fowler, 1938: 215 (Singapore).

Acentrogobius viridipunctatus – Koumans, 1953: 56–57 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 258 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 64 (Sungei Buloh).

ZRC material from: Siglap canal, Sungei Tuas, Sungei Tengeh, Sungei Poyan, Murai Reservoir, Sungei Buloh, Sungei Kranji,

Sungei Sawa, Sungei Kangkar, Sungei Sembawang, Sungei Simpang, Sungei Seletar, Pulau Seletar, Sungei Punggol, Sungei Serangoon, Pasir Ris, Changi Point, Johor Straits off Pulau Tekong.

Amblyeleotris fontanesii (Bleeker)

Gobius fontanesii Bleeker, 1852e: 764 (Bulucumba, Celebes).
Cryptocentrus fontanesii – Tweedie, 1940: 74 (Sultan Shoal, near Singapore); Herre, 1940b: 51 (a reef near Singapore); Koumans, 1953: 89–90 (Singapore).
Amblyeleotris fontanesii – Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 65 (Singapore).
 ZRC material from: Sister's Island, Pulau Hantu, Sultan Shoal.

Amblyeleotris gymnocephala (Bleeker)

Gobius gymnocephalus Bleeker, 1853b: 473 (Java [as Batavia]).
Amblyeleotris gymnocephala – Lim & Larson, 1994: 258 (Singapore); Lim & Low, 1998: 136 (Pulau Hantu); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 66 (Singapore).
 ZRC material from: Pulau Hantu, Sungei Buloh.

Amblyeleotris periophthalma (Bleeker)

Eleotris periophthalmus Bleeker, 1853b: 477 (Java).
 Remarks: This species is identified from a photograph taken at a reef off Pulau Hantu on 23 Jan.2006 by Jani Thuaibah Isa Tanzil (Fig. 3). A new Singapore record.

Amblyogobius decussatus (Bleeker)

Gobius decussatus Bleeker, 1855c: 442 (Manado, Celebes).
Amblyogobius decussatus – Herre & Myers, 1937: 46 (Singapore); Lim & Larson, 1994: 258 (Singapore).
 Remarks: No recent material from Singapore observed apart from a photograph taken at Pulau Hantu on 10 September 2006 by Jeffrey Low.

Amblyogobius phalaena (Valenciennes)

Gobius phalaena Valenciennes, 1837: 92 (Vanikolo).
Amblyogobius phalaena – Herre & Myers, 1937: 46 (Singapore); Lim & Larson, 1994: 258 (Singapore).
 Remarks: No recent material from Singapore observed.

Amblyogobius sphynx (Valenciennes)

Gobius sphynx Valenciennes, 1837: 93 (New Guinea).
Gobius sphinx – Karoli, 1882: 165 (Selita [= Seletar]).
Amblyogobius sphynx – Fowler, 1938: 212 (Seletar); Koumans, 1953: 143–144 (Singapore); Lim & Larson, 1994: 258 (Singapore).
 Remarks: No recent material from Singapore observed.

Amblyogobius stethophthalmus (Bleeker)

Gobius stethophthalmus Bleeker, 1851b: 248, Pl. 1, Fig. 8 (Anjer, Java).
Gobius bynoensis (non-Richardson) – Steindachner, 1870: 563 (Singapore).
Gobius stethophthalmus – Bleeker, 1858: 242 (Singapore); Bleeker, 1861: 56 (Singapore).
Amblyogobius bynoensis (non-Richardson) – Tweedie, 1936: 28 (Pulau Brani, Singapore); Herre & Myers, 1937: 46 (Singapore); Fowler, 1938: 212, 266 (Singapore); Koumans, 1953: 139–141 (Singapore); Lim & Larson, 1994: 258 (Singapore); Lim & Low, 1998: 134 (Raffles lighthouse); Tan & Yeo, 2003: 153 (Chek Jawa).
Amblyogobius sphynx (non-Valenciennes) – Khoo & Tay, 1990: 74 (Singapore).
Amblyogobius stethophthalmus – Larson & Lim, 2005: 67 (Salu Island).
 ZRC material from: Pulau Brani, Sentosa, Pulau Seringat, Pulau Semakau, Pulau Hantu, Pulau Salu, Raffles Lighthouse, Punggol, Coney Island, Berting Bronok.

Remarks: This species has been referred to as *A. bynoensis* (described from north-western Australia), but the two species differ in colour pattern and possibly other features also. Further study is required.

Arcyogobius baliurus (Valenciennes)

Gobius baliurus Valenciennes, 1837: 61 (Java); Bleeker, 1861: 32, 56 (Singapore); Karoli, 1882: 164 (Singapore).
Gobius atherinoides Peters, 1855: 445–446 (Mozambique).
Gnatholepis calliurus – Herre & Myers, 1937: 39 (Singapore); Koumans, 1953: 170–171 (Singapore).
Gnatholepis baliurus – Fowler, 1938: 216 (Singapore); Koumans, 1953: 169–170 (Singapore); Lim & Larson, 1994: 259 (Singapore).
Arcyogobius baliurus – Larson & Wright, 2003: 131 (Kallang Basin, Pulau Ubin, Sungei Seletar, Sungei Punggol); Larson & Lim, 2005: 69 (eastern Johor Straits).
 ZRC material from: Kallang basin, Sungei Simpang, Sungei Seletar, Sungei Punggol, Pulau Ubin.

Asterropteryx semipunctata Rüppell

Asterropteryx semipunctatus Rüppell, 1830: 138, Pl. 34, Fig. 4 (Massaua, Red Sea); Herre & Myers, 1937: 38 (Singapore); Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 70.
 Remarks: No recent material from Singapore observed.

Aulopareia unicolor (Valenciennes)

Gobius unicolor Valenciennes, 1837: 88 (Java).
Gobius phaiomelas – Bleeker, 1861: 32, 56 (Singapore); Fowler, 1938: 218 (Singapore).
Acentrogobius chlorostigmatoides – Koumans, 1953: 58–59 (Singapore); Gomez, 1980: 95 (Singapore).
Aulopareia unicolor – Lim & Larson, 1994: 258 (Singapore).
 Remarks: No recent material from Singapore observed.

Bathygobius fuscus (Rüppell, 1830)

Gobius fuscus Rüppell, 1830: 137 (Red Sea).
Bathygobius fuscus – Tweedie, 1936: 28 (Pulau Brani, Singapore); Herre & Myers, 1937: 38 (Singapore); Fowler, 1938: 266 (Pulau Brani, Singapore); Koumans, 1953: 190 (the whole Indo-Australian archipelago); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 258 (Singapore); Lim & Low, 1998: 135 (Labrador Beach); Tan & Yeo, 2003: 154 (Chek Jawa); Larson & Lim, 2005: 71 (Singapore).
 ZRC material from: Pulau Brani, Sentosa, Pulau Seringat, St John's Island, Labrador Beach, Pulau Semakau, Pulau Hantu, Raffles Lighthouse, Alligator Island, Pulau Salu, Pulau Sekudu, Berting Bronok.

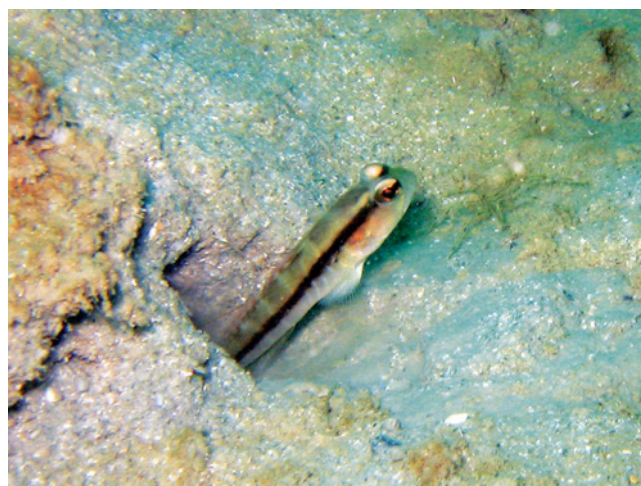


Fig. 8. *Myersina nigrivirgata* at Pulau Hantu. Photograph by Jani Thuaibah.

Bathygobius meggitti (Hora & Mukerji)

Ctenogobius meggitti Hora & Mukerji, 1936: 30, Fig. 6, Pl. 1, Figs. 3–4 (Maungmagan, Tavoy District, Burma).

Bathygobius meggitti – Lim & Larson, 1994: 258 (Singapore rocky shores); Larson & Lim, 2005: 72 (Labrador Beach).

ZRC material from: Pulau Brani, Sentosa, Labrador beach.

Bryaninops amplus Larson

Bryaninops amplus Larson, 1985: 66, Figs. 5–6 (Lizard Island, Queensland, Australia) – Lim & Larson, 1994: 258 (Cyrene reefs & off Sisters' Island); Larson & Lim, 2005: 76 (Singapore).

Bryaninops yongei (non-Davis & Cohen) – Chua et al., 2003: 119 (Singapore).

ZRC material from: Sisters' Island, Pulau Hantu, Cyrene Reef, Berting Bronok.

Callogobius hasseltii (Bleeker)

Eleotris hasseltii Bleeker, 1851b: 253, Pl. 1, Fig. 13 (Anjer, Java); Herre & Myers, 1937: 45 (Singapore).

Callogobius hasseltii – Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 79 (Singapore).

ZRC material from: Pulau Hantu.

Callogobius maculipinnis (Fowler)

Drombus maculipinnis Fowler, 1918: 69, Fig. 27 (Philippines).

Callogobius maculipinnis – Larson & Lim, 2005: 80 (Singapore).

ZRC material from: Pulau Hantu.

Cryptocentroides insignis (Seale)

Amblygobius insignis Seale, 1910: 116, Pl. 2, Fig. 1 (Bantayan Island, Philippines).

Cryptocentroides insignis – Lim & Larson, 1994: 258 (Labrador Beach); Larson & Lim, 2005: 81 (Salu Island).

ZRC material from: Labrador beach, Pulau Hantu.

Cryptocentrus caeruleomaculatus (Herre)

Mars caeruleomaculatus Herre, 1933: 22 (Jolo, Sulu Province, Philippines).

Mars caeruleomaculatus – Herre & Myers, 1937: 45 (Singapore reef); Koumans, 1953: 21–22 (Singapore).

Cryptocentrus caeruleomaculatus – Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 82 (Singapore).

ZRC material from: Sentosa, Labrador beach, Raffles Lighthouse.

Cryptocentrus cinctus (Herre)

Smilogobius cinctus Herre, 1936a: 12, Pl. 9 (Singapore Harbour); Herre & Myers, 1937: 45 (Singapore reef); Fowler, 1938: 267 (reef in Singapore Harbour); Koumans, 1953: 26 (Singapore Harbour).

Cryptocentrus cinctus – Lim & Larson, 1994: 258 (Singapore); Lim & Low, 1998: 136 (Singapore); Chua et al., 2003: 124 (Singapore); Larson & Lim, 2005: 83 (Salu Island).

Remarks: No recent material collected from Singapore.

Cryptocentrus cyanotaenia (Bleeker)

Gobius cyanotaenia Bleeker, 1853b: 475 (Batavia).

Cryptocentrus cyanotaenia – Lim & Larson, 1994: 258 (Singapore); Larson & Lim, 2005: 84 (Singapore).

ZRC material from: Pulau Retan Laut, Punggol.

Remarks: Photographed at Pulau Hantu by Debby Ng.

Cryptocentrus inexplicatus (Herre)

Smilogobius inexplicatus Herre, 1934b: 88 (Sitankai, Sulu Province, Philippines).

Remarks: New record for Singapore, based on a specimen (BPBM 21880, Fig. 4) taken at Pulau Salu on 29 Jul. 1977 by J. E. Randall.

Cryptocentrus leptocephalus Bleeker

Cryptocentrus leptocephalus Bleeker, 1876: 146 (Singapore); Fowler, 1938: 214 (Singapore); Koumans, 1953: 85–86 (Singapore); Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 85 (Singapore).

Smilogobius singapurensis Herre, 1936a: 13 (Singapore Harbour); Herre & Myers, 1937: 45 (reef in Singapore) Fowler, 1938: 267 (reef in Singapore Harbour); Koumans, 1953: 26–27 (Singapore); Khoo & Tay, 1990: 74 (Singapore).

ZRC material from: Pulau Semakau, Pulau Salu, Punggol.

Cryptocentrus madae Fowler

Cryptocentrus madae Fowler, 1937: 254, Fig. 283 (Bangkok, Thailand) – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 86 (Salu Island).

ZRC material from: Sentosa, Labrador beach.

Cryptocentrus melanopus (Bleeker)

Gobius melanopus Bleeker, 1859–60c: 449, 456 (Singapore); Bleeker, 1861: 56 (Singapore); Fowler, 1938: 218 (Singapore); Koumans, 1953: 383.

Cryptocentrus melanopus – Lim & Larson, 1994: 259 (Singapore).

Remarks: This is probably a synonym of *C. leptocephalus*.

Cryptocentrus pavoninoides (Bleeker)

Gobius pavoninoides Bleeker, 1849: 33 (Sumanap, Madurae orientalis); Bleeker, 1859–60b,c: 238, 450 (Singapore); Bleeker, 1861: 56 (Singapore); Fowler, 1938: 218 (Singapore).

Cryptocentrus pavoninoides – Koumans, 1953: 83–84 (Singapore); Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 87 (Sungei Punggol).

ZRC material from: Sungei Punggol.

Cryptocentrus russus (Cantor)

Gobius russus Cantor, 1850: 1168 (Sea of Penang).

Gobius voigti – Bleeker 1959–60b, c: 238, 450 (Singapore); Bleeker, 1861: 56 (Singapore).

Cryptocentrus polyopthalmus – Fowler, 1938: 214 (Singapore).

Cryptocentrus russus – Koumans, 1953: 88–89 (Singapore); Lim & Larson, 1994: 259 (Singapore).

Remarks: No recent material from Singapore observed. This species does not belong in *Cryptocentrus*; work is underway by Koichi Shibukawa (National Science Museum, Tokyo).

Cryptocentrus strigiliceps (Jordan & Seale)

Mars strigiliceps Jordan & Seale, 1906: 408, Fig. 95 (Apia, Upolu Island, Western Samoa).

Remarks: New record for Singapore based on an individual photographed on a reef off Pulau Hantu on 19 February 2006 by Jani Thuaibah Isa Tanzil (Fig. 4).

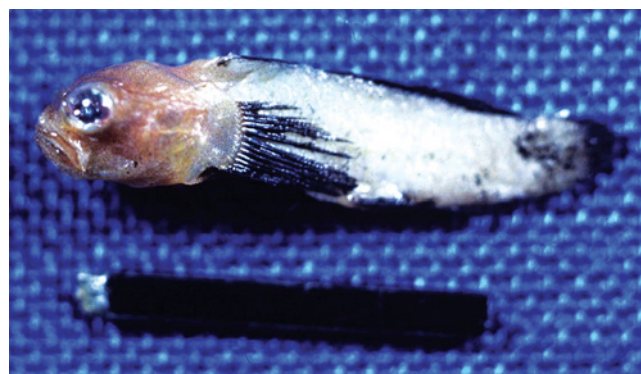


Fig. 9. *Paragobiodon echinocephalus* from the Singapore Straits. Photograph courtesy of the Reef Ecology Study Team.

***Cryptocentrus* new species 1**

Remarks: New record for Singapore based on six examples of an undescribed species, collected and photographed by J. E. Randall at Pulau Salu on 11 Aug.1977 (Fig. 6), and lodged at the Bishop Museum in Hawaii (BPBM 22047, BPBM 22048). The species is referred to as *Cryptocentrus* sp. 2 in Masuda and Kobayashi (1994: 362, Fig. 7).

***Cryptocentrus* new species 2**

Remarks: New record for Singapore based on an individual photographed on a reef off Pulau Hantu on 19 Feb.2006 by Jani Thuaiabah Isa Tanzil (Fig. 7). This undescribed species is referred to as *Cryptocentrus* sp. A in Senou et al. (2004) and as *Cryptocentrus* sp. 2 in Kuitert & Tonozuka (2001).

***Drombus globiceps* (Hora)**

Ctenogobius globiceps Hora, 1923: 744, Figs. 24, 25 (off Samal Island, Rambha Bay, Satpara, between Cherriakuda and the mainland, Serua Nadi, Mahosa on Barhampur Island, off Balugaon, off Nalbano, off Barkul bungalow, south of Kalidai, Chilka Lake, India).

Ctenogobius kranjiensis Herre, 1940a: 22, Pl. 17 (Kranji) – Tweedie, 1940: 74 (Kranji).

?*Acentrogobius globiceps* – Koumans, 1953: 75–76 (Singapore).

Acentrogobius globiceps – Gomez, 1980: 95 (Singapore).

Drombus globiceps – Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 89 (Singapore).

ZRC material from: Singapore River, West Coast Park, Sungei Buloh, Kranji mangroves, Sungei Kranji, Sungei Sawa, Mandai mangroves, Sungei Simpang, Khatib Bongsu, Sungei Seletar, Seletar Wet Gap, Pasir Ris.

Remarks: This species has previously been confused with *Drombus ocyurus*.

***Drombus ocyurus* (Jordan & Seale)**

Rhinogobius ocyurus Jordan & Seale, 1907: 42, Fig. 14 (Cavite, Philippines).

Quisquilius malayanus Herre, 1936a: 11 (Pulau Ubin, near Singapore); Herre & Myers, 1937: 45 (Pulau Ubin); Fowler, 1938: 267 (Pulau Ubin near Singapore); Koumans, 1953: 132 (Pulau Ubin).

Drombus ocyurus – Lim & Larson, 1994: 259 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 90 (Kallang basin).

ZRC material from: Singapore River, Kallang basin, Pulau Ubin.

Remarks: This species has been confused with *Drombus globiceps*.

***Drombus triangularis* (Weber)**

Gobius triangularis Weber, 1909: 150 (Ambon).

?*Acentrogobius oligactis* Bleeker, 1875b: 132 (Singapore); Fowler, 1938: 211 (Singapore); Koumans, 1953: 63–64 (Singapore).

?*Ctenogobius bleekeri* – Herre & Myers, 1937: 43 (reef at Singapore); Koumans, 1953: 385 (Singapore).

Ctenogobius triangularis – Herre & Myers, 1937: 43 (reef at Singapore).

Lophogobius bleekeri (non-Popta) – Lim & Larson, 1994: 259 (Singapore).

Drombus triangularis – Lim & Larson, 1994: 259 (Singapore); Lim & Low, 1998: 137 (Changi); Chua, 2002: 109 (Chek Jawa); Tan & Yeo, 2003: 154 (Chek Jawa); Larson & Lim, 2005: 91 (Singapore).

ZRC material from: Sentosa, Pulau Seringat, Labrador beach, Pulau Semakau, Pulau Hantu, Pulau Retan Laut, West Coast Park, Pulau Salu, Sembawang, Sungei Simpang, Sungei Seletar, Sungei Punggol, Pasir Ris, Pulau Ubin, Pulau Sekudu, Changi Point, Berting Bronok. Remarks: The syntypes of Bleeker's *Acentrogobius oligactis* are in poor condition; two of them represent a species of *Drombus*. Herre

and Myers' record of *Ctenogobius bleekeri* could be *Drombus* or *Acentrogobius* (based on fin ray and scale counts).

***Eviota queenslandica* Whitley**

Eviota viridis queenslandica Whitley, 1932: 301 (Batt Reef near Low Islands, Queensland, Australia).

?*Eviota distigma* – Herre & Myers, 1937: 43 (Singapore reef); Koumans, 1953: 319–320 (Singapore).

Eviota queenslandica – Lachner & Karnella, 1980: 87 (Pulau Sudong, Singapore); Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 92 (Berting Bronok).

ZRC material from: Sentosa, Pulau Seringat, Berting Bronok.

***Eviota storthynx* Rofen**

Eviotops storthynx Rofen, 1959: 237, Figs. 1–3 (Bungau, Sulu Province, Philippines).

Eviota storthynx – Lim & Larson, 1994: 259 (Sentosa Island); Larson & Lim, 2005: 93 (Singapore).

ZRC material from: Pulau Hantu, on the coral *Euphyllia pelteata*.

***Exyrias belissimus* (Smith)**

Acentrogobius belissimus Smith, 1959: 202, Pl. 11A (Pinda, Mozambique).

Exyrias bellissimus – Murdy, 1985: 8 (Singapore); Lim & Larson, 1994: 259 (Singapore); Chua et al., 2003: 125 (Singapore); Larson & Lim, 2005: 94 (Singapore).

ZRC material from: Pulau Hantu, Terumbu Pempang Laut, Raffles Lighthouse.

***Exyrias puntang* (Bleeker)**

Gobius puntang Bleeker, 1851e: 486 (Rio [or Riouw], Indonesia); Bleeker 1861: 32 (Singapore).

Gobius puntangoides – Bleeker, 1858: 242 (Singapore); Bleeker, 1861: 56 (Singapore); Steindachner, 1870: 563 (Singapore).

Gnatholepis puntangoides – Herre & Myers, 1937: 40 (Singapore).

Acentrogobius puntangoides – Fowler, 1938: 211 (Singapore).

Acentrogobius puntang – Koumans, 1953: 66–67 (Singapore); Gomez, 1980: 95 (Singapore).

Exyrias puntang – Murdy, 1985: 11 (Singapore); Lim & Larson, 1994: 259 (Singapore); Lim & Low, 1998: 138 (Pulau Hantu); Larson & Lim, 2005: 95 (Kallang basin).

ZRC material from: Siglap canal, Kallang basin, Pulau Hantu, West Coast Park, Sungei Tuas, Sungei Tengeh, Sungei Kranji, Sungei Sawa, Sungei Kangkar, Sungei Seletar, Pulau Seletar, Punggol, Pulau Ubin, Sungei Changi.

***Favonigobius melanobranchus* (Fowler)**

Rhinogobius melanobranchus Fowler, 1934: 82, Figs 24–25 (Den Pasar, Bali, Indonesia).

Favonigobius melanobranchus – Lim & Larson, 1994: 259 (Changi Beach; Pulau Hantu); Larson & Lim, 2005: 96 (Singapore).

ZRC material from: Pulau Semakau, Pulau Hantu, Pulau Ubin, Pulau Sekudu, Changi Point.

***Favonigobius opalescens* (Herre)**

Ctenogobius opalescens Herre, 1936a: 15, Pl. 11 (Singapore, Malay Peninsula); Herre & Myers, 1937: 43 (Singapore); Fowler, 1938: 266 (reef at Singapore).

Favonigobius opalescens – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 97 (Singapore).

ZRC material from: Pulau Semakau, Pulau Hantu, Raffles Lighthouse.

***Favonigobius reichei* (Bleeker)**

Gobius reichei Bleeker, 1853d: 509 (Padang, Sumatra).

Ctenogobius cylindricus Bleeker, 1875b: 129 (Singapore); Koumans, 1953: 182–183 (Singapore).

- Aboma aliciae* Herre, 1936a: 10 (Singapore Harbour); Herre & Myers, 1937: 45 (reef in Singapore Harbour); Fowler, 1938: 266 (reef in Singapore Harbour).
Ctenogobius caninus – Fowler, 1938: 215 (in part; Singapore).
Acentrogobius reichei – Koumans, 1953: 77–78 (Singapore); Gomez, 1980: 95 (Singapore).
Favonigobius reichei – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 98 (Singapore).
Papillogobius reichei – Chua, 2002: 109 (Chek Jawa).
 ZRC material from: Pulau Semakau, Pulau Hantu, West Coast Park, Sungei Seletar, Pasir Ris, Pulau Ubin, Changi Point, Berting Bronok.
- Glossogobius aureus*** Akihito & Meguro
Glossogobius aureus Akihito & Meguro, 1975: 128, Figs 1–2 (Sumiyoshi, Iriomotejima, Okinawa Prefecture, Japan); Lim & Larson, 1994: 259 (Singapore); Lim & Low, 1998: 140 (Singapore); Anonymous, 2003: 94 (Sungei Buloh); Larson & Lim, 2005: 99 (Sungei Buloh).
 ZRC material from: Singapore River, Sungei Berih, Sungei Kranji, Sungei Sawa, Sungei Simpang, Seletar Island, Punggol, Changi beach.
- Glossogobius circumspectus*** (Macleay)
Gobius circumspectus Macleay, 1883: 267 (Milne Bay, New Guinea).
Glossogobius circumspectus – Lim & Larson, 1994: 259 (Sungei Seletar); Larson & Lim, 2005: 100 (Singapore).
 ZRC material from: Sungei Seletar, Pulau Seletar, Changi beach.
- Glossogobius giuris*** (Hamilton)
Gobius giuris Hamilton, 1822: 51, 366, Pl. 33, Fig. 15 (Gangetic River region, India); Martens, 1876: 391 (Singapore & Manila); Karoli, 1882: 164 (Sarangoon).
Gobius kokiis – Bleeker, 1859–60b, c: 238, 449 (Singapore); Bleeker, 1861: 56 (Singapore).
Gobius spectabilis – Karoli, 1882: 165 (Singapore).
Glossogobius giuris – Herre & Myers, 1937: 42 (Singapore); Fowler, 1938: 215–216 (Singapore); Johnson, 1973b: 133 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 101 (Singapore).
 ?*Gobius koku* – Gomez, 1980: 95 (Singapore).
 ZRC material from: West Coast Park, Sungei Kranji, Sungei Seletar, Pulau Tekong.
- Glossogobius sparsipapillus*** Akihito & Meguro
Glossogobius sparsipapillus Akihito & Meguro, 1976: 9, Figs 1–2 (Branch of Can Tho River, vicinity of Can Tho City, Vietnam); Lim & Larson, 1994: 259 (Sungei Seletar); Larson & Lim, 2005: 102 (Simpang).
 ZRC material from: Sungei Buloh, Sungei Simpang, Sungei Seletar, Pasir Ris.
- Gobiodon* sp. 11**
Gobiodon sp. 11 – Larson & Lim, 2005: 105 (Singapore).
 ZRC material from: Terumbu Pempang Laut, on the coral *Acropora subulata*.
 Remarks: This represents an undescribed species currently being studied by Doug Hoese (Australian Museum, Sydney).
- Gobiodon albofasciatus*** Sawada & Arai
Gobiodon albofasciatus Sawada & Arai, 1972: 416, Figs. 3–6 (Kabira, Ishigaki Island, Japan); Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 103 (Singapore).
 ZRC material from: Pulau Hantu.
- Gobiodon citrinus*** (Rüppell)
Gobius citrinus Rüppell, 1838: 139, Fig. 4 (Red Sea).
Gobiodon citrinus – Debelius, 2001: 207 (Singapore).
 Remarks: Record based on the photograph in Debelius (2001: 207), stated as having been taken in Singapore.
- Gobiodon fulvus*** Herre
Gobiodon fulvus Herre, 1927: 292 (Calapan, Mindoro); Herre, 1940b: 51 (a Singapore reef).
 Remarks: No recent material of this species from Singapore.
- Gobiodon histrio*** (Valenciennes)
Gobius histrio Valenciennes, 1837: 132 (Bantam and Tongatabou Isle).
Gobiodon histrio – Martens 1876: 392 (Singapore and Zamboanga); Lim & Larson 1994: 259 (Singapore); Lim & Low 1998: 134 (Singapore); Larson & Lim 2005: 104.
Gobiodon erythrospilus – Koumans 1953: 9 (Singapore).
 ZRC material from: Pulau Seringat, Kusu Island, Pulau Hantu, Berting Bemban Laut, Terumbu Pempang Laut, Raffles Lighthouse.
- Gobiodon micropus*** Günther
Gobiodon micropus Günther, 1861: 89 (China Seas); Karoli, 1882: 166 (Singapore); Fowler, 1938: 216 (Singapore).
 Remarks: No recent material of this species from Singapore.
- Gobiopsis macrostoma*** (Steindachner)
Gobiopsis macrostomus Steindachner, 1861: 291, Fig. 6 (Bombay, India).
Gobiopsis macrostoma – Larson & Lim, 2005: 106 (Berting Bronok).
 ZRC material from: Kallang basin, Berting Bronok.
- “*Gobius*” *bontii*** Bleeker
Gobius bontii Bleeker, 1849: 27 (Freto Madurae prope Surabaya et Kammal) – Martens, 1876: 391 (Singapore); Fowler, 1938: 217 (Singapore).
 Remarks: No recent material of this species from Singapore. The holotype of this species is in poor condition and may represent an undescribed genus (D. Hoese, pers. comm.). Martens’ material has not been examined (Fowler’s reference is based on Martens, 1876).
- Istigobius decoratus*** (Herre)
Rhinogobius decoratus Herre, 1927: 181, Pl. 13, Fig. 3 (Leyte, Philippines).
Ctenogobius decoratus – Herre, 1940b: 51 (Singapore).
Acentrogobius decoratus – Koumans, 1953: 74–75 (Singapore).
Istigobius decoratus – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 111 (Singapore).
 Remarks: No recent material of this species observed in Singapore.
- Istigobius diadema*** (Steindachner)
Gobius diadema Steindachner, 1877: 232 (Hong Kong).
Istigobius diadema – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 112 (Sarimbun).
 ZRC material from: Sungei Tengeh, Sarimbun mangroves, Sungei Punggol, Marina Bay.
- Istigobius goldmanni*** (Bleeker)
Gobius goldmanni Bleeker, 1852f: 167 (Timor, Kupang).
Istigobius goldmanni – Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 113 (Singapore).
 ZRC material from: Sentosa, Pulau Seringat, Pulau Semakau, Pulau Hantu, Raffles Lighthouse, Berting Bronok.
- Istigobius ornatus*** (Rüppell)
Gobius ornatus Rüppell, 1830: 135 (Massaua, Red Sea); Fowler, 1932: 448 (Singapore); Herre & Myers, 1937: 38 (Singapore); Fowler, 1938: 218 (Singapore).

- Gobius periphthalmoides* – Bleeker, 1861: 32, 56 (Singapore).
Gobius elegans – Karoli, 1882: 164 (Changi River); Fowler, 1938: 217 (Singapore).
- Acentrogobius ornatus* – Tweedie, 1936: 28 (Pulau Brani, Singapore); Fowler, 1938: 267 (Pulau Brani, Singapore); Koumans, 1953: 71–73 (Singapore); Gomez, 1980: 95 (Singapore).
- Ctenogobius calderae* – Herre & Myers, 1937: 43 (reefs in Singapore Harbour).
- Istigobius ornatus* – Murdy & Hoese, 1985: 11 (Singapore); Lim & Larson, 1994: 259 (Singapore); Lim & Low, 1998: 135 (Pulau Seringat); Chua, 2002: 109 (Chek Jawa); Tan & Yeo, 2003: 154 (Chek Jawa); Larson & Lim, 2005: 114 (Salu Island).
 ZRC material from: Pulau Brani, Sentosa, Pulau Seringat, St John's Island, Labrador Beach, Pulau Semakau, Pulau Hantu, Raffles Lighthouse, West Coast Park, Pulau Ubin, Pulau Sekudu, Changi Point.
- Macrodontogobius wilburi*** Herre
Macrodontogobius wilburi Herre, 1936b: 279, Pl. 1, Fig. 2 (Goror Reef, Pelew Islands [= Belau]); Murdy, 1985: 12 (Singapore Harbour); Lim & Larson, 1994: 259 (Singapore); Larson & Lim, 2005: 115 (Pulau Hantu).
- Gnatholepis hendersoni* Herre, 1936a: 7 (Singapore); Herre & Myers, 1937: 39 (Singapore); Fowler, 1938: 266 (reef in Singapore Harbour).
- Acentrogobius hendersoni* – Koumans, 1953: 68 (Singapore).
Acentrogobius henderson – Chua, 1973: 526 (Ponggol Estuary).
 ZRC material from: Pulau Hantu.
- Mahidolia mystacina*** (Valenciennes)
Gobius mystacinus Valenciennes, 1837: 124 (Java).
Mahidolia mystacina – Larson & Lim, 2005: 116 (Pulau Ubin).
 ZRC material from: Pulau Ubin.
- Myersina filifer*** (Valenciennes)
Gobius filifer Valenciennes, 1837: 106 (Mer des Indes).
Gobius sp. aff. *knuttelii* – Duncker, 1905: 160 (Singapore harbour).
Cryptocentrus filifer – Fowler, 1938: 214 (Singapore); Koumans, 1953: 86–89 (Singapore); Lim & Larson, 1994: 258 (Singapore).
 Remarks: No recent material from Singapore observed.
- Myersina macrostoma*** Herre
Myersina macrostoma Herre, 1934b: 90 (Culion Harbour, Philippines); Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 122 (Simpang).
 ZRC material from: Sungei Simpang, Punggol, Pasir Ris, Changi Point.
- Myersina nigrivirgata*** Akihito & Meguro
Myersina nigrivirgata Akihito & Meguro, 1983: 343, Fig. 1 (Amitori Bay, Iriomotejima, Okinawa Prefecture, Japan).
 Remarks: New record for Singapore based on an individual photographed on a reef off Pulau Hantu on 19 Feb.2006 by Jani Thuaibah Isa Tanzil (Fig. 8).
- Oplopomops diacanthus*** (Schultz)
Oplopomops diacanthus Schultz, 1943: 229, 242, Fig. 22 (Canton Island).
 ZRC material from: Raffles Lighthouse (ZRC 50327).
 Remarks: First record for Singapore.
- Oplopomops oplopomus*** (Valenciennes)
Gobius oplopomus Valenciennes, 1837: 66 (Massuah, Red Sea); Koumans, 1953: 30 (Singapore).
Oplopomops oplopomus – Lim & Larson, 1994: 260 (Singapore); Larson & Lim, 2005: 123 (Singapore).
 ZRC material from: Changi.
- Palutrus scapulopunctatus*** (Beaufort)
Gobius (Rhinogobius) scapulopunctatus Beaufort, 1912: 137 (Saonek, Waigeu).
Ctenogobius scapulo-punctatus – Herre & Myers, 1937: 43 (Singapore).
Palutrus scapulopunctatus – Lim & Larson, 1994: 260 (Singapore).
 Remarks: No recent material of this species observed in Singapore.
- Paragobiodon echinocephalus*** (Rüppell)
Gobius echinocephalus Rüppell, 1830: 136, Pl. 34, Fig. 3 (Massaua, Red Sea).
Paragobiodon echinocephalus – Lim & Larson, 1994: 260 (Singapore Straits); Larson & Lim, 2005: 127 (Singapore).
 Remarks: This species is known from Singapore only by a photograph of a poorly-preserved fish taken in the late 1980s from the Singapore Straits by the Reef Ecology Study Team of the National University of Singapore (Fig. 9). The specimen unfortunately cannot be located, and is believed to be lost.
- Priolepis nuchifasciata*** (Günther)
Gobius nuchifasciatus Günther, 1873: 90 (Bowen, Queensland, Australia).
Priolepis nuchifasciatus – Winterbottom & BurrIDGE, 1993: 507 (Singapore); Lim & Larson, 1994: 260 (Singapore).
Priolepis nuchifasciata – Larson & Lim, 2005: 135 (Berting Bronok).
 ZRC material from: Sentosa, Pulau Semakau, Pulau Hantu, Berting Bronok.
- Priolepis semidoliata*** (Valenciennes)
Gobius semidoliatus Valenciennes, 1837: 67 (Vanikolo); Herre & Myers, 1937: 45 (Singapore reefs); Koumans, 1953: 149–150 (Singapore).
Priolepis semidoliatus – Lim & Larson, 1994: 260 (Singapore).
Priolepis semidoliata – Larson & Lim, 2005: 136 (Singapore).
 ZRC material from: Pulau Hantu.
- Psammogobius biocellatus*** (Valenciennes)
Gobius biocellatus Valenciennes, 1837: 73 (Pondichery, India).
Gobius eleotrioides – Bleeker, 1861: 32 (Singapore); Fowler, 1938: 217 (Singapore).
Gobius eleotrioides – Bleeker, 1861: 56 (Singapore).
Glossogobius biocellatus – Herre & Myers, 1937: 42 (a Singapore reef); Koumans, 1953: 163165 (Singapore); Gomez, 1980: 95 (Singapore); Lim & Larson, 1994: 259 (Singapore); Chua, 2002: 109 (Chek Jawa).
Psammogobius biocellatus – Larson & Lim, 2005: 137 (Changi).
 ZRC material from: Singapore River, Pulau Hantu, Sungei Seletar, Sungei Punggol, Pasir Ris, Changi beach.
- Silhouettea cf. nuchipunctata*** (Herre)
Silhouettea cf. nuchipunctata – Larson & Lim, 2005: 148 (Singapore).
 ZRC material from: Pulau Ubin, Changi Point.
 Remarks: It is not yet certain if this is an undescribed species. Specimens of a similar goby were also collected from Peninsular Malaysia in 2002 (pers. obs.).
- Valenciennea muralis*** (Valenciennes)
Eleotris muralis Valenciennes, 1837: 253 (Tikopia, Santa Cruz Archipelago).
Eleotriodes muralis – Bleeker, 1859–60b, c: 237, 450 (Singapore); Bleeker, 1861: 57 (Singapore); Koumans, 1953: 337–339 (Singapore).
Valenciennea muralis – Bleeker, 1877: 96–97 (Singapore).

Valenciennesa muralis – Herre & Myers, 1937: 38 (reefs near Singapore); Fowler, 1938: 211 (Singapore); Hoese & Larson, 1994: 37 (Singapore); Lim & Larson, 1994: 261 (Singapore); Larson & Lim, 2005: 155 (Raffles Lighthouse).

ZRC material from: Pulau Seringat, Raffles Lighthouse.

Remarks: The presence of this species was confirmed by Hoese & Larson (1994) who examined material deposited in CAS & AMS.

***Valenciennesa strigata* (Broussonet)**

Gobius strigatus Broussonet, 1782: 1 (Tahiti).

Eleotris strigata – Karoli, 1882: 168 (Singapore).

Eleotriodes strigatus – Bleeker, 1861: 32, 57 (Singapore); Koumans, 1953: 334–335 (Singapore).

Valenciennesia strigata – Bleeker, 1877: 89–95 (Singapore).

Valenciennesa strigata – Fowler, 1938: 211 (Singapore); Lim & Larson, 1994: 261 (Singapore).

Remarks: No recent material of this species observed from Singapore.

INCERTAE SEDIS

? *Acentrogobius* spp.

Gobius margariturus Richardson, 1846: 205 (Macao); Karoli, 1882: 165 (Singapore); Fowler, 1938: 217 (Singapore).

Gobius cyanoclavis – Karoli, 1882: 164 (Singapore); Fowler, 1938: 217 (Singapore). *Acentrogobius* sp. 1 – Gomez, 1980: 95 (Singapore).

Acentrogobius sp. 2 – Gomez, 1980: 95 (Singapore).

Acentrogobius sp. 3 – Gomez, 1980: 95 (Singapore).

Remarks: It is uncertain what species the above records refer to; possibly to one or more species of *Acentrogobius*. The type specimens of *Gobius margariturus* were apparently destroyed, but they may have been an *Acentrogobius*.

? *Drombus* sp.

?*Gobius temminckii* – Karoli, 1882: 165 (Singapore); Fowler, 1938: 218 (Singapore).

Remarks: It is uncertain to which *Drombus* species (if any) the above two records refer.

SUBFAMILY SICYDIINAE

***Sicyopterus macrostetholepis* (Bleeker)**

Sicydium macrostetholepis Bleeker, 1853a: 271 (West Sumatra, in rivers).

Sicyopterus macrostetholepis – Bleeker, 1876: 281 (Singapore); Fowler, 1938: 221 (Singapore); Koumans, 1953: 228–229 (Singapore); Gomez 1980: 95 (Singapore); Lim & Larson, 1994: 261 (Singapore).

Remarks: There are no recent specimens of this subfamily known from Singapore. It is quite likely that Bleeker's original record from Singapore (which has consequently been cited by others) is in error, as there has never been suitable habitat for sicydiine gobiids in Singapore. These fishes require fast steep freshwater streams with access to the sea, while all rivers and streams in Singapore, past and present, are low-lying and relatively slow-moving.

FAMILY MICRODESMIDAE

? *Oxymetopon amblyopinus* (Kner)

Orthostomus amblyopinus Kner, 1868: 330, Pl. 6, Fig. 16 (Singapore); Bleeker, 1877: 107–108 (“Singapore”); Fowler, 1938: 219 (Singapore); Koumans, 1953: 370–372 (Singapore).

Remarks: There are no recent specimens resembling this species known from Singapore. From examination of Kner's figure and description, this fish may be a cepolid and not a gobioid (the location of the type specimen is unknown). The figure also resembles the microdesmid *Oxymetopon*.

***Parioglossus palustris* (Herre)**

Andameleotris palustris Herre, 1945: 2 (Zamboanga, Philippines).

Parioglossus palustris – Lim & Low, 1998: 142 (Singapore); Larson & Lim, 2005: 156 (Loyang mangroves).

ZRC material from: Sungei Tuas, Sungei Berih, Sungei Serangoon, Loyang mangroves.

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