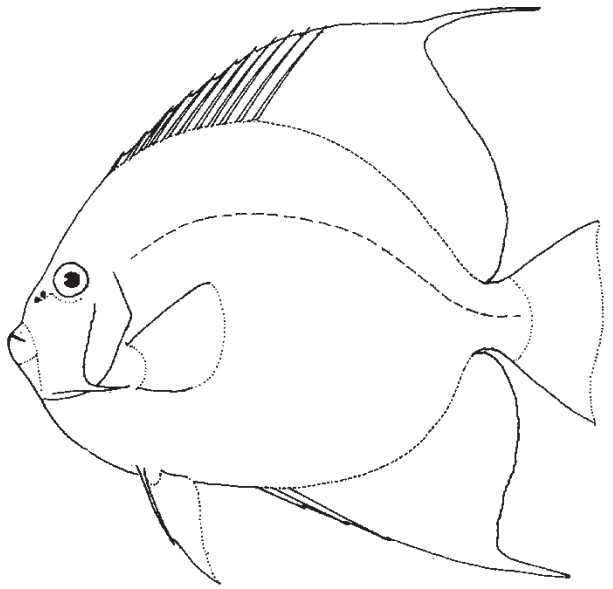
POMACANTHIDAE

Angelfishes

by R. Pyle



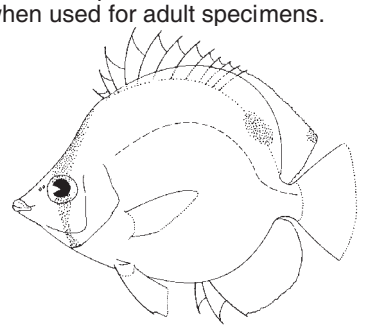
Diagnostic characters: Oblong to oval-shaped, deep-bodied, highly compressed percoid fishes (size to about 50 cm). Head length roughly equal to head height; **1 or more prominent spines at angle of preopercle**. Eye moderately small, **located above longitudinal axis from tip of snout to middle of caudal fin. Snout short, not produced**. Mouth small, terminal, protractile, gape not extending to anterior rim or orbit. Teeth bristle-like, usually tricuspid, arranged in rows or bands across jaws; vomer and palatines without teeth. Gill rakers short, ranging from 9 to 25 in number. **A single dorsal fin, continuous and relatively smooth**; IX to XV strong, stout spines, first few to several interspinous membranes deeply incised; no notch between spinous and soft dorsal fin; soft dorsal fin with 15 to 33 branched rays, some species with filamentous extension of 1 or more soft dorsal-fin rays at dorsoposterior margin of fin. Anal fin with III strong, stout spines, interspinous membranes deeply incised; soft anal fin with 14 to 25 branched rays, some species with filamentous extension of 1 or more soft dorsal-fin rays at ventroposterior margin of fin. Caudal fin rounded to slightly emarginate (except *Genicanthus*, which has a forked caudal fin with long filamentous extensions). Pectoral fins transparent with 16 to 21 soft rays. Pelvic fins with a I stout spine and 5 branched rays. Scales coarsly ctenoid, covering head, body, and median fins; largest in centre of body, smaller on head, thorax, belly, caudal peduncle, and median fins; number of lateral-line scales variable, ranging from 30 to 90 (depending on genus). Vertebrae 10+14. **Colour: almost all species very brightly coloured with complex and varied colour patterns; juveniles of *Pomacanthus* with alternating black, blue, and white vertical bands**, strikingly different in colour from adults, which vary from species to species; strong sexual dichromatism in species of *Genicanthus*, and lesser dichromatism in some species of *Centropyge*.

Habitat, biology, and fisheries: Mostly found on outer coral reefs at depths of 5 to 60 m (some species restricted to greater depths), but some species occur in lagoons. Most species closely associated with the substratum, feeding on sponges and other marine invertebrates; most species of *Genicanthus* usually found in midwater and feed on plankton. Although sometimes harvested as food fish, the primary fishery value of pomacanthids is through the ornamental marine aquarium trade, where they are the second most-frequently exported fish by number, and highest in total value of all families of aquarium fishes in trade.

Remarks: Dichotomous keys are seldom used for identifying species of pomacanthids, as species in this familiy exhibit highly conspicuous and distinctive colour patterns (the primary components of which usually remain evident in preservative). Nevertheless, keys to genera and species of pomacanthids are included here for purposes of consistency and clarity. Keys are more reliable when used for adult specimens.

Similar families occuring in the area

Chaetodontidae: similar in general body shape and colour pattern to Pomacanthidae, but easily distinguished in lacking the spine on margin of preopercle. Also, species of Chaetodontidae possess a scaly axillary process at base of pelvic fins, usually have dark ocular bands and false-eye spots, and often have produced snouts.

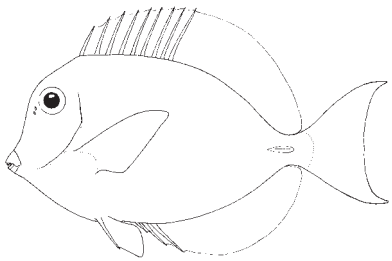


Chaetodontidae

Acanthuridae: similar general body shape and some species with bright colours; however, species of Acanthuridae can easily be distinguished by the presence of a fixed or retractable sharp spine on the caudal peduncle, and lack of spines at angle of preopercle. Also, Acanthuridae typically have fewer dorsal-fin spines (IV to IX) than most species of Pomacanthidae.

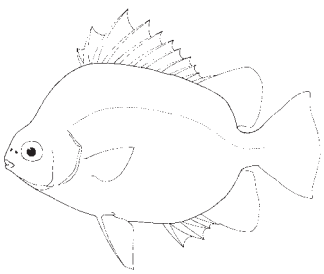
Scatophagidae: distinguished from Pomacanthidae by a deep notch between spinous and soft portion of dorsal fin, lacking spines at angle of preopercle, and in having IV anal-fin spines.

Ephippidae: lack spines at angle of preopercle; generally less colourful as adults, and distinguished by greatly enlarged dorsal and anal fins as adults.

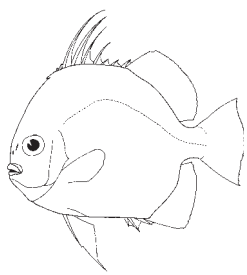


Acanthuridae

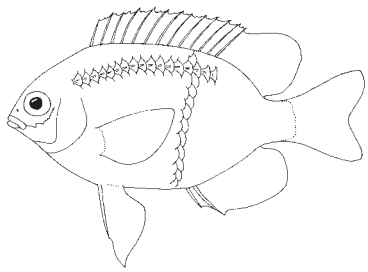
Pomacentridae: superficially resemble species of *Centropyge*, but lack spines at angle of preopercle.



Scatophagidae



Ephippidae



Pomacentridae

Key to the genera of Pomacanthidae occurring in the area

1a. Scale focus (convergence of radii) exposed, not hidden by cteni area . . . . . → ***2***

1b. Scale focus (convergence of radii) not exposed, hidden by cteni area . . . . . → ***3***

2a. Scale length 1 to 1.3 times in scale depth, 20 to 33 times in standard length . . . . . ***Pomacanthus***

2b. Scale length 1.5 to 1.7 times in scale depth, 35 to 51 times in standard length . . . ***Chaetodontoplus***

3a. Caudal fin lunate, usually with long filamentous extensions on upper and lower lobes . . ***Genicanthus***

3b. Caudal fin rounded or truncate, without filamentous extensions on upper or lower lobes . . . . . → ***4***

4a. Suprecleithrum ovate, conspicuous; subopercle smooth . . . . . ***Apolemichthys***

4b. Supracleithrum elongate, well hidden by scales; subopercle with spines. . . . . → ***5***

4a. Interopercle spiny; no naked band of skin below and behind eye. . . . . ***Centropyge***

4b. Interopercle smooth; a naked band of skin from rear margin of orbit extending down and forward below eye . . . . . ***Pygoplites***
(a single species, *P. diacanthus*, in the genus)

Key to the species of *Apolemichthys* occurring in the area

1a. Colour of dorsal fin yellow . . . . . ***Apolemichthys trimaculatus***

1b. Colour of dorsal fin mostly black . . . . . → ***2***

2a. Colour of caudal and anal fins black; body colour greenish with an irregular bright yellow spot on each scale. . . . . ***Apolemichthys xanthopunctatus***

2b. Colour of caudal and anal fins mostly whitish grey; body colour grey with a few black spots near dorsal-fin origin, dorsoposterior portion of body black with a distinct, broad white band extending from about fourth dorsal-fin spine along base of dorsal fin to and including caudal peduncle . . . . . ***Apolemichthys griffisi***

Key to the species of *Centropyge* occurring in the area

1a. Posttemporal with spinules; 15 to 19 gill rakers on first gill arch . . . . . → ***2***

1b. Posttemporal without spinules; 21 to 25 gill rakers on first gill arch . . . . . → ***13***

2a. Dorsal-fin spines XIII . . . . . → ***3***

2b. Dorsal-fin spines XIV or XV . . . . . → ***4***

3a. Body with 8 to 12 vertical dark bars on pale background . . . . . ***Centropyge multifasciata***

3b. Body with 4 or 5 vertical white bars on bright red background . . . . . ***Centropyge boylei***

4a. Anterior third of body yellow, except for a dark blue nape spot just dorsal to eye; posterior two-thirds of body and median fins dark blue; caudal fin yellow . . . . . ***Centropyge bicolor***

4b. Colour not as described above . . . . . → ***5***

5a. Body colour dominated by yellow . . . . . → ***6***

5b. Body colour mostly black, brown, grey, or dark orange . . . . . → ***9***

6a. Body, head, and fins yellow, without large blue or black markings . . . . . → ***7***

6b. Body, head, or fins with large prominent blue or black markings . . . . . → ***8***

7a. Blue ring around eye, blue margins on median fins, and blue posterior edge of operculum; soft dorsal and anal fins rounded . . . . . ***Centropyge flavissima***

7b. No blue markings at all . . . . . ***Centropyge heraldi***

8a. Dorsal fin and dorsal portion of body bluish purple; body entirely yellow . . . . . ***Centropyge colini***

8b. Dorsal fin yellow; a prominent black spot just dorsal to centre of body (not to be confused with juvenile *C. flavissimus*, which may have a prominent blue-margined black ocellate spot at centre of body) . . . . . ***Centropyge narcosis***

9a. Body and median fins dull orange or chocolate brown with many thin vertical pale vermiculations . . . . . ***Centropyge aurantia***

9b. Body and median fins primarily black or grey . . . . . → ***10***

10a. Body and median fins mostly black . . . . . → ***11***

10b. Body and median fins mostly grey, black posteriorly . . . . . → ***12***

11a. A prominent white vertically oblong marking on centre of body; pelvic-fin spines and margin of anal fin yellow . . . . . ***Centropyge tibicen***

11b. Body and fins entirely black . . . . . ***Centropyge nox***

12a. Posterior third of body, caudal fin, and soft dorsal and anal fins black; thorax grey; no thin vertical orange vermiculations on body . . . . . ***Centropyge vroliki***

12b. Black restricted to caudal fin, caudal peduncle, and posterior portion of soft dorsal fin; thorax orange; numerous thin vertical orange vermiculations on body . . . . . ***Centropyge eibli***

13a. Dorsal-fin spines XIII . . . . . ***Centropyge nigriocella***

13b. Dorsal-fin spines XIV to XV . . . . . → ***14***

14a. Caudal fin opaque blue or purple with black markings . . . . . → ***15***

14b. Caudal fin transparent yellow or orange . . . . . → ***16***

15a. Dorsoposterior portion of body blue, a large triangular blue patch extending from nape and interorbital region to a point just posterior to opercular margin, just dorsal to insertion of pectoral fins . . . . . ***Centropyge venusta***

15b. Body colour variable, but typically purple around margins and median fins, and orange with thin vertical striations in centre of body . . . . . ***Centropyge bispinosa***

16a. Two or 3 very prominent posteriorly projecting spines on preorbital . . . . . ***Centropyge flavicauda***

16b. No prominent posteriorly projecting spines on preorbital . . . . . → ***17***

17a. Body with several to many distinct black or brown vertical bars . . . . . → ***18***
17b. Body without vertical bars . . . . . → ***19***

18a. Several broad black bars on bright reddish orange background, most bars at least 2/3 body depth . . . . . ***Centropyge loricula***
18b. Many thin greenish brown bars on a dull orange background, most bars less than 1/2 body depth . . . . . ***Centropyge shepardi***

19a. Dorsal half of body white, ventral half yellow anteriorly (including thorax and pelvic fins) and brownish blue posteriorly; a blue patch with black striations on nape above eye . . . . . ***Centropyge multicolor***
19b. Head and anterior abdomen orange, most of body orangish brown . . . . . ***Centropyge hotumatua***

Key to the species of *Chaetodontoplus* occurring in the area

1a. Head, body, and median fins except for caudal fin completely black with no markings; caudal fin white; pelvic fins yellow . . . . . ***Chaetodontoplus niger***
1b. Colour not as described above . . . . . → ***2***

2a. Dorsal-fin spines XI or XII . . . . . → ***3***
2b. Dorsal-fin spines XIII . . . . . → ***4***

3a. Scale rows about 80 to 90, each with 2 auxilliaries; fifth dorsal-fin spine longer than dorsal-fin rays; ocular band black, narrow, and sharply defined; body colour light anteriorly, dark posteriorly, longitudinal rows of white dots on side of body. . . . . ***Chaetodontoplus mesoleucus***
3b. Scale rows more than 100, most with only 1 auxillary; fifth dorsal-fin spine longer than dorsal-fin rays; ocular band broad, bluish black, and often diffuse at margins; a broad white and yellow band extending from first dorsal-fin spine to pelvic fins . ***Chaetodontoplus duboulayi***

4a. Body orangish brown with blue longitudinal stripes . . . . . → ***5***
4b. Body mostly black or dark blue, lacking longitudinal stripes. . . . . → ***6***

5a. About 10 black-edged blue stripes on side of body and median fins . . ***Chaetodontoplus septentrionalis***
5b. Blue stripes narrower, more numerous, irregular, confined to anterior portion of body . . . . . ***Chaetodontoplus chrysocephalus***

6a. Caudal fin with vertical black band, or black with yellow margin . . . . . → ***7***
6b. Caudal fin entirely yellow . . . . . → ***8***

7a. Caudal fin black with yellow margin; posterior margins of soft dorsal and anal fins yellow; pelvic fins black . . . . . ***Chaetodontoplus melanosoma***
7b. Caudal fin yellow with broad black posterior margin; soft dorsal- and anal-fin margins bluish white; pelvic fins white . . . . . ***Chaetodontoplus conspicilatus***

8a. Body covered with tiny blue dots; no colour demarcation at head . ***Chaetodontoplus caeruleopunctatus***
8b. Body without tiny blue dots; a sharp colour demarcation just posterior to head; yellow on nape and thorax . . . . . ***Chaetodontoplus meredethi***

Key to the species of *Genicanthus* occurring in the area

1a. Scale rows from upper end of gill opening to caudal-fin base 49 to 54; only first 2 dorsal-fin interspinous membranes incised 1/2 or more length of spines . . . . . ***Genicanthus spinus***
1b. Scale rows from upper end of gill opening to caudal-fin base 45 to 48; first 3 or 4 dorsal-fin interspinous membranes incised 1/2 or more length of spines . . . . . → ***2***

2a. Anal-fin rays modally 18; males with numerous dark vertical bars, which extend to ventral part of body, and a prominent black spot midventrally on thorax in front of base of pelvic fins; females without dark markings on body . . . . . ***Genicanthus melanospilos***

2b. Anal-fin rays modally 16 or 17; males with black or orange-yellow horizontal stripes on body . . . . . → ***3***

3a. Basal one-half to three-fourths of upper lip scaly; first 4 dorsal-fin interspinous membranes incised 1/2 or more length of spines . . . . . ***Genicanthus lamarck***

3b. Lips not scales; first 3 dorsal-fin interspinous membranes incised 1/2 or more length of spines . . . . . → ***4***

4a. Males with 8 to 13 black horizontal stripes on about lower two-thirds of body; females without dark markings on body but with black transverse bands on interorbital and dorsally on snout and a black band in caudal-fin lobes . . . . . ***Genicanthus watanabei***

4b. Males lavender grey with a midlateral orange-yellow stripe (pale in alcohol) and an orange-yellow band along back at base of dorsal fin; females with 3 diagonal dark bands on body (lowermost blue in life), the middle one continuous with black band of lower caudal-fin lobe, and 2 black bars on head, the posterior one curving on nape to join broad black band at dorsal-fin base . . . . . ***Genicanthus bellus***

Key to the species of *Pomacanthus* occurring in the area

Note: juveniles of *P. sextriatus*, *P. navarchus*, and *P. xanthometopon* are difficult to distinguish on the basis of colour.

1a. Scales small or moderate, 70 or more scale rows in lateral line . . . . . → ***2***

1b. Scales large, fewer than 60 scale rows in lateral line . . . . . → ***4***

2a. Dorsal-fin spines XIV; adults bright blue with many longitudinal yellow lines; juveniles with distinct white margin on complete length of dorsal fin, usually with a circular white ring just anterior to caudal peduncle . . . . . ***Pomacanthus imperator***

2b. Dorsal-fin spines XIII; adult colour not as described above, juveniles without distinct white margin on dorsal fin, white bars on body vertical or curved but none forming a complete circle . . . . . → ***4***

3a. Caudal fin dark with blue and white markings; adults greenish grey with a blue spot on each body scale and filamentous extensions on soft dorsal and soft anal fins . . . . . ***Pomacanthus semicirculatus***

3b. Caudal fin transparent white; adults brown with several distinct diagonal blue lines and a rounded soft anal fin . . . . . ***Pomacanthus annularis***

4a. Dorsal-fin rays 18 to 20; anal-fin rays 18 or 19; adults with 6 distinct dark vertical bars on body and a broad white bar on head; caudal fin dark with blue dots . . . . . ***Pomacanthus sextriatus***

4b. Dorsal-fin rays 16 to 18; anal-fin rays 16 to 18; no distinct vertical bars on adults; caudal fin yellow or orange . . . . . → ***5***

5a. Eye within a bright orange patch across interorbital; a distinct dark spot at posterior base of soft dorsal fin; caudal peduncle yellowish (adults) . . . . . ***Pomacanthus xanthometapon***

5b. Eye within a large blue patch covering most of head (except for thorax and region ventral to eye); a broad dark blue band extending from soft anal fin dorsally across caudal peduncle to posterior base of soft dorsal fin . . . . . ***Pomacanthus navarchus***

List of species occuring in the area

The symbol is given when species accounts are included.

Apolemichthys griffisi Carlson and Taylor, 1981
Apolemichthys trimaculatus (Lacepède in Cuvier, 1831)
Apolemichthys xanthopunctatus Burgess, 1973

Centropyge aurantia Randall and Wass, 1974
Centropyge bicolor (Bloch, 1787)
Centropyge bispinosa (Günther, 1860)
Centropyge boylei Pyle and Randall, 1993
Centropyge colini Smith-Vaniz and Randall, 1974
Centropyge eibli Klausewitz, 1963
Centropyge flavicauda Fraser-Brunner, 1933
Centropyge flavissima (Cuvier, 1831)
Centropyge heraldi Woods and Schultz, 1853
Centropyge hotumatua Randall and Caldwell, 1973
Centropyge loricula (Günther, 1860)
Centropyge multicolor Randall and Wass, 1974
Centropyge multifasciata (Smith and Radcliffe, 1911)
Centropyge narcosis Pyle and Randall, 1993
Centropyge nigriocella Woods and Schultz, 1953
Centropyge nox (Bleeker, 1853)
Centropyge shepardi Randall and Yasuda, 1979
Centropyge tibicen (Cuvier, 1831)
Centropyge venusta (Yasuda and Tominaga, 1969)
Centropyge vroliki (Bleeker, 1853)

Chaetodontoplus caeruleopunctatus Yasuda and Tominaga, 1976
Chaetodontoplus chrysocephalus Bleeker, 1854
Chaetodontoplus conspicillatus (Waite, 1900)
Chaetodontoplus duboulayi (Günther, 1867)
Chaetodontoplus melanosoma (Bleeker, 1853)
Chaetodontoplus meredithi Kuiter, 1990
Chaetodontoplus mesoleucus (Bloch, 1787)
Chaetodontoplus niger Chan, 1965
Chaetodontoplus septentrionalis (Temminck and Schlegel, 1844)

Genicanthus bellus Randall, 1975
Genicanthus lamarck (Lacepède, 1802)
Genicanthus melanospilos (Bleeker, 1857)
Genicanthus spinus Randall, 1975
Genicanthus watanabei (Yasuda and Tominaga, 1970)

Pomacanthus annularis (Bloch, 1787)
Pomacanthus imperator (Bloch, 1787)
Pomacanthus navarchus (Cuvier, 1831)
Pomacanthus semicirculatus (Cuvier, 1831)
Pomacanthus sextriatus (Cuvier, 1831)
Pomacanthus xanthometapon (Bleeker, 1853)

Pygoplites diacanthus (Boddaert, 1772)

References

Allen, G.R. 1985. *Butterfly and angelfishes of the world*. Volume 2. Melle, Germany, Mergus Publishers, pp. 145-352.

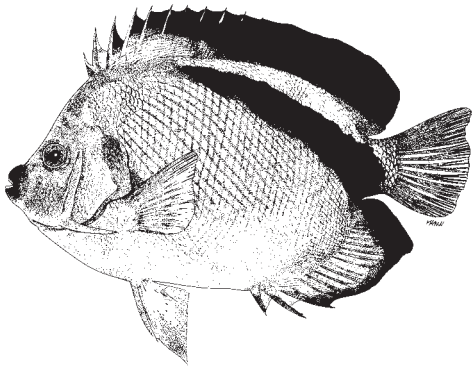
Allen, G.R., R.C. Steene, and M. Allen. 1998. *A guide to angelfishes and butterflyfishes*. Odyssey Publishing/Tropical Reef Research, 250 p.

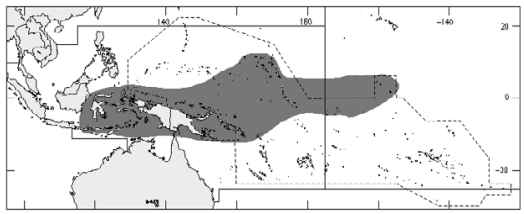
Steene, R.C. 1977. *Butterfly and angelfishes of the world*. Volume 1. Melle, Germany, Mergus Publishers., 144 p.

Apolemichthys griffisi Carlson and Taylor, 1981

En - Griffis' angelfish.

Maximum total length about 30 cm. Inhabits outer reef slopes and drop-offs at depths of 15 to 100 m. Feeds on sponges and tunicates; solitary, pairs, or small groups. Rarely exported through the aquarium trade. Distributed from the Indo-Malayan region eastward to the Line Islands.

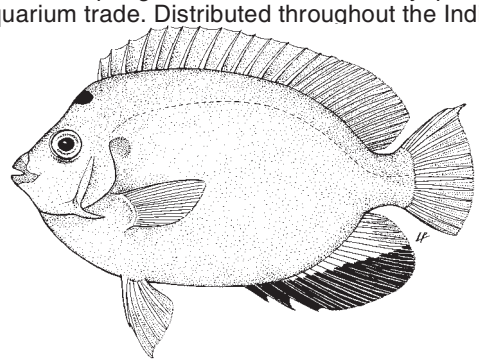


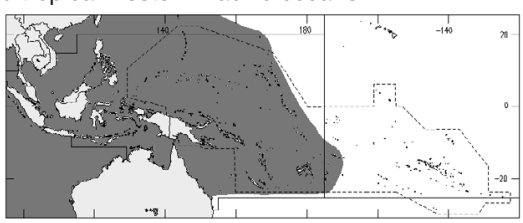


Apolemichthys trimaculatus (Lacepède in Cuvier, 1831)

En - Threespot angelfish; **Fr** - Poisson-ange à trois taches.

Maximum total length about 20 cm. Inhabits outer reef slopes and drop-offs at depths of 10 to 35 m. Feeds on sponges and tunicates; solitary, pairs, or small groups. Frequently exported through the aquarium trade. Distributed throughout the Indian and tropical western Pacific oceans.

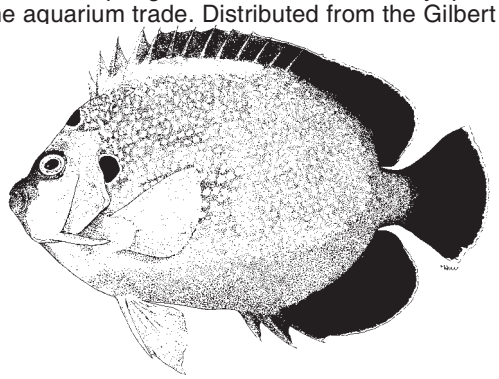


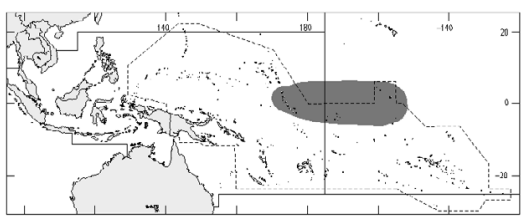


Apolemichthys xanthopunctatus Burgess, 1973

En - Goldflake angelfish.

Maximum total length about 25 cm. Inhabits outer reef slopes and drop-offs at depths of 10 to 65 m. Feeds on sponges and tunicates; solitary, pairs, or small groups. Occasionally exported through the aquarium trade. Distributed from the Gilbert Islands to the Line Islands.

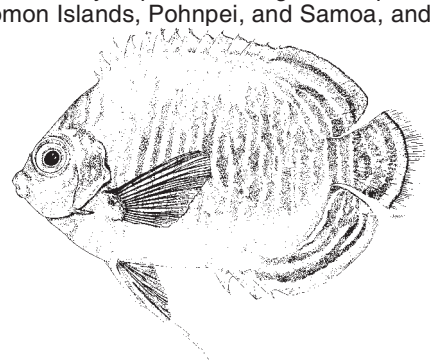


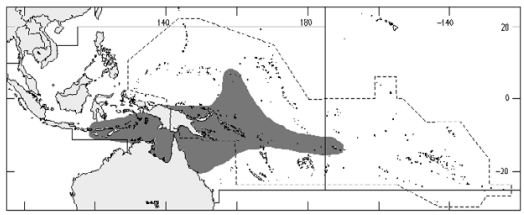


Centropyge aurantia Randall and Wass, 1974

En - Golden angelfish.

Maximum total length about 10 cm. Inhabits rubble and thick coral areas at depths of 3 to 20 m. Natural diet and social structure unknown. This species is extremely cryptic and is seldom seen by divers. Rarely exported through the aquarium trade. Known from Indonesia, Great Barrier Reef, Solomon Islands, Pohnpei, and Samoa, and probably occurs elsewhere in the area.

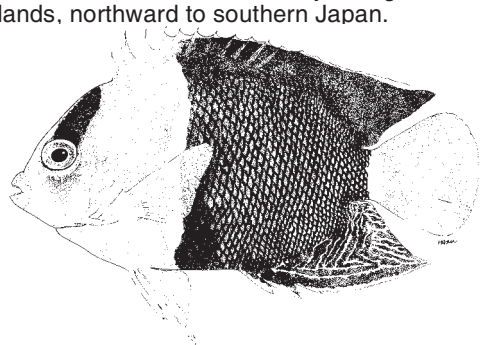


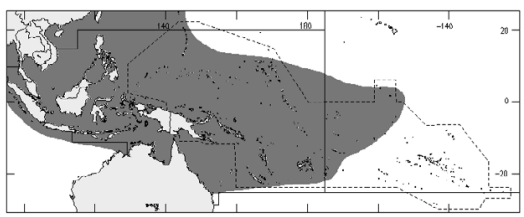


Centropyge bicolor (Bloch, 1787)

En - Bicolor angelfish; **Fr** - Poisson ange jaune et bleu.

Maximum total length about 15 cm. Inhabits lagoons and coral reefs at depths of 3 to 20 m. Feeds on algae; forms harems of 3 to 7 individuals. Frequently exported through the aquarium trade. Distributed from the Indo-Malayan region eastward across the tropical Pacific Ocean to the Line Islands, northward to southern Japan.

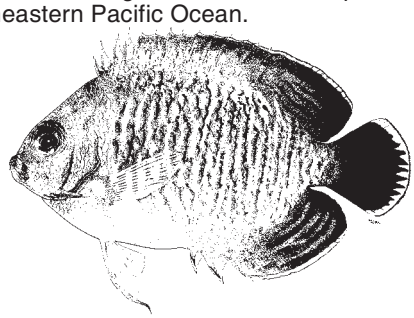


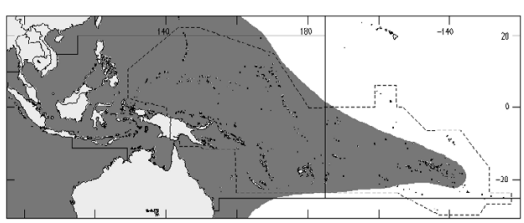


Centropyge bispinosa (Günther, 1860)

En - Coral beauty; **Fr** - Poisson ange à deux épines.

Maximum total length about 8 cm. Inhabits coral reefs and rubble areas at depths of 10 to 50 m. Frequently exported through the aquarium trade. Feeds on algae; forms harems of 3 to 7 individuals. Distributed throughout most of the tropical Indo-Pacific region, excluding the Red Sea, Hawaii, and southeastern Pacific Ocean.

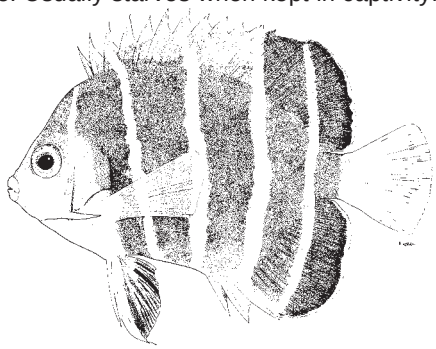


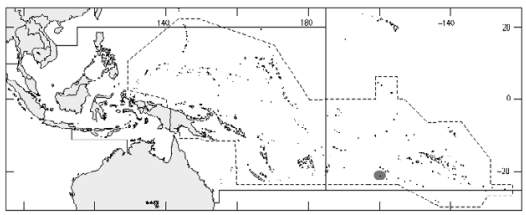


Centropyge boylei Pyle and Randall, 1993

En - Peppermint angelfish.

Maximum total length about 7 cm. Inhabits ledges, caves, and rubble areas at depths of 55 to 110 m. Natural diet unknown; forms pairs or small groups. Almost never exported through the aquarium trade. Usually starves when kept in captivity. Known only from the Cook Islands.

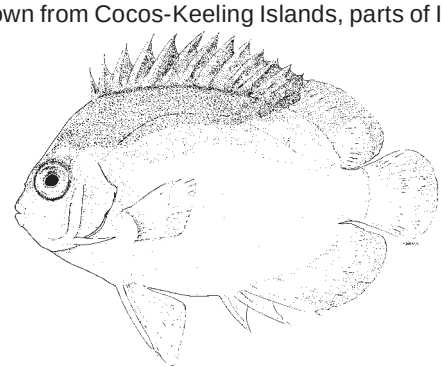


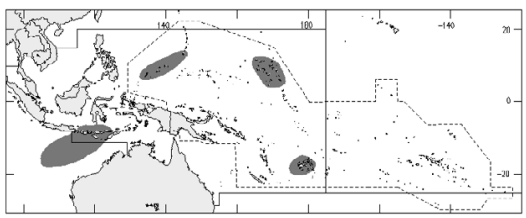


Centropyge colini Smith-Vaniz and Randall, 1974

En - Colin's angelfish.

Maximum total length about 8 cm. Inhabits ledges and caves at depths of 20 to 100 m. Natural diet unknown; forms harems of 3 to 7 individuals. Almost never exported through the aquarium trade. Known from Cocos-Keeling Islands, parts of Indonesia, Palau, Guam, Fiji, and the Marshall Islands.

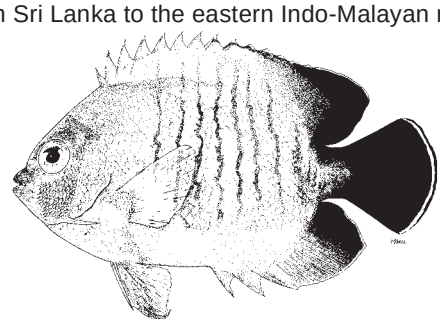


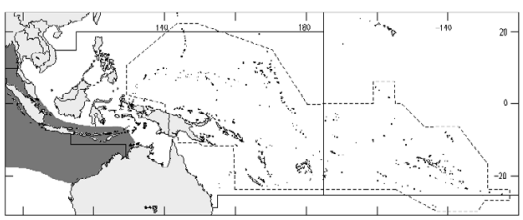


Centropyge eibli Klausewitz, 1963

En - Eibl's angelfish.

Maximum total length about 15 cm. Inhabits coral reefs at depths of 10 to 30 m. Feeds on algae; forms harems of 3 to 7 individuals. Frequently exported through the aquarium trade. Readily forms hybrids with *Centropyge vroliki* in areas where the 2 species are sympatric, and hybrids with *C. flavissima* have been recorded from Christmas Island and Cocos-Keeling Islands in the eastern Indian Ocean. This species is mimicked by juveniles of the acanthurid *Acanthurus tristis.* Distributed from Sri Lanka to the eastern Indo-Malayan region.

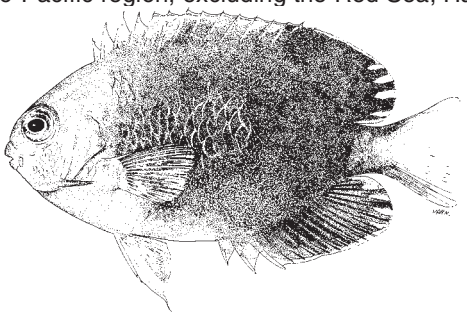


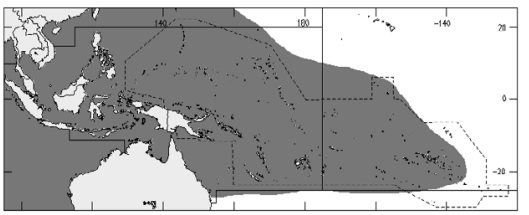


Centropyge flavicauda Fraser-Brunner, 1933

En - Whitetail angelfish.

Maximum total length about 6 cm. Inhabits rubble areas at depths of 10 to 60 m. Feeds on algae; forms aggregations. Occasionally exported through the aquarium trade. Probably synonymous with *Centropyge fisheri* of Hawaii and Johnston Atoll. Distributed throughout much of the tropical Indo-Pacific region, excluding the Red Sea, Hawaii, and southeastern Pacific Ocean.

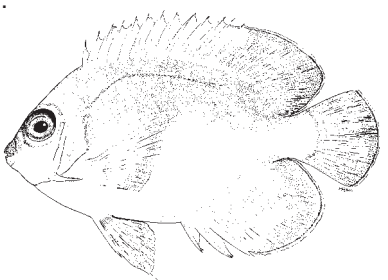


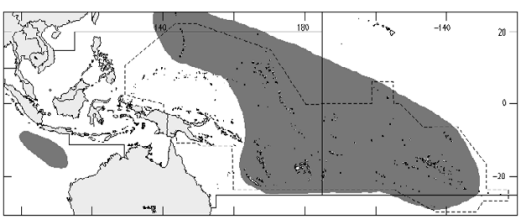


Centropyge flavissima (Cuvier, 1831)

En - Lemonpeel angelfish; **Fr** - Centropyge tout jaune.

Maximum total length about 9 cm. Inhabits lagoons and coral reefs at depths of 2 to 15 m. Feeds on algae; forms harems of 3 to 7 individuals. Frequently exported through the aquarium trade. Readily forms hybrids with *Centropyge vroliki* in areas where the 2 species are sympatric, and hybrids with *C. eibli* have been recorded from Christmas Island and Cocos-Keeling Islands in the eastern Indian Ocean. This species is mimicked by juveniles of the acanthurid *Acanthurus pyroferus*. Distributed throughout most of the Central Pacific Ocean from the Ogasawara Islands to the Tuamotu Archipelago, excluding Hawaii and Johnston Atoll, as well as an unusual population in the insular eastern Indian Ocean; also reported from the Coral Sea, Great Barrier Reef, and Ryukyu Islands.





Centropyge heraldi Woods and Schultz, 1853

En - Herald's angelfish.

Maximum total length about 10 cm. Inhabits coral reefs at depths of 10 to 45 m. Feeds on algae; forms harems of 2 to 4 individuals. Frequently exported through the aquarium trade. Distributed from southern Japan southward to Taiwan Province of China and across the tropical western and southern Pacific Ocean.