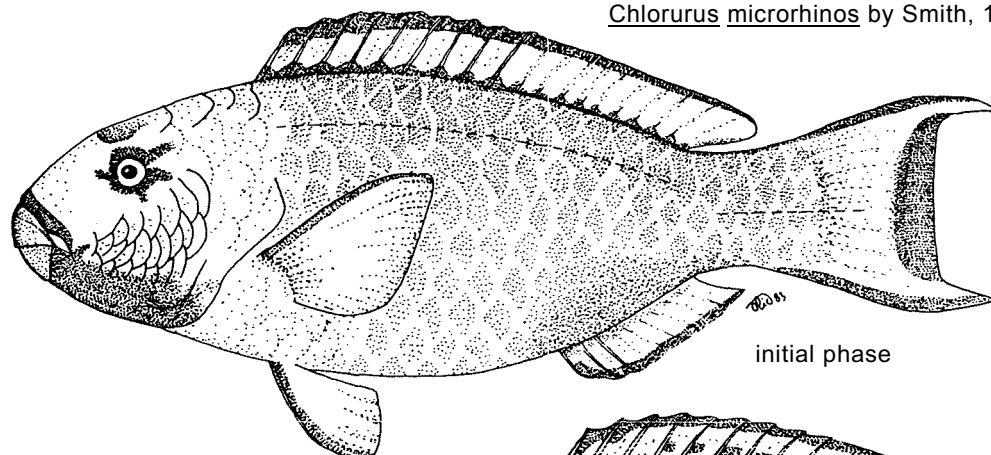


FAO SPECIES IDENTIFICATION SHEETS

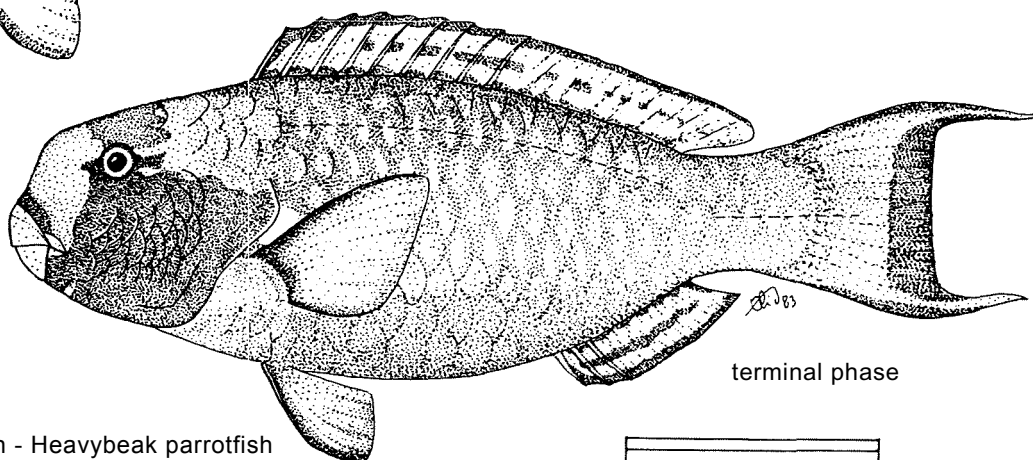
FAMILY: SCARIDAE

FISHING AREA 51
(W. Indian Ocean)Scarus gibbus Rüppell, 1828

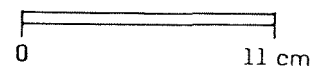
OTHER SCIENTIFIC NAMES STILL IN USE:

Chlorurus gibbus by Smith, 1956Chlorurus strongylocephalus by Smith, 1956Chlorurus microcheilos by Smith, 1956Chlorurus microrhinos by Smith, 1956

initial phase



terminal phase



VERNACULAR NAMES:

FAO : En - Heavybeak parrotfish
Fr - Perroquet machoïron
Sp - Loro dentón

NATIONAL:

DISTINCTIVE CHARACTERS:

Body depth contained 2.4 to 2.6 times in standard length. Dorsal profile between mouth and eye always strongly convex, becomes humped in terminal phase (anterior profile of head thus always bluntly rounded); teeth fused to form dental plates in upper and lower jaws; dental plates smooth, the individual teeth only discernable at free margins; upper jaw enclosing lower jaw; lips covering 1/4 or less of plates; 1 or 2 canines posteriorly on upper dental plates; 3 or 4 (usually 4) predorsal scales; 3 rows of cheek scales, with 4 to 8 scales in dorsal row, 5 to 10 scales in middle row, and 1 to 8 scales in ventral row. Pectoral fins with 14 (occasionally 13 or 15) branched rays; caudal fin emarginate in small individuals, becoming produced in larger individuals, the lobes very long in terminal phase

Colour: 2 adult colour phases; initial phase - dark red (yellow shading to green ventrally in Red Sea specimens), the upper and lower lips with short green stripes; dorsal and caudal fins with green margins, the remainder yellow; pelvic fins red; pectoral fins red with a narrow green leading edge; anal fin with a blue margin,

a blue-green medial band, and green basal spots, the remainder cull orangish-yellow; dental plates greenish to blue-green in both phases; **terminal phase** - grey-green body, the scales with a narrow bar of pink or orange, except thorax which is blue-green and abdomen which is pale greenish-yellow with 2 faint greenish broken stripes; snout and dorsal part of head lavender to purple; lips broadly edged in blue; sometimes blue-green bands on chin, snout and around orbit; chin and head bright yellowish-green ventrally, above which and posterior to eye there may be an irregular dull whitish blotch, edged in dark green, usually longer than deep, which reaches to opercular margin; dorsal and anal fins light orange to salmon-pink with a blue margin and a median blue-green band; caudal fin salmon-pink to orange with bluish margins, the middle of fin with a green bar; pectoral fins purple-green with blue leading edge; pelvic fins pinkish with blue leading edge; terminal phase in the Red Sea predominantly green suffused with purple, the scales edged with light red; body light blue-green ventrally; dorsal half of head purple with blue-green markings around eye and blue band on the upper lip; lower half of head deep blue-green.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

There is no other Western Indian Ocean species of Scarus with 4 median predorsal scales, 3 rows of cheek scales and 14 branched pectoral fin rays.

Other Scarus species with pronounced humping of the head include: S. cyanescens (round caudal fin), S. enneacanthus (2 rows of cheek scales), S. festivus (usually 12 branched pectoral fin rays and whitish dental plates) and S. rubroviolaceus (usually 6 median predorsal scales, 13 branched pectoral fin rays); all have distinct coloration.

Other genera of Scaridae: cheek scales small, in a subtriangular patch; narrow dental plates (Hipposcarus); dental plates rough to touch (Bolbometopon, Cetoscarus); and 1 row of cheek scales (Calotomus, Leptoscarus).

SIZE:

Maximum: 50 cm standard length; 4 kg.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, known from the Red Sea and the east coast of Africa south to at least 15°S, eastward to Madagascar, the Seychelles, Mauritius, Chagos Archipelago and the Maldive Islands. Outside the area, it occurs in the Eastern Indian Ocean/Western Central Pacific to the Pitcairn group. Based on geographical colour variations, S. gibbus is tentatively split into 3 populations: Red Sea, Indian Ocean (as described above), and a Pacific Ocean form.

Occurs primarily on outer reef areas, rarely in large groups.

Feeds on benthic algae.

PRESENT FISHING GROUNDS:

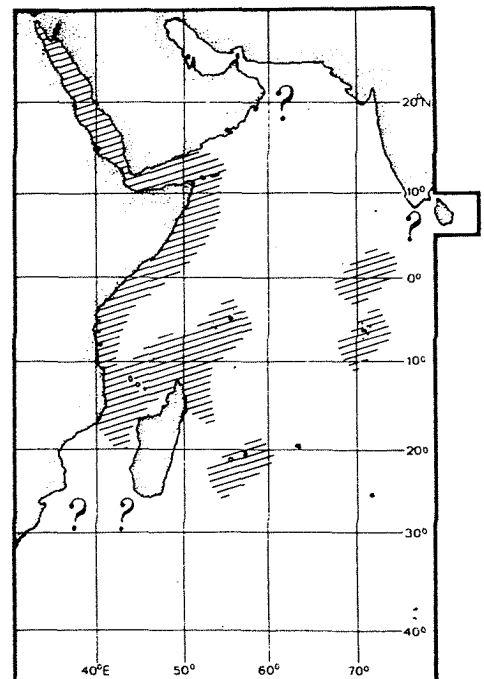
Probably caught in small numbers throughout most of its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with traps, nets and other kinds of artisanal gear.

Marketed mostly fresh.



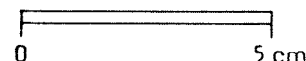
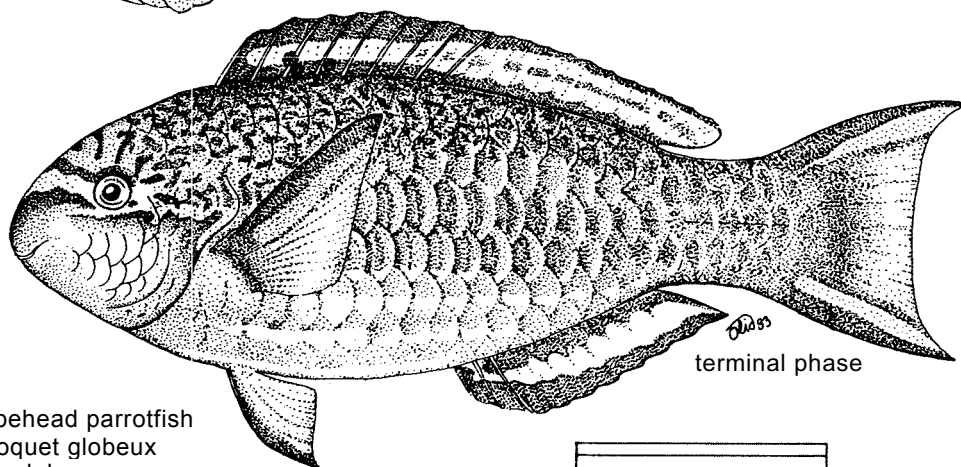
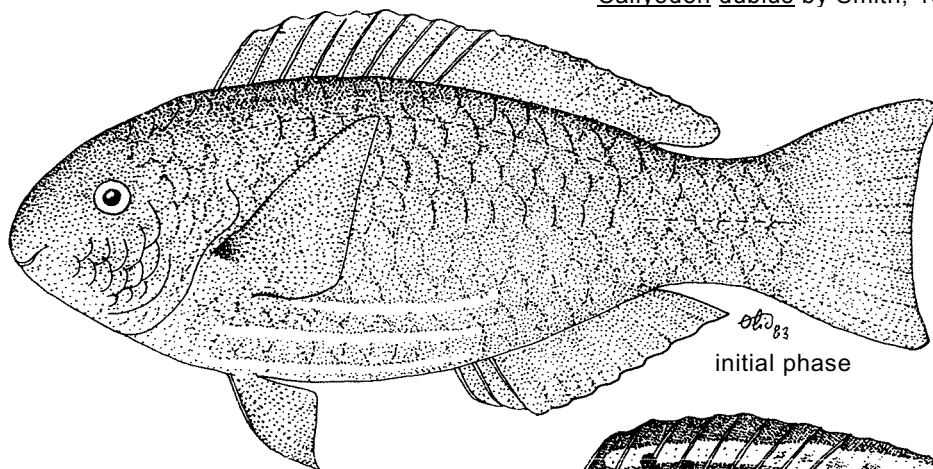
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SCARIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Scarus globiceps</i> Valenciennes, 1840
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OTHER SCIENTIFIC NAMES STILL IN USE:

Callyodon globiceps by Smith, 1956*Callyodon dubius* by Smith, 1956 (in part)

VERNACULAR NAMES:

FAO : En - Globehead parrotfish
Fr - Perroquet globeux
Sp - Loro globoso

NATIONAL:

DISTINCTIVE CHARACTERS:

Body depth contained about 2.6 to 3.0 times in standard length. Anterior head profile almost hemispherical; mouth inferior; teeth fused to form dental plates in upper and lower jaws; dental plates smooth, the individual teeth only visible at margins; upper jaw enclosing lower jaw with mouth closed; lips almost covering dental plates; 1 or 2 canines posteriorly on sides of both upper and lower plates; 4 to 6 (usually 5 or 6) median predorsal scales; 3 rows of cheek scales, with 5 to 8 (usually 6) scales in dorsal row, 5 to 9 usually 7 scales in middle row, and 1 to 4 usually 3 scales in ventral row. Pectoral fins with 12 branched rays; caudal fin slightly rounded to double emarginate in initial phase, becoming more so in terminal phase; caudal lobes never produced.

Colour: 2 adult colour phases; **initial phase** - dark brown to grey-brown dorsally, shading to yellowish brown ventrally, with 3 faint whitish lines on abdomen; eye greenish brown; median fins dark brown; pectoral fins with dark brown rays and pale membranes; pelvic fins dark brown, tinged with light red or orange; **terminal phase** - body green with a salmon-pink to orange bar on each scale, except on abdomen where the bars split into dorsal and ventral spots and the green forms 3 stripes along scale centres, and thorax which is solid green; head with a horizontal orange to light brown band passing in front of snout to orbit, curving under eye and

continuing to edge of opercle; head green below and lavender above this band, shading posteriorly to orange with green bands radiating from eye and small green spots on scales; dorsal and anal fins with a blue border, a broad median band of orange containing a row of large green spots, and a green to blue-green band at base; usually a blackish spot at or near base of fourth dorsal spine; caudal fin green with a submarginal streak of orange in each lobe; pectoral fins with green rays and pale membranes except for a streak of orange around rays 3 to 5; a dark bar at pectoral fin base; pelvic fins salmon with a blue leading edge.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

No other species of Scarus has with 3 rows of cheek scales and usually 5 median predorsal scales; none has the typical coloration of S. globiceps; S. viridifuentus has a similar body shape with a strongly hemispherical head profile, but usually has 4 median predorsal scales and distinct coloration, the initial phase uniform dark brown and the terminal phase with a conspicuous blue to whitish blotch on side of head.

Other Scarus species: either 2 rows of cheek scales, or, if 3 rows, either 4, 6 or more median predorsal scales; all differ in coloration.

At the extreme east of Area 51 (Gulf of Manaar) S. quoyi (S. blochii of most authors) and S. rivulatus may be present. These forms closer resemble S. viridifuentus in body form but differ in coloration. The presence of these species within the area requires confirmation.

Other genera of Scaridae: narrow dental plates and cheek scales small, in a subtriangular patch (Hipposcarus); dental plates rough to touch (Boibometopon, Cetoscarus); and 1 row of cheek scales (Calotomus, Leptoscarus).

SIZE:

Maximum: about 23 cm standard length; 0.5 kg.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, known from the east coast of Africa from at least 0° to 15°S, extending eastward to Madagascar, the Seychelles, Mauritius; not recorded from the Red Sea or the "Gulf". Outside the area, it occurs in the Eastern Indian Ocean/Western Central Pacific to French Polynesia.

A shallow water species, associated with coral reefs.

Feeds on benthic algae.

PRESENT FISHING GROUNDS:

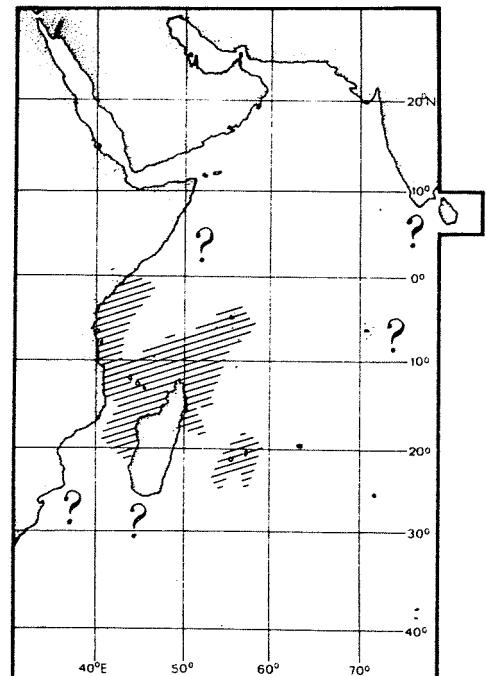
Apparently not common in the Western Indian Ocean. Probably caught throughout most of its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with traps, nets and other kinds of artisanal gear.

Marketed mostly fresh.



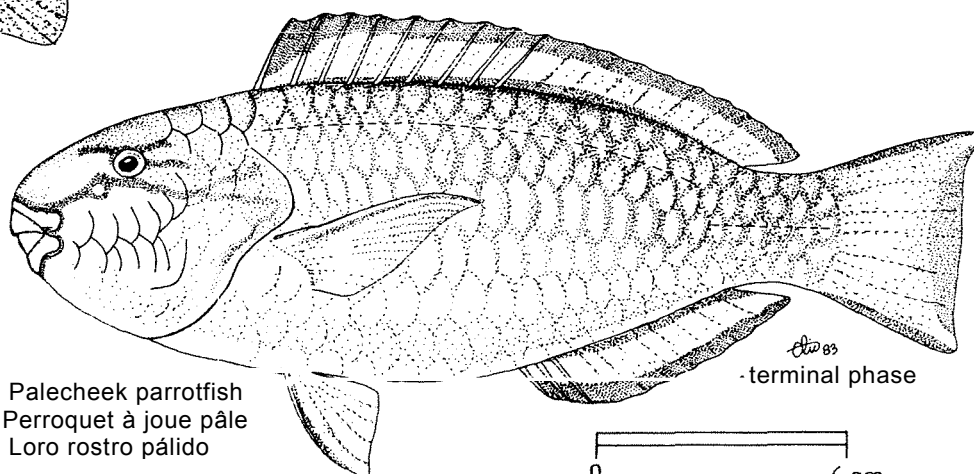
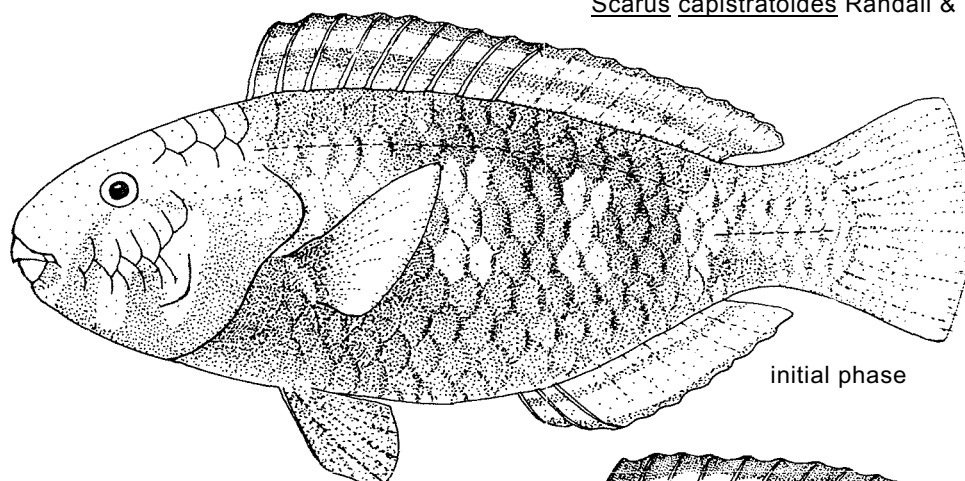
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SCARIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Scarus japonensis</i> (Bloch, 1189)
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OTHER SCIENTIFIC NAMES STILL IN USE:

Xanothon capistratoides (Bleeker) by Smith, 1956 (in part)*Scarus capistratoides* Randall & Bruce, 1983

0 6 cm

VERNACULAR NAMES:

FAO: En - Palecheek parrotfish
Fr - Perroquet à joue pâle
Sp - Loro rostro pálido

NATIONAL:

DISTINCTIVE CHARACTERS:

Body depth contained 2.6 to 2.7 times in standard length. Head bluntly rounded anteriorly; mouth terminal; teeth fused to in upper and lower jaws to form dental plates; plates smooth, the individual teeth only visible at free margins; upper jaw enclosing lower jaw; lips covering only basal margins of dental plates; 1 to 3 canines posteriorly on sides of upper dental plate, large in adults; 3 or 4 (usually 4) median predorsal scales; 2 rows of cheek scales, with 6 or 7 scales in dorsal row and 6 to 8 scales in ventral row. Pectoral fins with 13 (occasionally 12) branched rays; caudal fin slightly rounded to truncate in initial phase, becoming slightly emarginate in terminal phase; caudal lobes never produced.

Colour: 2 adult colour phases; **initial phase**: - body reddish-brown with a brownish orange bar on each scale anteriorly, the bars shortening posteriorly to spots on caudal peduncle and base of caudal fin; 4 pale pinkish bars on body; posterior half of caudal peduncle and all of caudal fin whitish, suffused with pale salmon-pink; head reddish brown, the snout and band round orbit lighter; dorsal fin dull orange with a bluish grey margin and median longitudinal band; anal fin brown with a bluish-grey cast; pectoral fins with yellow rays and pale membranes; pelvic fins brown; dental plates of both phases whitish to pale lavender; **terminal phase** - body blue-green with a

salmon-pink bar on each scale, shortening -posteriorly to spots; abdomen and thorax pale blue-green; head blue-green dorsally with narrow blue-green bands, one dorsally on upper lip to opercle passing under orbit, another from snout through eye dorsally to beyond orbit, a third behind centre of eye; margins of lips salmon; cheek abruptly, pale salmon-pink; dorsal and anal fins salmon with broad turquoise borders and a narrow turquoise band at base; caudal fin salmon with turquoise upper and lower borders and a broad crescentic light blue posterior border; pectoral fins with upper edge bluish, then a broad zone of salmon faintly streaked with dusky purplish, becoming pale on lower half of fin; pelvic fins with light salmon rays and pale membranes, the leading edge faint light blue.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Scarus species also having 2 rows of cheek scales, 4 median predorsal scales, 13 branched pectoral fin rays and dental plates broadly exposed include: S. arabicus, S. atrilunula, S. enneacanthus, S. genazonatus, and S. sordidus, all differ markedly in coloration from S. japonensis except for S. atrilunula in which the initial phase is almost identical with that of S. japonensis, except for its irregular reddish-brown markings on snout (snout solid brownish-red in S. japonensis); the terminal phase of S. atrilunula has a very dark blue caudal crescent and a green streak across the pale cheek.

Remaining Scarus species: 12 branched pectoral fin rays, lips broadly covering dental plates and/or 3 rows of cheek scales; all differ in coloration.

Other genera of Scaridae: narrow dental plates and cheek scales small, in a subtriangular patch (Hipposcarus); dental plates rough to touch (Bolbometopon, Cetoscarus); and 1 row of cheek scales (Calotomus, Leptoscarus).

SIZE:

Maximum: about 25 cm standard length; 0.7 kg.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the Western Indian Ocean: known from the Kenyan coast of East Africa, the Seychelles and Mauritius. Appears to be absent from the Red Sea. Due to confusion with S. atrilunula, a closely related species, the exact distribution is unclear. Outside the area, S. japonensis occurs in the Eastern Indian Ocean.

A shallow water species, associated with coral reefs.

Feeds on benthic algae.

PRESENT FISHING GROUNDS:

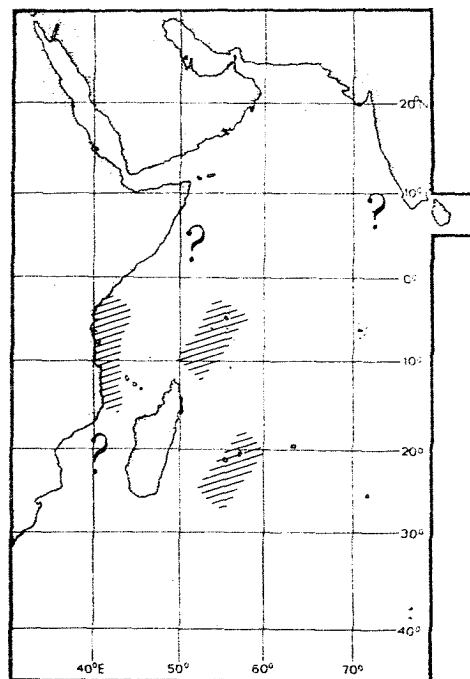
Probably caught throughout most of its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with traps, nets and other kinds of artisanal gear.

Marketed mostly fresh.

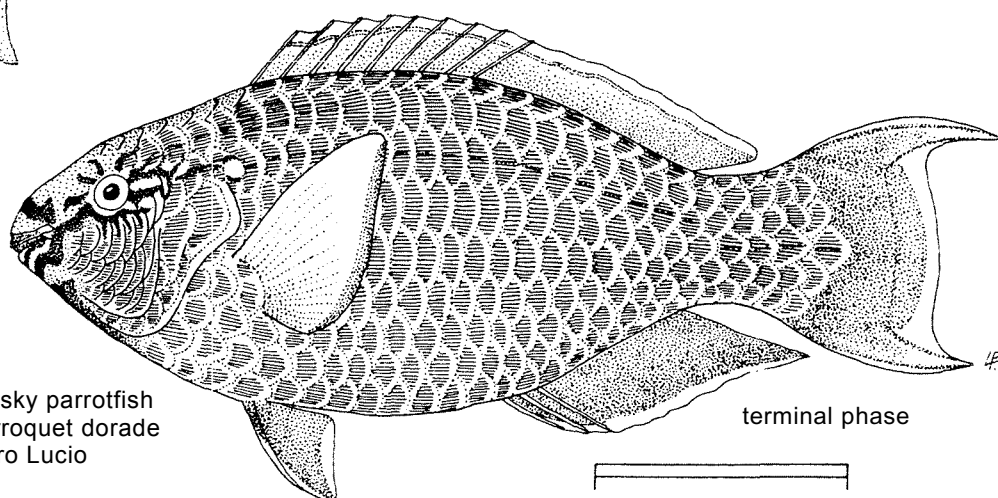
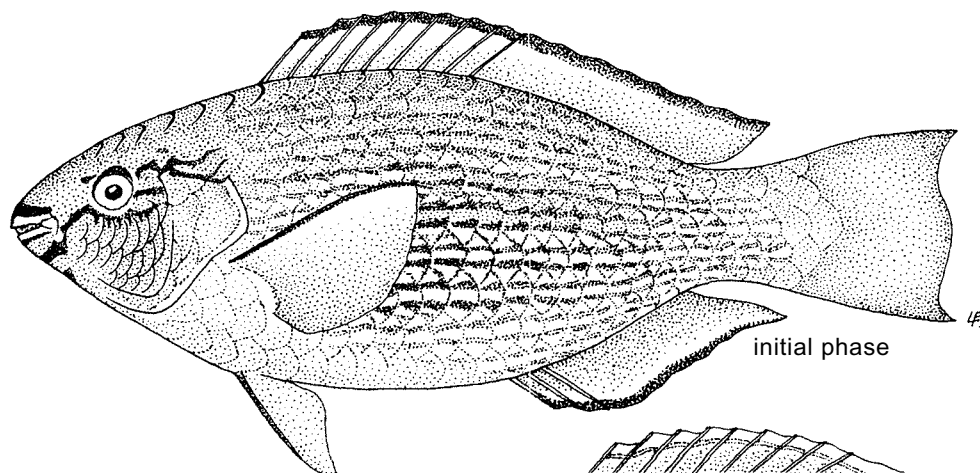


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SCARIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Scarus niger</i> Forsskål, 1775

OTHER SCIENTIFIC NAMES STILL IN USE: *Scarus madagascariensis* (Steindachner, 1888)

0 6 cm

VERNACULAR NAMES:

FAO : En - Dusky parrotfish
Fr - Perroquet dorade
Sp - Loro Lucio

NATIONAL:

DISTINCTIVE CHARACTERS.

Body depth contained 2.2 to 2.5 times in standard length. Teeth fused in upper and lower jaws to form dental plates; plates smooth, the individual teeth only visible at margins; upper jaw enclosing lower jaw with mouth closed; 0 to 2 canines posteriorly on upper dental plates, lips covering 3/4 to all dental plates; 6 to 8 (usually 7) median predorsal scales; 3 rows of cheek scales, with 6 to 8 (usually 7) scales in dorsal row, 6 to 9 usually 8 scales in middle row and 2 to 5 usually 3 or 4 scales in ventral row. Pectoral fins with 12 (occasionally 11 or 13) branched rays; caudal fin rounded in small fish, becoming double emarginate with produced lobes in terminal phase, the lobes terminating acutely.

Colour: 2 adult colour phases; initial phase - ground colour of body reddish-brown the scales dorsally and on side suffused with bluish grey, each crossed with 2 to 5 horizontal dark brown lines which may be partially broken into spots; head brownish red, the scales on cheek and opercle with orange-red spots or short lines, the lips and chin orange-red, the base of upper lip with a transverse green band; lower lip with a narrower green band, and chin with a broad one to below orbit; an irregular horizontal green band from in front of upper edge of orbit; a longitudinal green band on head posterior to orbit; dorsal and anal fins dull orange with dull blue margins; caudal fin reddish or orangish brown, the upper and lower margins dark bluish; pectoral fins with orange-red rays and pale

membranes, the upper edge dull blue; pelvic fins light orange-red, usually with dull blue margins; dental plates green in both phases; **terminal phase** - scales of body deep dark green, narrowly edged with dark reddish; scales of head also deep green to reddish brown on nape; lips salmon, shading to dull reddish violet on snout and chin, with the same green bands as described for the initial phase, but more distinct; unscaled part of dorsal fin orangish, each membrane with a zone of dull green parallel to rays, the margin blue with a submarginal dark line; anal fin similar; caudal fin deep salmon-pink in caudal lobes with blue upper and lower borders and a broad posterior area of blue containing a band of dull yellow; pectoral fins deep salmon-pink, the leading edge bluish; pelvic fins dull orange, edged with blue.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Scarus frenatus is the only other species having 3 rows of cheek scales, 12 branched pectoral fin rays, and usually 7 median predorsal scales, but the coloration is markedly different; its initial phase is brown with a pale caudal peduncle and no dark irregular lines on scales, while its terminal phase is predominantly green and dull orange.

Other Scarus species: 2 rows of cheek scales, or if 3, seldom 12 branched pectoral fin rays and 7 median predorsal scales; all differ in coloration.

Other genera of Scaridae: narrow dental plates and cheek scales small, in a subtriangular patch (Hipposcarus); dental plates rough to touch (Bolbometopon, Cetoscarus); and 1 row of cheek scales (Calotomus, Leptoscarus).

SIZE:

Maximum: about 30 cm standard length; 1 kg; terminal phase usually larger than 20 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, known from the Red Sea, off Kenya, Tanzania and Mozambique, Madagascar, the Seychelles, Mauritius, Chagos Archipelago, Maldives and Sri Lanka. Outside the area, from the Eastern Indian Ocean/Western Central Pacific, eastward to Polynesia.

A common species around coral reefs.

Feeds on benthic algae.

PRESENT FISHING GROUNDS:

Probably caught throughout most of its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with traps, nets and other kinds of artisanal gear.

Marketed mostly fresh.

