Hawkfishes

Oblong fishes, the depth varying from 2.0 to 4.6 times in standard length. A row of canine teeth in jaws, the longest usually anteriorly in upper jaw and half way back on lower jaw; a band of villiform teeth inside the canines, broader anteriorly (in lower jaw only anteriorly); 2 indistinct spines on opercle. A continuous dorsal fin of 10 spines and 11 to 17 rays, notched between spinous and soft portions; anal fin with 3 spines and 5 to 7 (usually 6) rays; pectoral fins with 14 rays, the lower 5 to 7 unbranched and usually enlarged, with the membranes deeply incised; pelvic fins with 1 spine and 5 rays; principal caudal rays 15; branchiostegal rays 6; 1 or more cirri projecting from tips of interspineous membranes of dorsal fin; a fringe of cirri on posterior edge of anterior nostril; scales cycloid; no air bladder; 26 vertebrae.

Colour: variable with species.

The hawkfish family consists of 10 genera and 38 species, 33 of which occur in the Indo-Pacific region; 15 are found in the Western Indian Ocean. Most are small and of little or no commercial importance. They are bottom-dwelling fishes of coral reefs or rocky substrata; the majority occur in shallow water. They use their thickened lower pectoral rays to wedge themselves in position in areas subject to surge. All are carnivorous, feeding mainly on benthic crustaceans. Cyprinocirrhitus polyactis, however, is a zoo plankton-feeder and Paracirrhites forsteri is primarily piscivorous.
SIMILAR FAMILIES OCCURRING IN THE AREA:

Serranidae: lower 5 to 7 pectoral rays not simple and thickened (except for a few Plectranthias); no fringe of cirri on posterior nostril; scales usually ctenoid; usually 3 spines on opercle; vertebrae typically 24; air bladder present.

KEY TO GENERA OCCURRING IN THE AREA:

1a. Snout elongate, its length contained about 2 times in head length; body slender, the depth contained 4.4 to 4.6 times in standard length (Fig.1); canine teeth in jaws only slightly longer than inner villiform teeth ........................ Oxycolitis

1b. Snout not elongate, its length contained about 3.0 to 5.0 times in head length; canine teeth in jaws notably longer than inner villiform teeth

2a. Caudal fin lunate, the lobes produced (Fig.2); dorsal soft rays 16 or 17 ....... Cyprinocirrhites

2b. Caudal fin rounded, truncate, or slightly emarginate; dorsal soft rays 11 to 15

3a. No large scales on cheek (small scales in more than 12 irregular rows) (Fig.3) .................................................. Cirrhitus

3b. Four to 6 rows of large scales on cheek (small scales usually present as well) (Fig.4)
4a. Membranes of spinous portion of dorsal fin not deeply incised, a single cirrus extending from tip of each (Fig.5a); 5 rows of large scales between lateral line and spinous portion of dorsal fin; palatine teeth absent ................. Paracirrhites

4b. Membranes of spinous portion of dorsal fin deeply incised, a tuft of cirri extending from tip of each (Fig.5b); 3 or 4 rows of large scales between lateral line and spinous portion of dorsal fin; palatine teeth present

5a. Dorsal soft rays 14 (rarely 15); first 2 pectoral rays unbranched .................. Cirrhitops

5b. Dorsal soft rays 11 to 13; first pectoral ray unbranched

6a. Preopercular margin finely serrate; preorbital without a free hind margin; interorbital scaled; lower 5 (rarely 6) pectoral rays unbranched (Fig.6). Amblycirrhitus

6b. Preopercular margin coarsely serrate; hind edge of preorbital free for 1/4 to 1/2 distance from lower edge to eye; interorbital not scaled; lower 6 or 7 pectoral rays unbranched (Fig.7) .... Cirrhitichthys

LIST DE SPECIES OCCURRING IN THE AREA:
Code numbers are given for those species for which Identification Sheets are included

Amblycirrhitus bimacula (Jenkins, 1903)
Amblycirrhitus indicus Fowler, 1936
Cirrhitichthys bleekeri Day, 1873
Cirrhitichthys calliurus Regan, 1905
Cirrhitichthys falco Randall, 1963
Cirrhitichthys guichenoti (Sauvage, 1880)
Cirrhitichthys oxycephalus (Bleeker, 1855)
Cirrhitichthys randalli Kotthaus, 1975
Cirrhitops fasciatus (Bennett, 1828)
Cirrhitus pinnulatus (Bloch & Schneider, 1801) CIRRH Cir 1
Cirrhitus punctatus Cuvier, 1821
Cyprinocirrhites polyactis (Bleeker, 1875)
Oxvcirrhites typus Bleeker, 1857
Paracirrhites arcatus (Cuvier, 1829)
Paracirrhites forsteri (Bloch & Schneider, 1801) CIRRH Paracir 1

Prepared by J.E. Randall, Bernice Bishop Museum, Honolulu, Hawaii 96819, USA
**FAO SPECIES IDENTIFICATION SHEETS**

**FAMILY:** CIRRHITIDAE

**FISHING AREA 51**
(W. Indian Ocean)

**Cirrhites pinnulatus** (Bloch & Schneider, 1801)

**OTHER SCIENTIFIC NAMES STILL IN USE:** None

**VERNACULAR NAMES:**

<table>
<thead>
<tr>
<th>FAO</th>
<th>En - Stocky hawkfish</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Fr - Epervier de corail</td>
</tr>
<tr>
<td></td>
<td>Sp - Solosolo robusto</td>
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</tbody>
</table>

**DISTINCTIVE CHARACTERS:**

Depth of body contained 2.7 to 3.0 times in standard length; snout short and blunt; supraorbital ridge low. Mouth large, the maxilla nearly reaching a vertical at posterior edge of eye; upper margin of preopercle finely serrate. A continuous dorsal fin of 10 spines and 11 rays, deeply notched between spinous and soft portions; a tuft of cirri from membrane near tip of each dorsal spine; anal fin with 3 spines and 6 rays; pectoral fins not reaching a vertical at tips of pelvic fins; pectoral rays 14, the lower 7 unbranched and thickened; caudal fin slightly rounded. Lateral-line scales 39 to 44; 4 rows of large scales above lateral line in middle of body; scales on cheek much smaller than scales on body.

Colour: ground colour white but overlaid with squarish dark brown blotches and numerous dark orangish to reddish brown spots, leaving as white 3 rows of 5 or 6 spots of about size of eye on body; ventral thorax and abdomen white; head with reddish brown spots, sometimes co-joined to form irregular bands; median fins with reddish brown spots.
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Cirrhitus punctatus: supraorbital ridge high; pectoral fins reach posterior to pelvic tips; scattered black dots on head and body. Mauritius to Natal.

SIZE:

Maximum: 30 cm; common to 23 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Indo-Pacific; in the Western Indian Ocean from the Red Sea to South Africa as far south as Port Alfred (33.5°S),* including Madagascar, Seychelles, Réunion, Mauritius and Chagos Archipelago.

This robust hawkfish, the largest of the family in the Indo-Pacific, lives on rocky shores and reef fronts exposed to wave action. Nocturnal; feeds mainly on crabs.

PRESENT FISHING GROUNDS:

Generally caught from shore.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Usually caught by hook and line.

Marketed mostly fresh.

* In the Red Sea the species has a slightly higher number of lateral line scales (42 to 44, compared to 39 to 43 elsewhere) and gillrakers. Schultz (1950) described this variant as a new species, C. spilotoceps; this name, however, would best be relegated to subspecific rank.
**FAMILY :** CIRRHITIDAE

**FISHING AREA 51**
(W. Indian Ocean)

**Paracirrhites forsteri** (Bloch & Schneider, 1801)

**OTHER SCIENTIFIC NAMES STILL IN USE:** None

**VERNACULAR NAMES:**

FAO : En - Blackside hawkfish  
Fr - Epervier à bande noire  
Sp - Solosolo de banda negra

**DISTINCTIVE CHARACTERS:**

Depth of body contained 2.6 to 2.8 time, in standard length; snout short. Mouth large, the maxilla reaching posterior to a vertical at centre of eye; upper margin of preopercle finely serrate. A continuous dorsal fin of 10 spines and 11 rays, notched between spinous and soft portions; a single cirrus from membrane near tip of each dorsal spine; anal fin with 3 spines and 6 rays; pectoral rays 14, the lower 7 unbranched and thickened; caudal fin slightly rounded. Lateral line scales 45 to 49; 5 rows of large scales between lateral line and spinous portion of dorsal fin; 5 or 6 rows of large scales on cheek, in addition to small scales.

Colour: yellowish with a faint longitudinal dark banding following scale rows; usually a broad blackish band (sometimes broken into co-joined spots) on upper side from below middle of dorsal fin nearly to middle of caudal fin; region below black band usually yellow (by virtue of reduced longitudinal banding on scale rows); head, nape and thorax with small brownish red spots; fins varying from yellowish to pink.
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Paracirrhites arcatus: a "U"-shaped postocular mark; 3 dark-edged pale transverse bands on inter-opercle.

SIZE:

Maximum: 22 cm; common to 18 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Indo-Pacific; in the Western Indian Ocean from the Red Sea to Natal, South Africa; Madagascar, Seychelles, Réunion, Mauritius, Chagos Archipelago, Maldives, Laccadives and Sri Lanka.

A common coral reef species; often observed sitting on live coral. Feeds mainly on small fishes.

PRESENT FISHING GROUNDS:

Occasionally caught throughout its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Taken mainly by hook and line.

Marketed mostly fresh.