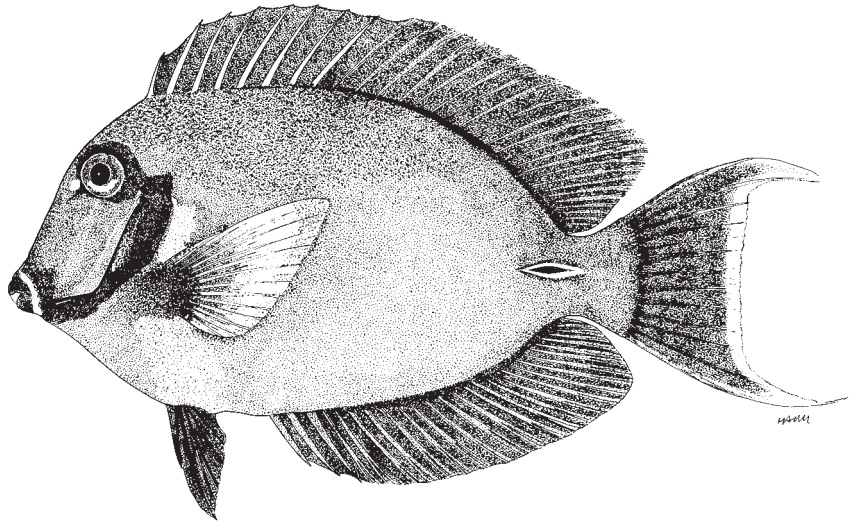


***Acanthurus pyroferus* Kittlitz, 1834****(Plate XVIII, 139)****Frequent synonyms / misidentifications:** *Acanthurus celebicus* Bleeker, 1852 / None.**FAO names:** En - Mimic surgeonfish.**Diagnostic characters:**

Body moderately deep, its depth 1.85 to 2.1 times in standard length. **Snout distinctly protruding**, its dorsal profile concave; snout length 4.4 to 4.7 times in standard length. Mouth small; teeth spatulate, close-set, with denticulate edges; 14 upper and 16 lower teeth in jaws of subadults, to as many as 16 upper and 21 lower teeth in adults. Total gill rakers in first gill arch 23 to 26. **A continuous unnotched dorsal fin with VIII spines and 27 to 29 soft rays**; dorsal and anal fins moderately high, the

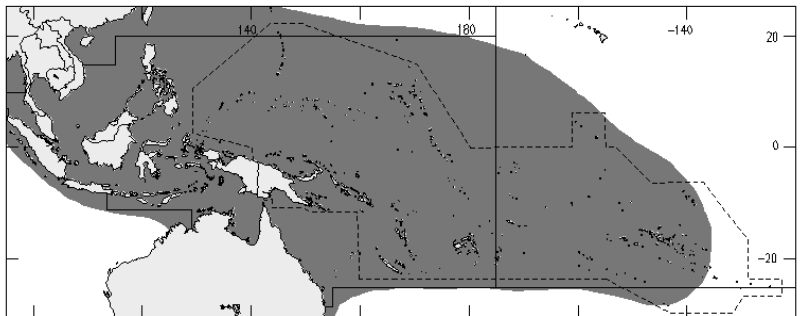


longest dorsal-fin ray 3.9 to 4.8 times in standard length; anal fin with III spines and 25 to 28 soft rays; pectoral-fin rays 16. Caudal fin rounded in juveniles, progressively more lunate with age in adults, the caudal concavity of adults 4 to 5 times in standard length. A lancet-like spine on each side of caudal peduncle which folds into a deep horizontal socket. Stomach round and gizzard-like. **Colour:** brown, shading to brownish red on chest; **a large vertically elongate orange-red spot on body above pectoral-fin base**; a broad black band from upper end of gill opening along edge of operculum to isthmus; a narrow white band encircling chin and extending above corner of mouth; **median fins dark brown, the caudal fin with a broad yellow posterior border**; juveniles exhibit 4 different colour phases, one all yellow, one bright yellow with blue markings on head (a precise mimic of the small angelfish *Centropyge flavissimus*), one light greenish grey shading posteriorly to black (an exact mimic of *C. vrolikii*), and one yellow except posterior half of body which is deep blue (a mimic of *C. bicolor*).

**Size:** Maximum total length about 25 cm; commonly to 18 cm.

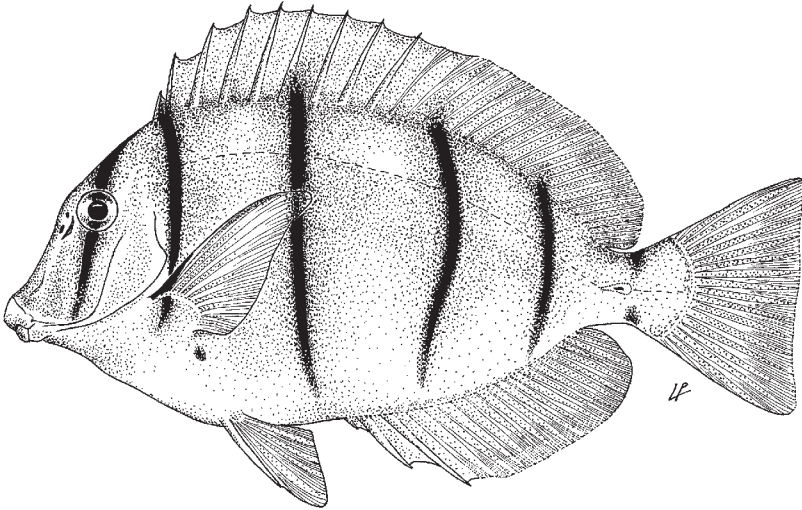
**Habitat, biology, and fisheries:** Occurs on coral reefs; feeds on filamentous benthic algae. The juveniles are remarkable for mimicking different small species of angelfishes (family Pomacanthidae) of the genus *Centropyge*, not only in colour but in having a strongly rounded caudal fin. The basis for the mimicry appears to be the tendency for the species of *Centropyge* to stay very close to shelter; predaceous fishes learn that they are difficult to capture. The surgeonfish juvenile is then able to feed in the open on the reef with less risk from predators.

**Distribution:** Western Pacific from southern Honshu to New South Wales, east throughout Oceania, except Hawaii, Pitcairn Group, and Easter Island. The juvenile phase that mimics *Centropyge flavissimus* occurs in eastern Oceania, such as the Society Islands (where the mimicry was first discovered), the one mimicking *C. vrolikii* is found more to the west such as Palau and the Philippines, and the one mimicking *C. bicolor* occurs in New South Wales. *Acanthurus pyroferus* is replaced in the Indian Ocean by the closely related *A. tristis* Randall (the juvenile of which is a mimic of *Centropyge eibli*). *A. pyroferus* and *A. tristis* have been observed together in eastern Bali.



*Acanthurus triostegus* (Linnaeus, 1758)

(Plate XVIII, 140)

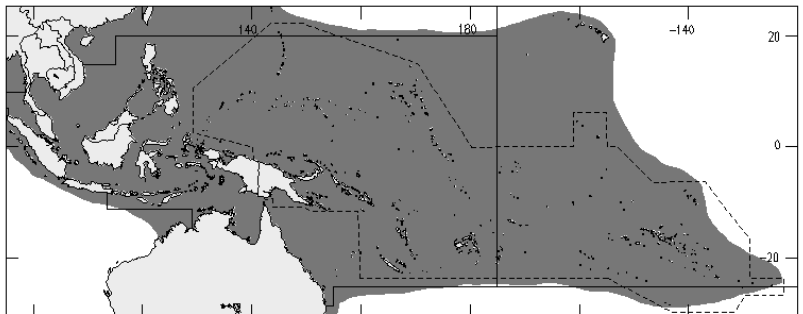
**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Convict surgeonfish; Fr - Chirurgien bagnard; Sp - Sangrador carcelario.

**Diagnostic characters:** Body deep and compressed fish, its depth 1.8 to 2.1 times in standard length. Snout 4.9 to 5.4 times in standard length. Mouth small; teeth spatulate, close-set, with denticulate edges. Total gill rakers on first gill arch 19 to 22. **A continuous unnotched dorsal fin with IX spines and 22 to 24 soft rays**; anal fin with III spines and 19 to 22 soft rays; pectoral-fin rays 14 to 16; **caudal fin truncate to slightly emarginate. A lancet-like spine on caudal peduncle which folds into a deep horizontal groove, this spine small, 11 to 16.5 times in head length.** Stomach thin-walled. **Colour:** light greenish grey, white ventrally, with narrow dark bars as follows: 1 on head passing through eye, 4 on body beneath dorsal fin, and 1 on caudal peduncle.

**Size:** Maximum total length 24 cm, commonly to 17 cm.

**Habitat, biology, and fisheries:** An abundant inshore species. Feeds on attached filamentous algae, either as solitary individuals or in large aggregations (which as a group overcome territorial herbivorous fishes). Spawning takes place at dusk, also in aggregations. There is a lunar periodicity to the spawning, most occurring in the period from 12 days before to 2 days after full moon. Eggs are pelagic, spherical with a single oil droplet, and an average of 0.68 mm in diameter. Hatching occurs in about 26 hours; feeding commences in 5 ½ days. The duration of larval life for the Hawaiian subspecies was estimated as 2 ½ months. The prejuveniles, which average about 25 mm standard length, are orbicular, scaleless, and transparent, except for silvery sheen over the abdomen and much of the head. They seek out the very shallow water of tide pools or reef flats at night and transform to the juvenile stage in 4 or 5 days. Juveniles grow at the rate of about 12 mm per month. By the time a standard length of 100 to 120 mm is attained, growth has slowed to about 1 mm per month. Taken mainly with throw nets, drive nets, and gill nets. Marketed fresh.

**Distribution:** Occurs throughout the Indo-Pacific region except the Red Sea and Persian Gulf. It may be expected at all the islands of Oceania (a single individual was observed at Easter Island), and it has extended its range to the tropical eastern Pacific. In the western Pacific it is known from southern Japan to Sydney, New South Wales. It is subspecifically different in Hawaii, *Acanthurus triostegus sandvicensis*, differing in slightly higher dorsal and anal fin ray counts and a longer dark mark at the base of the pectoral fins.

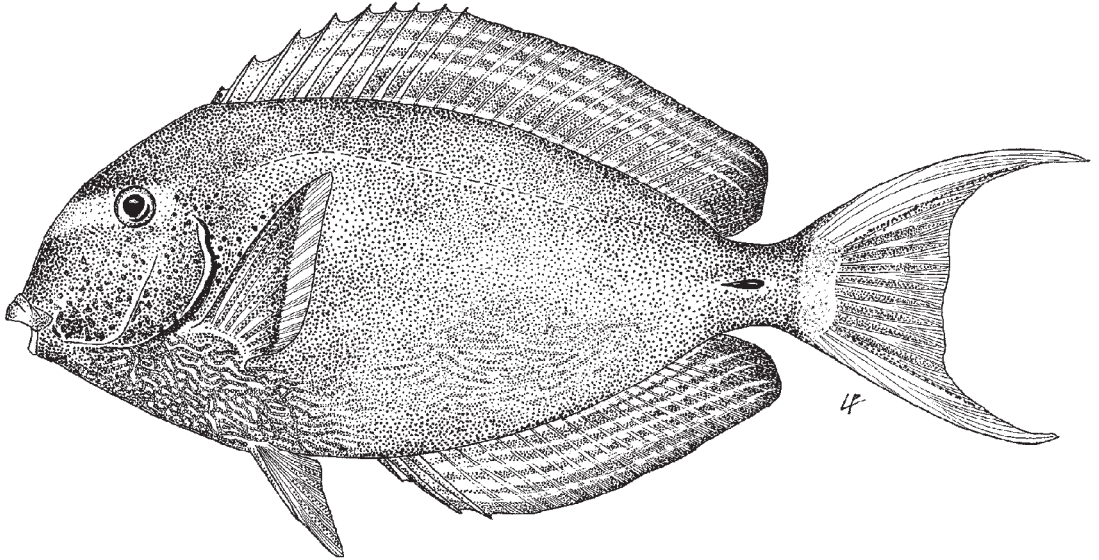


*Acanthurus xanthopterus* Valenciennes, 1835

(Plate XVIII, 141)

**Frequent synonyms / misidentifications:** *Acanthurus matoides* Valenciennes, 1835; *A. fuliginosus* (Lesson, 1830) / None.

**FAO names:** **En** - Yellowfin surgeonfish; **Fr** - Chirurgien aile jaune; **Sp** - Navajón aleta amarilla.

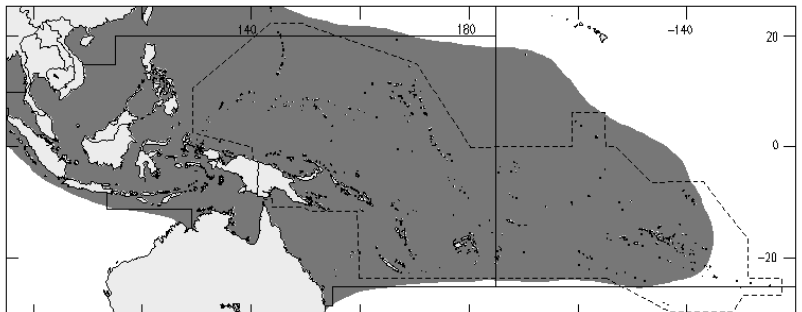


**Diagnostic characters:** Body deep and compressed, its depth 1.95 to 2.25 times in standard length. Snout 4.8 to 5.3 times in standard length. Eye 3.9 to 5.6 times in head length (at standard lengths of 12.7 to 41.5 cm). Mouth small; teeth spatulate, close-set, with denticulate edges. Total gill rakers on first gill arch 16 to 24. **A continuous, unnotched dorsal fin with IX spines and 25 to 27 soft rays;** anal fin with III spines and 23 to 25 soft rays; caudal fin emarginate to lunate, the caudal concavity varying from 7 times in standard length (in specimens 13 cm length) to 4.6 times in standard length (in specimens 32 cm length). **A lancet-like spine on each side of caudal peduncle with folds into a deep horizontal groove; length of spine 4.4 to 5.7 times in head length** (relatively longer in larger individuals). A thick-walled, gizzard-like stomach. **Colour:** purplish to brownish grey, sometimes with irregular dark bluish grey lines of about 2 scales in width on body; an indistinct region of dull yellow anterior to eye and to a lesser extent posterior from eye; **a whitish band across base of caudal fin; dorsal and anal fins brownish yellow with 4 longitudinal blue bands and a blue-grey band at base; pectoral fins dusky, the outer third yellow, becoming hyaline distally.**

**Size:** The largest species of the genus, reported to 56 cm total length; commonly to 40 cm.

**Habitat, biology, and fisheries:** More common in lagoons and bays than exposed outer reef areas; usually found at depths greater than 10 to 15 m; reported to 90 m. More inclined than other species of *Acanthurus* to stray from the shelter of coral reefs or rocky outcrops. May occur as solitary individuals or in small aggregations. Feeds on benthic algae, including the fine film of diatoms and detritus on sand; occasionally caught by hook and line with animal material as bait (unusual in this respect for a surgeonfish).

**Distribution:** Wide-ranging in the Indo-Pacific region (absent from the Red Sea to the Persian Gulf) from East Africa to French Polynesia and Hawaii, as well as the tropical eastern Pacific; in the western Pacific from southern Japan to the southern Great Barrier Reef.

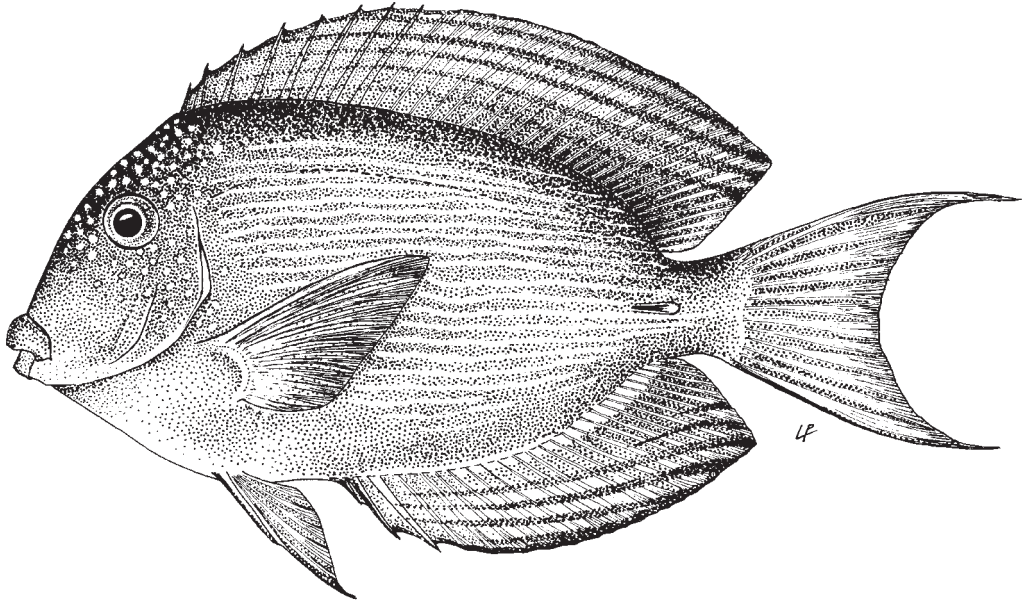


*Ctenochaetus striatus* (Quoy and Gaimard, 1824)

(Plate XIX, 142)

**Frequent synonyms / misidentifications:** None / None.

**FAO names:** En - Striated surgeonfish; Fr - Chirurgien strié; Sp - Cirujano estriado.

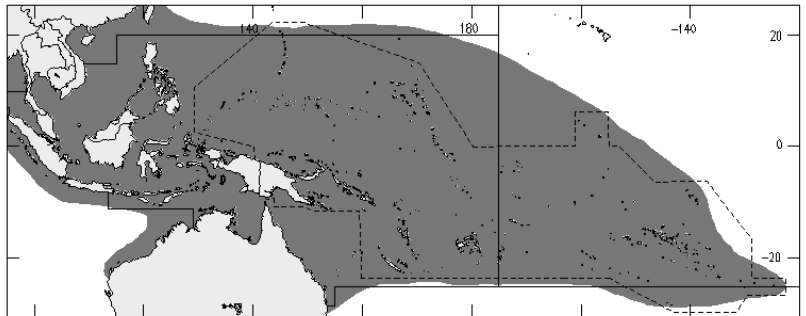


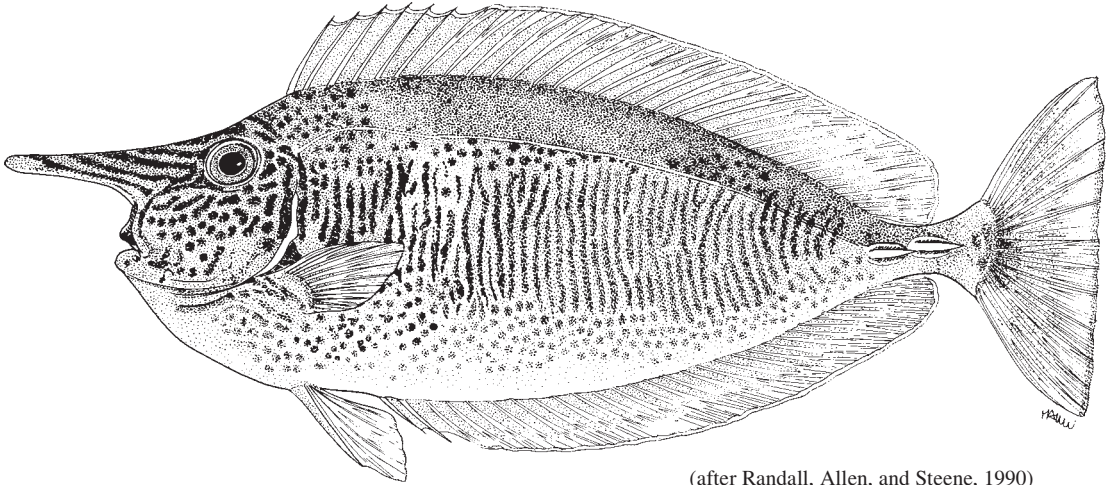
**Diagnostic characters:** Body deep and compressed, its depth 1.9 to 2.3 times in standard length. Mouth small, **teeth numerous** (more than 30 in jaws of adults), **movable, slender and elongate, with expanded incurved tips which are denticulate on the lateral margin (6 denticulations on upper and 4 on lower teeth)**. Total gill rakers on first gill arch 27 to 36. **A continuous unnotched dorsal fin with VIII spines and 27 to 31 soft rays**; anal fin with III spines and 24 to 28 soft rays; **caudal fin lunate, the caudal concavity 3.7 to 6 times in standard length. A lancet-like spine on caudal peduncle which folds into a deep horizontal groove.** **Colour:** dark olive to yellowish brown with blue or blue-grey lengthwise lines on body and small orange spots on head and nape; **dorsal and anal fins with about 5 lengthwise dark bluish bands**; pectoral fins pale with brownish yellow rays; a small blackish spot at rear base of dorsal fin of juveniles and small adults.

**Size:** Maximum total length 25 cm, commonly to 18 cm.

**Habitat, biology, and fisheries:** One of the most abundant and ubiquitous of surgeonfishes, occurring in various reef habitats from protected lagoons to ocean reefs. Feeds on detritus with a combination of suction and scraping with its numerous comb-like teeth. No definite fishing localities. Taken mainly in nets and traps. Marketed fresh.

**Distribution:** Widespread in the Indo-Pacific region, but absent from the Gulf of Oman, Persian Gulf, and Hawaii; ranges in the western Pacific from southern Japan to the southern Great Barrier Reef.



***Naso brevirostris* (Valenciennes, 1835)** (Plate XIX, 143)**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Spotted unicornfish.

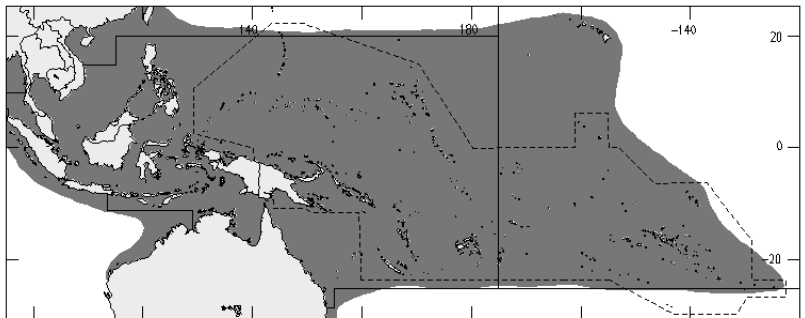
(after Randall, Allen, and Steene, 1990)

**Diagnostic characters:** Body moderately deep and compressed, its depth 2.6 to 3 times in standard length; dorsal profile of body uniformly convex. **Adults with a median, broad-based, tapering, horn-like projection extending directly anteriorly from snout at level of lower part of eye to more than 1/2 head length in front of mouth** (first developing as a bump on forehead of young of about 10 cm; the name *Naso brevirostris* was based on a subadult specimen); **dorsal profile of snout from upper lip to base of horn very short, curved, and nearly vertical**. Mouth small; teeth small, spatulate, with denticulate edges, about 50 in each jaw. **A continuous unnotched dorsal fin with VI spines and 27 to 29 soft rays**; anal fin with II spines and 27 to 30 soft rays; **pectoral-fin rays 15 to 17**; pelvic fins with 1 spine and 3 soft rays; **caudal fin slightly rounded, without a filament from each corner. Two bony plates on each side of caudal peduncle**, developing moderate keels with age. **Colour:** olivaceous grey-brown to light grey, usually with vertical dark brown lines on body which break into small spots dorsally and ventrally; some individuals only with small dark spots; head with small dark brown spots or short irregular lines which become long and oblique on horn (dark markings on one pale phase may be faint or absent; in another phase the anterior third of the body may be distinctly paler than the rest); caudal fin whitish with a large diffuse dark blotch centrobasally in fin.

**Size:** Reported to attain 60 cm total length, but 50 cm is a more likely maximum size; commonly to 35 cm.

**Habitat, biology, and fisheries:** Occurs on coral reefs or over rocky substrata. Juveniles and subadults graze on benthic algae; adults (perhaps because of the horn that projects so far in front of mouth) feed primarily on zooplankton. Usually caught in traps or by spearing.

**Distribution:** Occurs throughout the Indo-Pacific region from the Red Sea south to Natal (the young drifting to Algoa Bay) and east to Hawaii and Pitcairn Group; in the western Pacific from the Kii Peninsula (Japan) to New South Wales.

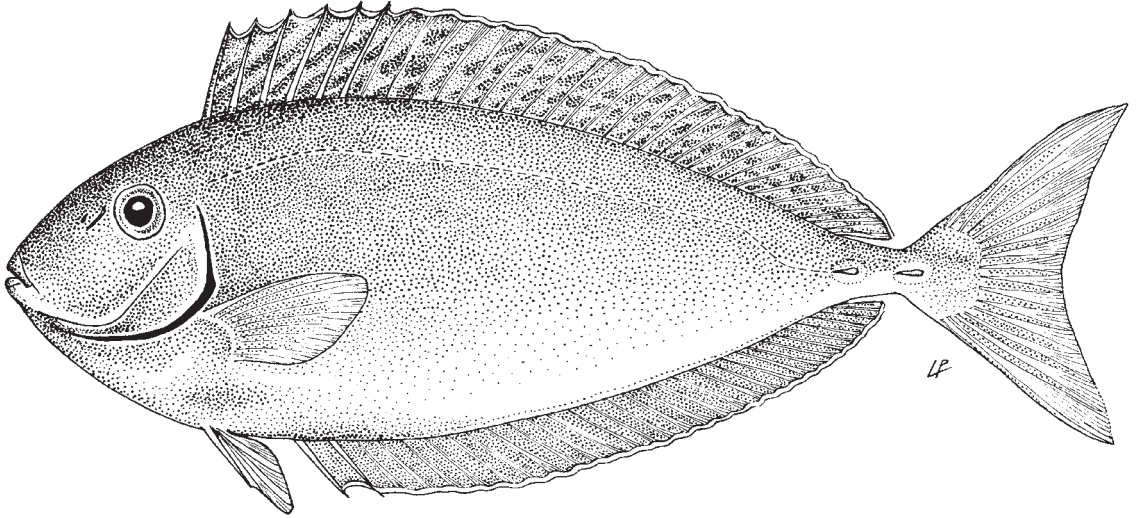


*Naso hexacanthus* (Bleeker, 1855)

(Plate XIX, 144)

**Frequent synonyms / misidentifications:** ?*Naso thorpei* Smith, 1966 / None.

**FAO names:** En - Sleek unicornfish; Fr - Nason lisse; Sp - Barbero liso.

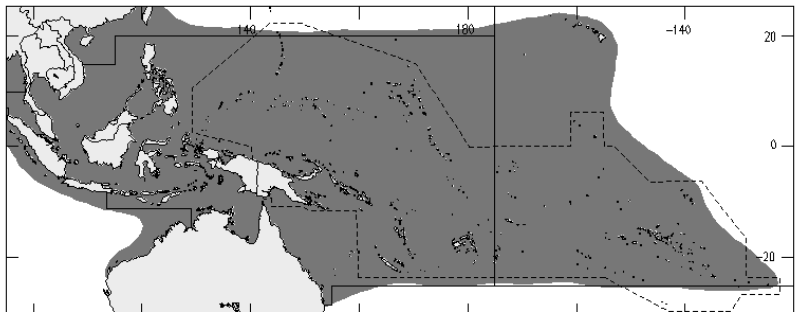


**Diagnostic characters:** Body moderately deep and compressed, its depth 2.6 to 3.2 times in standard length. **Dorsal profile of body uniformly convex, without any bony horn-like projection or protuberance anteriorly on head.** Mouth small; incisiform teeth very small, somewhat pointed, finely serrate on edges, as many as 80 in upper jaw and 100 in lower jaw of large adults. **A continuous unnotched dorsal fin of VI (rarely V or VII) spines and 26 to 29 soft rays;** anal fin with II spines and 27 to 30 soft rays; pectoral fins with 17 or 18 rays (usually 17); pelvic fins with I spine and 3 soft rays; caudal fin slightly emarginate in young, becoming truncate in adults. **Caudal peduncle slender, subcylindrical, with a pair of bony plates on each side that develop large sharp antrorse keels with age.** **Colour:** brownish grey, shading ventrally to yellowish (life colour may vary from dark brown to light blue-grey); edge of operculum and preopercle usually dark brown; dorsal and anal fins yellowish with faint diagonal brown bands and a blue margin; tongue black at lengths of 25 cm or more.

**Size:** Maximum total length 75 cm, commonly to 50 cm.

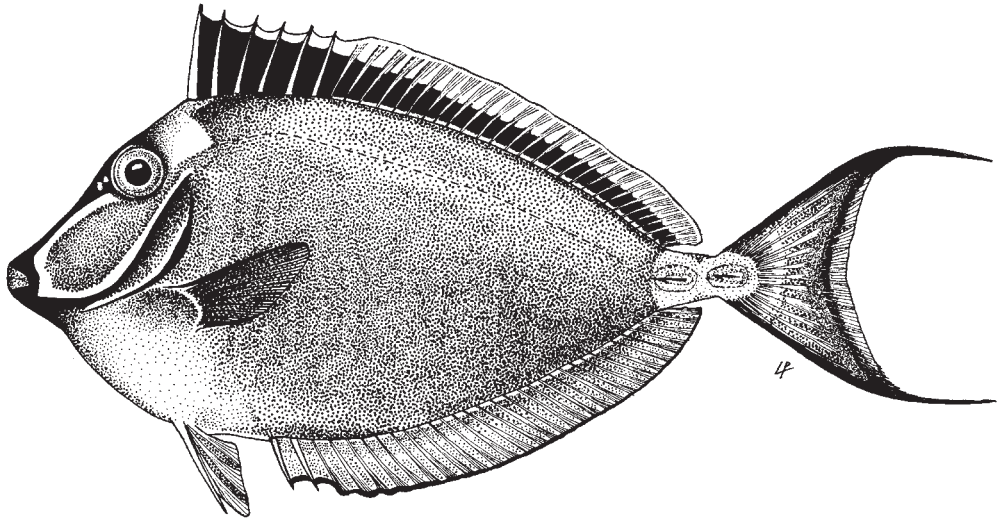
**Habitat, biology, and fisheries:** Not common in depths less than about 15 m, but abundant in deeper water, particularly near escarpments; has been observed from a submarine at depths to 150 m. Often seen in large aggregations. Feeds on the larger animals of the zooplankton such as crab larvae, arrow worms and pelagic tunicates. No specific fishing areas. Although abundant in many localities and a good food fish, the landings are relatively low due to difficulty in capturing it. Taken mainly in traps. Marketed fresh.

**Distribution:** Occurs throughout the Indo-Pacific region, including the Red Sea and Hawaii.



*Naso lituratus* (Forster, 1801)

(Plate XIX, 145)

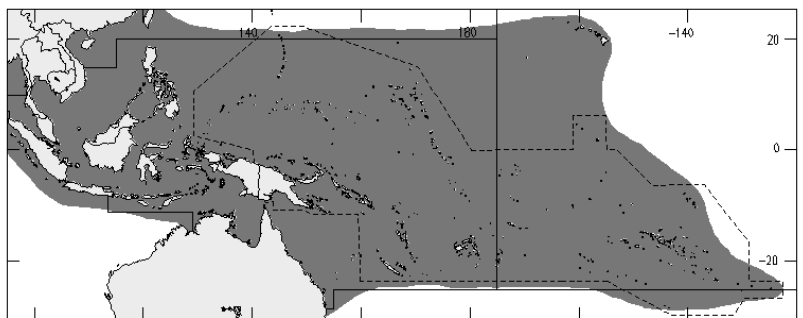
**Frequent synonyms / misidentifications:** *Callicanthus lituratus* (Forster, 1801) / None.**FAO names:** **En** - Orangespine unicornfish; **Fr** - Nason à épérons oranges; **Sp** - Barbero de aguijón naranja.

**Diagnostic characters:** Body moderately deep and compressed, its depth 1.9 to 2.5 times in standard length. **No rostral prominence on snout or forehead.** Mouth small, somewhat protruding; teeth elongate, incisiform, the tips rounded, 30 to over 40 in each jaw of adults (teeth more pointed and faintly serrate in juveniles). **A continuous unnotched dorsal fin with VI spines (the first longest and strongest) and 27 to 30 soft rays;** anal fin with II spines and 28 to 30 soft rays; pelvic fins with I spine and 3 soft rays; caudal fin emarginate to lunate, adult males developing a long filament from tip of each lobe. **Caudal peduncle slender, subcylindrical, with 2 fixed bony plates on midside which have forward-directed knife-like keels in adults.** **Colour:** grey-brown with a broad black band from upper lip to interorbital space; adjacent to this a curved, yellow band from corner of mouth to lower edge of eye; a large yellow area behind and above eyes; midventral region of chest yellow-orange; lips edged in orange; margins of opercle and preopercle black; **peduncular spines bright orange;** dorsal fin black with a whitish margin which is narrow anteriorly and gradually broadens to 1/2 height of fin posteriorly; anal fin yellowish brown with a narrow bluish white margin and a black submarginal band; caudal fin grey with upper and lower edges black (caudal filaments of male also black), the posterior margin yellow. Coloured differently in the Indian Ocean: the dorsal fin is largely yellow, and there is a black submarginal band in the caudal fin, without a yellow margin.

**Size:** Maximum total length 45 cm, commonly to 35 cm.

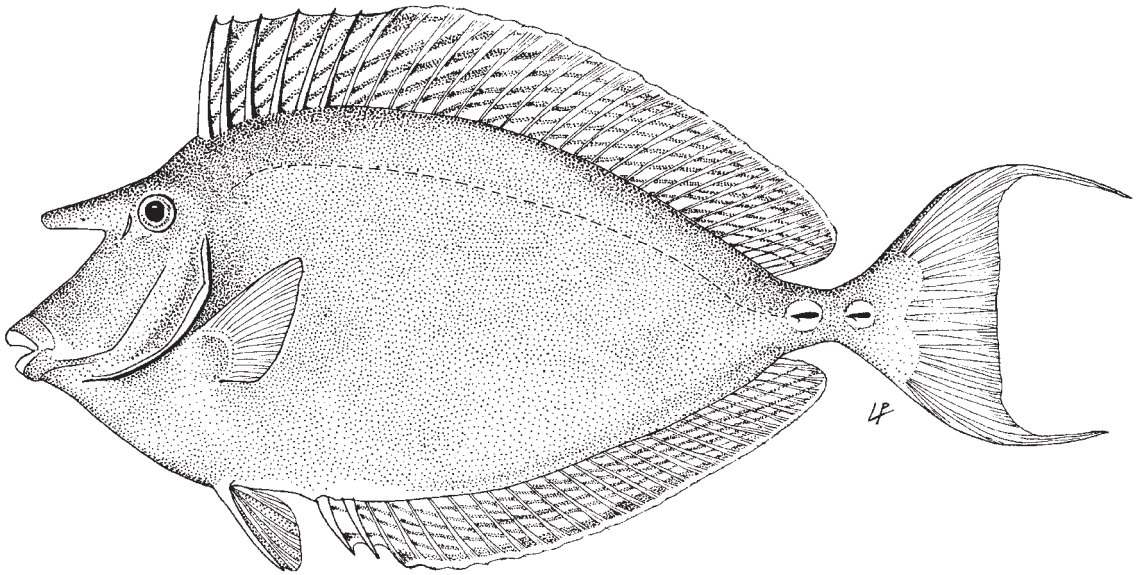
**Habitat, biology, and fisheries:** A species of relatively shallow water, closely tied to coral reefs and rocky bottoms. Usually solitary. Feeds on benthic algae, particularly leafy types such as *Sargassum*. No specific fishing areas. Taken in nets, traps, and by spears. Marketed fresh; the flesh is of good quality.

**Distribution:** Found throughout the Indo-Pacific region from the Red Sea (but not the Gulf of Oman or Persian Gulf) south to Natal and east to Hawaii and French Polynesia. In the western Pacific from Suruga Bay (Honshu) to the southern Great Barrier Reef.



*Naso unicornis* (Forsskål, 1775)

(Plate XIX, 146)

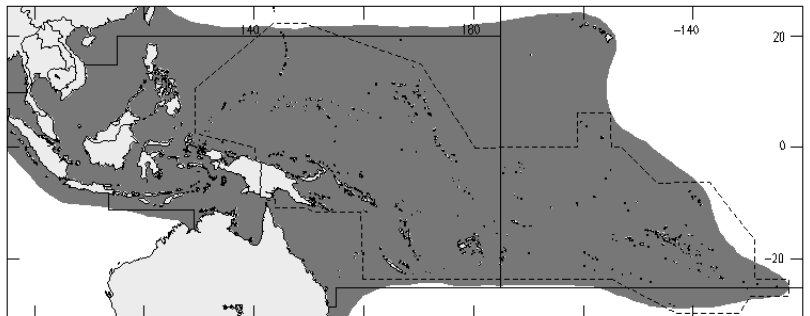
**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Bluespine unicornfish; Fr - Nason à épérons bleus; Sp - Barbero de agujón azul.

**Diagnostic characters:** Body deep and compressed, its depth 1.8 to 2.6 times in standard length. **Adults with a median horn-like projection anterior to eyes which does not extend in front of mouth;** dorsal profile of snout forming an angle of about 45°. Mouth small; about 40 to 60 pointed compressed teeth in jaws, the tips serrate (serrae absent on teeth of large adults). **A continuous unnotched dorsal fin with VI spines and 27 to 30 soft rays;** anal fin with II spines and 27 to 30 soft rays; pelvic fins with I spine and 3 soft rays; **caudal fin emarginate in young, developing long and slender lobes in adults.** Caudal peduncle slender, subcylindrical, **with 2 fixed bony plates on midside which have forward-directed, knife-like keels in adults.** **Colour:** light olive to yellowish grey, the **peduncular spines and a small area around each bright blue;** edges of lips bluish; dorsal and anal fins with a blue margin and alternating narrow bands of light blue and brownish yellow; **caudal fin yellowish grey, a little more yellow centroposteriorly.**

**Size:** Maximum total length 70 cm, commonly to 50 cm.

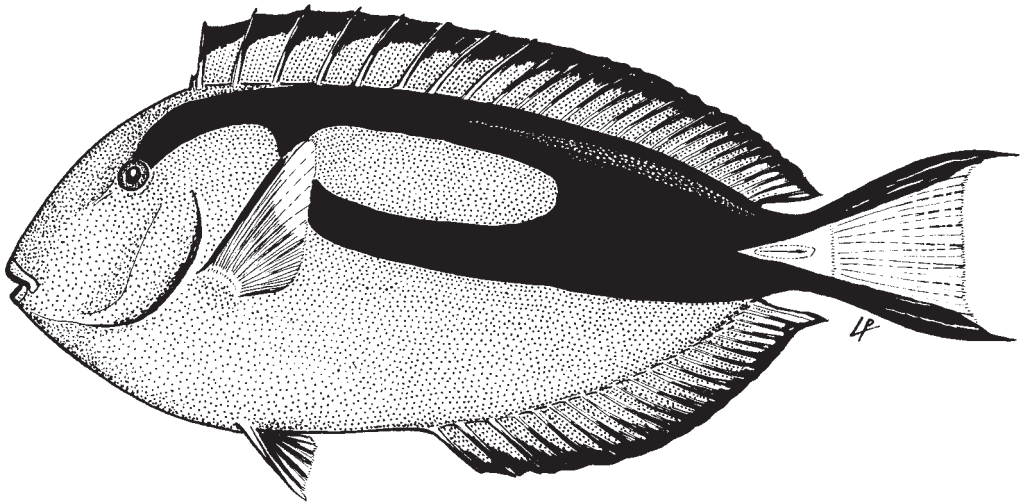
**Habitat, biology, and fisheries:** An inshore species associated with coral reefs or rocky substrata. Will enter surprisingly shallow water for such a large fish in quest of its algal food. Prefers leafy algae such as *Sargassum*. No specific fishing area. Caught in nets, traps, and by spearing. Marketed fresh; the flesh is of good quality.

**Distribution:** Occurs from the Red Sea (but not the Gulf of Oman or Persian Gulf) to Natal (with juveniles in South Africa to 34°S), east to Hawaii and French Polynesia; in the western Pacific from Iwate Prefecture, Honshu to central New South Wales.



*Paracanthurus hepatus* (Linnaeus, 1758)

(Plate XIX, 147)

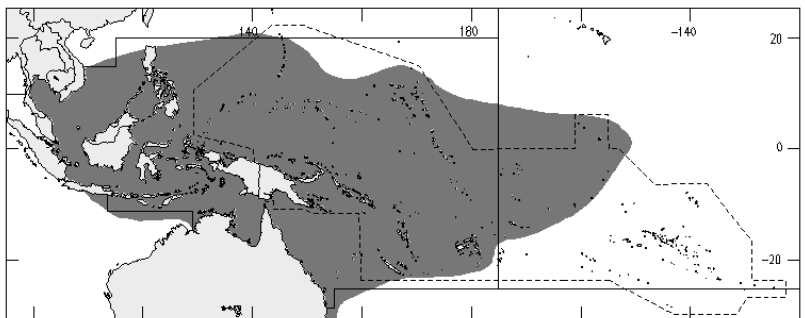
**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Palette surgeonfish.

**Diagnostic characters:** Body moderately deep, varying from about 1.7 (small juveniles) to 2.3 times (large adults) in standard length. Head length 3.5 to 3.9 times in standard length. Snout length 5.2 to 6.5 times in standard length. Mouth very small; teeth small, incisiform, close-set, and denticulate on edges, 12 in upper jaw and 14 in lower jaw of a specimen 14 cm standard length, and 14 in upper jaw and 17 in lower of a specimen 20.4 cm standard length. **A continuous unnotched dorsal fin of IX spines and 19 or 20 soft rays; anal fin with III spines and 18 or 19 rays; pectoral-fin rays 16; pelvic fins with 1 spine and 3 soft rays** (other species of Acanthurinae with 5 soft rays); caudal fin varying from slightly rounded in young to truncate with slightly protruding lobes in adults. **Scales anteriorly on side of head modified to small tuberculated plates. A lancet-like spine on each side of caudal peduncle, folding into a shallow groove, and broadly attached posteriorly. Colour:** bright blue with a distinctive pattern of black on upper part of body extending as a narrow band dorsally on head and ending in eye; upper and lower edges of caudal fin black, confluent forward with black of body, a triangle of bright yellow posteriorly, its apex just anterior to peduncular spine, its base the truncated central posterior margin of caudal fin.

**Size:** Maximum reported total length 31 cm, commonly to 20 cm.

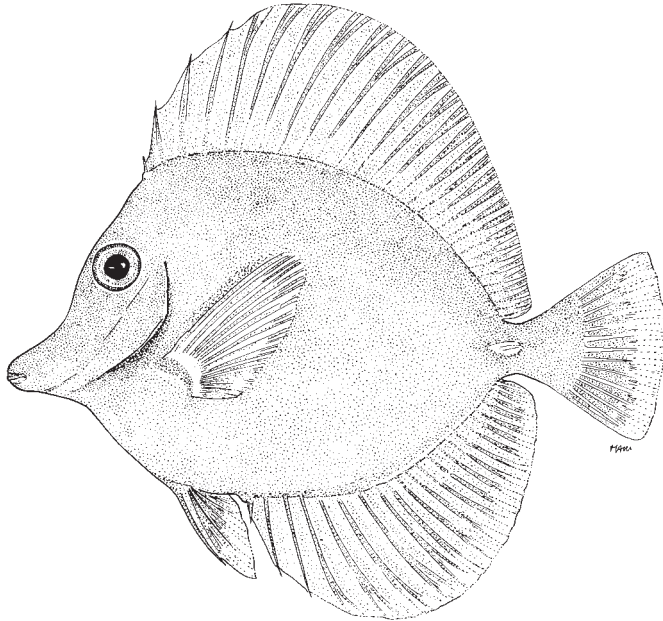
**Habitat, biology, and fisheries:** A coral-reef species of clear outer reef areas or channels where there is substantial current. Feeds primarily on zooplankton. Adults difficult to approach underwater. Juveniles shelter among the branches of live coral. A popular aquarium fish because of its brilliant and unusual colour pattern.

**Distribution:** Widespread in the Indo-Pacific region from Natal and Mauritius to Samoa and the Line Islands; in the western Pacific from Kyushu to New South Wales. However, not known from many localities, and poorly represented in museum collections.



*Zebrasoma flavescens* (Bennett, 1828)

(Plate XIX, 148)

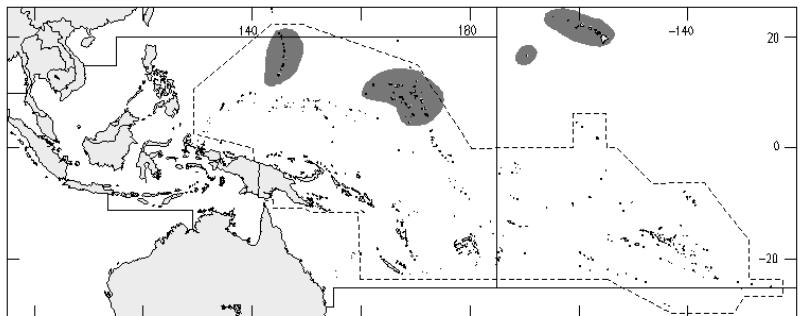
**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Yellow tang.

**Diagnostic characters:** **Body very deep, its depth 1.4 to 1.75 times in standard length.** Snout moderately protruding. Mouth small; teeth spatulate, close-set, the edges denticulate; 12 upper and 14 lower teeth in small juveniles, and 18 upper and 22 lower teeth in an adult 15 cm standard length. Total gill rakers on first gill arch 8 to 10. **A continuous unnotched dorsal fin with V (rarely IV) spines and 23 to 26 soft rays,** the fin moderately elevated, the longest dorsal-fin ray 2.8 to 3.8 times in standard length; **anal fin with III spines and 19 to 22 soft rays,** the fin also elevated; pectoral-fin rays 14 to 16 (usually 15); caudal fin truncate to slightly rounded; **a lancet-like spine on each side of caudal peduncle, folding into a shallow groove;** adults with a well-developed oval-shaped patch of dense brush-like setae posteriorly on body (enclosing peduncular spine). **Colour:** bright yellow overall (pale in preservative); sheath of peduncular spine white.

**Size:** Maximum total length 20 cm, commonly to 16 cm.

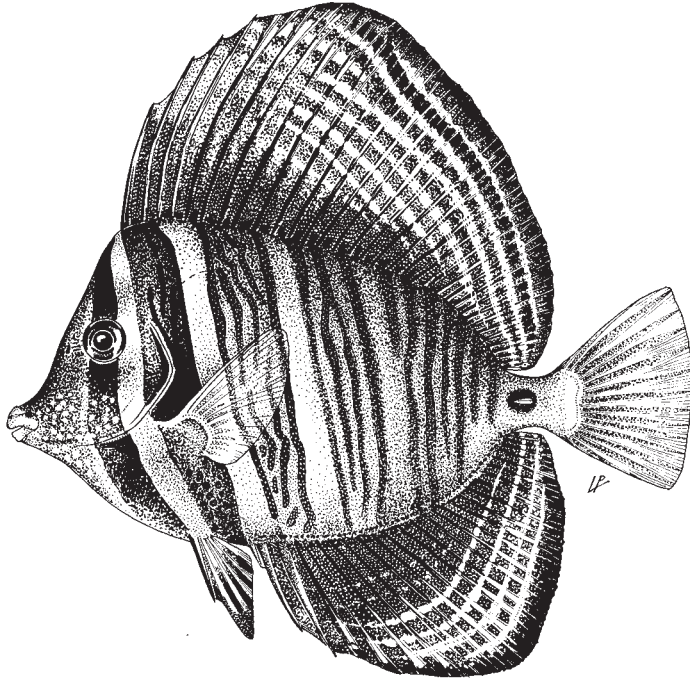
**Habitat, biology, and fisheries:** Generally found in coral-rich areas, both in protected waters of lagoons and outer-reef areas; in calm areas it may be seen in as little as 1 m, but ranges at least as deep as 50 m. May be solitary or occur in small groups; grazes on benthic algae. A popular aquarium fish, it forms the largest percentage (about 18%) of the catch for the aquarium trade in Hawaii. Very closely related to the dark brown *Zebrasoma scopas* from which it seems to differ only in colour and slightly higher dorsal-and anal-fin ray counts. In areas where the 2 species coexist and one is more common than the other, hybrids of various intermediate shades to yellow and dark brown may be encountered.

**Distribution:** This species appears to occur only in the northern hemisphere from Hawaii (where abundant and where *Z. scopas* is unknown) to the Ryukyu Islands, including the Marshall Islands, Wake, Minami Tori Shima (Marcus Island), Mariana Islands, and Ogasawara Islands. The rare reports of all-yellow individuals from southern-hemisphere localities may be xanthic *Z. scopas*.



***Zebrasoma veliferum*** (Bloch, 1797)

(Plate XIX, 149)

**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Sailfin tang; Fr - Chirurgien à voile; Sp - Navajón velero.

**Diagnostic characters:** Body deep and compressed, its depth 1.8 to 2 times in standard length. Snout protruding. Mouth small; teeth spatulate, close-set, with denticulate edges, at most 16 in upper jaw and 18 in lower. **A continuous unnotched dorsal fin of IV spines and 29 to 33 soft rays, the fin extremely elevated** (longest ray of adults 2.1 to 2.5 times in standard length); anal fin with III spines and 23 to 26 soft rays (this fin also elevated); pectoral-fin rays 15 to 17 (usually 16); caudal fin truncate to slightly rounded. **A lancet-like spine on each side of caudal peduncle fitting into a shallow groove;** no patch of stiff bristles on side of body anterior to peduncular spine. **Colour:** head and body with alternating narrow pale grey and broad dark grey or dark brown bars, the pale bars containing 1 or 2 yellow lines, the dark bars containing 2 to 4 brownish orange lines which may break into series of spots on anterior bars; snout and chin anterior to dark grey ocular bar yellow to yellowish brown with small whitish spots; a broad blue area around peduncular spine, deep blue (almost black) next to spine, shading to light blue outwardly; caudal fin yellow to dark brown with a narrow white posterior margin.

**Size:** Maximum total length 40 cm, commonly to 25 cm.

**Habitat, biology, and fisheries:** Occurs on coral reefs from shallow protected areas to outer reef habitats at least as deep as 40 m. Grazes on benthic algae. Usually caught in traps. Because of its larger size, of greater value as a food fish than *Zebrasoma flavescens* or *Z. scopas*.

**Distribution:** Occurs throughout the central and western Pacific. A very closely related species, *Z. desjardinii*, is found in the Indian Ocean and Red Sea; it differs slightly in colour and in having lower dorsal and anal fin-ray counts.

