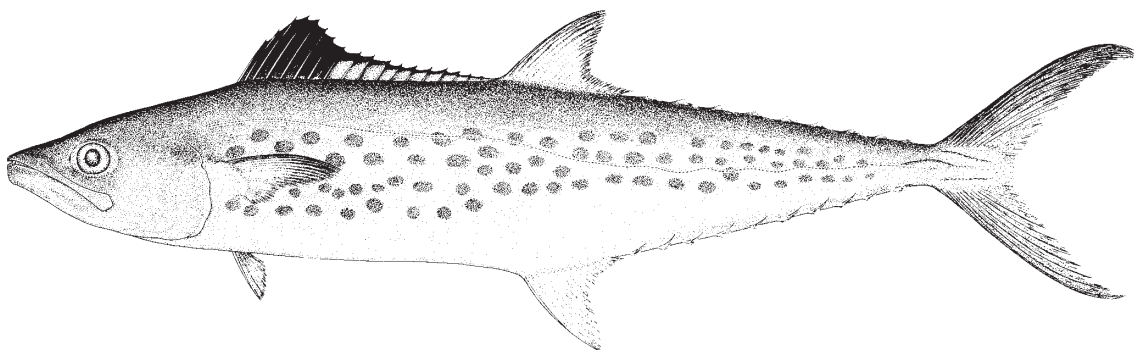


Scomberomorus brasiliensis Collette, Russo, and Zavalla-Camin, 1978

BRS

Frequent synonyms / misidentifications: None / *Scomberomorus maculatus* (Mitchill, 1815)

FAO names: En - Serra Spanish mackerel; Fr - Thazard tacheté du sud; Sp - Serra.

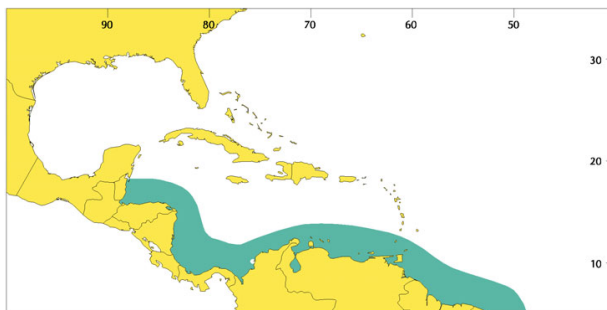


Diagnostic characters: Body elongate, strongly compressed. Snout much shorter than rest of head; posterior part of maxilla exposed, reaching to a vertical from hind margin of eye; many gill rakers on first arch (1 to 3, usually 2, on upper limb; 9 to 13, usually 10 or 11, on lower limb; 11 to 16, usually 13 to 15, total). Two scarcely separated dorsal fins, the first with 17 or 18 spines, the second with 15 to 19 rays; dorsal and anal finlets 8 to 10; 2 flaps (interpelvic processes) between pelvic fins. Lateral line gradually curving down toward caudal peduncle. Body entirely covered with small scales, no corselet developed; pectoral fins without scales, except at bases. **Colour:** back iridescent bluish green, **sides silvery with numerous yellow to bronze spots, the number of spots increasing with size from about 30 at 20 cm fork length to between 45 and 60 at fork lengths from 50 to 60 cm; no streaks on body;** anterior third of first dorsal fin black.

Size: Maximum to at least 125 cm fork length, commonly to 65 cm.

Habitat, biology, and fisheries: Tends to form schools and enters tidal estuaries. Feeds on small fishes, penaeoid shrimps, and squids. Caught mainly with purse seines and on line gear. Also a sportsfish taken by trolling feathers or pork rind or by casting fly and spinning lures into surface schools. Marketed mostly fresh, but in Brazil some is salted; the flesh is highly appreciated. Landings recorded for *S. brasiliensis* in Area 31 (mostly from Venezuela, Trinidad, and Tobago) between 1995 and 1999 ranged from 4 480 to 6 725 t per year. In addition, part of the catch reported from the USA and Mexico as *Scomberomorus maculatus* is in fact, *S. brasiliensis*.

Distribution: Restricted to the western North Atlantic from Yucatán and Belize south to Rio Grande do Sul, Brazil.

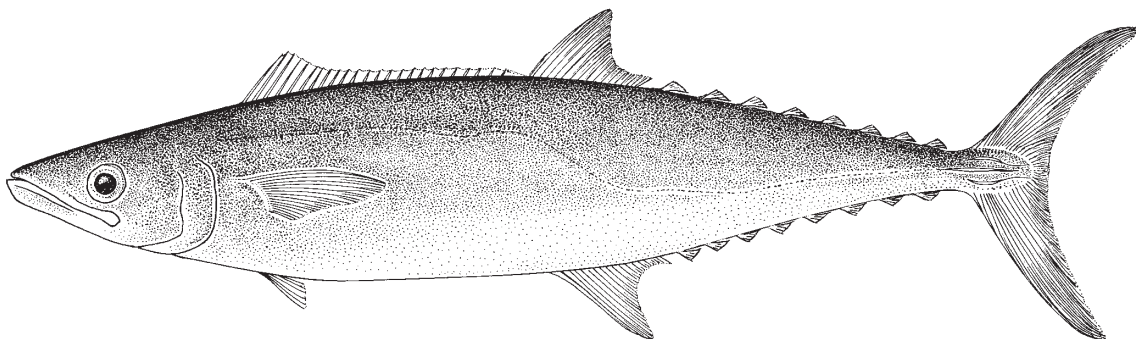


Scomberomorus cavalla (Cuvier, 1829)

KGM

Frequent synonyms / misidentifications: None / None.

FAO names: En - King mackerel; Fr - Thazard barré; Sp - Carite lucio.

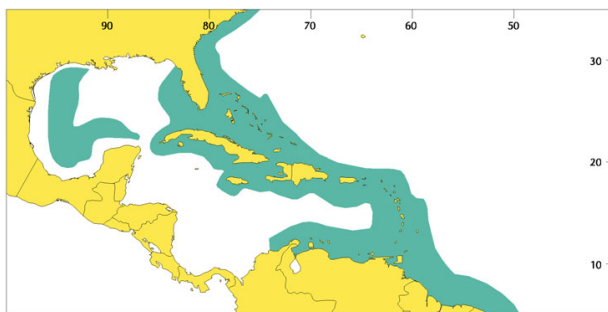


Diagnostic characters: Body elongate, strongly compressed. Snout much shorter than rest of head; posterior part of maxilla exposed, reaching to a vertical with hind margin of eye; **gill rakers on first arch few (0 to 2, usually 1, on upper limb; 5 to 9, usually 7 to 9, on lower limb; 6 to 11, usually 8 to 10, total)**. Two scarcely separated dorsal fins, the first with 14 to 16 (usually 15) spines; dorsal finlets 8 or 9, anal finlets 9 or 10; 2 flaps (interpelvic processes) between pelvic fins. **Lateral line abruptly curving downward below second dorsal fin.** Body entirely covered with scales, no corselet developed; pectoral fins without scales, except at bases. **Colour:** back iridescent bluish green, sides silvery; anterior third of first dorsal fin pigmented like the posterior two thirds, not black; young with spots on sides similar to those in *Scomberomorus maculatus*.

Size: Maximum to 150 cm fork length and 36 to 45 kg, commonly to 70 cm. The IGFA all-tackle game fish record is 42.18 kg for a fish caught in Puerto Rico in 1999.

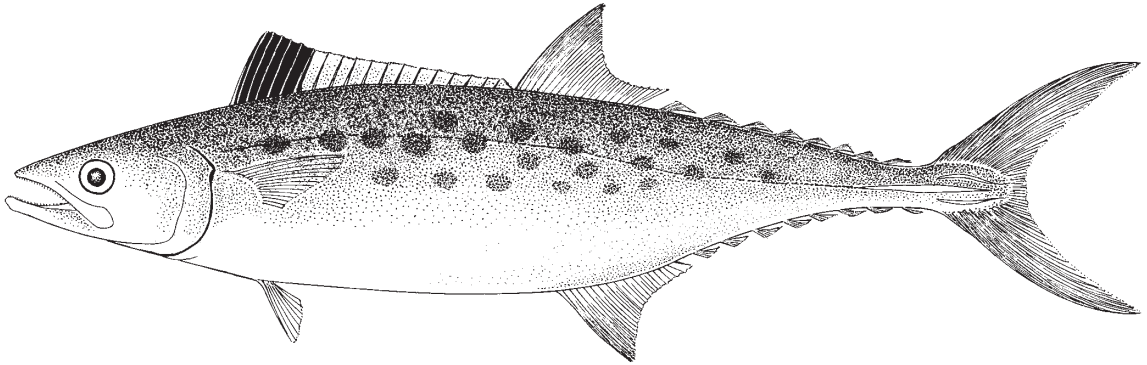
Habitat, biology, and fisheries: Occurs singly or in small groups; often found in outer reef areas. Feeds mainly on small fishes. Caught with purse seines or "mandingas" (Venezuela) and on line gear. Also an important sportfish taken by trolling with halfbeaks, mullet strip in back of large feather lures, or strip bait. Marketed fresh or frozen. The catch reported from Area 31 from 1995 to 1999 ranged between 7 904 and 12 180 t. The actual catch is probably higher as the FAO statistics include an additional unclassified landings of *Scomberomorus* species.

Distribution: Found on both coasts of Florida, throughout the Antilles and along the northern coast of South America; southward extending to Rio de Janeiro, northward seasonally to Massachusetts.



***Scomberomorus maculatus* (Mitchill, 1815)**

SSM

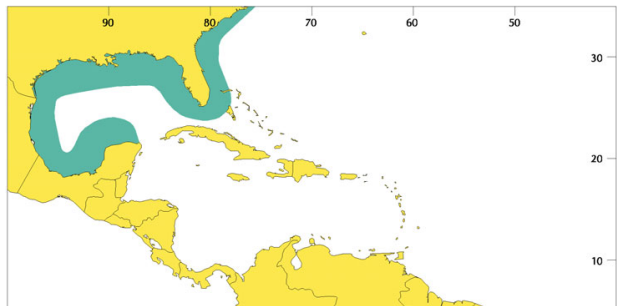
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Atlantic Spanish mackerel (AFS: Spanish mackerel); **Fr** - Thazard Atlantique; **Sp** - Carite Atlántico.

Diagnostic characters: Body elongate, strongly compressed. Snout much shorter than rest of head; posterior part of maxilla exposed, reaching to a vertical from hind margin of eye; **many gill rakers on first arch (1 to 4, usually 2, on upper limb; 8 to 12, usually 10 or 11, on lower limb; 11 to 16, usually 12 to 14, total)**. Two scarcely separated dorsal fins, the first with 17 to 19 (usually 19) spines; dorsal and anal finlets 8 or 9; 2 flaps (interpelvic processes) between pelvic fins. **Lateral line gradually curving down toward caudal peduncle.** Body entirely covered with small scales, no corselet developed; pectoral fins without scales, except at bases. **Colour:** back iridescent bluish green, **sides silvery with numerous yellow to bronze spots and no streaks;** anterior third of first dorsal fin black.

Size: Maximum to at least 70 cm fork length, commonly to 50 cm. The IGFA all-tackle game fish record is 5.89 kg for a fish caught in North Carolina in 1987.

Habitat, biology, and fisheries: Tends to form schools and enters tidal estuaries. Feeds on small fishes, especially sardines and anchovies. Caught mainly with purse seines and on line gear. Also an important sportfish taken by trolling feathers or pork rind or by casting fly and spinning lures into surface schools. Marketed mostly fresh or frozen; the flesh is highly appreciated. Landings recorded for *S. maculatus* in Area 31 between 1995 and 1999 ranged from 9 207 to 12 414 t per year.

Distribution: Restricted to the western North Atlantic (although reported from the eastern Pacific and eastern Atlantic, based on 2 other species, *Scomberomorus sierra* and *Scomberomorus tritor*, respectively). Ranges from Maine to Yucatán, primarily in waters over the continental shelf. Absent from Bermuda and most of the West Indies. Replaced from Belize to Brazil by a similar species, *S. brasiliensis*.

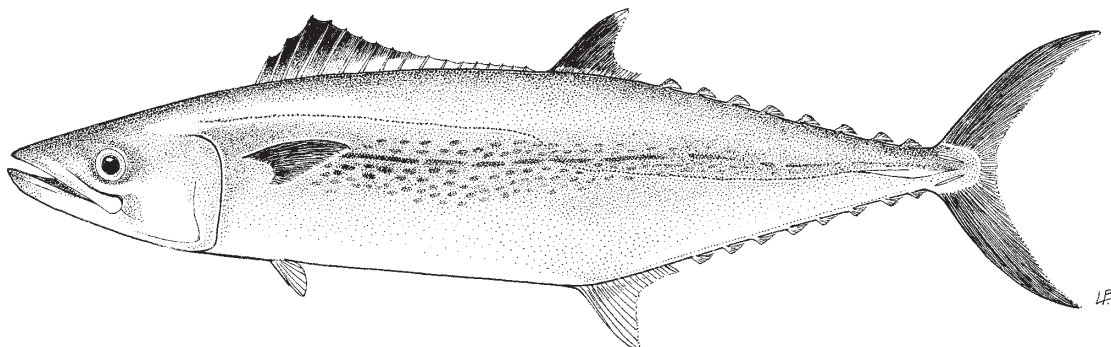


Scomberomorus regalis (Bloch, 1793)

CER

Frequent synonyms / misidentifications: None / None.

FAO names: En - Cero; Fr - Thazard franc; Sp - Carite chinigua.

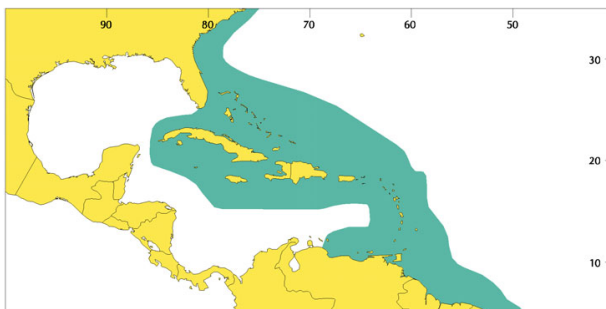


Diagnostic characters: Body elongate, strongly compressed. Snout much shorter than rest of head; posterior part of maxilla exposed, not quite reaching to a vertical with hind margin of eye; many gill rakers on first gill arch (2 to 4, usually 3, on upper limb; 10 to 14, usually 11 to 13, on lower limb (12 to 18, usually 15 or 16, total). Two scarcely separated dorsal fins, the first with 17 to 19 (usually 17 or 18) spines; dorsal finlets 8; anal finlets 2; 2 flaps (interpelvic processes) between pelvic fins. **Lateral line gradually curving down toward caudal peduncle.** Body entirely covered with small scales, no corselet developed; pectoral fins covered with small scales. **Colour:** back iridescent bluish green, **sides silvery, with a midlateral row of streaks of variable length; small yellow spots above and below the streaks;** anterior third of first dorsal fin black.

Size: Maximum to 80 cm fork length, commonly to 45 cm. The IGFA all-tackle game fish record is 7.76 kg for a fish caught in Florida in 1986.

Habitat, biology, and fisheries: Common over reefs, usually solitary or in small groups. Feeds mainly on small fishes, especially sardines, anchovies, and silversides. Caught with purse seines or 'mandingas' (Venezuela) and on line gear. Also a sportfish trolling with cut bait. Marketed mostly fresh. Its flesh is highly esteemed. The catch reported from Area 31 between 1995 and 1999 ranged from 307 to 429 t (400 t from Martinique).

Distribution: From Massachusetts southward throughout the Antilles to Brazil; the most common *Scomberomorus* species in the West Indies; very abundant around Cuba.

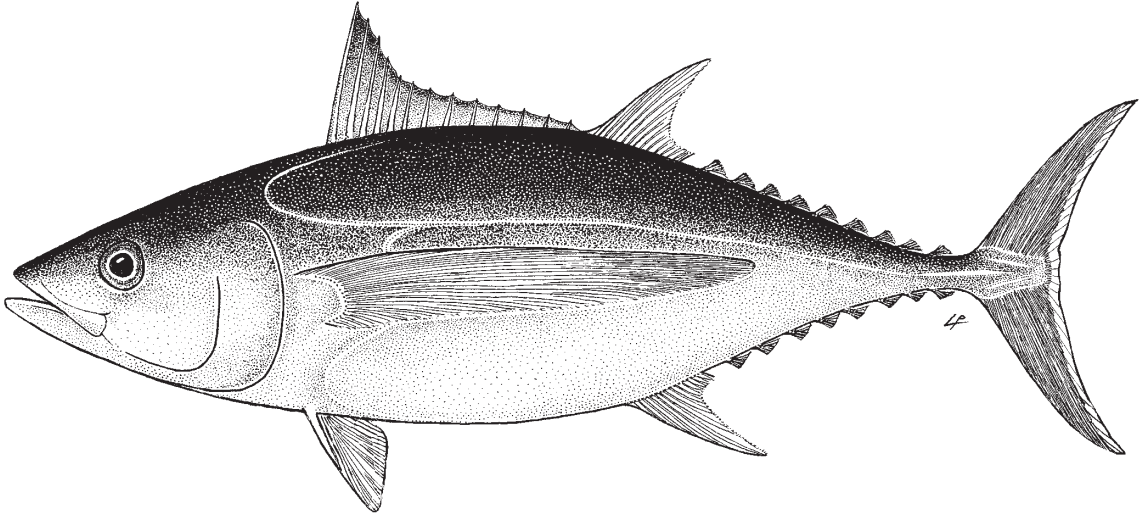


Thunnus alalunga (Bonnaterre, 1788)

ALB

Frequent synonyms / misidentifications: *Germo alalunga* (Bonnaterre, 1788) *Thunnus germo* (Lacepède, 1800) / None.

FAO names: En - Albacore; Fr - Germon; Sp - Atún blanco.

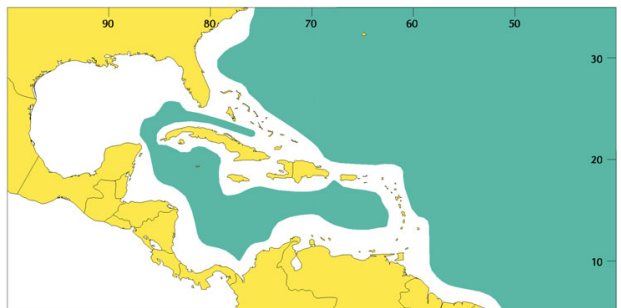


Diagnostic characters: A large species with an elongate fusiform body deepest at a more posterior point than in other tunas (at or only slightly anterior to second dorsal fin rather than near middle dorsal-fin base). Eyes moderately large; gill rakers 25 to 31 on first arch. Two dorsal fins separated only by a narrow interspace, the second clearly lower than the first and followed by 7 to 9 finlets; **pectoral fins remarkably long, usually 30% of fork length or longer, reaching well beyond origin of second dorsal fin (usually up to second dorsal fin)**, 2 flaps (interpelvic processes) between pelvic fins; anal fin followed by 7 or 8 finlets. Small scales on body; corselet of larger scales developed but not very distinct. Caudal peduncle bearing on each side a strong lateral keel between 2 smaller keels. Liver has striated ventral surface. Swimbladder present. **Colour:** back metallic dark blue, lower sides and belly whitish; a faint lateral iridescent blue band runs along sides in live fish; first dorsal fin deep yellow, second dorsal and anal fins light yellow, anal finlets dark; **posterior margin of caudal fin white.**

Size: Maximum to 120 cm fork length, commonly to 100 cm. The IGFA all-tackle game fish record is 40.00 kg for a fish caught in the Canary Islands in 1977.

Habitat, biology, and fisheries: Oceanic, the young often in large schools; found below the thermocline or at temperatures of 17 to 21°C. Feeds on many kinds of organisms, particularly fishes, squids, and crustaceans. Caught with purse seines and longlines; also by trolling. Marketed mainly canned or frozen. Landings reported between 1995 and 1999 ranged from 1 399 to 5 457 t, caught almost entirely by Taiwan Province of China.

Distribution: A cosmopolitan species, often extending into cool waters. In the western Atlantic from south of New England to southern Brazil. There are no records for the Gulf of Mexico although it is widespread throughout the Caribbean Sea and off the coast of Venezuela.

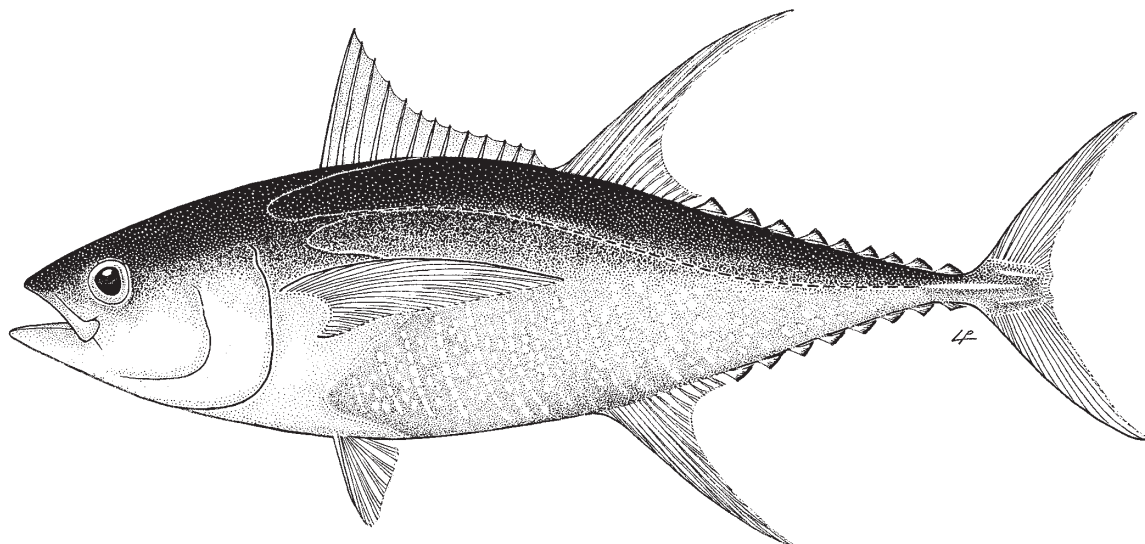


Thunnus albacares (Bonnaterre, 1788)

YFT

Frequent synonyms / misidentifications: *Neothunnus macropterus* (Temminck and Schlegel, 1844); *Neothunnus albacora* (Lowe, 1839); *Thunnus argentivittatus* (Cuvier, 1832) / None.

FAO names: **En** - Yellowfin tuna; **Fr** - Albacore; **Sp** - Rabil.

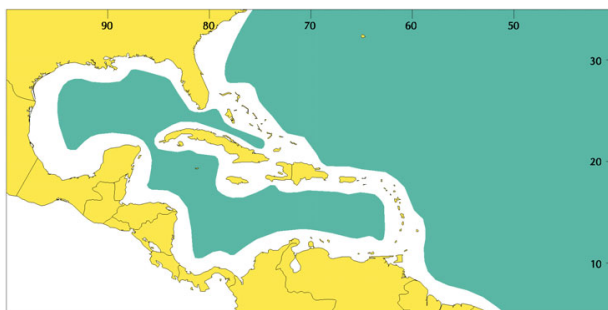


Diagnostic characters: A large species with an elongate, fusiform body, slightly compressed from side to side. **Gill rakers 26 to 34 on first arch.** Two dorsal fins, separated only by a narrow interspace, the second followed by 8 to 10 finlets; anal fin followed by 7 to 10 finlets; 2 flaps (interpelvic processes) between pelvic fins; **large individuals may have very long second dorsal and anal fins, becoming well over 20% of fork length;** pectoral fins moderately long, usually reaching beyond second dorsal-fin origin but not beyond end of its base, usually 22 to 31% of fork length. Body with very small scales; corselet of larger scales developed but not very distinct. Caudal peduncle very slender, bearing on each side a strong lateral keel between 2 smaller keels. **No striations on ventral surface of liver.** Swimbladder present. **Colour:** back metallic dark blue changing through yellow to silver on belly; **belly frequently crossed by about 20 broken, nearly vertical lines;** dorsal and anal fins and finlets bright yellow, the finlets with a narrow black border.

Size: Maximum to 195 cm fork length, commonly to 150 cm. The IGFA all-tackle game fish record is 176.35 kg for a fish caught in the Revillagigedo Islands, Mexico in 1977.

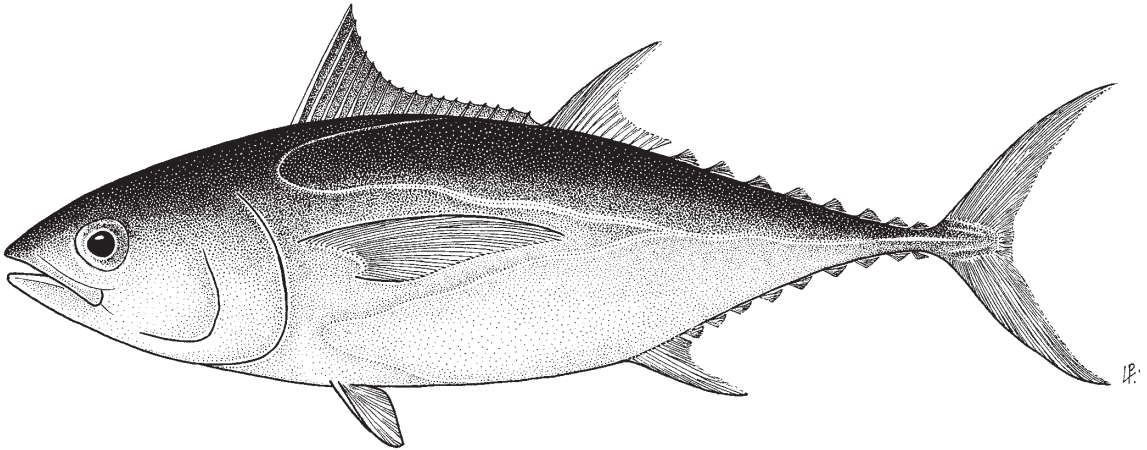
Habitat, biology, and fisheries: Oceanic, above and below the thermocline. Feeds on a wide variety of fishes, crustaceans, and cephalopods. Caught mainly with longlines and purse seines, and also by sport fishermen. Marketed canned, fresh, or frozen. The total reported catch from Area 31 from 1995 to 1999 ranged from 23 282 to 26 847 t caught mostly by Venezuela and Colombia.

Distribution: A pantropical species. In the western Atlantic it is known from about 42°N southward through the Sargasso Sea, Gulf of Mexico, and Caribbean Sea. Also present off the coast of South America from 10°N to 32°N.



Thunnus atlanticus (Lesson, 1831)

BLF

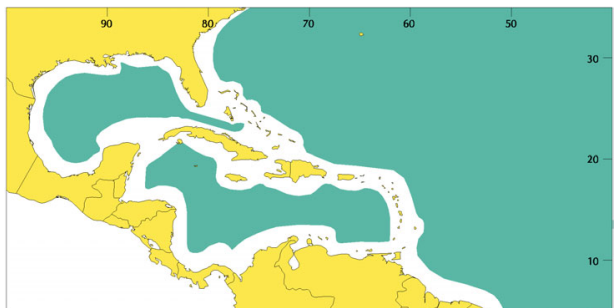
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Blackfin tuna; Fr - Thon à nageoires noires; Sp - Atún des aletas negras.

Diagnostic characters: A small species of tuna with a fusiform body, slightly compressed from side to side. **Few gill rakers, 19 to 25 on first arch.** Two dorsal fins, separated only by a narrow interspace, the second followed by 7 to 9 finlets; pectoral fins with 31 to 35 rays, moderate in length, usually 22 to 31% of fork length; 2 flaps (interpelvic processes) between bases of pelvic fins; anal fin followed by 6 to 8 finlets. Very small scales on body; corselet of larger and thicker scales well developed but not very conspicuous. Caudal peduncle with a strong lateral keel between 2 smaller ones. **Ventral surface of liver not striated, right lobe longer than centre and left lobes.** Swimbladder present. **Colour:** back metallic dark blue, lower sides silvery grey, belly milky white; first dorsal fin dusky, **second dorsal and anal fins dusky with a silvery lustre;** finlets dusky with a trace of yellow.

Size: Maximum to 89 cm fork length; commonly to 72 cm. The IGFA all-tackle game fish record is 20.63 kg for a fish caught at Key West, Florida in 1996.

Habitat, biology, and fisheries: A warm-water species found further north during the summer. The 20°C isotherm is probably a limiting factor in its distribution. From the distribution of larvae and juveniles, it appears that spawning occurs well offshore in the clear blue oceanic waters of the Florida Current and probably elsewhere in the Gulf of Mexico and Caribbean Sea. Commonly found in mixed schools with skipjack tuna, *Katsuwonus pelamis*. In Bermuda waters, food consists of surface and midwater fishes, squids, amphipods, shrimps, and stomatopod larvae. Around Cuba the food is composed of about 60% fishes, 24% squids, and 16% larval crustaceans. The southeastern shore of Cuba supports the largest fishery for the species. The Cuban fishery is 3 to 4 miles offshore, uses live bait and jackpole, and is directed at *T. atlanticus* and the skipjack, *K. pelamis*. In the Lesser Antilles, commercial fishing occurs in the blue waters to land. There is also an important sportsfishery in Florida and the Bahamas. Marketed fresh, frozen, and canned. The catch reported from Area 31 between 1995 and 1999 ranged from 2 461 to 3 376 t. In Cuba, the catches of *T. atlanticus* and *Katsuwonus pelamis* are not separated so statistics cannot be apportioned.

Distribution: Known only from the western Atlantic, from off Martha's Vineyard, Massachusetts, and Cape Hatteras throughout Area 31, south to Trinidad Island off the coast of Brazil and off Rio Janeiro at 22°21'S, 37°37'W.

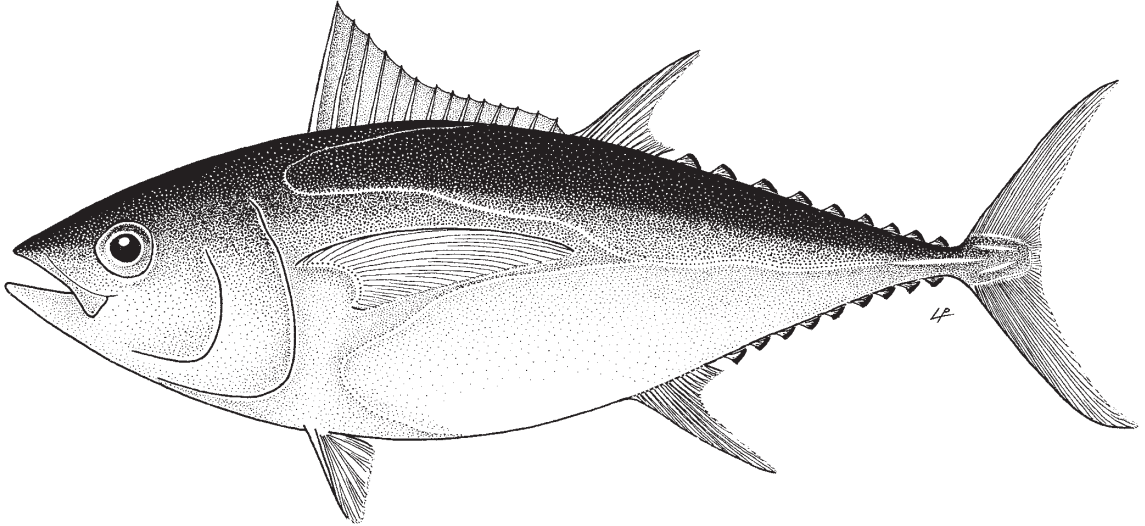


***Thunnus obesus* (Lowe, 1839)**

BET

Frequent synonyms / misidentifications: *Parathunnus mebachi* Kishinouye, 1915; *Parathunnus sibi* (Temminck and Schlegel, 1844) / None.

FAO names: En - Bigeye tuna; Fr - Thon obèse; Sp - Patudo.

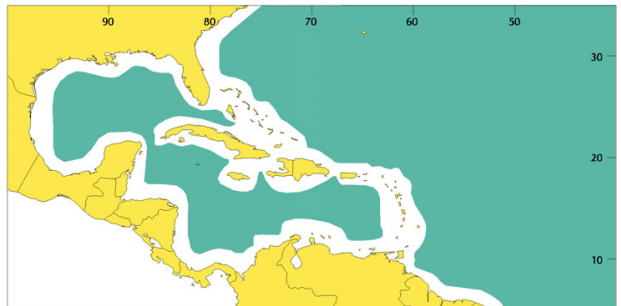


Diagnostic characters: A large species with robust, fusiform body, slightly compressed from side to side. **Gill rakers 23 to 31 on first arch.** Two dorsal fins, separated only by a narrow interspace, the second followed by 8 to 10 finlets; **pectoral fins moderately long (22 to 31% of fork length) in large specimens (over 110 cm fork length), but very long (as long as in *T. alalunga*) in smaller specimens;** 2 flaps (interpelvic processes) between pelvic fins; anal fin followed by 7 to 10 finlets. Very small scales on body; corselet of larger and thicker scales developed but not very distinct. Caudal peduncle very slender, with a strong lateral keel between two smaller keels. **Ventral surface of liver striated, central lobe longer than left or right lobes.** Swimbladder present. **Colour:** back metallic dark blue, lower sides and belly whitish; a lateral iridescent blue band runs along sides in live specimens; first dorsal fin deep yellow, second dorsal and anal fins light yellow, **finlets bright yellow edged with black.**

Size: Maximum to 236 cm (hook-and-line record from Peru); commonly to 180 cm. The IGFA all-tackle game fish record is 197.31 kg for a fish caught off Cabo Blanco, Peru in 1957.

Habitat, biology, and fisheries: A pelagic oceanic species, taken from the surface to depths of 250 m. Feeds on a wide variety of fishes, cephalopods, and crustaceans. Caught mainly with longlines; occasionally purse seines are also used. Marketed mainly canned or frozen. The total catch reported from Area 31 between 1995 and 1999 ranged from 702 to 7 812 t.

Distribution: Pantropical. In the western Atlantic from 42°18'N, 64°02'W southward throughout Area 31 to Argentina.

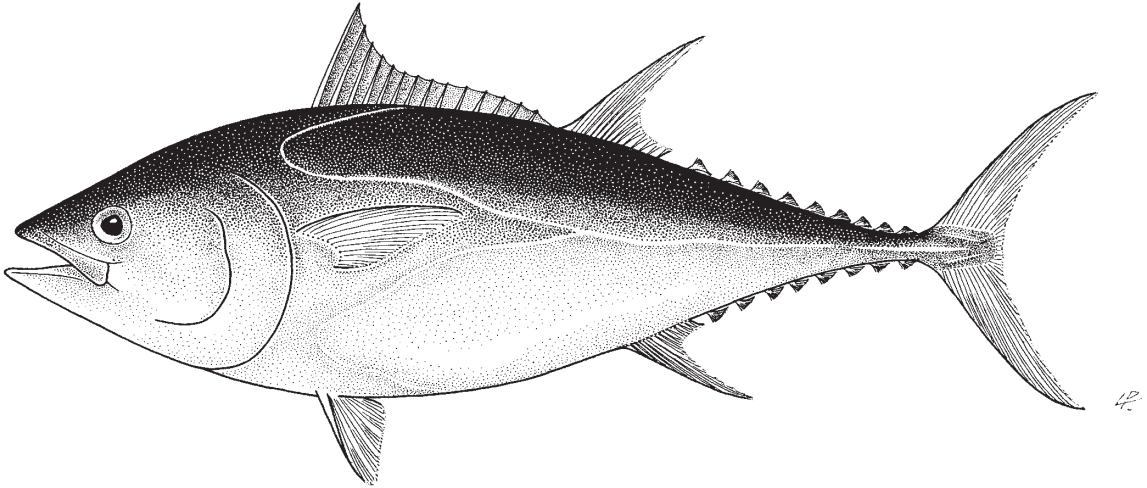


***Thunnus thynnus* (Linnaeus, 1758)**

BFT

Frequent synonyms / misidentifications: *Thunnus thynnus thynnus* (Linnaeus, 1758) / None.

FAO names: **En** - Atlantic bluefin tuna; **Fr** - Thon rouge du nord; **Sp** - Atún.



Diagnostic characters: A very large species with a fusiform and rounded body (nearly circular in cross-section), very robust anteriorly. **Gill rakers 34 to 43 on first arch.** Two dorsal fins separated only by a narrow interspace, the second higher than the first; 8 to 10 finlets present behind the second dorsal fin and 7 to 9 behind the anal fin; **pectoral fins very short, less than 80% of head length**, never reaching the interspace between the dorsal fins; 2 separate flaps (interpelvic processes) between the pelvic fins; a well-developed, although not particularly conspicuous corselet; very small scales on rest of body. Caudal peduncle slender, with a strong lateral keel between 2 small keels at bases of caudal-fin lobes. Ventral surface of liver striated. Swimbladder present. **Colour:** back dark blue or black, lower sides and belly silvery white with colourless transverse lines alternated with rows of colourless dots (the latter dominate in older fish), visible only in fresh specimens; first dorsal fin yellow or bluish, the second reddish brown; anal fin and finlets dusky yellow edged with black; lateral keel black in adults.

Size: Maximum to over 300 cm fork length, commonly to 200 cm. The IGFA all-tackle game fish record is 679 kg for a fish caught in Nova Scotia in 1979.

Habitat, biology, and fisheries: A pelagic, very fast swimming species known to effect transoceanic migrations; the young generally form schools, sometimes together with other scombrid species of similar size; immature specimens are found in warm waters only, while adults enter cold waters in search of food. Outside the spawning season it is a voracious predator that preys on many kinds of fishes, crustaceans, and cephalopods. Primarily taken on longlines in Area 31. The catch in Area 31 has dropped off from 7 400 t in 1965 to between 160 and 850 t from 1995 to 1999. A large part of the catch is air-shipped fresh or frozen to Japan for preparation as sashimi.

Distribution: A North Atlantic species known from Labrador and Newfoundland, southward throughout to northeastern Brazil in the western Atlantic.

Remarks: Replaced by *Thunnus orientalis* in the North Pacific, once considered a subspecies of *T. thynnus*, but now considered a full species.

