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A Review of the Threadfin Breams of the Genus *Nemipterus* (Nemipteridae) from Japan and Taiwan, with Description of a New Species

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Abstract Species of the fish genus *Nemipterus* (Nemipteridae) from Japan and Taiwan are reviewed. A key, diagnoses and synonymies are provided for 9 species, including a new species: *N. aurora* sp. nov. (previously misidentified as *N. delagoae* Smith); *N. bathybius* Snyder; *N. furcosus* (Valenciennes) [mistakenly referred to as *N. peronii* (Valenciennes)]; *N. hexodon* (Quoy et Gaimard); *N. japonicus* (Bloch); *N. peronii* (Valenciennes) [previously referred to as *N. tolu* (Valenciennes), a junior synonym]; *N. thosaporni* Russell [previously misidentified as *N. marginatus* (Valenciennes)]; *N. virgatus* (Houttuyn); and *N. zysron* (Bleeker) [previously referred to as *N. metopias* (Bleeker), a junior synonym]. *N. aurora* is described from specimens from Taiwan, the Gulf of Thailand, East Malaysia and Indonesia. It appears to be closely allied to *N. bipunctatus* (Ehrenberg) (*N. delagoae* is a junior synonym), an Indian Ocean species, but the two species are readily distinguished on the basis of colour pattern of the dorsal and anal fins: *N. aurora* has a broad orange-yellow submedial stripe along the dorsal fin, and a lemon submedial stripe on the anal fin; whereas in *N. bipunctatus* the dorsal fin is uniformly rosy, and the anal fin has 2–4 wavy yellow stripes.

The threadfin breams of the genus *Nemipterus* Swainson, 1839, are widespread throughout the tropical and subtropical Indo-West Pacific region. They are small to moderate-sized, brightly coloured fishes. Most inhabit shallow sand or mud bottoms, but a few species occur to depths as great as 300 m. The threadfin breams are valued food fishes in many parts of the world, and are taken commercially by hook-and-line and bottom trawl.

More than 50 nominal species of *Nemipterus* have been described. The Indo-Pacific species of *Nemipterus* were reviewed by Fowler (1933), while the Indo-Australian species have been reviewed by Weber and de Beaufort (1936) and Akazaki (1962). Other workers have reviewed the species of *Nemipterus* of Thailand (Wongratana 1972, 1974), the Western Indian Ocean (Russell 1986), and Taiwan (Lee 1986). Much of this previous work is summarised by Russell (1990) in an illustrated catalogue of nemipterid fishes.

Nonetheless, a number of taxonomic problems remain, and several species have been confused or misidentified in the literature. In particular, recent accounts of the Japanese species (Masuda et al., 1975; Akazaki, 1984, 1988) and Taiwanese species of *Nemipterus* (Shen, 1984; Lee, 1986) include a number of misidentifications and incorrectly named species. The present paper reviews the species of *Nemipterus* from Japan and Taiwan. A key to the species and diagnoses are provided, and a new species, previously misidentified as *N. delagoae* Smith, is described.

Methods and Materials

Methods of counting and measuring specimens follow Russell (1986). Counts and measurements are based on a wide range of material, but only types and specimens from Japan and Taiwan are cited in detail in the material examined. In the new species description, measurements and counts for the holotype are given first. Those for the paratypes, where different from the holotype, are enclosed in parentheses.

Specimens have been examined in the following institutions: Academy of Natural Sciences of Philadelphia (ANSP); Museum of the Institute of Zoology, Academia Sinica, Taipei (ASIZP); Department of Biology, Faculty of Science, Kochi University (BSKU); California Academy of Sciences, San Francisco (CAS); Marine Fisheries Laboratory, Bangkok (MFL); Muséum National d'Histoire Naturelle, Paris (MNHN); Naturhistorisches Museum, Vienna (NMW); Northern Territory Museum, Darwin (NTM); Phuket Marine Biological Centre (PMBC);

Pusat Penelitian dan Pengembangan Oseanologi–LIPI, Jakarta (PPPO); Rijksmuseum van Natuurlijke Historie, Leiden (RMNH); South Australian Museum, Adelaide (SAM); Senkenberg Museum, Frankfurt (SMF); United States National Museum of Natural History, Washington D. C. (USNM); Zoologisches Museum, Berlin (ZMB).

Key to Japanese and Taiwanese Species of *Nemipterus*

1a. Anal fin rays III, 8 (West Pacific) ..... *N. virgatus*
1b. Anal fin rays III, 7 2
2a. Membrane between dorsal spines deeply incised (Indo-West Pacific) ..... *N. peronii*
2b. Membrane between dorsal spines continuous or only slightly emarginate 3
3a. Pelvic fins very long, reaching to or beyond origin of anal fin; scales below lateral line in ascending rows anteriorly; dorsal fin pale yellow, with a broad, bicoloured submedial stripe (yellow above, orange below), yellow margin and pale mauve submarginal stripe (West Pacific) ..... *N. aurora* sp. nov.
3b. Pelvic fins short or moderately long, not reaching to origin of anal fin; scales below lateral line in more or less horizontal rows anteriorly; colour of dorsal fin not as above 4
4a. Pectoral fins very long, reaching to or beyond level of origin of anal fin (Indo-West Pacific) ..... *N. japonicus*
4b. Pectoral fins short or moderately long, not reaching to level of origin of anal fin 5
5a. Upper lobe of caudal fin pointed or rounded, not produced 6
5b. Upper lobe of caudal fin produced to an elongate point, falcate or with a filamentous extension 7
6a. Line drawn up from posterior edge of suborbital reaching dorsal profile at about origin of dorsal fin; pectoral fins reaching to or short of anus (Indo-West Pacific) ..... *N. furcosus*
6b. Line drawn up from posterior edge of suborbital reaching dorsal profile about 2–6 scales before origin of dorsal fin; pectoral fins reaching to beyond level of anus (Andaman Sea, West Pacific) ..... *N. hexodon*
7a. Upper lobe of caudal fin produced to an elongate point; dorsal fin elevated, first dorsal spine long, 1.1 to 1.4 in length of longest dorsal spine (West Pacific from southern Japan to Indonesia) ..... *N. thosaporni*
7b. Upper lobe of caudal fin falcate or extended into a short or long filament; dorsal fin not notably elevated, first dorsal spine short, 1.3 to 2.9 in length of longest spine 8
8a. Body elongate, depth 3.8 to 4.6 in SL; upper lobe of caudal fin extended into a short filament; eye tangent to or above a line from tip of snout to upper base of pectoral fin (Indo-West Pacific) ..... *N. zysron*
8b. Body moderately deep, depth 3.2 to 4.0 in SL; upper lobe of caudal fin falcate, ribbon-like; eye tangent to or below a line from tip of snout to upper base of pectoral fin (West Pacific) ..... *N. bathybius*

Nemipterus aurora sp. nov.
(Japanese name: Hira-itoyori)
(Fig. 1)

Nemipterus delagoae (non Smith): Masuda et al., 1975: 229, pl. 55-J (Ryukyu Is.; Thailand; not South Africa); Akazaki, 1984: 176, pl. 165-G (Ryukyu Is. to South China Sea; Gulf of Siam; not Andaman Sea); Shen, 1984: 62, pl. 62, fig. 324-5 (north-eastern Taiwan); Lee, 1986: 170, pl. 3, fig. 17 (Hengchun, Taiwan).
Nemipterus sp.: Akazaki, 1988: 106, pl. 165-G (Ryukyu Is. to South China Sea; Gulf of Siam; not Andaman Sea).
Nemipterus sp. 3: Russell, 1990: 55, fig. 92, pl. III, d (West Pacific).

Holotype. NTM S.10677-020, 200.0 mm SL, male, East Malaysia, Sabah, Kota Kinabalu fish market (5°59′N, 116°04′E), B.C. Russell, 8 November 1982.

Paratypes. ASIZP 055804 (1 of 2), 168 mm SL, male?, Taiwan, Kaohsiung (22°36′N, 120°17′E). NTM S.10677-024, 148.0 mm SL, female, same data as holotype; NTM S. 11340-009 (Fig. 1), 148.5 mm SL, male, Indonesia, Lombok, Alas Strait (8°49′S, 116°36′E), FRV "Bawal Putih II," BCR 84-30, Engel trawl, 70–90 m, 16 August 1984; NTM S.12006-002, 3: 138–199.6 mm SL, largest specimen a male, Thailand, Songkhla, Songkhla fish landing (specimens probably trawled from the eastern Gulf of Thailand, near Vietnam), 29 October 1986; PMBC 4689, 2: 137–194.3 mm SL, larger specimen a male, same data as preceding specimens; PPPO NCIP 4002, 153.0 mm SL, male, Indonesia, Lombok, Alas Strait (8°50′S, 116°35′E), FRV "Bawal Putih II," BCR 84-33, Engel trawl, 56–76 m, 19 August 1984.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 13–15; gill rakers 11–14; body moderately elongate, depth 3.2–3.9 in SL; head length about

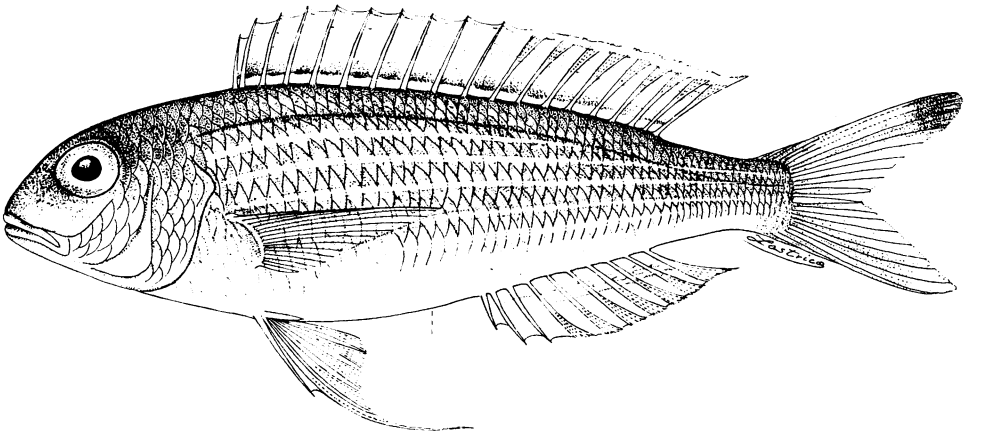

Fig. 1. *Nemipterus aurora* sp. nov., paratype, NTM S.11340-009, 148.5 mm SL, male, Alas Strait, Indonesia (from Russell, 1990).

equal to or a little more than body depth; diameter of eye about equal to or a little less than snout length, 1.0–1.4 in snout; lower margin of eye tangent to or above a line from tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge slightly emarginate, least depth 1.1–2.0 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile somewhere between 2 scale rows before origin of dorsal fin and third dorsal spine; pectoral fins moderately long, reaching to or beyond level of vent; pelvic fins very long, reaching to between origin of anal fin and third anal spine; caudal fin forked, tips of fin pointed or slightly rounded; body pinkish, shading through mauve, to silvery below; 4–5 longitudinal, upward-curved silvery white stripes along each scale row below lateral line from behind head to caudal peduncle; dorsal fin pale translucent yellow, with lemon-yellow margin and pale mauve submarginal stripe; broad bicoloured submedial stripe, yellow above and orange below, becoming uniformly yellow posteriorly; anal fin transparent, with pale lemon submedial stripe (sometimes broken) above base of fin; caudal fin yellowish pink, upper tip rosy.

Description. Dorsal fin X, 9; anal fin III, 7; pectoral fin ii, 14 (ii, 13–15); lateral line scales 47 (48); transverse scale rows 3½/10 (3–3½/9–11); gill rakers 12 (11–14).

Depth 3.2 (3.2–3.9) in SL; head 3.1 (3.0–3.3) in SL; head length equal to or a little more than body depth, depth 1.0 (1.0–1.2) in head; snout short, rounded in profile, 2.8 (2.7–3.2) in head; eye 3.7 (2.9–3.7) in head; diameter of eye about equal to or less than snout length, 1.3 (1.0–1.4) in snout; lower margin of eye tangent to (specimens, < 148 mm SL) or above (specimens > 148 mm SL) a line from tip of snout to upper pectoral-fin base; interorbital width 1.4 (1.2–1.8) in eye; least depth of suborbital 1.2 (1.1–2.0) in eye; ventral margin of suborbital slightly emarginate, its posterior edge more or less straight; an imaginary line extended upward from posterior edge reaching dorsal profile somewhere between 2 scale rows before origin of dorsal fin and third dorsal spine; preopercle naked width 1.6 (1.2–1.7) in scaly width; margin of preopercle weakly denticulate or smooth; caudal peduncle depth 1.3 (0.9–1.4) in peduncle length; dorsal fin length 1.9 (1.8–1.9) in SL; seventh through tenth dorsal spines longest, 1.6 (1.5–1.8) times length of first dorsal spine; sixth or seventh dorsal ray longest, 1.3 (1.1–1.3) times length of longest dorsal spine; anal-fin length 5.2 (4.6–5.5) in SL; first anal spine 1.4 (1.3–1.6) in second; second anal spine 1.1 (1.1–1.2) in third; pectoral fins moderately long, reaching to or beyond level of vent, 1.2 (1.1–1.4) in head; pelvic fins very long, reaching to between just before origin of anal fin and third anal spine, 1.0 (0.9–1.3) in head; pectoral fins 1.2 (0.9–1.3) in pelvic fins; caudal fin forked, tips of fin pointed or slightly rounded.

Maxillary reaching to just behind anterior margin of eye; jaw teeth small, pointed, in narrow tapering bands in both jaws; upper jaw with outer row of 3 pair of small, recurved canines anteriorly; lower jaw with outer row of 3–6 pair of slightly enlarged canines anteriorly; about 4–6 small, recurved canines laterally on either side of lower jaw.

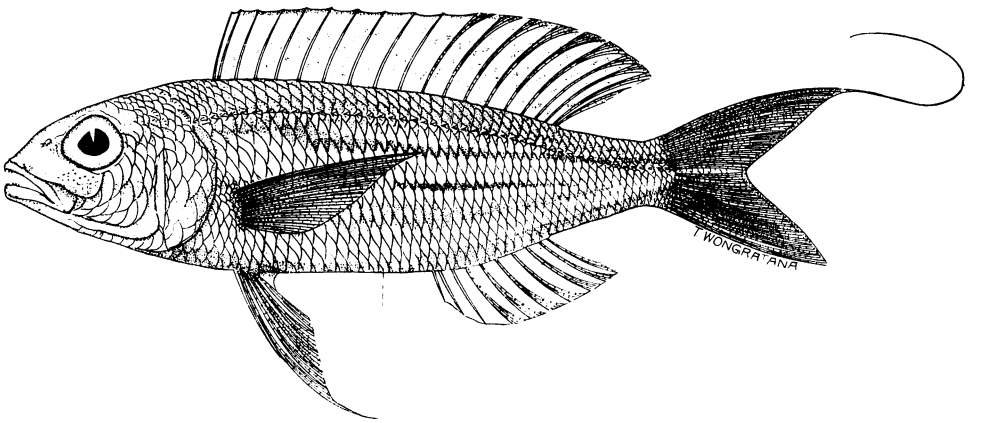

Fig. 2. *Nemipterus bathybius*, MFL unreg., 188 mm SL (from Russell, 1990).

Colour in alcohol: body pale brown; dorsal fin with traces of dusky submedial stripe.

Colour in life: body pinkish above, shading through pale mauve to silvery on ventral half; sides with 4–5 longitudinal, upward-curved silvery white stripes along the middle of each scale row below lateral line from behind head to caudal peduncle; head pinkish with golden yellow reflections on opercle; upper lip with yellow edge; dorsal fin pale translucent yellow, with lemon-yellow margin and pale mauve submarginal stripe; broad bicoloured submedial stripe, yellow above and orange below, becoming uniformly yellow posteriorly; anal fin transparent, with pale lemon submedial stripe (sometimes broken) above base of fin; caudal fin yellowish pink, upper tip rosy; pelvic and pectoral fins transparent.

Remarks. This species was misidentified by Masuda et al. (1975), Akazaki (1984) and Lee (1986) as *N. delagoae* Smith [=*N. bipunctatus* (Ehrenberg)], a species that is restricted to the Indian Ocean (Russell, 1986). Masuda et al. (1975) noted that "Japanese specimens differ from South African specimens in having only one yellow stripe on the anal fin," but failed to recognise the Japanese species as distinct.

N. aurora appears to be closely related to *N. bipunctatus.* Both share the same general body shape and have very long pelvic fins, but the two species are readily distinguished on the basis of colour pattern, notably of the dorsal and anal fins: *N. aurora* has a broad orange-yellow submedial stripe along the dorsal fin, and a lemon submedial stripe on the anal fin; whereas in *N. bipunctatus* the dorsal fin is uniformly rosy, and the anal fin has 2–4 wavy yellow stripes.

N. aurora is known from only a few specimens, but appears to be widespread in the West Pacific basin, from the Ryukyu Is. to south-eastern Indonesia (Lombok). It has been collected in depths of 56–90 m.

Etymology. The Latin name *aurora* (dawn), is in reference to the distinctive orange-yellow submedial stripe along the dorsal fin that resembles the colours of the dawn sky.

Nemipterus bathybius Snyder, 1911
(Japanese name: Soko-itoyori)
(Fig. 2)

Nemipterus bathybius Snyder, 1911: 532, fig. 6 (Kagoshima, Japan); Masuda et al., 1975: 228, pl. 55-G (southern Japan; East China Sea); Akazaki, 1984: 176, pl. 165-C (southern Japan to South China Sea; Indian Ocean); Shen, 1984: 62, pl. 62, fig. 324-2 a,b (Taiwan); Akazaki, 1988: 176, pl. 165-C (Southern Japan to South China Sea; Indian Ocean); Russell, 1990: 30, fig. 58, pl. I, c (West Pacific, including southern Japan, South China Sea, Philippines, Indonesia, and north-western Australia).

Enthyopteroma bathybium: Snyder, 1912: 415 (misspelling —Kagoshima).

Euthyopteroma bathybium: Jordan and Thompson, 1912: 566 (Kagoshima); Jordan et al., 1913 (Tokyo to Formosa); Jordan and Hubbs, 1925: 240 (Kagoshima Bay); Schmidt, 1931: 68 (Kagoshima).

Synagris bathybus: Fowler, 1933: 100 (Batangas, Philippines; Kagoshima).

Nemipterus marginatus (non Valenciennes): Shen, 1984: 62,

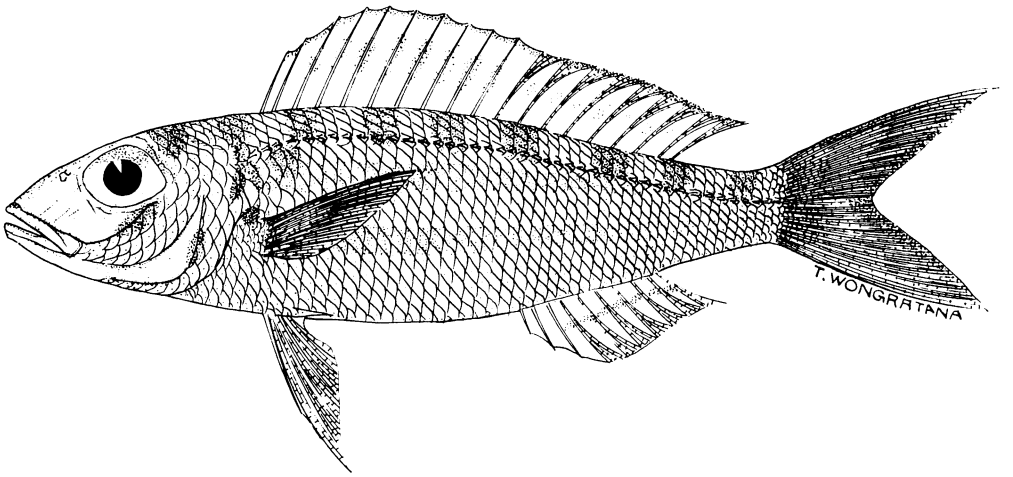

Fig. 3. *Nemipterus furcosus*, MFL unreg., 70 mm SL (from Russell, 1990).

pl. 62, fig. 324-2 a, b (south-western Taiwan; Pescadores).

Nemipterus bathybius: Akazaki, 1962: 97 (Japan; East China Sea; Tonkin Bay, Vietnam); Lee, 1986: 169, pl. 3, fig. 16 (caption for fig. 16 incorrect—transposed with fig. 15) (Kaohsiung, Taiwan).

Material examined. USNM 68232 (179 mm SL, holotype of *N. bathybius* Snyder) Japan, Kagoshima; CAS SU. 22495 (2: 117.5–160.5 mm SL, paratypes of *N. bathybius* Snyder) Kagoshima; ASIZP 055769 (2: 154–168 mm SL) Taiwan, Kaohsiung; BSKU 9279 (76.5 mm SL), BSKU 9280 (109.2 mm SL) Japan, Kochi, Mimase fish market; USNM 75145 (171 mm SL), USNM 151668 (163.3 mm SL) Kagoshima. Also, 57 additional specimens, 73.1–197 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 13–15; gill rakers 13–16; body moderately elongate, depth 2.9–3.6 in SL; head length about equal to body depth, depth 0.9–1.1 in head length; diameter of eye ranging from a little less to a little more than snout length, 0.7–1.2 in snout; lower edge of eye tangent to or just below a line from tip of snout to upper pectoral-fin base; suborbital shallow, its lower edge emarginate, least depth 1.9–4.7 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile somewhere between 2–6 scale rows before origin of dorsal fin; pectoral fins moderately long, reaching to or just beyond level of vent; pelvic fins moderately long, reaching to somewhere between just beyond level of vent and origin of anal fin; upper lobe of caudal fin with ribbon-like, downward-curved filament; body pink, silvery white below; golden stripe from below origin of lateral line to upper caudal base and from behind upper axil of pectoral fin to mid-caudal base; lemon-yellow stripe on either side of ventral midline from throat to lower caudal base; dorsal fin pale pink, with yellow margin, red-edged below on spinous part of fin, and dusky submarginal stripe; irregular pale yellow scalloped stripes anteriorly on basal half of dorsal fin, these broadening posteriorly over most of fin; anal fin whitish, without stripes; caudal fin pink, upper lobe and filament bright yellow.

Remarks. *N. bathybius* is close to *N. balinensis* (Bleeker, 1858–59), but is distinguishable from the latter, notably in having the lower lateral stripe originating from behind the pectoral-fin base (above the upper pectoral-fin base in *N. balinensis*) and in having a uniform yellow caudal filament (red-edged below in *N. balinensis*).

N. bathybius occurs throughout the Indo-Australian Archipelago, from southern Japan to north-western Australia. Specimens were collected in depths between 42 and 300 m.

Nemipterus furcosus (Valenciennes in Cuv. et Val., 1830)
(Japanese name: Momo-itoyori)
(Fig. 3)

Dentex furcosus Valenciennes in Cuvier and Valenciennes, 1830: 244 (Trinquemalé = Trincomalee, Sri Lanka).

Dentex upeneoides Bleeker, 1852 b: 725 (Klabat Bay, Banka).
Dentex Ovenii Bleeker, 1854: 246 (Macassar, Celebes).
Synagris furcosus: Günther, 1859: 373 (Trincomalee, Sri Lanka; Amboyna = Ambon; Louisaidae Archipelago; Australia).
Synagris upeneoides: Günther, 1859: 375 (Banka).
Synagris ovenii: Günther, 1859: 375 (Macassar, Sulawesi).
Dentex hypselognathus Bleeker, 1873: 9 (Java; Celebes).
Dentex sundanensis Bleeker, 1873: 15 (Java; Banka; Biliton; Celebes).
? *Genyorage rubicauda* Saville-Kent, 1893: 281 and 369 (Queensland) (nomen nudum for *Lutianus rubicundus* De Vis ms in Ogilby, 1918).
Nemipterus worcesteri Evermann and Seale, 1907: 81, fig. 14 (Bacon, Philippines).
Nemipterus ovenii: Jordan and Seale, 1907: 21 (Cavite, Philippines); Jordan and Richardson, 1909: 185 (Takao, Taiwan).
Nemipterus upeneoides: Seale, 1910: 275 (Borneo).
Synagris hypselognathus: Weber, 1913: 283 (Indonesia).
Nemipterus robustus Ogilby, 1916: 114 (replacement name for *Synagris furcosus* Günther, not *Dentex furcosus* Valenciennes).
Nemipterus guntheri Ogilby, 1918: 58 (replacement name for *Synagris furcosus* Günther, not *Dentex furcosus* Valenciennes).
Nemipterus furcosus: Schmidt, 1930: 48 (Naha, Okinawa); Russell, 1990: 34, fig. 64, pl. I, f (West Pacific from southern Japan to north-eastern Australia).
Synagris worcesteri: Fowler, 1933: 88 (Bacon, Philippines).
Synagris hypselognathus: Weber, 1913: 283 (Indonesia); Fowler, 1933: 96 (East Indies, Ryukyu Is.).
Nemipterus hypselognathus: Herre, 1934: 55 (Jolo, Philippines).
Nemipterus sundanensis: Weber and de Beaufort, 1936: 358 (Indonesia).
Nemipterus peronii (non Valenciennes): Akazaki, 1962: 82 (Natoena Is.; not New Zealand); Masuda et al., 1975: 229, pl. 55-K (Ryukyu Is.; Indo-West Pacific); Akazaki, 1984, 1988: 176, pl. 165-B (Ryukyu Is. to Taiwan; southeast Asia; Indian Ocean); Lee, 1986: 168, pl. 2, fig. 11 (Keelung and Hengchun, Taiwan).

Material examined. MNHN 132 (2: 133–141.4 mm SL, syntypes of *Dentex furcosus* Valenciennes) Sri Lanka, Trincomalee; RMNH 5687 (106.2 mm SL, holotype of *Dentex upeneoides* Bleeker) Indonesia, Banka, Klabat Bay; RMNH 5697 (3: 125–210 mm SL, syntypes of *Dentex hypselognathus* Bleeker; 1 specimen from Batavia, 2 others from Celebes); RMNH 5700 (120.7 mm SL, lectotype? of *Dentex sundanensis* Bleeker); RMNH 5689 (126.7 mm SL, holotype? of *Dentex ovenii* Bleeker) Sulawesi, Macassar (Ujung Padang); USNM 55917 (177 mm SL, holotype of *Nemipterus worcesteri* Evermann and Seale) Philippines, Sarsogon, Bacon; ASIZP 055862 (224 mm SL) Taiwan, Kaohsiung. Also, 51 additional specimens, 96.8–224 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 13–15; gill rakers 9–12; body moderately elongate, depth 3.0–3.9 in SL; head length about equal to or a little longer than body depth; diameter of eye about equal to or less than snout length, 0.9–1.6 in snout; lower edge of eye tangential to or above a line from tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge more or less straight, least depth 0.9–1.9 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile at or just behind dorsal fin origin; pectoral fins moderately long, reaching to or just short of level of vent; pelvic fins moderately long, reaching to or just short of level of vent; caudal fin deeply forked; head and body pale iridescent pink, paling on sides to silvery white below; back with 9 indistinct cross bars, extending to just beneath lateral line; third bar somewhat darker and more distinct, forming a reddish shoulder spot behind origin of lateral line in some specimens; traces of indistinct yellowish stripes along body, one above and several below lateral line; cheeks and opercle silvery, upper jaw rosy, lower jaw silvery; eye rosy; dorsal fin pale rosy, sometimes with yellowish tinge, outer margin darker pink; anal fin bluish white, with row of transparent or faint yellowish spots near base; caudal fin pale rosy with yellow tinge, lower margin of fin white or orange; pelvic fins and axillary scales white; pectoral fins rosy.

Remarks. This species previously has been mistakenly referred to by most authors as *Nemipterus peronii* (Valenciennes). However, *N. peronii* is identical with *N. tolu* (Valenciennes), and on the basis of page priority is a senior synonym of the latter (Bauchot et al., 1983; Russell, 1986). *N. furcosus* (Valenciennes) is the next available name for this species. The taxonomic validity of *N. furcosus* and its synonymy was discussed in detail by Russell (1991a).

N. furcosus is widespread throughout the West Pacific, from southern Japan to north-eastern Australia and the Indian Ocean, including the Gulf of Mannar, Sri Lanka, Andaman Sea, Strait of Malacca, and north-western Australia. It occurs in depths of 8–110 m.

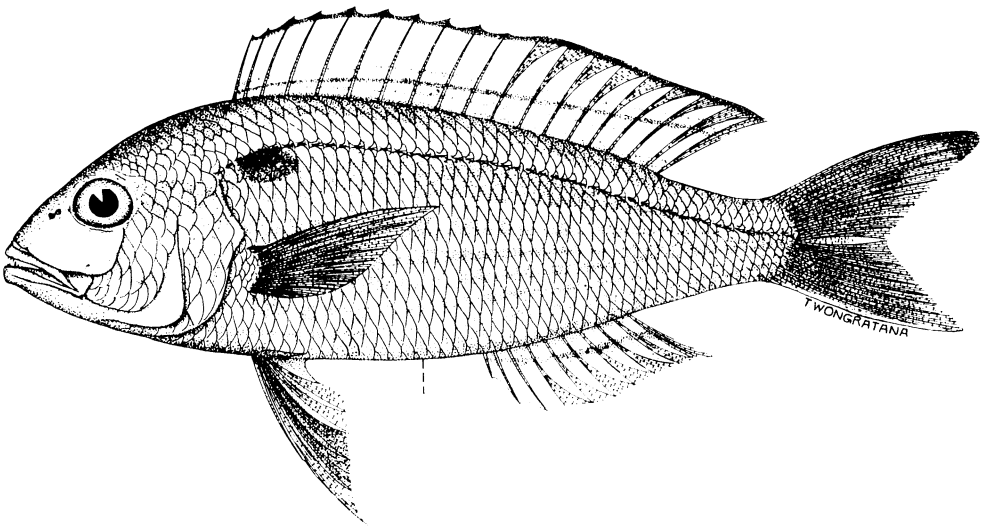

Fig. 4. *Nemipterus hexodon*, MFL unreg., 213 mm SL (from Russell, 1990).

Nemipterus hexodon (Quoy et Gaimard, 1824)
(Japanese name: Niji-itoyori)
(Fig. 4)

Dentex hexodon Quoy and Gaimard: 1824, 301 (Timor).
Dentex (Synagris) notatus Day, 1870: 684 (Andaman Is.).
Dentex taeniopterus Valenciennes in Cuvier and Valenciennes, 1830: 246 (no locality given).
Dentex ruber Valenciennes in Cuvier and Valenciennes, 1830: 247 ('la mer des Indes', Waigiu).
Synagris taeniopterus: Günther, 1859: 374 (north-eastern Australia, 'Mollucca Sea').
Synagris notatus: Day, 1875–77 (1875): 93 (India).
Dentex (Anemura) notatus: Fowler, 1904: 527 (Padang, Sumatra).
Nemipterus taeniopterus: Jordan and Seale, 1907: 21 (Philippines).
Synagris ruber: de Beaufort, 1913: 122 (Macassar, Sulawesi).
Synagris hexodon: Fowler, 1933: 87 (doubtful species).
Nemipterus hexodon: Weber and de Beaufort, 1936: 360 (Indo-West Pacific); Akazaki, 1962: 84, fig. 24 (Gulf of Siam, Thailand); Lee, 1986: 167, pl. 2, fig. 10 (Tungkang, Taiwan); Russell, 1990: 37, fig. 68, pl. I, h (Indo-West Pacific from Andaman Sea to Solomon Is.).

Material examined. MNHN 9039 (167 mm SL, holotype of *Dentex hexodon* Quoy and Gaimard) Indonesia, Timor; MNHN 9044 (114.4 mm SL, syntype of *Dentex ruber* Valenciennes), MNHN A.695 (111.5 mm SL, syntype of *Dentex ruber* Valenciennes) Indonesia, Waigiu; MNHN A.697 (152 mm SL, holotype of *Dentex taeniopterus* Valenciennes) locality unknown; ASIZP 055803 (158.5 mm SL) Taiwan, Tunkang (Tungchiang). Also, 97 additional specimens, 65–207 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 13–16; gill rakers 11–17; body moderately deep, 2.6–3.4 in SL; head length about equal to body depth; diameter of eye equal to or less than snout length, 1.0–1.6 in snout; lower edge of eye above a line from tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge slightly emarginate, least depth 0.9–1.8 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile about 2–6 scale rows before dorsal fin origin; pectoral fins long, reaching to or beyond level of vent; pelvic fins long, reaching to or just beyond level of vent; caudal fin forked, upper lobe slightly longer than lower. Colour of body pinkish, paling to silvery white on ventral surface; 6–8 pale yellow stripes on sides from below lateral line; blood red, ovoid spot below origin of lateral line, bordered below by bright yellow; yellow stripe on either side of ventral midline, from throat to lower caudal base; dorsal fin translucent, with a yellow margin; a narrow yellow stripe beginning anteriorly near base of fin and extending backwards to just above mid-posterior margin, this stripe bordered on either side by a pale interspace that is edged by a narrow pale bluish white stripe; caudal fin pinkish, upper lobe tipped with yellow; anal fin translucent; a narrow yellow stripe running from near anterior base of fin to mid-posterior margin (extending to tip of fin along posterior ray in larger speci-

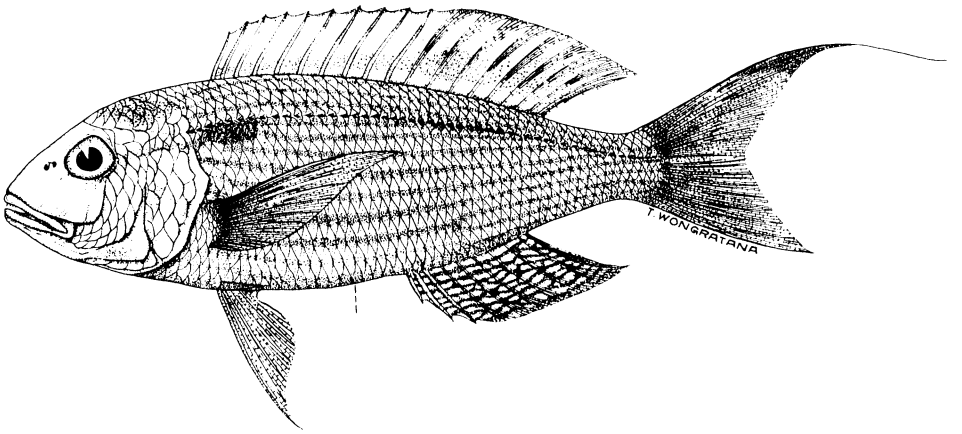

Fig. 5. *Nemipterus japonicus*, MFL unreg., 276 mm SL (from Russell, 1990).

mens); base of fin beneath this stripe pale bluish white.

Remarks. *N. hexodon* is a distinctive and widespread species that occurs throughout the tropical Indo-West Pacific, from the Andaman Sea to the Solomon Is. It occurs in depths of 10–80 m.

Nemipterus japonicus (Bloch, 1791)
(Japanese name: Nihon-itoyori)
(Fig. 5)

Sparus japonicus Bloch, 1791: 110 (no locality given).

?*Coryphaena lutea* Schneider in Bloch and Schneider, 1801: 297, fig. 58 (Tranquebar, India).

Cantharus filamentosus Rüppell, 1828–30 (1829): 50, pl. 12, fig. 3 (Massaua, Red Sea).

Dentex tambulus Valenciennes in Cuvier and Valenciennes, 1830: 249, 558 ('Rade de Pondicherry', India).

Dentex luteus: Valenciennes in Cuvier and Valenciennes, 1830: 250 (Pondicherry, India).

?*Dentex striatus* Valenciennes in Cuvier and Valenciennes, 1830: 252 (Tranquebar, India).

Spondyliosoma guliminda (non Valenciennes): Cantor, 1850: 1032 (Penang).

Dentex Blochii Bleeker, 1851: 176 (Batavia = Jakarta).

Synagris japonicus: Günther, 1859: 378 (Batavia = Jakarta).

Synagris filamentosus: Günther, 1859: 378 (Red Sea; coast of Pondicherry, India).

Dentex japonicus: Bleeker, 1865: 173 (Siam).

Synagris grammicus Day, 1865: 14 (Cochin, Malabar coast of India).

Heterognathodon flaviventris Steindachner, 1866: 778, pl.13, fig. 6 (Zanzibar).

Dentex (Heterognathodon) filamentosus: Steindachner, 1868: 976 (Mauritius).

Nemipterus japonicus: Jordan and Seale, 1907: 21 (Cavite, Philippines); Akazaki, 1962: 91 (Tonkin Bay, Vietnam; Iran); Lee, 1986: 168, pl. 3, fig. 13 (Kaohsiung, Taiwan); Russell, 1990: 40, fig. 72, pl. II, b (Indian Ocean and West Pacific).

Synagris flavolinea Fowler, 1931: 299, fig. 8 (Saukiwan, Hong Kong).

Synagris flaviventris: Fowler, 1933: 94 (Philippines; Hong Kong).

Euthyopteroma blochi: Herre, 1934: 55 (Manilla, Philippines).

Material examined. SMF 1227 (138.5 mm SL, lectotype of *Cantharus filamentosus*), SMF 14059 (3: 108–124.1 mm SL, paralectotypes of *C. filamentosus*) Ethiopia, Massawa; MNHN 8088 (114 mm SL, holotype of *Dentex tambulus*) Pondicherry; RMNH 5693 (7: 55–149 mm SL, syntypes of *Dentex blochii*) Batavia (Jakarta); ZMB 8542 (137.5 mm SL, syntype of *Synagris grammicus*) India, Cochin; NMW 35599 (103.3 mm SL, holotype of *Heterognathodon flaviventris*) Zanzibar; ANSP 53454 (107 mm SL, holotype of *Synagris flavolinea*), ANSP 53455 (110 mm SL, paratype of *S. flavolinea*) Hong Kong, Saukiwan; USNM 6368 (5: 79–114.4 mm SL) Ryukyu Is.; ASIZP 055432 (156 mm SL) Taiwan, Kaohsiung. Also, 66 specimens, 42–220 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 15–16; gill rakers 14–17; body moderately deep, depth 2.7–3.5 in SL; head length about equal to body depth; diameter of eye about equal to (small specimens) or less than (large specimens) snout length, 0.9–1.5 in snout; lower edge of eye above a line from tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge slightly emarginate, least depth 1.0–1.9 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile about 2–4 scale rows before

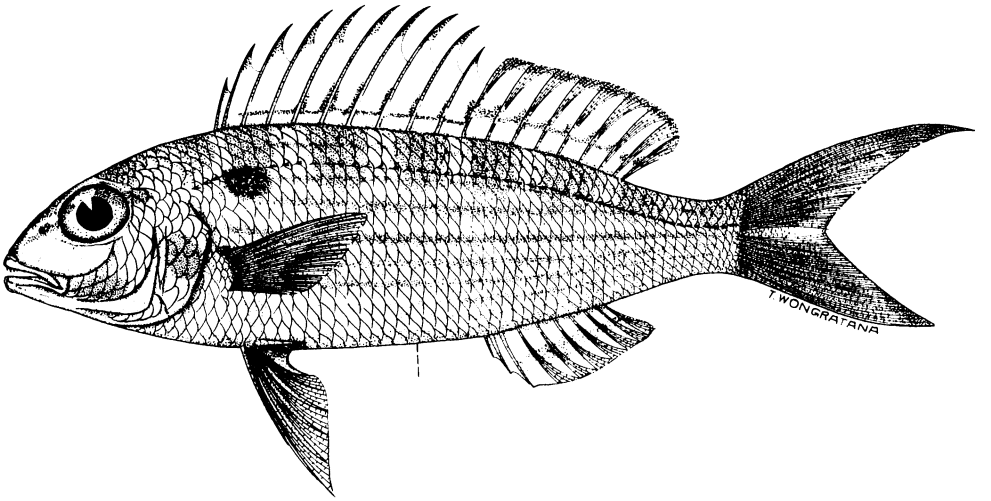

Fig. 6. *Nemipterus peronii*, MFL unreg., 218 mm SL (from Russell, 1990).

dorsal fin origin; pectoral fins very long, reaching to or just beyond level of anal fin origin; pelvic fins moderately long, reaching to or just beyond level of vent; upper lobe of caudal fin with short or moderately long, trailing filament. Colour of body pinkish, silvery below; 11–12 pale golden-yellow stripes along body from behind head to base of caudal fin; prominent red-suffused, yellow blotch below origin of lateral line; dorsal fin suffused pale whitish, margin of fin yellow, edged with red; pale lemon stripe extending along dorsal fin near base, this stripe narrow anteriorly and widening on posterior part of fin; anal fin suffused pale whitish with pale lemon scribblings or broken lines over most of fin; pectoral fins translucent pinkish; pelvic fins whitish with yellow axillary scales; caudal fin pink, upper tip and filament yellow.

Remarks. The nomenclature and synonymy of *N. japonicus* was discussed by Russell (1986). *Spondyliosoma guliminda* of Cantor (1850) appears also to be *N. japonicus* and is added to the synonymy.

N. japonicus is widespread in the Indo-West Pacific ranging from East Africa, including the Persian (Arabian) Gulf and Red Sea, to the Indo-Malay Archipelago. It occurs in depths of 5–80 m.

This species is important economically and is trawled in commercial quantities in the South China Sea (Eggleston, 1973; Lee, 1974; Weber and Jothy, 1977), as well as the Andaman Sea (Senta and Tan, 1975) and western Bay of Bengal (Krishnamoorthi, 1972).

Nemipterus peronii (Valenciennes in Cuv. et Val., 1830)
(Japanese name: Shamu-itoyori)
(Fig. 6)

Dentex Peronii Valenciennes in Cuvier and Valenciennes, 1830: 245, pl. 154 (locality not given—probably northwestern Australia, see Bauchot et al., 1983).

Dentex tolu Valenciennes in Cuvier and Valenciennes, 1830: 249 (Pondicherry; New Guinea).

Cantharus guliminda Valenciennes in Cuvier and Valenciennes, 1830: 344 (based on 'Lama guliminda', Russell).

Dentex mulloides Bleeker, 1852b: 576 (Sibolga, Sumatra).

Dentex guliminda: Bleeker, 1853: 38 (Bengal).

Synagris mulloides: Günther, 1859: 374 (Sumatra).

Synagris peronii: Günther, 1859: 376 ('Mollucca Sea').

Dentex obtusus Bleeker, 1860: 27 (nomen nudum).

Dentex (Heterognathodon) Smithii Steindachner, 1868: 978, pl. 3, fig. 1 (Cape of Good Hope?).

Synagris tolu: Klunzinger, 1870: 767 (Red Sea).

Scolopsis tolu: Boulenger, 1887: 657 (Muscat).

Odontoglyphis tolu: Fowler, 1904: 527 (Sumatra).

Nemipterus tolu: Jordan and Seale, 1907: 22 (Cavite, Philippines); Akazaki, 1962: 88, fig. 25 (Gulf of Siam, Thailand); Masuda et al., 1975: 229, pl. 55-H (Ryukyu Is.; Indo-West Pacific); Akazaki, 1984, 1988: 176, pl. 165-A (Ryukyu Is. to South China Sea; Gulf of Siam; Indian Ocean; Red Sea); Lee, 1986: 168, pl. 2, fig. 12 (Kaohsiung, Taiwan).

Nemipterus oveniides Popta, 1921: 204 (Tiworo Strait, off Muna I., Celebes).

Nemipterus mulloides: Fowler and Bean, 1922: 36 (Takao, Taiwan).

Synagris smithii: Fowler, 1933: 111 (new combination).

Nemipterus smithii: Smith, 1949: 257 (new combination).
Nemipterus sampsonensis Scott, 1959: 77, fig. 2 (Point Sampson, Western Australia).
Nemipterus peronii: Bauchot et al., 1983: 7 (new combination); Shen and Lin, 1984: 21, fig. 25 (Kaohsiung); Russell, 1990: 49, fig. 84, pl. II, h (West Pacific from Taiwan to northern Australia; Indian Ocean, including Andaman Sea, Bay of Bengal, Sri Lanka, Arabian Sea, Persian Gulf and Red Sea).

Material examined. MNHN 9040 (119.6 mm SL, holotype of *Dentex peronii*) locality probably north-western Australia; MNHN 8772 (139 mm SL, syntype of *Dentex tolu*) Pondicherry; MNHN 9038 (2: 171–201 mm SL, syntypes of *Dentex tolu*) New Guinea; RMNH 5686 (179 mm SL, syntype of *Dentex mulloides*) Indonesia, Sumatra, Sibolga; RMNH 10622 (106 mm SL, syntype? of *Nemipterus oveniides*); SMF 6603-5 (3: 101–123.8 mm SL, syntypes of *N. oveniides*) Celebes, Tiworo Strait, off Muna I; SAM F. 2966 (155.3 mm SL, holotype of *Nemipterus sampsonensis*) Australia, Point Sampson; CAS SU.21251 (3: 153.4–176.8 mm SL) Taiwan, Takao; ASIZP 055436 (159.3 mm SL) Kaohsiung. Also, 55 specimens, 74.4–201 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 14–15; gill rakers 9–12; body moderately elongate, depth 3.1–4.1 in SL; head length about equal to body depth; diameter of eye about equal to snout length, 0.9–1.2 in snout; lower edge of eye just above a line from tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge straight, least depth 1.1–1.2 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile about 2–3 scale rows before dorsal fin origin; pectoral fins short, not reaching to level of vent; pelvic fins moderately long, reaching to level of vent; dorsal fin spines elongate, interspinous membrane deeply incised; caudal fin without filamentous extension. Colour of body pinkish on back with 7–8 indistinct, darker pink saddles reaching to or just below the lateral line; sides and ventral surface silvery with faint golden lines following each scale row; diffuse pale reddish spot below and just behind origin of lateral line; golden-yellow stripe on snout in front of eye, passing through nostrils; upper lip yellow; dorsal fin pale whitish-pink with pale yellow line or indistinct yellow spots just above base of fin; tips of spinous part of fin reddish-yellow; anal fin pale whitish-pink, suffused pale yellowish over its middle part; caudal fin pinkish.

Remarks. This species has generally been treated under the name *N. tolu* by most authors, and the name *peronii* has been mistakenly applied to *N. furcosus* (Valenciennes). Examination of the holotype (MNHN 9040) and Valenciennes' figure of *N. peronii* shows it to be identical with *N. tolu*, the former name taking page priority (Bauchot et al., 1983). For further discussion of the nomenclature and synonymy of *N. peronii* see Russell (1986).

N. peronii is widespread in the tropical Indo-West Pacific. In the West Indian Ocean it appears to be restricted to the Persian (Arabian) Gulf and Red Sea, and the single record of *Dentex smithii* Steindachner from the Cape of Good Hope appears doubtful (Russell, 1986). In the East Indian Ocean *N. peronii* occurs from Sri Lanka (Munro, 1955) to Western Australia, and in the West Pacific it ranges from Taiwan to Queensland, Australia. *N. peronii* is found on sand or mud bottoms in depths down to about 100 m.

Nemipterus thosaporni Russell, 1991
(Japanese name: Tonkin-itoyori)
(Fig. 7)

Nemipterus thosaporni Russell, 1991b: 1386, fig. 4 (West Pacific).
Nemipterus marginatus (non Valenciennes): Masuda et al., 1975: 229, pl. 55-I (Ryukyu Is.; West Pacific, not Indian Ocean); Akazaki, 1984, 1988: 176, pl. 165-D (Ryukyu Is. to South China Sea; Gulf of Siam; not Bay of Bengal); Lee, 1986: 169, pl. 3, fig. 15 (caption for fig. 15 incorrect —transposed with fig. 16) (Tungkang, Taiwan).
Nemipterus sp. 2: Russell, 1990: 53, fig. 90, pl. III, c (West Pacific).

Material examined. NTM S.12006-001 (161 mm SL, holotype of *N. thosaporni*) Thailand, Songkhla fish market. Also, the following paratypes of *N. thosaporni*: NTM S. 10665-006 (128 mm SL) Singapore; NTM S. 10668-010 (162.7 mm SL) Malaysia, Penang, Georgetown fish market; NTM S.10677-018 (2: 122–138.3 mm SL) Malaysia, Sabah, Kota Kinabalu fish market; NTM S.10678-007 (3: 119.2–152.2 mm SL) Malaysia, Sarawak, Kuching market; NTM S.12004-001 (3: 135.3–145.5 mm SL) Malaysia, Malacca market; NTM S.12371-001 (2: 132.7–159.6 mm SL) Indonesia, Java, Jakarta, Muara Angke fish market; PMBC 5119 (134.3 mm SL) same data as holotype; PPPO NCIP 4020 (212 mm SL) Indonesia, Alas Strait; PPPO NCIP 4021 (171 mm SL) same data as NTM S.12371-001.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 14–15; gill rakers 13–16; body moderately elongate, depth 2.8–3.4 in SL; head length about equal to body depth; diameter of eye about equal to or a little less than snout length, 0.9–1.4 in snout; lower edge of eye tangent to or just above a line from

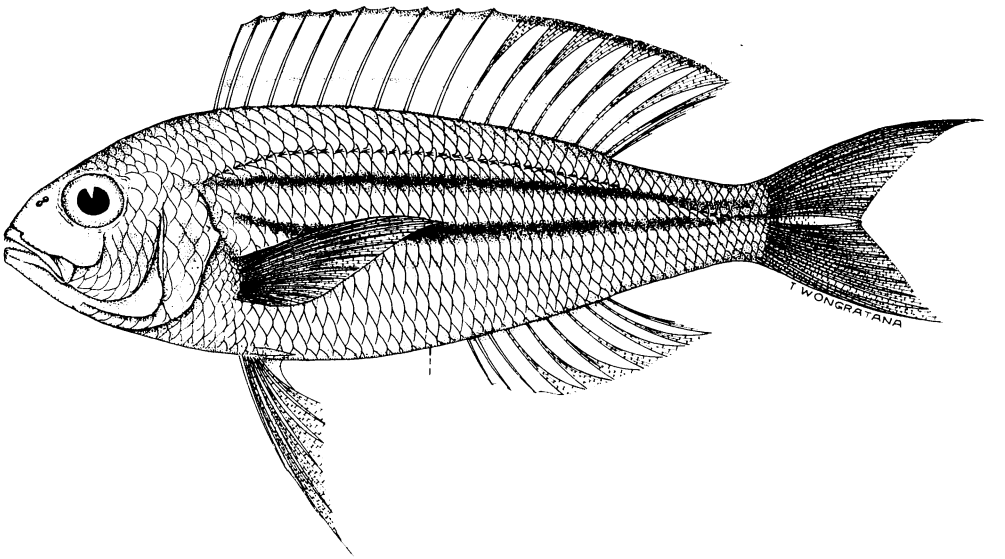

Fig. 7. *Nemipterus thosaporni*, MFL unreg., 215 mm SL (from Russell, 1990).

tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge slightly emarginate, least depth 1.1–2.1 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile about 3–7 scale rows before dorsal fin origin; pectoral and pelvic fins long, reaching to or just short of level of anal fin origin; caudal fin with upper rays elongated to form a point. Colour of body pinkish, silvery below; two narrow golden yellow stripes on sides; the first from above upper preopercle margin to upper caudal-fin base; the second from behind upper opercle margin, curving downwards slightly and extending to middle of caudal-fin base; dorsal fin pale pinkish yellow, with bright yellow margin and pale dusky submarginal stripe; caudal pinkish, upper tip bright yellow; anal fin translucent whitish; pelvic fins translucent whitish, with yellow stripe extending down second soft ray.

Remarks. No specimens from Japan or Taiwan were examined. However, this species was illustrated by Masuda et al. (1975), Akazaki (1984, 1988) and Lee (1986) as *Nemipterus marginatus.*

N. thosaporni closely resembles *N. bathybius* Snyder, but lacks a yellow stripe on either side of the ventral midline, and the upper tip of the caudal fin is not produced into a distinct filament as in *N. bathybius.*

N. thosaporni is widespread in the West Pacific, ranging from southern Japan to Indonesia, including the Gulf of Thailand and Straits of Malacca. The only specimen for which collection data is available was trawled in depths of 60–80 m: all other specimens were collected from fish markets.

Nemipterus virgatus (Houttuyn, 1782)
(Japanese name: Itoyoridai)
(Fig. 8).

Sparus virgatus Houttuyn, 1782: 323 (Japan).

Sparus sinensis Lacépède, 1802: 46, 141 (China).

Dentex setigerus Valenciennes in Cuvier and Valenciennes, 1830: 253 (Japan).

Synagris sinensis: Günther, 1859: 379 (China).

Dentex sinensis: Bleeker, 1873: 25 (Yokohama and Nagasaki, Japan).

? *Dentex filosus* (non Valenciennes): Károli, 1881: 154 (Yokohama, Japan).

Nemipterus sinensis: Jordan and Snyder, 1901: 77 (Yokohama and Nagasaki, Japan).

Nemipterus virgatus: Jordan and Evermann, 1902: 346 (Keerun, Taiwan); Akazaki, 1962: 93 (Japan; Vietnam; not India); Masuda et al., 1975: 228, pl. 55-F (southern Japan; East China Sea); Akazaki, 1984, 1988: 176, pl. 165-F (southern Japan, excluding Ryukyu Is.; East China Sea to South China Sea; Taiwan); Shen, 1984: 62, pl. 62, fig. 324-4 a, b (northern and north-eastern Taiwan); Lee, 1986: 169, pl. 3, fig. 14 (Keelung, Taiwan); Russell, 1990: 59, pl. III, g (southern Japan, East China Sea, northern part of South China Sea from Vietnam to Formosa Strait, north-western Australia and Arafura Sea).

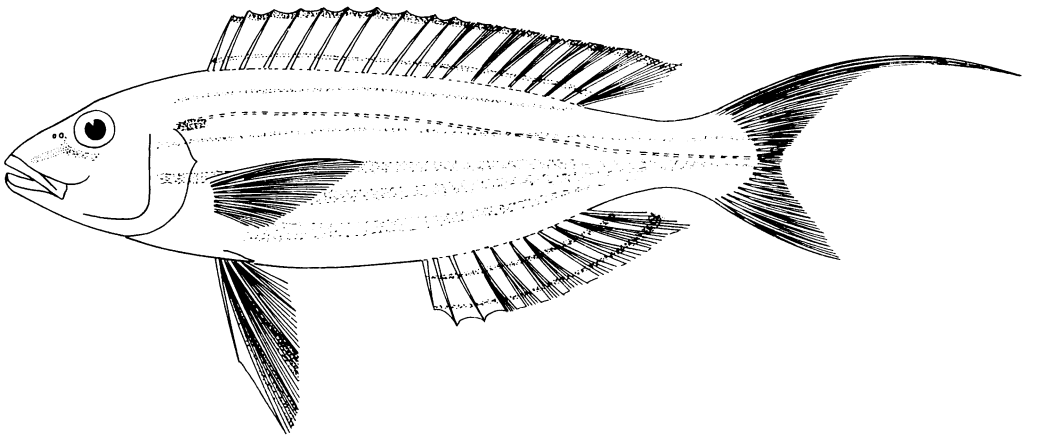

Fig. 8. *Nemipterus virgatus* (after Fischer and Whitehead, 1974).

Enthyopteroma virgatum: Snyder, 1912: 415 (misspelling—Tokyo and Kagoshima; Shimizu)

Euthyopteroma virgatum: Jordan and Thompson, 1912: 564, fig. 5 (Tokyo and Nagasaki, Japan); Jordan et al., 1913 (Tokyo to Formosa).

Nemipterus matsubarae Jordan and Evermann, 1902: 346, fig. 18 (Giran, Taiwan).

Dentex virgatus: Fowler, 1930: 609 (Hong Kong).

Synagris virgatus: Fowler, 1933: 108 (China Sea; Philippines; Japan; Hong Kong).

Dentex matsubarae: Fowler, 1933: 125 (new combination).

Material examined. ASIZP 055738 (207 mm SL) Keelung; BSKU 37589 (185 mm SL) Kagoshima Bay, off Oohama; CAS 20784 (173 mm SL) Formosa Strait; USNM 22577 (188.3 mm SL) Okinawa, Awa; USNM 44917 (203 mm SL) Japan; USNM 59741 (156.9 mm SL) Kochi; USNM 75496 (130.7 mm SL) Nagasaki; USNM 170855 (287.4 mm SL) Kaiwi Chain, Erben Bank; USNM 177414 (269.5 mm SL) Taiwan, Taipei. Also, 13 specimens, 105–234 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with anal fin III, 8; pectoral fin ii, 14–16; gill rakers 12–16; body moderately deep, depth 3.2–4.0 in SL; head length equal to or a little more than body depth; diameter of eye less than snout length, 1.1–1.6 in snout; lower edge of eye above a line from tip of snout to upper pectoral-fin base; suborbital moderately deep, its lower edge slightly emarginate, least depth 1.0–1.7 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile about 5–7 scale rows before dorsal fin origin; pectoral fins long, reaching to between level of vent and origin of anal fin; pelvic fins long, reaching to between level of vent and origin of anal fin; caudal fin with trailing filament; Colour of body pink, paler below; yellow stripe on back above lateral line; 5 yellow stripes on sides beneath lateral line, the uppermost of these stripes beginning just beneath origin of lateral line and running horizontally to upper base of caudal peduncle, the remaining stripes somewhat concave and descending anteriorly; ventral surface white; head pink, a yellow stripe from upper lip extending to anteroventral margin of eye; two faint yellow bars across cheeks sometimes present; eye pinkish; upper lip yellow; dorsal fin pale pink, with broad yellow margin edged below by red anteriorly; a yellow stripe just above base of dorsal fin; anal fin translucent pinkish with yellow submarginal stripe, and narrow yellow stripe just above base of fin, this extending to tip of last anal fin ray; caudal fin pink, upper margin of fin and filament yellow; pelvic fins pinkish, with yellow stripe along second and third rays; pectoral fins translucent pinkish.

Remarks. *N. virgatus* is distinct from all other species of *Nemipterus* in having 8 anal soft rays (versus 7). *N. virgatus* is widely distributed in the West Pacific from southern Japan to north-western Australia. It occurs on sand or mud bottoms in depths down to about 220 m. Food consists of crustaceans, fish and cephalopods (Eggleston, 1973). This species is one of the most important commercial fish in the East China Sea and northern South China Sea (Li, 1954; Eggleston, 1973).

Nemipterus zysron (Bleeker, 1857)
(Japanese name: Hime-itoyori)
(Fig. 9)

Dentex zysron Bleeker, 1856–57 (1857): 219 (Nias I.).

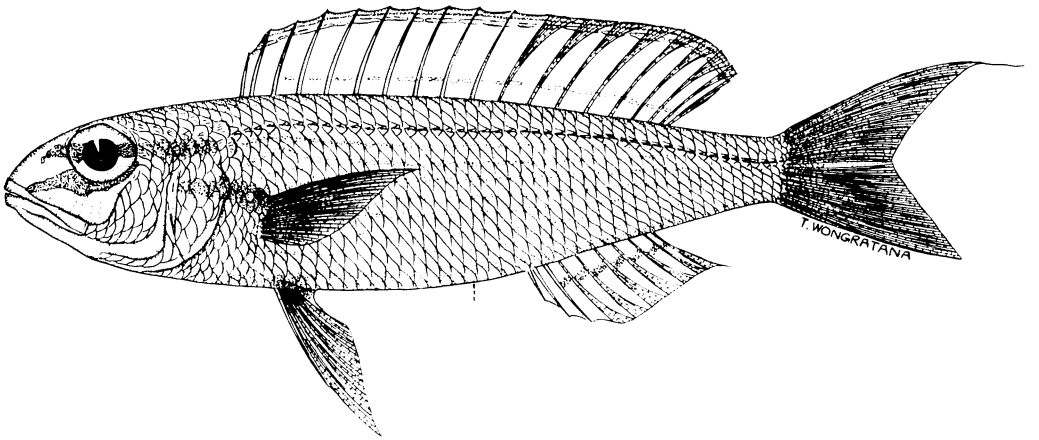

Fig. 9. *Nemipterus zysron*, MFL unreg., 239 mm SL (from Russell, 1990).

Dentex metopias Bleeker, 1857: 51 (Amboina).
Synagris zysron: Günther, 1859: 375 (Nias).
Synagris metopias: Günther, 1859: 376 (Amboyna).
Heterognathodon Petersii Steindachner, 1864: 203, pl. 1, fig. 2. (Zanzibar).
Synagris petersii: Fowler, 1933: 95 (Zanzibar, Seychelles).
Nemipterus metopias: Jordan and Seale, 1907: 22 (Cavite, Philippines); Masuda et al., 1975: 176, pl. 165-E (Ryukyu Is. to Philippines; Gulf of Siam; Indonesia) Akazaki, 1984, 1988: 229, pl. 55-L (Ryukyu Is.; Philippines; East Indian Ocean); Lee, 1986: 167, Pl. 2, fig. 9 (Hengchun, Taiwan).
Nemipterus petersi: Smith and Smith, 1963: 29 (new combination).
Nemipterus marginatus (non Valenciennes): Shen and Lin, 1984: 13, fig. 11 (Kaohsiung, Taiwan).
Nemipterus zysron: Russell, 1986: 31 (Indo-West Pacific); Russell, 1990: 62, fig. 102, pl. IV, a (Indo-West Pacific).

Material examined. RMNH 5688 (130 mm SL, holotype of *Dentex zysron*) Indonesia, Nias I; RMNH 5690 (138 mm SL, holotype of *Dentex metopias*) Ambon; NMW 76409 (2: 110.4–107.1 mm SL, syntypes of *Heterognathodon petersii*) Zanzibar; BSKU 9278 (125 mm SL) Japan, Kochi, Mimase fish market. Also 30 specimens, 112.8–200 mm SL, from other localities.

Diagnosis. A species of *Nemipterus* with pectoral fin ii, 13–14; gill rakers 10–15; body elongate, depth 3.8–4.6 in SL; head length greater than body depth; diameter of eye about equal to or greater than snout length, 0.7–1.1 in snout; lower edge of eye tangential to or just above a line from tip of snout to upper pectoral-fin base; suborbital shallow, its lower edge slightly emarginate, least depth 1.6–3.3 in eye diameter; imaginary line extended upward from posterior edge of suborbital reaching dorsal profile about 2–6 scale rows before dorsal fin origin; pectoral fins short, reaching to or just short of level of vent; pelvic fins short, reaching to or just short of level of vent; upper lobe of caudal fin with a short filament; upper part of body reddish, silvery below; sides below lateral line with indistinct yellow stripes along the middle of each scale row; two yellow stripes in front of eye, the first through nostrils, the second from upper lip to beneath eye; a less distinct golden stripe from behind eye to origin of lateral line, and across upper part of opercle to upper pectoral-fin base; dorsal fin pale yellow with bright yellow margin; pale mauve submarginal stripe and a pale mauve stripe near base of dorsal fin; anal fin pale lilac with series of elongate yellow spots or yellow stripe submedially; caudal fin pinkish, upper and lower lobes pale yellowish, filament yellow.

Remarks. *N. zysron* Bleeker is a senior synonym of *N. metopias* Bleeker under which name this species has been previously known (Russell, 1986).

N. zysron is widespread in the Indo-West Pacific region and extends from East Africa and the Red Sea to Fiji. It occurs on sand bottoms near reefs in depths of 10–125 m.

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日本および台湾産イトヨリダイ属魚類（イトヨリダイ科）の分類学的再検討

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日本および台湾産イトヨリダイ属 *Nemipterus* Swainson（イトヨリダイ科）の分類学的再検討を行った．1新種を含む以下の9種が認められ，検索表，標徴，シノニムを提示した：ヒライトヨリ *N. aurora* [新種，従来 *N. delagoae* Smith とされていたもの]，ソコイトヨリ *N. bathybius* Snyder，モモイトヨリ *N. furcosus* (Valenciennes) [従来，誤って *N. peronii* (Valenciennes) とされていたもの]，ニジイトヨリ *N. hexodon* (Quoy et Gaimard)，ニホンイトヨリ *N. japonicus* (Bloch)，シャムイトヨリ *N. peronii* (Valenciennes) [従来 *N. tolu* (Valenciennes) とされていたもの]，トンキンイトヨリ *N. thosaporni* Russell [従来 *N. marginatus* (Valenciennes) とされていたもの]，イトヨリダイ *N. virgatus* (Houttuyn)，ヒトイトヨリ *N. zysron* (Bleeker) [従来 *N. metopias* (Bleeker) とされていたもの]．新種ヒライトヨリはインド洋の *N. bipunctatus* (Ehrenberg) (*N. delagoae* はジュニアシノニム）によく似るが，背鰭と臀鰭の色模様により容易に識別される．すなわち，ヒライトヨリの背鰭のほぼ中央沿いに1本の幅広い橙黄色帯が走り，臀鰭のほぼ中央沿いには1本のレモン色のすじが走るのに対し，*N. bipunctatus* の背鰭は一様なバラ色であり，臀鰭には2-4本の黄色い波状のすじがある．