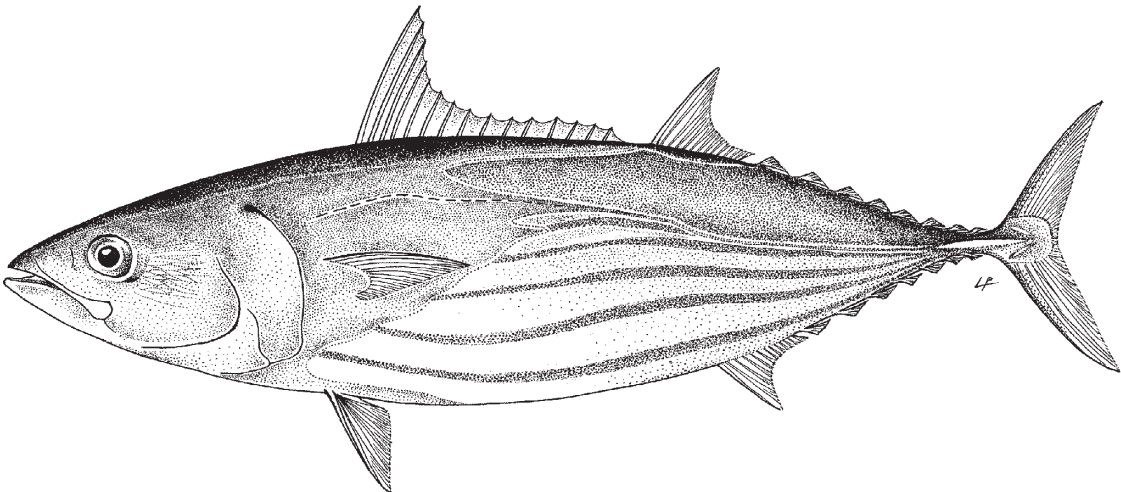


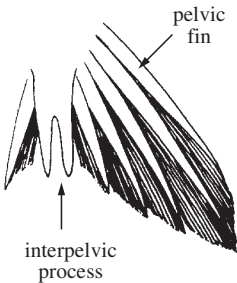
Katsuwonus pelamis (Linnaeus, 1758)

SKJ

Frequent synonyms / misidentifications: *Euthynnus pelamis* (Linnaeus, 1758) / None.
FAO names: En - Skipjack tuna; Fr - Bonite à ventre rayé (= Listao, Fishing Area 31); Sp - Listado.



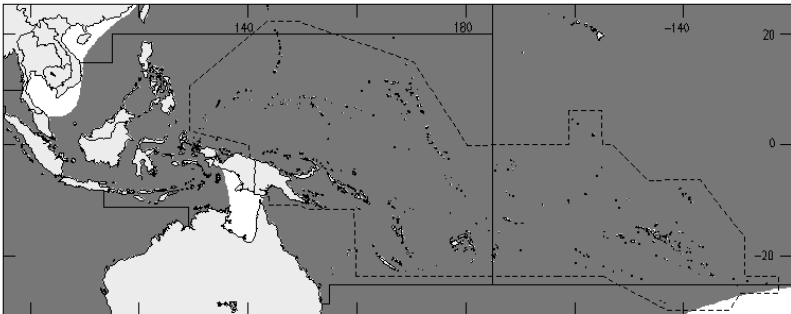
Diagnostic characters: Body fusiform, elongate and rounded. Teeth small and conical, in a single series. **Gill rakers numerous, 53 to 63 on first gill arch.** Two dorsal fins separated by a small interspace (not larger than eye), the first fin with XIV to XVI spines, the second followed by 7 to 9 finlets; anal fin followed by 7 or 8 finlets; pectoral fins short, with 26 or 27 rays; 2 flaps (interpelvic process) between pelvic fins. **Body scaleless except for corselet and lateral line.** A strong keel on each side of caudal-fin base between 2 smaller keels. **Colour:** back dark purplish blue, lower sides and belly silvery, **with 4 to 6 very conspicuous longitudinal dark bands** which in live specimens may appear as discontinuous lines of dark blotches.



Size: Maximum fork length 100 cm, commonly to 80 cm.

Habitat, biology, and fisheries: Occurs in large schools in oceanic waters, generally above the thermocline. Feeds on fishes, cephalopods, and crustaceans. Caught mainly with purse seines; also by pole-and-line. Also an important game fish usually taken by trolling on light tackle using plugs, spoons, feathers, or strip bait. Marketed fresh, frozen, and canned. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of 721 578 to 1 000 231 t of *Katsuwonus pelamis* from the Western Central Pacific.

Distribution: Cosmopolitan in tropical and subtropical seas. Found offshore throughout the area.

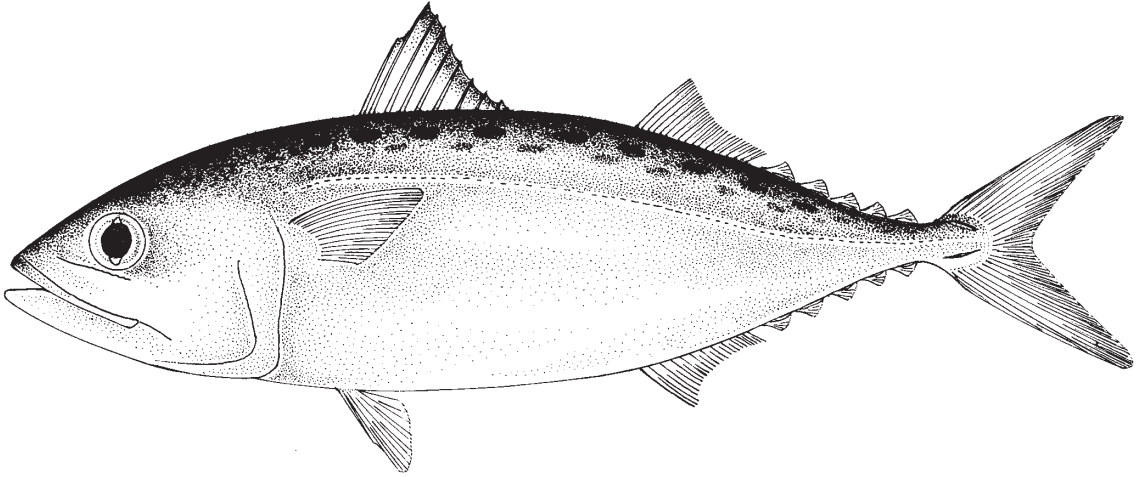


***Rastrelliger brachysoma* (Bleeker, 1851)**

RAB

Frequent synonyms / misidentifications: *Rastrelliger neglectus* (van Kampen, 1967) / None.

FAO names: En - Short mackerel; Fr - Maquereau trapu; Sp - Caballa rechoncha.

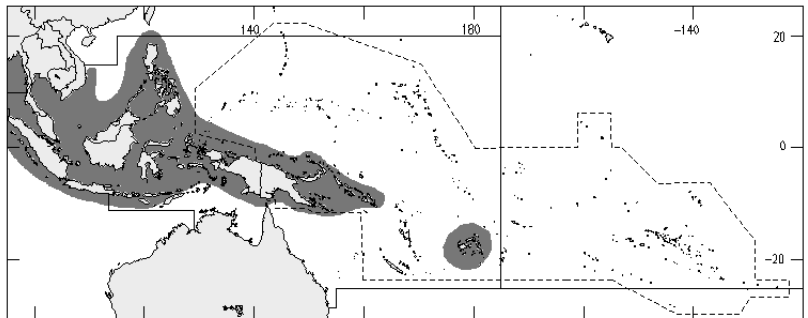


Diagnostic characters: Body very deep, its depth at posterior margin of opercle 3.7 to 4.3 times in fork length; head equal to or less than body depth. Maxilla covered by lacrimal bone but extending nearly to end of lacrimal. **Gill rakers very long, visible when mouth is opened, 30 to 48 on lower limb of first gill arch;** numerous bristles on longest gill raker, about 150 on one side in specimens of 12.7 cm, 210 in specimens of 16 cm, and 240 at 19 cm fork length. Intestine very long, 3.2 to 3.6 times fork length. **Colour:** spinous dorsal fin yellowish with a black edge, pectoral and pelvic fins dusky, other fins yellowish.

Size: Maximum fork length 34.5 cm, commonly between 15 and 20 cm; length at first maturity about 16 cm.

Habitat, biology, and fisheries: An epipelagic, neritic species that tolerates slightly reduced salinities in estuarine habitats and occurs in areas where surface temperatures range between 20° and 30°C. It schools by size. Batch spawning is believed to extend from March through September. The short mackerel feeds chiefly on microzooplankton with a high phytoplankton component. An important commercial species of mackerel in the Philippines, caught year round with native purse seines (italakop), fish corrals (ibaklad) in Manila Bay, and by dynamiting. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of 23 031 to 28 297 t of *Rastrelliger brachysoma* from the Western Central Pacific. However, catches of this species are frequently recorded as *Rastrelliger* spp. or are combined with *R. kanagurta*. The annual catch in the area reported to FAO as *Rastrelliger* spp. fluctuated between 1990 to 1995 from 193 932 to 259 748 t.

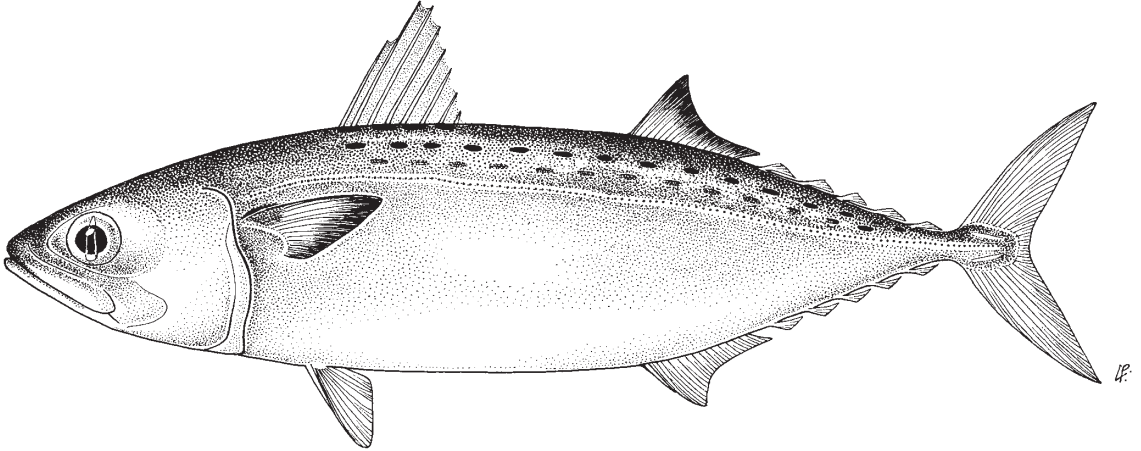
Distribution: Central Indo-West Pacific from the Andaman Sea east to Thailand, Indonesia, Papua New Guinea, Philippines, Solomon Islands, and Fiji.



Rastrelliger faughni Matsui, 1967

Frequent synonyms / misidentifications: None / *Scomber australasicus* Cuvier, 1831.

FAO names: **En** - Island mackerel; **Fr** - Maquereau de îles; **Sp** - Caballa isleña.

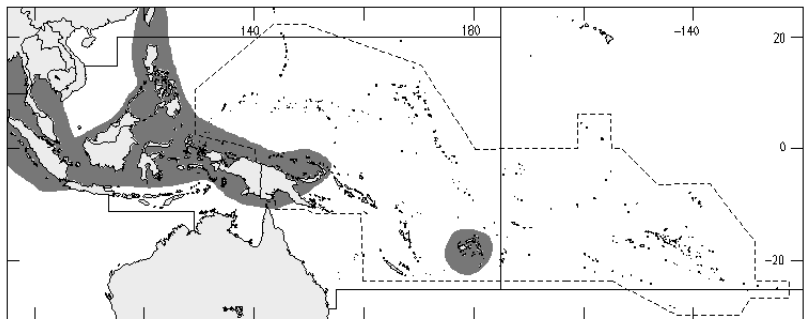


Diagnostic characters: Body slim, its depth at posterior margin of opercle 4.9 to 6 times in fork length; head longer than body depth. Maxilla covered by lacrimal bone, extending only 3/4 length of lacrimal. **Gill rakers shorter than snout; when mouth is opened wide, gill rakers are not visible in lateral view; 21 to 26 rakers on lower limb of first gill arch;** few bristles on longest gill raker, 30 to 55 on one side. Intestine short, less or about equal to fork length. **Colour:** belly yellowish silver; 2 rows of prominent spots at base of first dorsal fin, visible from above; 2 faint stripes at level of lateral line in some specimens; a black blotch behind pectoral-fin base; outer margin of dorsal and pectoral fins dark.

Size: Maximum fork length at least 20 cm; maximum weight 0.75 kg.

Habitat, biology, and fisheries: The island mackerel, like all species of the genus *Rastrelliger*, is epipelagic, neritic, occurring in waters where surface temperatures do not fall below 17°C. It feeds on the largest zooplankton organisms, thus complementing the planktonic food spectrum of the other 2 *Rastrelliger* species. It is taken along with other species of *Rastrelliger* off Taiwan Province of China, the Philippines, Indonesia, and Malaysia. In the Philippines it is taken in commercial quantities by fish corrals (ibaklad), bag nets, round seines (sapiao), and gill nets.

Distribution: Central part of the Indo-West Pacific from Taiwan Province of China south through the Philippines and New Britain and east to Fiji, west through Indonesia, Thailand, and Malaysia, to India at least as far as Madras.

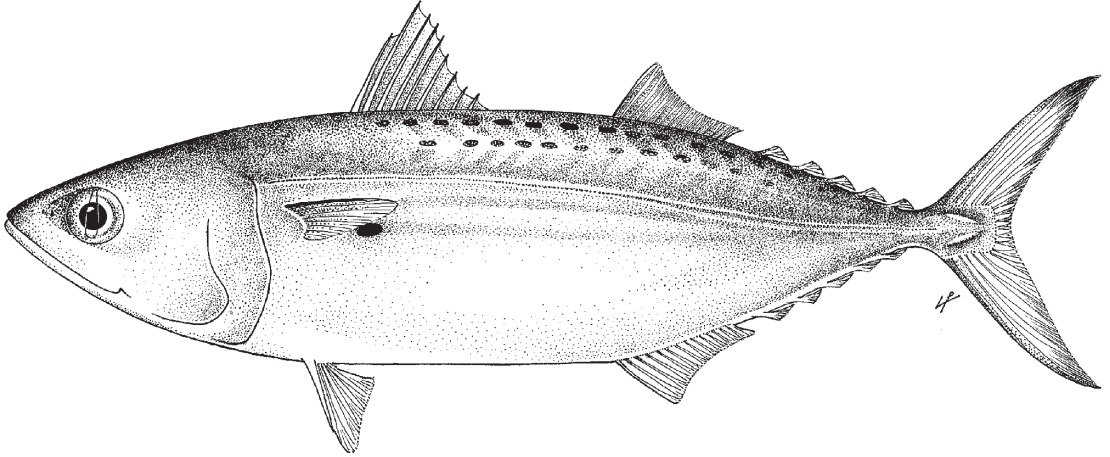


***Rastrelliger kanagurta* (Cuvier, 1817)**

RAG

Frequent synonyms / misidentifications: *Rastrelliger chrysozonus* Rüppell, 1836 / None.

FAO names: **En** - Indian mackerel; **Fr** - Maquereau des Indes; **Sp** - Caballa de la India.

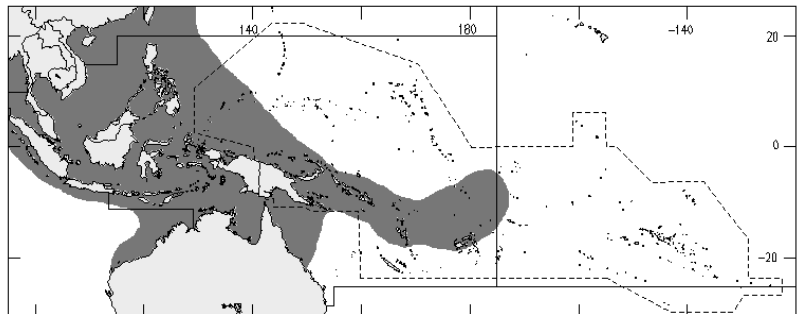


Diagnostic characters: Body moderately deep, its depth at posterior margin of opercle 4.3 to 5.2 times in fork length; head longer than body depth. Maxilla partly concealed, covered by lacrimal bone, but extending to about posterior margin of eye. Well-developed adipose eyelid. **Gill rakers very long, visible when mouth is opened, 30 to 46 on lower limb of first gill arch;** a moderate number of bristles on longest gill raker, 105 on one side in specimens of 12.7 cm, 140 in specimens 16 cm, and 160 in specimens of 19 cm fork length. Two widely separated dorsal fins; second dorsal and anal fins each followed by 5 or 6 finlets. Intestine 1.4 to 1.8 times fork length. **Colour:** back blue-green, flanks silver with a golden tint; **1 or 2 rows of small, dark spots on sides of dorsal-fin bases, narrow dark longitudinal bands on upper part of body (golden in fresh specimens) and a black spot on body near lower margin of pectoral fins;** dorsal fins yellowish with black tips, caudal and pectoral fins yellowish; other fins dusky.

Size: Maximum fork length 35 cm, commonly to 25 cm.

Habitat, biology, and fisheries: A common, coastal pelagic species, often found in large schools. Off India, batch spawning extends from March through September. Feeds primarily on plankton, mainly larval crustaceans. Caught mainly with purse seines, encircling gill nets, lift nets, and bamboo stake traps. Marketed fresh, frozen, canned, dried-salted, and smoked; also made into fish sauce. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of 81 760 to 111 133 t of *Rastrelliger kanagurta* from the Western Central Pacific.

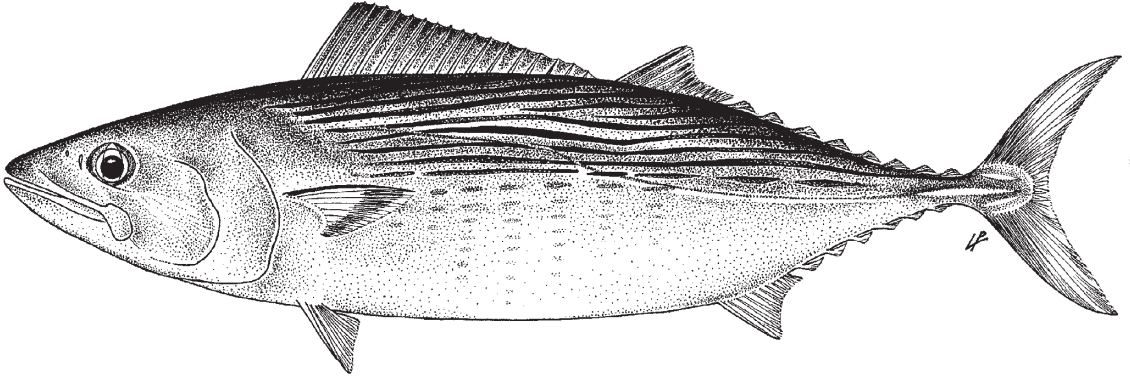
Distribution: Widespread in the Indo-West Pacific from South Africa, the Seychelles, and the Red Sea, east through Indonesia to the Philippines, southern Japan, northern Australia, New Guinea, and Samoa.



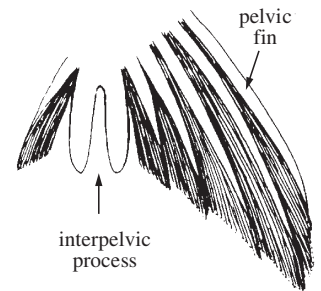
Sarda orientalis (Temminck and Schlegel, 1844)

Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Striped bonito; **Fr** - Bonite oriental; **Sp** - Bonito mono.



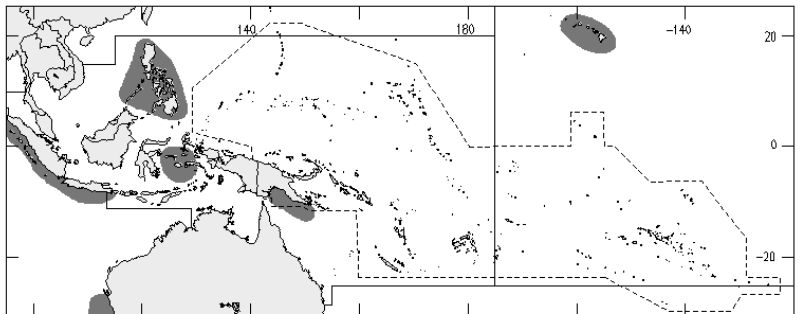
Diagnostic characters: A small, moderately narrow-bodied tuna. **Mouth** moderately wide, **upper jaw reaching beyond hind margin of eye**; teeth fairly large and conical, 12 to 20 on each side in upper jaw, 10 to 17 on each side in lower jaw; no tooth patches on upper surface of tongue. **Total gill rakers on first gill arch 8 to 13**. Dorsal fins close together, **first dorsal fin with XVII to XIX spines, very long and straight or only slightly concave in outline**; 7 to 9 dorsal and 6 or 7 anal finlets; pectoral fins short; pelvic fins separated by 2 flaps (interpelvic process). Lateral line conspicuously wavy. **Body entirely covered with scales** which are minute except on the well-developed corselet; caudal peduncle slender, with a prominent lateral keel between 2 smaller keels on each side. **Colour:** back and upper sides steel-blue, with **5 to 11 dark slightly oblique stripes** running forward and downward; lower sides and belly silvery. Juveniles (to 30 cm fork length) with several transverse bars; first dorsal fin solid black.



Size: Maximum fork length 102 cm, commonly to 50 cm.

Habitat, biology, and fisheries: Inhabits coastal waters but is also found around some islands. Schools with other small tunas. Spawning varies with the monsoon season. Feeds on small fishes, primarily clupeoids, crustaceans, and squids. Caught mainly by pole-and-line, and with purse seines and drift nets. Marketed mainly fresh; also dried-salted.

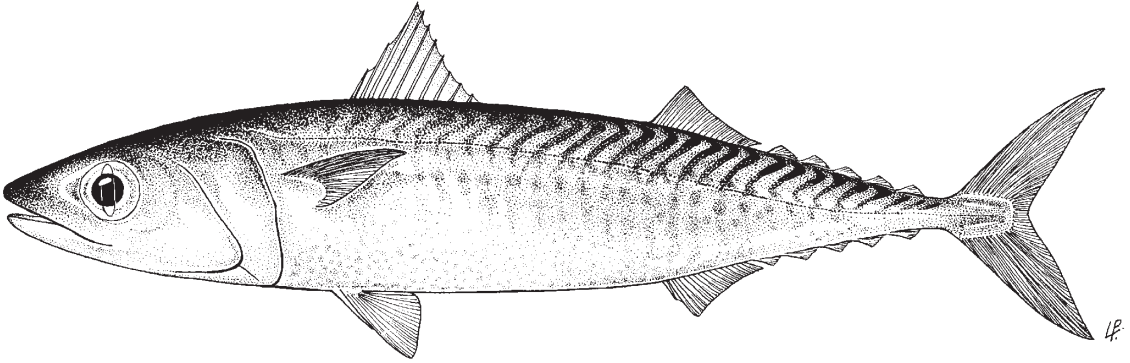
Distribution: Widespread in the Indo-Pacific but with many gaps in its known distribution. In the western Pacific, it occurs north to the northern end of Honshu, Japan; rare in the Indo-Australian Archipelago, but found in western Australia. There are records from off the west coast of Sumatra, south of Java, near Bali, Ambon, and the Gulf of Papua. It is also present in Hawaii and along the coast of Central America.



Scomber australasicus Cuvier, 1831

Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Spotted chub mackerel; **Fr** - Maquereau tacheté; **Sp** - Caballa pintoja.

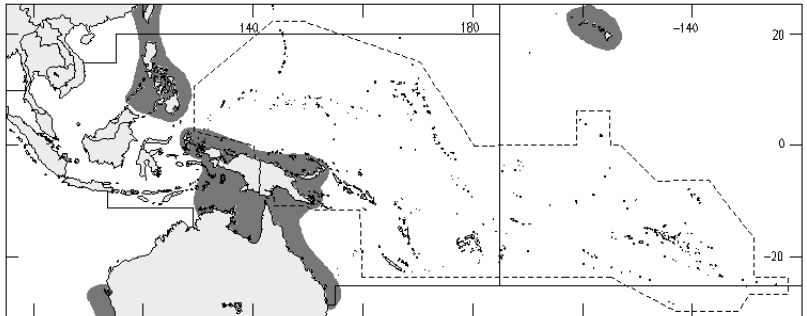


Diagnostic characters: Palatine narrow, palatine teeth in single or double rows; when double, the rows are close and run into each other. **First dorsal fin with X to XIII spines; space between first dorsal-fin groove and second dorsal fin approximately equal to length of groove; distance from tenth spine to origin of second dorsal fin clearly greater than distance between first and tenth spine;** anal-fin origin clearly more posterior than that of second dorsal fin, approximately opposite fourth soft ray of second dorsal fin; anal-fin spine independent from anal fin. Swimbladder present. Vertebrae 14+17; first haemal spine posterior to first interneural process; 15 to 20 interneural bones under first dorsal fin. **Colour:** markings on back oblique lines which zigzag and undulate; **belly pearly white marked with thin, wavy, broken lines which in places appear as speckling.**

Size: Maximum fork length 40 cm, commonly to 30 cm.

Habitat, biology, and fisheries: An epipelagic, neritic species, schooling by size. Its biology is little known.

Distribution: Western Pacific Ocean from Australia and New Zealand, north to China and Japan and east to Hawaii but comparatively rare in tropical waters. Also occurs in the northern Indian Ocean and Red Sea and at Socorro Island, off Mexico in the eastern Pacific Ocean. There are important fisheries for this species in Japan, Australia, and New Zealand. In Australia, it is important in the southern part of the country, from southern Queensland, and southward to New South Wales, Victoria, and Tasmania, and westward to South Australia and Western Australia.

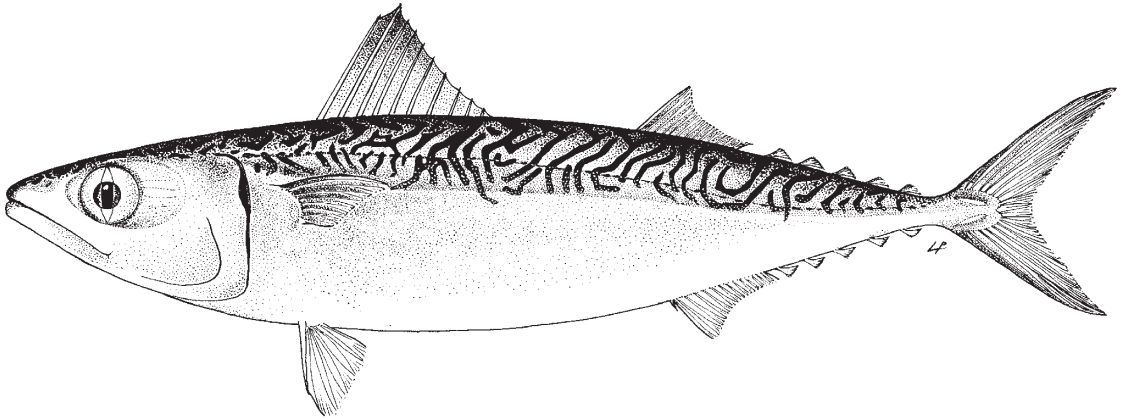


Scomber japonicus Houttuyn, 1782

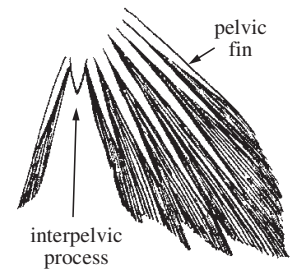
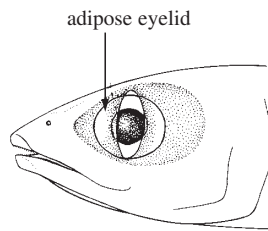
MAS

Frequent synonyms / misidentifications: *Pneumatophorus colias* (Gmelin, 1789); *Scomber colias* Gmelin, 1789 / None.

FAO names: En - Chub mackerel; Fr - Maquereau espagnol; Sp - Estornino.



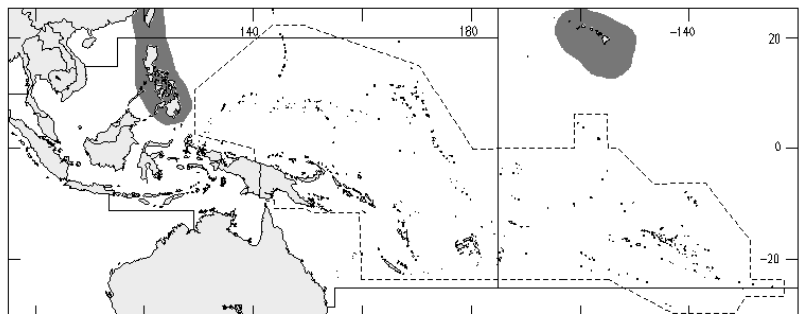
Diagnostic characters: Body elongate, caudal peduncle slim. Snout pointed, front and hind margins of eye covered by adipose eyelid; teeth in upper and lower jaws small and conical; teeth also present on vomer and palatines. Gill rakers 25 to 35 on lower limb of first gill arch. **Two widely separated dorsal fins, the first with IX or X spines; space between last dorsal-fin spine and origin of second dorsal fin less than distance between first and last spine; anal-fin spine fairly stiff and strong; 5 dorsal and 5 anal finlets;** a single small flap (interpelvic process) between pelvic fins. Scales behind head and around pectoral fins larger and more conspicuous than those covering rest of body, but no well-developed corselet. Two small keels on each side of caudal peduncle (at base of caudal-fin lobes), but no central keel between them. Swimbladder present. **Colour:** back steel blue, crossed by faint wavy lines; **lower sides and belly silvery yellow, sometimes with numerous dusky, rounded blotches.**



Size: Maximum fork length 50 cm, commonly to 30 cm.

Habitat, biology, and fisheries: A schooling pelagic species occurring mostly in coastal waters. Feeds on small pelagic fishes, especially clupeoids, and pelagic invertebrates. Caught with purse seines, often together with sardines, sometimes using light; also with trolling lines, gill nets, traps, beach seines, and midwater trawls. Marketed fresh, frozen, smoked, salted, and occasionally also canned (mostly canned in Russia). From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of 627 to 6 605 t of *Scomber japonicus* from the Western Central Pacific.

Distribution: A wide-spread species inhabiting temperate waters of the Indian, and Pacific oceans and adjacent seas. In the area, found from Japan south along the coast of China to the Philippines. Apparently absent from Indonesia and Australia, but replaced there by *Scomber australasicus*.

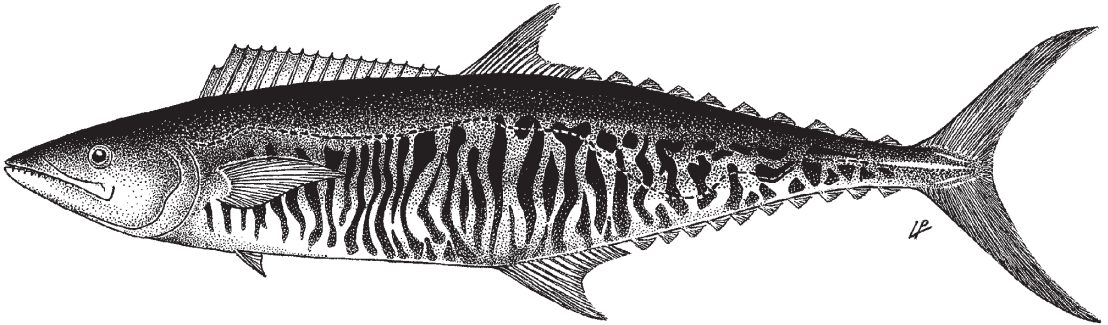


Scomberomorus commerson (Lacepède, 1801)

COM

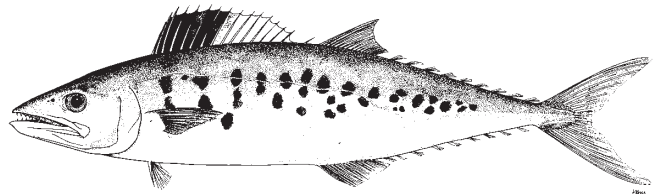
Frequent synonyms / misidentifications: *Cybium commersonii* (Lacepède, 1801) / None.

FAO names: **En** - Narrowbarred Spanish mackerel; **Fr** - Thazard rayé (Indo-Pacifique); **Sp** - Carite estriado del Indo-Pacífico.



adult, 96.8 cm fork length

Diagnostic characters: Body elongate, moderately strongly compressed. Upper jaw reaching to posterior margin of eye or slightly beyond; teeth in jaws strong and compressed. **Gill rakers 0 to 2 on upper limb and 1 to 8 on lower limb of first gill arch (total 1 to 8).** Two dorsal fins, the first with XV to XVIII spines and the second with 15 to 20 soft rays, followed by 8 to 11 finlets; anal fin originating below midpoint of second dorsal fin and with 16 to 21 soft rays and followed by 7 to 12 finlets. **Lateral line abruptly bent downward below end of second dorsal fin.** **Colour:** back iridescent blue-grey, sides silver with bluish reflections, marked with numerous thin, wavy vertical bands; number of bars increases from as few as 20 in a 40 cm specimen to as many as 65 at 150 cm; juveniles frequently spotted.

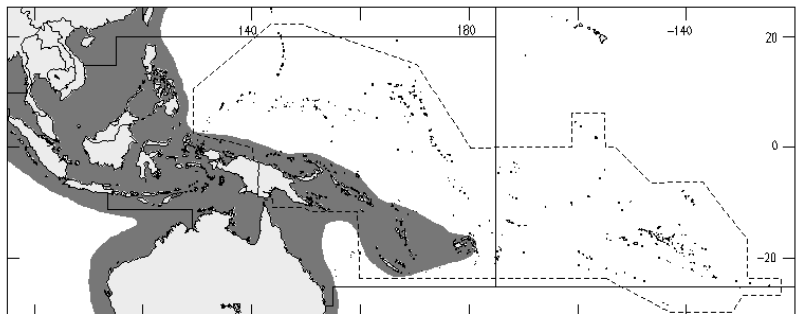


juvenile, 24.5 cm fork length, Philippines

Size: Maximum fork length about 220 cm (largest species in genus), commonly to 90 cm.

Habitat, biology, and fisheries: A pelagic fish, inhabiting coastal waters at depths between 15 and 200 m; found in small schools. Feeds chiefly on small schooling fishes, such as sardines and anchovies. Caught mainly with drift gill nets, bamboo stake traps, midwater trawls, and by trolling. Marketed mainly fresh; also dried-salted; commonly made into fish balls. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of 58 783 to 64 653 t of *Scomberomorus commerson* from the Western Central Pacific.

Distribution: Common throughout coastal waters of the warmer parts of the Indo-West Pacific Ocean. The range extends eastward and northward to the Philippines and Japan and southward to New Caledonia and the southeast coast of Australia.

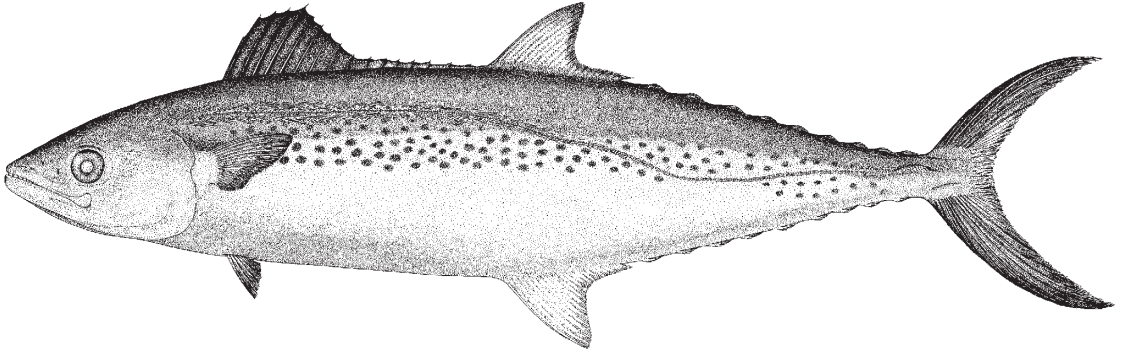


Scomberomorus guttatus (Bloch and Schneider, 1801)

GUT

Frequent synonyms / misidentifications: *Cybium guttatum* (Bloch and Schneider, 1801); *Indocybium guttatum* (Bloch and Schneider, 1801) / None.

FAO names: **En** - Indo-Pacific king mackerel; **Fr** - Thazard ponctué (Indo-Pacifique); **Sp** - Carite del Indo-Pacífico.



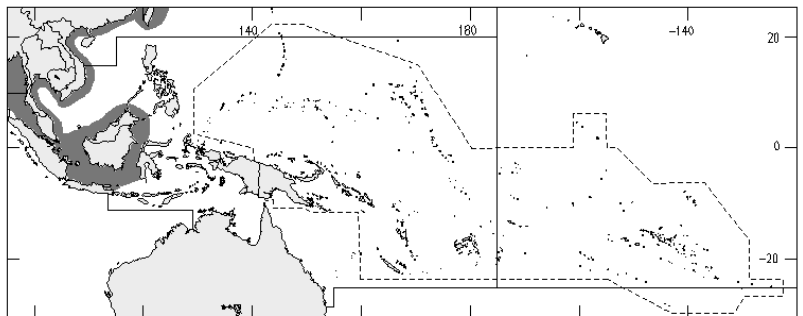
45.9 cm fork length, Gulf of Thailand

Diagnostic characters: Body elongate, strongly compressed. Head pointed, nearly equal to depth of body; upper jaw almost reaching to below hind margin of eye; teeth moderately compressed, flattened, those in lower jaw longer. **Gill rakers 1 or 2 on upper limb and 7 to 12 on lower limb of first gill arch.** Two dorsal fins, the first with XV to XVIII spines and the second with 18 to 24 soft rays followed by 7 to 10 finlets; anal fin with 19 to 23 soft rays, originating below anterior part of second dorsal fin followed by 7 to 10 finlets. **Lateral line with many fine branches anteriorly, almost straight to below middle of second dorsal fin and gently bent downward to middle of caudal peduncle.** Vertebrae 47-52. **Intestine with 2 folds and 3 limbs.** **Colour:** blue on back, silvery on sides; **about 3 irregular rows of dark round spots (smaller than eye) on sides of body; spinous dorsal fin dark up to eighth spine, white posteriorly, with distal margin black.**

Size: Maximum fork length 76 cm, commonly to 55 cm.

Habitat, biology, and fisheries: A pelagic migratory fish inhabiting coastal waters at depths between 15 and 200 m; sometimes entering turbid estuarine waters; usually found in small schools. Feeds mainly on small schooling fishes (especially sardines and anchovies), squids, and crustaceans. Caught with drift gill nets, midwater trawls, purse seines, bamboo stake traps, and by trolling. Marketed mainly fresh; also dried-salted; highly esteemed food fish. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of 7 400 to 9 763 t of *Scomberomorus guttatus* from the area (Indonesia only).

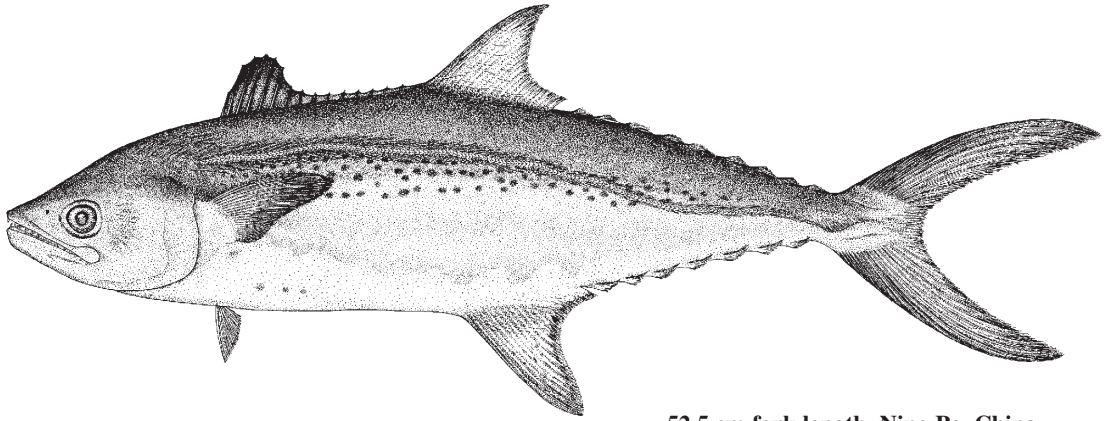
Distribution: Found from the Persian Gulf westward along the coasts of India and Sri Lanka to Borneo, Zamboanga, and Sea of Japan; does not extend beyond Java.



***Scomberomorus koreanus* (Kishinouye, 1915)**

Frequent synonyms / misidentifications: None / *Scomberomorus guttatus* (Bloch and Schneider, 1801).

FAO names: **En** - Korean seerfish; **Fr** - Thazard coréen; **Sp** - Carite coreano.



52.5 cm fork length, Ning Po, China

Diagnostic characters: Body elongate, strongly compressed; **body depth much greater than head length**. Snout much shorter than rest of head; posterior part of maxilla exposed, reaching to a vertical from posterior margin of orbit. **Gill rakers on first gill arch few, 1 or 2 on upper limb and 9 to 12 on lower limb (total 11 to 15)**. Two dorsal fins, the first with XIV to XVII spines and the second with 20 to 24 soft rays, followed by 7 to 9 finlets; anal fin with 20 to 24 soft rays and followed by 7 to 9 finlets. **Lateral line with many fine branches anteriorly, gradually curving down toward caudal-peduncle keel**. Vertebrae 46 or 47. **Intestine with 4 folds and 5 limbs**. **Colour:** back iridescent greyish blue, sides silvery, **with 2 or 3 irregular rows of small, dark, round spots (smaller than eye size)**; fins blackish; first dorsal fin black.

Size: Maximum fork length 150 cm (at a maximum weight of 15 kg), commonly to 60 cm.

Habitat, biology, and fisheries: Feeds on small schooling fishes, such as anchovies and sardines, and also on shrimps. Taken by drift gill nets. Marketed fresh and dried-salted.

Distribution: Known from the west coast of India and Sri Lanka along the continental shelf eastward to Sumatra and Singapore, and northward to China, Korea, and Wakasa Bay, Japan. Does not extend past Sumatra in Indonesia.

