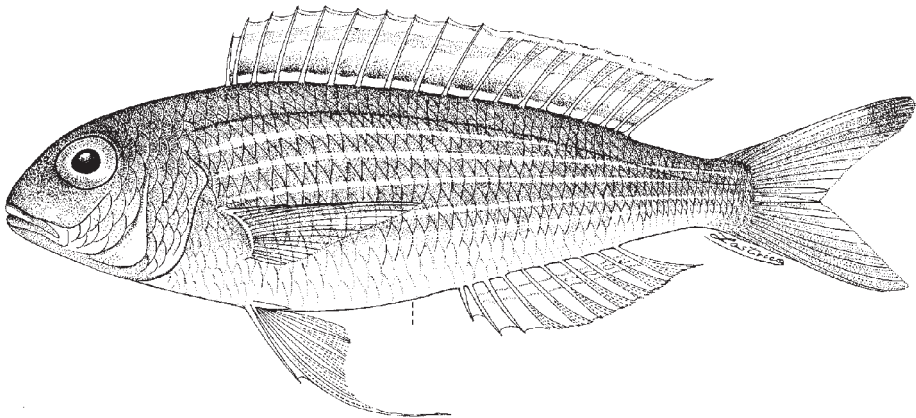


Nemipterus aurora Russell, 1993

(Plate XX, 146)

Frequent synonyms / misidentifications: None / Previously misidentified as *Nemipterus delagoae* Smith, 1941 [= *N. bipunctatus* (Ehrenberg, 1830)], a species which it closely resembles but which is restricted to the Indian Ocean.

FAO names: En - Dawn threadfin bream.

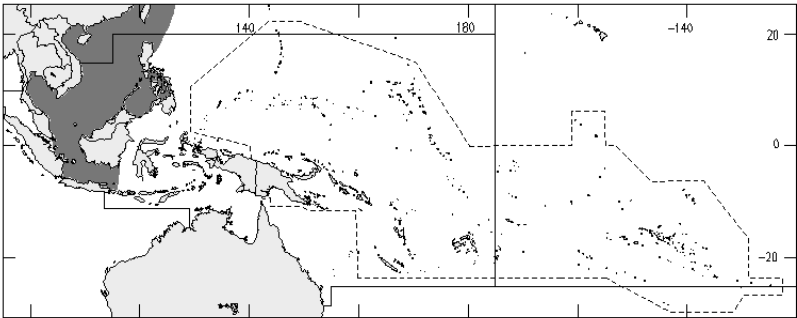


Diagnostic characters: Body depth 3.2 to 3.9 times in standard length. Snout length equal to or a little more than eye diameter. Three pairs of small recurved canines anteriorly in upper jaw. Eye diameter 2.9 to 3.7 times in head length; **lower margin of eye on or above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.2 to 1.8 times in eye diameter; suborbital depth 1.1 to 2 times in eye diameter; **a line drawn up from posterior edge of suborbital reaching the dorsal profile somewhere between 2 scale rows before origin of dorsal fin and third dorsal-fin spine**. Width of naked area of preopercle 1.2 to 1.7 times in width of scaly area. Total gill rakers on first gill arch 11 to 14. Total pectoral-fin rays 15 to 17; **pectoral fins moderately long, 1.1 to 1.4 times in head length, reaching to or just beyond level of anus**; pelvic fins very long, 0.9 to 1.3 times in head length, reaching to just before level of origin of anal fin and third anal-fin spine; caudal fin forked, tips of fin pointed or slightly rounded. Scale rows on body below lateral line upward-curved anteriorly. **Colour:** body pinkish above, shading through pale mauve to silvery on ventral half; **sides with 4 or 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 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.

Size: Maximum standard length 20 cm, commonly to 15 cm.

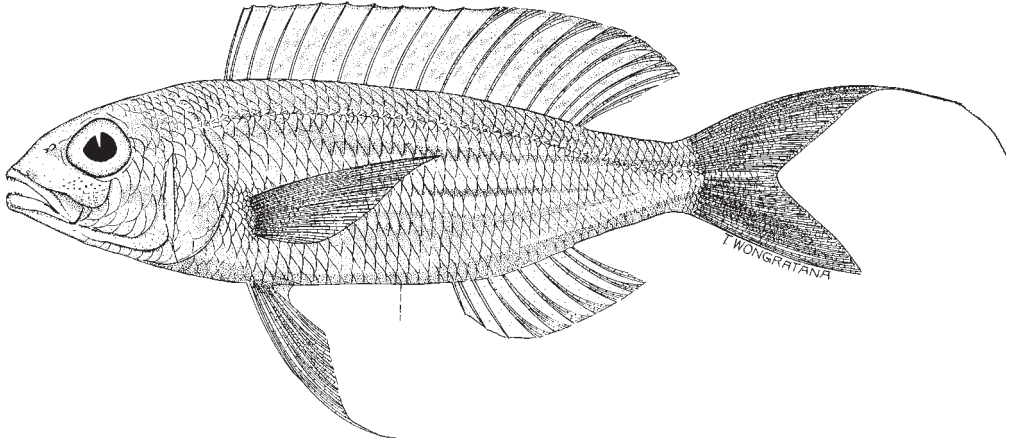
Habitat, biology, and fisheries: A benthic species, found on sand or mud bottoms in depths of 56 to 90 m. Taken in commercial trawls in the South China Sea and southern Gulf of Thailand together with other species of *Nemipterus*. No major fishery exists.

Distribution: West Pacific from the Ryukyu Islands to southeastern Indonesia.



Nemipterus bathybius Snyder, 1911

(Plate XX, 148)

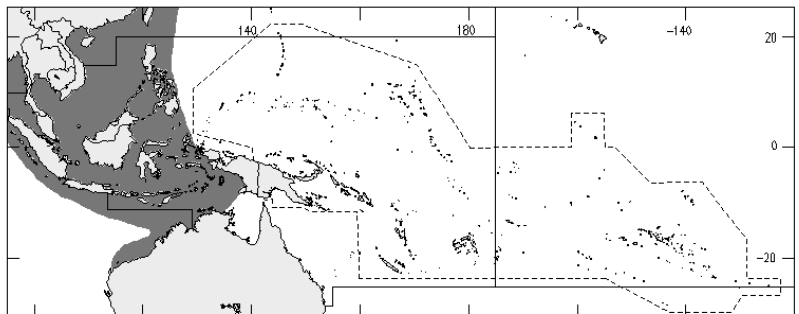
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Yellowbelly threadfin bream.

Diagnostic characters: Body depth 2.9 to 3.6 times in standard length. Snout length equal to or a little less than eye diameter. Three or 4 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 2.7 to 3.6 times in head length; **lower margin of eye tangent to or just below a line from tip of snout to upper base of pectoral fins**; interorbital width 1.3 to 1.9 times in eye diameter; suborbital depth 1.9 to 4.7 times in eye diameter; **a line drawn upwards from posterior edge of suborbital reaching the dorsal profile in front of origin of dorsal fin**. Width of naked area of preopercle 1.6 to 2.2 times in width of scaly area. Total gill rakers on first gill arch 13 to 16. Pectoral-fins 15 to 17; **pectoral fins long, 1 to 1.4 times in head length, reaching almost to level of origin of anal fin**; **pelvic fins moderately long, 1.1 to 1.6 times in head length, reaching beyond anus**; **caudal fin forked, upper lobe falcate, usually long and ribbon-like in adult specimens**. **Colour:** upper part of body pinkish, silvery below; 2 yellow lateral stripes, the first beneath lateral line from behind opercle to upper caudal-fin base, the second from behind upper part of pectoral-fin base to middle of caudal-fin base; a pair of yellow stripes, united anteriorly, from the isthmus to lower caudal-fin base, passing just outside bases of pelvic and anal fins; dorsal fin pink, edged with yellow, with a median stripe of yellowish undulating lines; anal fin transparent, pinkish near outer margin; **caudal fin pink, upper lobe and filament yellow**; other fins hyaline; bases of pelvic fins bright sulphur yellow.

Size: Maximum standard length 20 cm, commonly to 16 cm.

Habitat, biology, and fisheries: A benthic species, found on sand or mud bottoms at depths of 35 to 300 m, but most common in depths between 45 to 90 m. Larger fishes generally occur in depths greater than 110 m. This species is a rudimentary hermaphrodite, in which all males have functional testes with rudimentary ovarian portions throughout their life. In the South China Sea, spawning is reported from June to October. The diet of larger fishes consists mainly of crustaceans, fish, and cephalopods. Young fishes (120 mm) feed on copepods, ostracods, and amphipods. Males grow more quickly and to a larger size than females. Estimates of the parameters of the von Bertalanffy growth curve made for the population (males) from off Hong Kong are: $L_{\infty} = 30.2$ cm total length, $K = 0.32$, $t_0 = -0.80$. Taken in commercial quantities in the South China Sea by longline and bottom trawl. Catch rates are higher in the day-time. Marketed mainly fresh.

Distribution: West Pacific, including southern Japan, South China Sea, Philippines, Indonesia, and northwestern Australia.

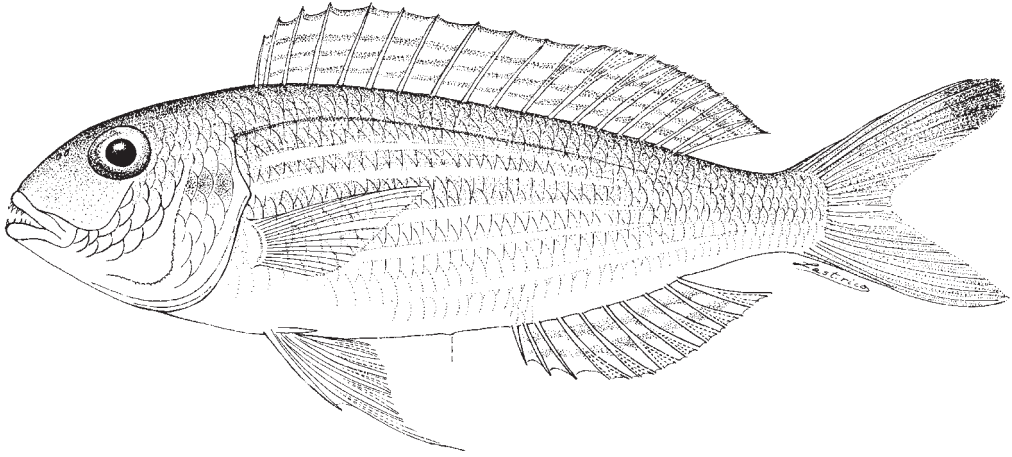


Nemipterus celebicus (Bleeker, 1854)

(Plate XX, 149)

Frequent synonyms / misidentifications: None / None.

FAO names: En - Celebes threadfin bream.

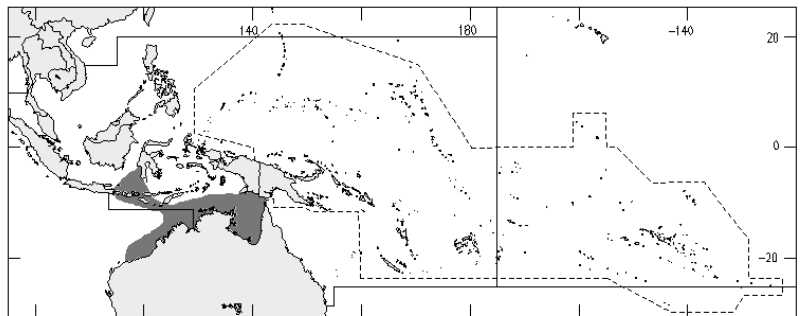


Diagnostic characters: Body depth 2.9 to 4.2 times in standard length. Snout length about equal to or greater than eye diameter. Three pairs of small recurved canines anteriorly in upper jaw. Eye diameter 3 to 4 times in head length; **lower margin of eye tangent to or just above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.2 to 1.8 times in eye diameter; suborbital depth 1 to 3 times in eye diameter; **a line drawn up from posterior edge of suborbital reaching the dorsal profile about 2 to 4 scales before origin of dorsal fin**. Width of naked area of preopercle 1.1 to 1.8 times in width of scaly area. Total gill rakers on first gill arch 10 to 14. Total pectoral-fin rays 16 or 17; **pectoral fins long, 1.1 to 1.4 times in head length, reaching to between level of anus and origin of anal fin**; pelvic fins very long, 0.9 to 1.4 times in head length, reaching to or beyond level of origin of anal fin; caudal fin forked, upper lobe slightly rounded, without filament. Scale rows on body below lateral line upward-curved anteriorly. **Colour:** upper part of head and body pinkish, paling to silvery white on ventral surface; violet and reddish reflections on scales above lateral line; indefinite pale golden or yellowish stripe along lateral line and narrow golden stripe on each of 4 scale rows below lateral line, these stripes ascending slightly before level of anal fin; head with golden and mauve reflections; traces of 2 silvery mauve lines in front of and below eye; bluish mauve spot on upper part of opercle; upper lip yellow; dorsal fin translucent pink, with narrow reddish yellow margin and 2 or 3 narrow yellow stripes along median part of fin; anal fin translucent with 2 narrow pale yellow stripes along median part of fin; caudal fin pale golden, upper tip rosy; pectoral fins pale pink; pelvic fins translucent white.

Size: Maximum standard length 22 cm, commonly to 15 cm.

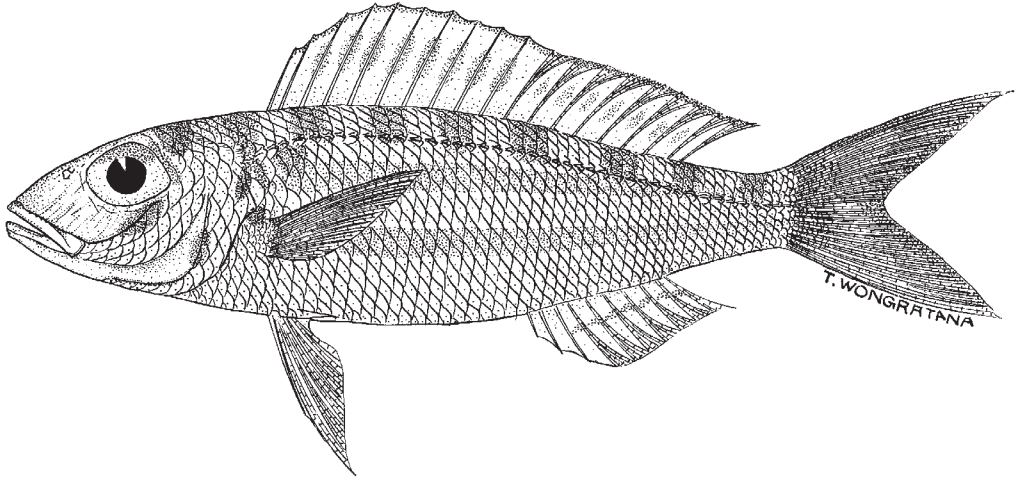
Habitat, biology, and fisheries: A benthic species, found on sand or mud bottoms in depths of 30 to 100 m. Feeds mainly on small crustaceans. Taken by line and bottom trawl. Appears in local fish markets in Indonesia; taken commercially by trawlers in northern Australian waters together with other species. No major fishery exists.

Distribution: Indonesia, northern Australia.



Nemipterus furcosus (Valenciennes, 1830)

(Plate XX, 150)

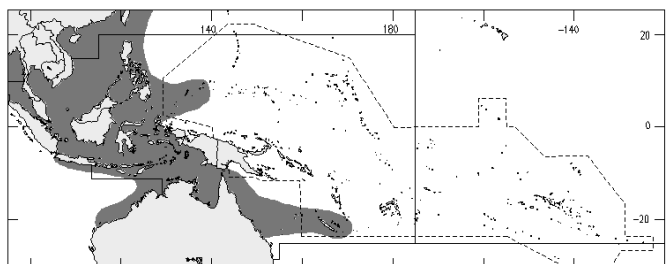
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Forktailed threadfin bream.

Diagnostic characters: Body depth 3 to 3.9 times in standard length. Snout length equal to or greater than eye diameter. Two or 3 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 2.8 to 4 times in head length; **lower margin of eye tangent to or above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.1 to 1.7 times in eye diameter; suborbital depth 0.9 to 1.9 times in eye diameter; **a line drawn up from posterior edge of suborbital reaching the dorsal profile at about origin of dorsal fin**. Width of naked area of preopercle 1 to 1.4 times in width of scaly area. Total gill rakers on first gill arch 9 to 12. Total pectoral-fin rays 15 to 17; **pectoral fins moderately long, 0.8 to 1.1 times in head length, reaching to or just short of level of anus**; **pelvic fins moderately long, 1.3 to 1.7 times in head length, reaching to or just short of level of anus**; **caudal fin deeply forked**. **Colour:** 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**; pelvic fins and axillary scales white; pectoral fins rosy.

Size: Maximum standard length 22.5 cm, commonly to 18 cm.

Habitat, biology, and fisheries: A benthic species, inhabiting sand and mud bottoms in depths of 8 to 110 m. Females predominate at small size classes while males dominate the larger size classes, and there is some evidence of this species being a sequential hermaphrodite. Ripe females occur all year round in the population from the northwest shelf of Australia, but a higher proportion of ripe fishes is present in November and December. Feeding occurs during the day, with crustaceans and small fishes predominating. Estimates of the parameters of the von Bertalanffy growth curve made for the population from the northwest shelf of Australia are: $L_{\infty} = 41.9$ cm fork length, $K = 0.25$, $t_0 = 0.74$. Taken by handline and bottom trawl. Appears in local fish markets. Considered a good food fish and fished commercially by trawlers together with other species. *Nemipterus furcosus* is the principal catch species in the trawl fishery off the coast of northwestern Australia.

Distribution: West Pacific from southern Japan to northeastern Australia, and Indian Ocean including the Gulf of Mannar, Sri Lanka, Andaman Sea, Strait of Malacca, and northwestern Australia.

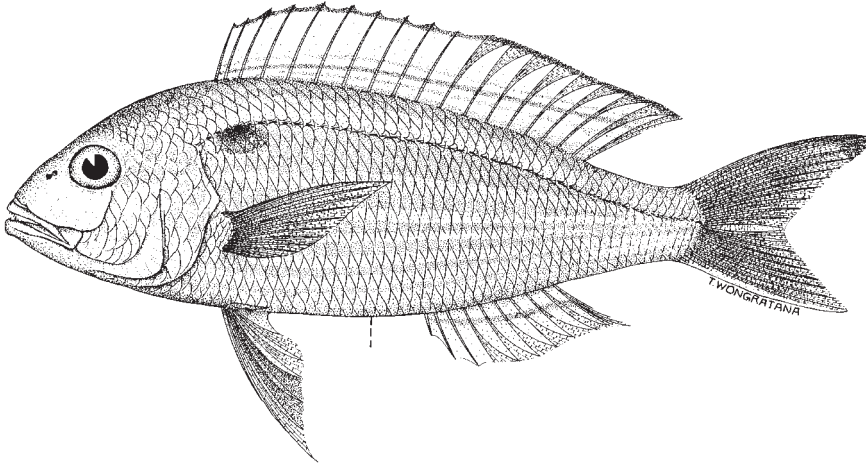


Nemipterus hexodon (Quoy and Gaimard, 1824)

(Plate XX, 152)

Frequent synonyms / misidentifications: None / None.

FAO names: En - Ornate threadfin bream.

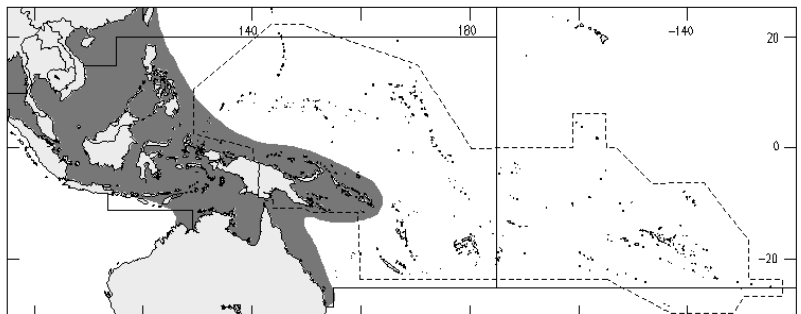


Diagnostic characters: Body depth 2.6 to 3.4 times in standard length. Snout length equal to or greater than eye diameter. Three or 4 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 3.2 to 4.6 times in head length; **lower margin of eye above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.3 to 1.9 times in eye diameter; suborbital depth 0.9 to 1.8 times in eye diameter; a line drawn up from posterior edge of suborbital reaching the dorsal profile about 2 to 6 scale rows before origin of dorsal fin. Width of naked area of preopercle 1.2 to 1.9 times in width of scaly area. Total gill rakers on first gill arch 11 to 17. Total pectoral-fin rays 15 to 18; **pectoral fins long, 1 to 1.4 times in head length, reaching to or beyond level of anus**; pelvic fins long, 1.2 to 1.6 times in head length, reaching to or just beyond level of anus; caudal fin forked, upper lobe slightly longer than lower lobe. **Colour:** upper part of body pinkish, paling to silvery white on ventral surface; 6 to 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 isthmus to lower caudal-fin base; golden reflections behind eye, on cheeks and opercle; dorsal fin translucent whitish, with yellow margin; a narrow yellow stripe beginning anteriorly near base of fin and extending backwards to just above midposterior margin, this stripe bordered on either side by a translucent 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 midposterior margin (extending to tip of fin along posterior ray in larger specimens); base of fin beneath this stripe pale bluish white; pectoral and pelvic fins pale translucent pink; base of pelvic fins and axillary scale lemon yellow.

Size: Maximum standard length 21 cm, commonly to 15 cm.

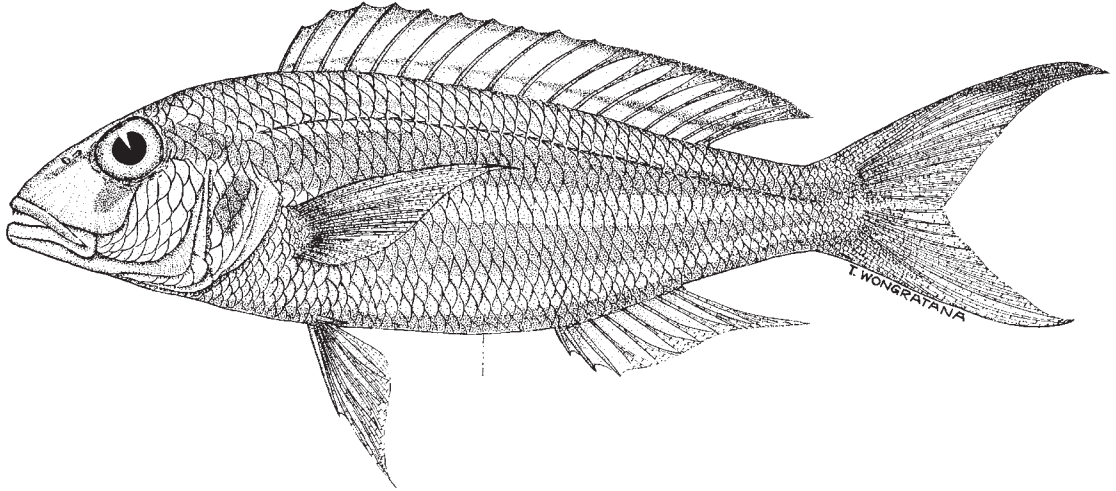
Habitat, biology, and fisheries: A benthic species, occurs on mud or sand bottoms in depths of 10 to 80 m, but is most abundant in depths of 20 to 50 m. Females predominate at small sizes and males at larger sizes as a result of faster growth rates in males. In the Gulf of Thailand, spawning probably occurs between February and March. Feeds mainly on small shrimps, squid, small fishes, and benthic animals. Taken by handline and bottom trawl together with other demersal fishes throughout the year. Appears in local markets. No major fishery exists.

Distribution: Indo-West Pacific, from the Andaman Sea to the Solomon Islands.



Nemipterus isacanthus (Bleeker, 1873)

(Plate XX, 153)

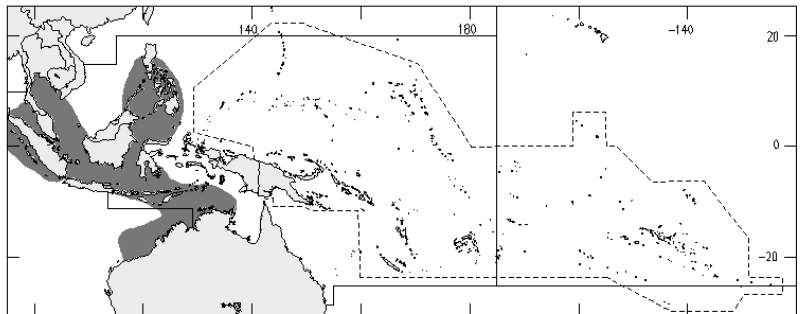
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Teardrop threadfin bream.

Diagnostic characters: Body depth 3 to 3.5 times in standard length. Snout length equal to or greater than eye diameter. Three pairs of small recurved canines anteriorly in upper jaw. Eye diameter 3 to 3.7 times in head length; **lower margin of eye above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.4 to 1.9 times in eye diameter; suborbital depth 1.1 to 2.1 times in eye diameter; **a line drawn up from posterior edge of suborbital reaching the dorsal profile about 2 to 7 scale rows before origin of dorsal fin**. Width of naked area of preopercle 1.7 to 2.7 times in width of scaly area. Total gill rakers on first gill arch 11 to 14. Total pectoral-fin rays 16 or 17; **pectoral fins long, 1 to 1.4 times in head length, reaching to beyond level of anus**; **pelvic fins moderately long, 1.3 to 1.6 times in head length, reaching to between just short of to just beyond level of anus**; **caudal fin deeply forked, upper lobe falcate**. **Colour:** body pinkish mauve, silvery on lower part of sides and ventral surface; top of head and back yellow-tinged pink; **2 broad pale golden stripes along body, the first from beneath origin of lateral line to upper caudal-fin base, the second from behind pectoral-fin base to lower caudal-fin base**; **pale yellow stripe on either side of ventral midline**; snout pinkish; **yellow teardrop-shaped bar beneath eye, extending obliquely forwards about halfway down suborbital**; upper lip yellow; bluish patch on upper part of opercle; **dorsal fin translucent, with narrow, red-edged yellow margin, and narrow yellow submedial stripe**; **caudal fin pink, tip of upper lobe bright yellow, lower lobe yellow-tinged**; anal fin and pelvic fins translucent whitish; pectoral fins translucent pinkish.

Size: Maximum standard length 21 m, commonly to 17 cm.

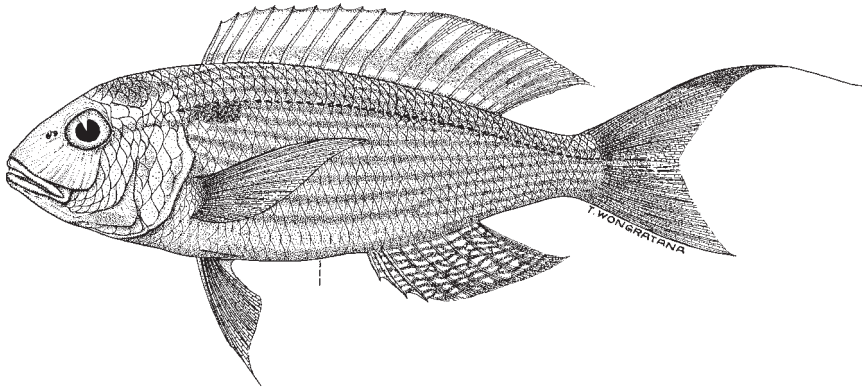
Habitat, biology, and fisheries: A benthic species, occurs on mud or sand bottoms in depths greater than 50 m. Taken by handline and bottom trawl together with other species. Appears occasionally in local markets. No major fishery exists.

Distribution: West Pacific, including the Philippines, Gulf of Thailand, Strait of Malacca, Indonesia, and northern Australia.



Nemipterus japonicus (Bloch, 1791)

(Plate XXI, 154)

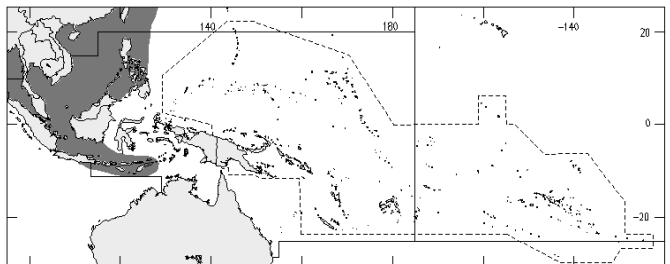
Frequent synonyms / misidentifications: None / None.**FAO names:** **En** - Japanese threadfin bream; **Fr** - Cohana japonaise; **Sp** - Baga japonesa.

Diagnostic characters: Body depth 2.7 to 3.5 times in standard length. Snout length equal to or greater than eye diameter. Four or 5 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 3.2 to 4.4 times in head length; **lower margin of eye above a line from tip of snout to upper base of pectoral fins;** interorbital width 1 to 1.9 times in eye diameter; suborbital depth 1 to 1.9 times in eye diameter; **a line drawn up from the posterior edge of suborbital reaching the dorsal profile 2 to 4 scale rows before origin of dorsal fin.** Width of naked area of preopercle 1.1 to 2 times in width of scaly area. Total gill rakers on first gill arch 14 to 17. Total pectoral-fin rays 17 or 18; **pectoral fins very long, 1 to 1.3 times in head length, reaching to or just beyond level of origin of anal fin; pelvic fins moderately long, 1.2 to 1.6 times in head length, reaching to or just beyond anus; caudal fin moderately forked, upper lobe slightly longer than lower lobe and produced into a short or moderately long filament.** **Colour:** upper part of body pinkish, becoming silvery below; top of head behind eye with a golden sheen; **11 or 12 pale golden yellow stripes along body from behind head to base of caudal fin; a prominent red-suffused yellow blotch below origin of lateral line; dorsal fin whitish, margin of fin yellow, edged with red; a pale lemon stripe near base of dorsal fin, this stripe narrow anteriorly and widening on posterior part of fin; anal fin whitish with pale lemon broken lines or scribbles over most of fin; pectoral fins translucent pinkish; pelvic fins whitish with yellow axillary scale; caudal fin pink, upper tip and filament yellow.**

Size: Maximum standard length 25 cm, commonly to 15 cm.

Habitat, biology, and fisheries: A benthic species, very abundant in coastal waters, found on mud or sand bottoms in depths of 5 to 80 m, usually in schools. Small fishes are generally most abundant in depths less than 27 m; only larger fishes occur in depths greater than 45 m. Females predominate at small sizes and males at large sizes, due to faster growth rates in males. Spawning occurs over an extended period, and is reported to take place from May to October in the South China Sea, and from November to February in East Malaysian waters. The diet consists mainly of small fishes, crustaceans, molluscs (mainly cephalopods), polychaetes, and echinoderms. Estimates of the parameters of the von Bertalanffy growth curve made for the population off the Strait of Malacca (Kedah State, Malaysia) are: $L_{\infty} = 31.4$ cm total length, $K = 0.55$. Taken in commercial quantities by longlines, bottom trawls, and gill nets. Juveniles are also caught in considerable quantities by shrimp trawlers using beam trawls. *Nemipterus japonicus* constitutes an important part of the trawl catch in the South China Sea. Marketed mainly fresh, but also steamed, dried salted, dry-smoked, fermented, or made into fish balls and fish meal. In the Philippines, this species is especially valued in a convalescent diet.

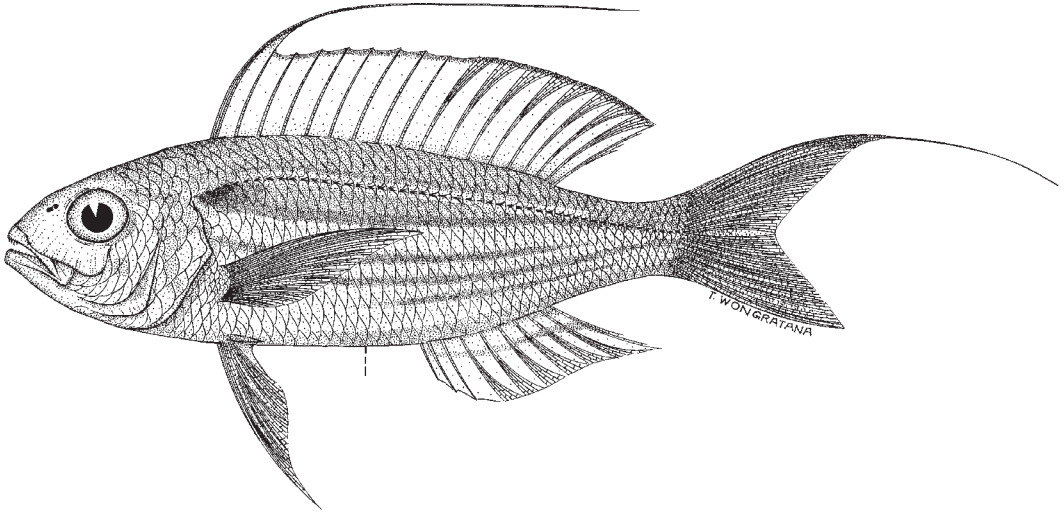
Distribution: Widespread throughout the Indian Ocean and West Pacific. A report on *N. japonicus* as a Red Sea immigrant into the Mediterranean is unconfirmed. Similarly, a record of this species from north-western Australia is without basis.



Nemipterus nematophorus* (Bleeker, 1853)*(Plate XXI, 157)**

Frequent synonyms / misidentifications: *Nemipterus filamentosus* (Valenciennes in Cuvier and Valenciennes, 1830) (name preoccupied by *Cantharus filamentosus* Rüppell) / None.

FAO names: En - Doublewhip threadfin bream.

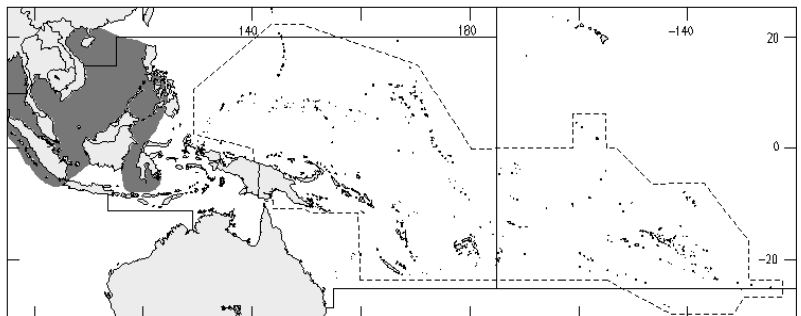


Diagnostic characters: Body depth 2.9 to 3.5 times in standard length. Snout length about equal to or greater than eye diameter. Three to 5 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 3 to 4 times in head length; **lower margin of eye tangent to a line from tip of snout to upper base of pectoral fins**; interorbital width 0.8 to 1.8 times in eye diameter; suborbital depth 1.4 to 2.6 times in eye diameter; **a line drawn up from the posterior edge of suborbital reaching the dorsal profile about 2 to 5 scale rows before origin of dorsal fin**. Width of naked area of preopercle 1.3 to 1.9 times in width of scaly area. Total gill rakers on first gill arch 12 to 15. **Dorsal fin with anterior pair of spinous rays close together, almost fused and produced into a long, trailing filament**. Total pectoral-fin rays 16 or 17; pectoral and pelvic fins long, reaching to between level of anus and origin of anal fin; pectoral fins 0.9 to 1.1 times in head length, pelvic fins 0.9 to 1.5 times in head length; caudal fin forked, upper lobe produced into a trailing filament. **Colour:** upper part of head and body pinkish, silvery white below; broad golden yellow stripe beneath lateral line, with distinct gold patch anteriorly beneath origin of lateral line; 3 narrow golden yellow stripes laterally along ventral half of the body; yellow stripe on either side of ventral midline; dorsal fin translucent pinkish, anterior dorsal filament and margin of fin yellow; anal fin translucent, faint yellow or orange stripe along fin extending from near base of first spine to middle of last ray, basal part of fin pale bluish white; caudal fin pink, upper tip and caudal filament yellow; pectoral fins pale pink; pelvic fins pink, axillary scale lemon yellow.

Size: Maximum standard length 20 cm, commonly to 15 cm.

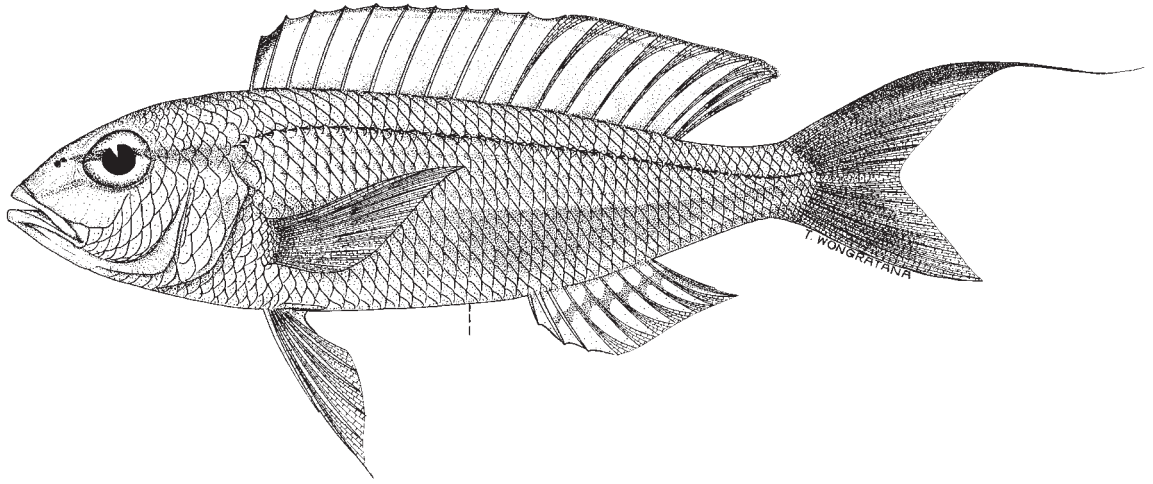
Habitat, biology, and fisheries: A benthic species, occurs on sand or mud bottoms in depths to 75 m. Taken by gill net and bottom trawl. In East Malaysian waters highest catches occur in depths of more than 50 m. Appears occasionally in local markets. No major fishery exists.

Distribution: Indo-West Pacific, including the Bay of Bengal, Andaman Sea, Strait of Malacca, Philippines, South China Sea, Gulf of Thailand, and Indonesia. Record of this species from northwestern Australia is apparently without basis.



Nemipterus nemurus (Bleeker, 1857)

(Plate XXI, 159)

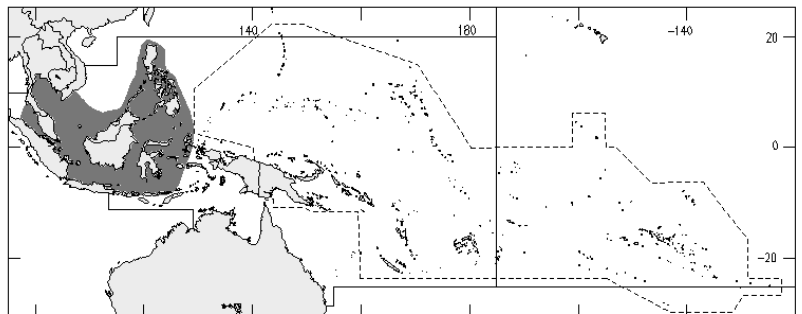
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Redspine threadfin bream.

Diagnostic characters: Body depth 3.3 to 4 times in standard length. Snout length a little more than or a little less than eye diameter. Two to 5 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 2.9 to 3.7 times in head length; **lower margin of eye tangent to or just above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.4 to 1.9 times in eye diameter; suborbital depth 1.3 to 2.2 times in eye diameter; **a line drawn up from the posterior edge of suborbital reaching the dorsal profile about 3 to 7 scale rows before origin of dorsal fin**. Width of naked area of preopercle 1.5 to 2.2 times in width of scaly area. Total gill rakers on first gill arch 12 to 13. Total pectoral-fin rays 16; **pectoral and pelvic fins moderately long, reaching to or just short of level of anus**; pectoral fins 1.1 to 1.3 times in head length; pelvic fins 1.2 to 1.5 times in head length; **caudal fin forked, the upper rays produced into a trailing filament**. **Colour:** body pinkish above, with indistinct, broad, pale yellow stripe from behind eye to caudal-fin base; indistinct, narrow golden stripes along each of 3 scale rows below lateral line; ventral half of body pearly-white, with indistinct, broad, pale yellow stripe from behind pectoral fins to caudal-fin base; head pinkish, with pale golden reflections on cheeks and opercle; **golden yellow stripe from posterior nostril extending through eye, and similar stripe from anterior margin of upper lip to lower margin of eye**; iris pink; dorsal fin pale yellow, base of fin and submargin translucent pale mauve, margin of fin yellow; interspinous membrane of first 2 dorsal-fin spines bright red superiorly; anal fin white, with series of yellow spots or irregular yellow stripe submedially; caudal fin pinkish, posterior margin red; lower lobe of fin suffused with yellow, upper rays and filament yellow; pectoral fins pale yellowish pink; pelvic fins white.

Size: Maximum standard length 21 cm, commonly to 17 cm.

Habitat, biology, and fisheries: A benthic species, occurs on mud or sand bottoms. Feeds on small fishes and larger benthic invertebrates. Taken by handline and bottom trawl together with other species. The most abundant species of *Nemipterus* in bottom trawl catches from the South China Sea. Appears in small numbers in local markets. No major fishery exists.

Distribution: West Pacific, including the Philippines, Gulf of Thailand, South China Sea, Strait of Malacca, and Indonesia.

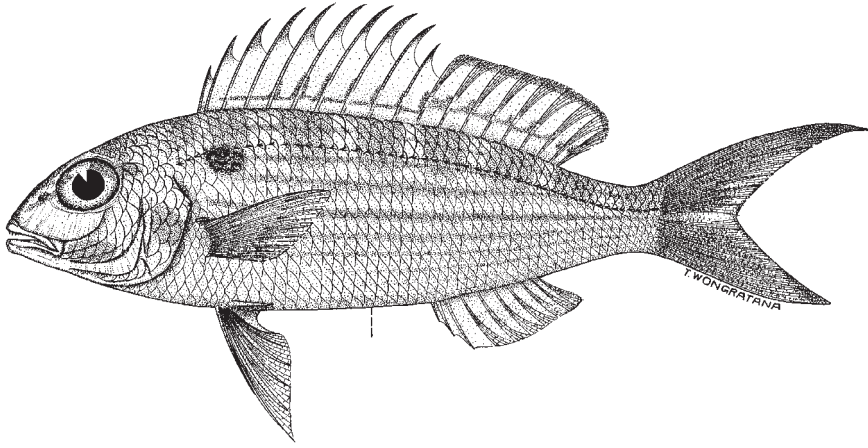


Nemipterus peronii (Valenciennes, 1830)

(Plate XXI, 160)

Frequent synonyms / misidentifications: *Nemipterus tolu* (Valenciennes in Cuvier and Valenciennes, 1830) / The name *N. peronii* has been misapplied to *N. furcosus*.

FAO names: En - Notchedfin threadfin bream; Fr - Cohana tolu; Sp - Baga tolu.

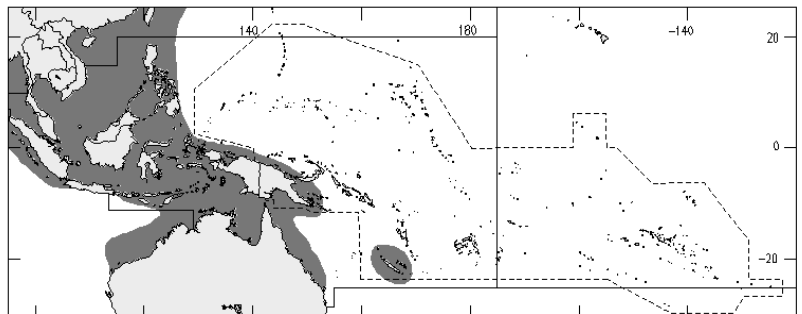


Diagnostic characters: Body depth 3.1 to 4.1 times in standard length. Snout length about equal to eye diameter. Three or 4 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 2.8 to 3.6 times in head length; **lower margin of eye just above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.4 to 1.9 times in eye diameter; suborbital depth 1.1 to 2.2 times in eye diameter; **a line drawn up from the posterior edge of suborbital reaching the dorsal profile at or just before origin of dorsal fin**. Width of naked area of preopercle 1.5 to 2.2 times in width of scaly area; **dorsal-fin spines elongate, interspinous membrane deeply incised**. Total gill rakers on first gill arch 9 to 12 (usually 10 or 11). Total pectoral-fin rays 16 or 17; **pectoral fins short, 1.1 to 1.7 times in head length, not reaching to level of anus**; **pelvic fins moderately long, 1.1 to 1.5 times in head length, reaching to level of anus**; **caudal fin forked, upper lobe pointed and slightly longer than lower lobe**. **Colour:** upper part of body pinkish, with 7 or 8 indistinct darker pink saddles reaching to or just below the lateral line; lower part of body silvery, with faint golden lines following each scale row; a diffuse pale reddish spot below and just behind origin of lateral line; a golden yellow stripe on snout in front of eye passing through nostrils; upper lip yellow; suborbital silvery mauve; golden reflections on preopercle and opercle; **dorsal fin pale whitish pink, with a pale yellow line or series of 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; pelvic fins whitish, axillary scale at base yellow, pectoral fins translucent.

Size: Maximum standard length 26.5 cm, commonly to 17 cm.

Habitat, biology, and fisheries: A benthic species, found on sand or mud bottoms in depths to about 100 m. Size of the fishes appears to increase with depth and males are relatively larger than females. Two prolonged spawning seasons are likely in the South China Sea off the Trengganu coast: from November to February, and another starting in May or June. This species is an active carnivore, feeding during daylight on fish, crustaceans, molluscs, and polychaetes. Taken by handline and bottom trawl along with other species of *Nemipterus*. Appears in small numbers in local markets. Trawled in commercial quantities in the Straits of Malacca and off the Trengganu coast, South China Sea.

Distribution: West Pacific from Taiwan Province of China to northern Australia, and Indian Ocean including the Andaman Sea, Bay of Bengal, Sri Lanka, Arabian Sea, Persian Gulf, and Red Sea.

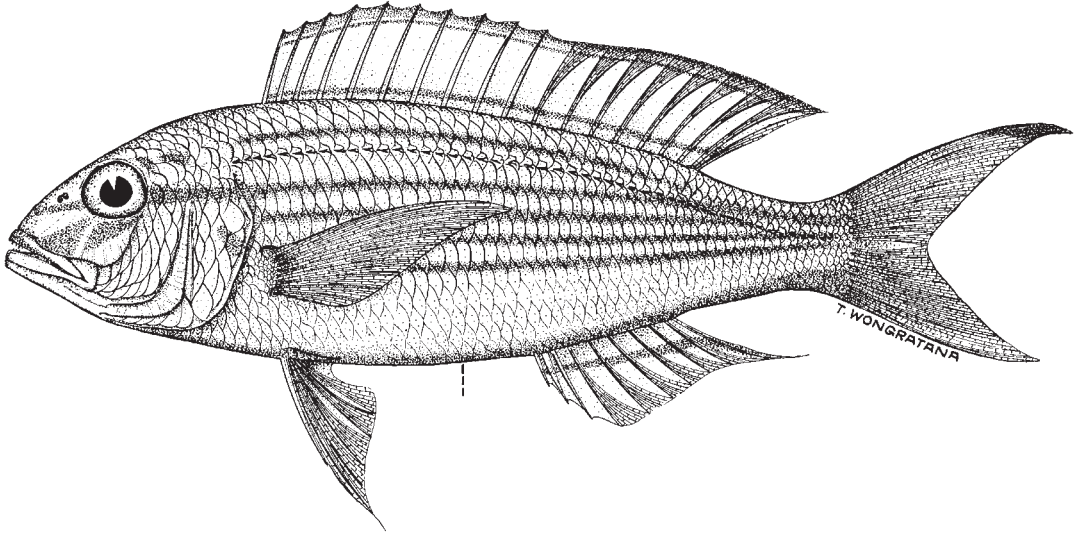


Nemipterus tambuloides (Bleeker, 1853)

(Plate XXI, 161)

Frequent synonyms / misidentifications: None / None.

FAO names: En - Fivelined threadfin bream.



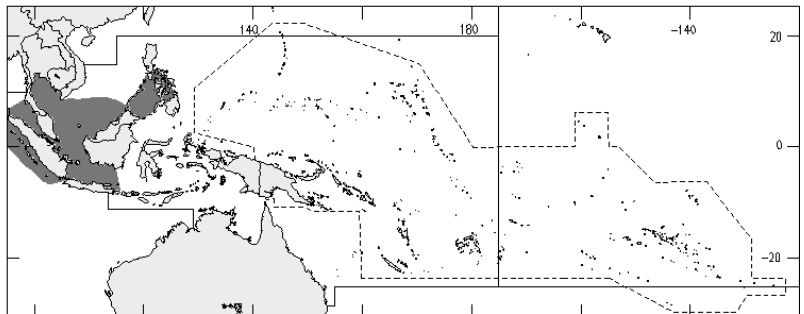
Diagnostic characters: Body depth 3.2 to 3.6 times in standard length. Snout length equal to or greater than eye diameter. Three or 4 pairs of small recurved canines anteriorly in upper jaw. Eye diameter 3.2 to 4.1 times in head length; **lower margin of eye tangent to or just above a line from tip of snout to upper base of pectoral fins**; interorbital width 1.5 to 1.9 times in eye diameter; suborbital depth 1.3 to 1.8 times in eye diameter; **a line drawn up from the posterior edge of suborbital reaching the dorsal profile about 2 to 7 scale rows before origin of dorsal fin**. Width of naked area of preopercle 1.8 to 2.4 times in width of scaly area. Total gill rakers on first gill arch 12 to 14. Total pectoral-fin rays 16 or 17; **pectoral and pelvic fins long, reaching to between level of anus and origin of anal fin**; pectoral fins 1 to 1.1 times in head length, pelvic fins 1.1 to 1.4 times in head length; **caudal fin forked, upper lobe pointed**. **Colour:** upper part of head and body rosy, paling to silvery white on ventral surface; **5 well-defined sulphur yellow stripes along body, the first stripe beginning above lateral line and extending along scale row to posterior of dorsal fin, the second stripe running from snout through eye, postorbital part of head, and then extending as a more or less straight line to upper caudal-fin base; remaining stripes beginning behind head and following each scale row, slightly ascending posteriorly; sulphur yellow stripe along either side of ventral midline from isthmus to lower caudal-fin base; head with 2 yellow stripes beneath eye; cheeks and opercle with golden and mauve reflections; dorsal fin translucent pink, with yellow margin and bluish grey infamarginal stripe; narrow sulphur yellow stripe extending just above base of dorsal fin; anal fin translucent bluish white with pale yellow stripe near base of fin, this stripe bent posteriorly and extending out to tip of last anal-fin ray; caudal fin bright rosy, upper tip sulphur yellow; pectoral fins pale pink; pelvic fins pale yellowish, spine and first ray bluish grey.**

Size: Maximum standard length 23 cm, commonly to 18 cm.

Habitat, biology, and fisheries:

A benthic species, occurs on sand or mud bottoms in depths of 50 to 70 m. Taken by handline and bottom trawl. An abundant species in Thailand, landed in large quantities throughout the year.

Distribution: Andaman Sea, Strait of Malacca, Philippines, Gulf of Thailand, South China Sea, and Indonesia.

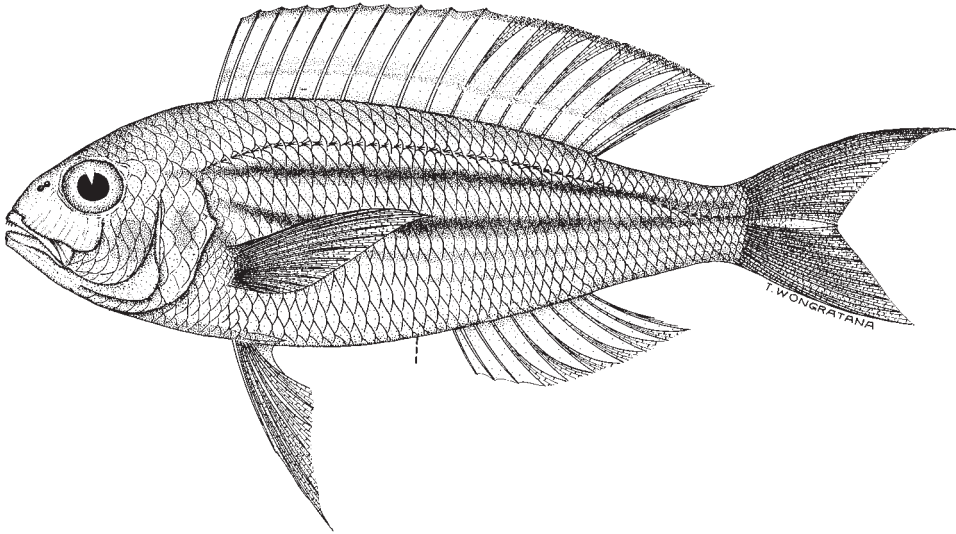


***Nemipterus thosaporni* Russell, 1991**

(Plate XXII, 162)

Frequent synonyms / misidentifications: None / Previously misidentified as *Nemipterus marginatus* (Valenciennes, 1830) by most authors.

FAO names: En - Palefin threadfin bream.



Diagnostic characters: Body depth 2.8 to 3.4 times in standard length. Snout length about equal to or greater than eye diameter. Three or four pairs of small recurved canines anteriorly in upper jaw. Eye diameter 2.9 to 4.3 times in head length; **lower margin of eye tangent to or just above a line from tip of snout to upper base of pectoral fins**; interorbital width 0.9 to 1.8 times in eye diameter; suborbital depth 1.1 to 2.1 times in eye diameter; **a line drawn up from the posterior edge of suborbital reaching the dorsal profile about 3 to 7 scale rows before origin of dorsal fin**. Width of naked area of preopercle 1.1 to 1.6 times in width of scaly area. Total gill rakers on first gill arch 13 to 16. Total pectoral-fin rays 16 or 17; **pectoral and pelvic fins long, reaching to or just short of level of origin of anal fin**; pectoral fins 0.9 to 1.1 times in head length, pelvic fins 1 to 1.2 times in head length; **caudal fin forked, upper rays prolonged and pointed, but not forming a filament**. **Colour:** body pinkish, silvery below; **2 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**; cheeks and opercle tinged with bluish gold; **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, yellow stripe extending down second soft ray, axillary scale yellow; pectoral fins pale pink.

Size: Maximum standard length 21.5 cm, commonly to 16 cm.

Habitat, biology, and fisheries: A benthic species, occurs on sand or mud bottoms in depths of about 60 to 80 m. Estimates of asymptotic length (L_{∞}), asymptotic weight (W_{∞}), coefficient of growth (K), and rate of natural mortality made for the population off Kalimantan in the South China Sea are: L_{∞} = 24.5 cm total length, W_{∞} = 210 g, K = 0.42, M = 1.73. Taken by handline and bottom trawl. This species constitutes about 20% of the total nemipterid catch in the South China Sea off Kalimantan, but catch rates are low (about 3.5 kg/hour at a depth of 45 m). No major fishery exists.

Distribution: West Pacific, including southern Japan, Gulf of Thailand, South China Sea, Strait of Malacca, and Indonesia.

