

## FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

## CHLOROPHTHALMIDAE\*

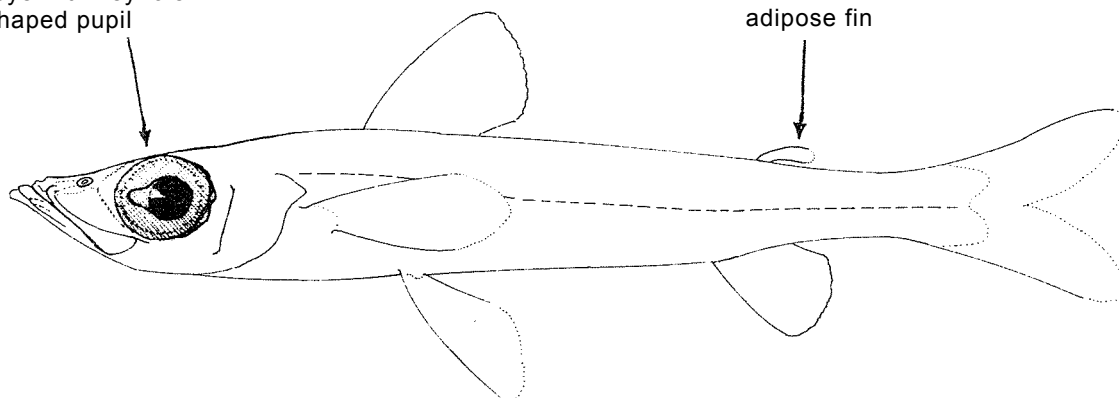
## Greeneyes

Small, moderately slender bottom fishes of the continental shelf and deep sea. Body compressed posteriorly, nearly rounded in cross section anteriorly. Eyes large, their pupils keyhole-shaped; gillrakers lath-like, rounded. No spines in fins; a single dorsal fin with 9 to 13 segmented rays; a small, fleshy adipose fin posteriorly above or just posterior to point of insertion of anal fin; anal fin with 7 to 11 segmented rays; pectoral fins large, reaching beyond end of dorsal fin, with 15 to 20 fin rays; caudal fin bilobed. Scales ctenoid (rough) or cycloid (smooth), present on cheek, opercle and body, those on sides of head usually lost during capture; top of head naked.

Colour: yellowish-brown, sometimes with dusky mottlings. Tapetum of eye brilliant iridescent green.

Small fishes, adults ranging in size from 7 to less than 30 cm total length, inhabiting the edge of the continental shelf and the upper portions of the continental slope (from about 75 to 1 000 m). Greeneyes are bottom-dwelling fishes associated with mud or clay. They feed on benthic crustacea and molluscs (*Chlorophthalmus*). All are synchronous hermaphrodites possessing both maturing ovarian and testicular tissue in the ovotestis. In the Western Indian Ocean, these small fishes are at present of no commercial importance. But they are rather common and largely taken as trash fish by bottom trawls along the edge of the continental shelf.

large eye with keyhole-shaped pupil

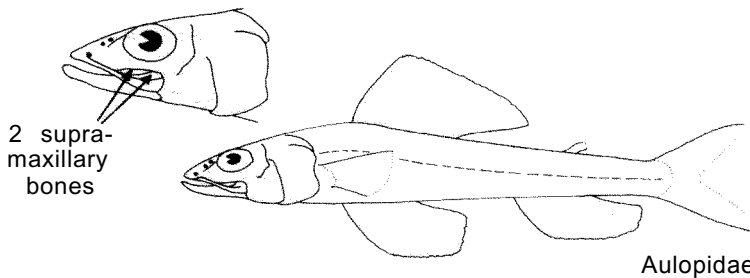


adipose fin

\* Sulak (1977) has expanded the family Chlorophthalmidae to include the previously separate families Ipnopidae and Bathypteroidae. The family is presently divided into the subfamilies Chlorophthalminae and Ipnopinae. Since the Ipnopinae are exclusively deepwater benthic fish and are of no commercial significance, the present account applies only to the Chlorophthalminae

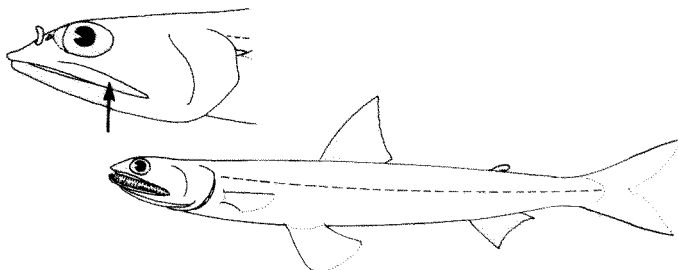
**SIMILAR FAMILIES OCCURRING IN THE AREA:**

Aulopidae: pupil round; two supra-maxillae (1 in Chlorophthalmidae).



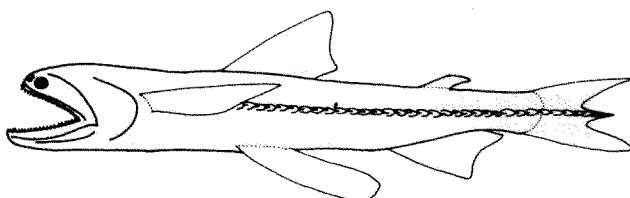
Synodontidae: pupil round; pectoral fins short, usually not reaching beyond dorsal fin origin; teeth and gillrakers needle-like and usually lanceolate; mouth bordered entirely by the premaxilia which extends beyond the eye.

Harpadontidae: pectoral fins short, not reaching dorsal fin origin; eye very small with a round pupil; head and body mostly naked; caudal fin trilobed.



**GENERA OCCURRING IN THE AREA:**

Chlorophthalmus only.



**LIST OF SPECIES OCCURRING IN THE AREA:**

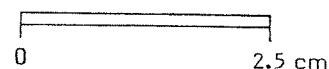
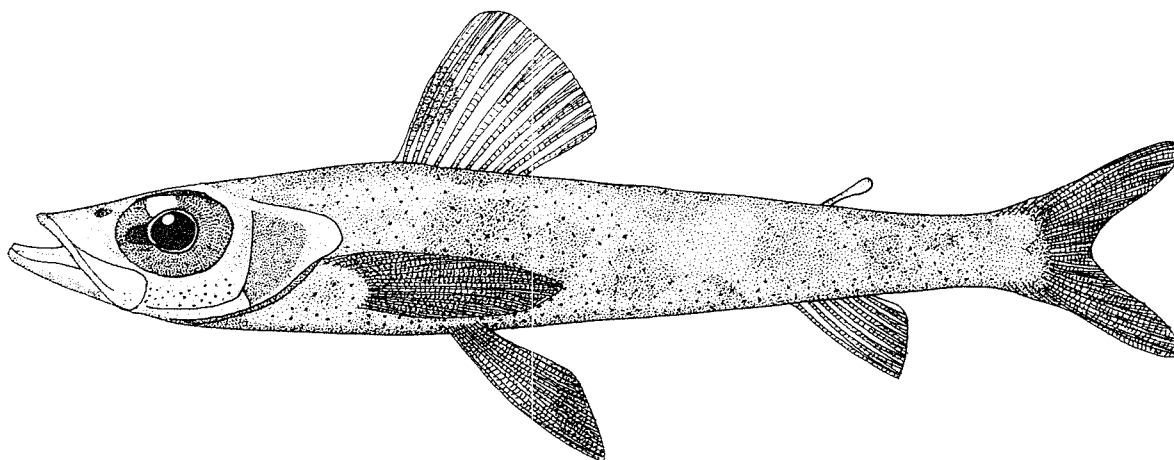
Harpadontidae

Code numbers are given for those species for which Identification Sheets are included

<u>Chlorophthalmus</u> <u>agassizi</u> Bonaparte, 1840	CHLOR Chlor 1
<u>Chlorophthalmus</u> <u>bicornis</u> Norman, 1939	CHLOR Chlor 2
<u>Chlorophthalmus</u> <u>maculatus</u> Kotthaus, 1967	
<u>Chlorophthalmus</u> <u>punctatus</u> Gilchrist, 1905	CHLOR Chlor 3

## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHLOROPHTHALMIDAE

FISHING AREA 51  
(W. Indian Ocean)Chlorophthalmus agassizi Bonaparte, 1840OTHER SCIENTIFIC NAMES STILL IN USE: Chlorophthalmus corniger

## VERNACULAR NAMES:

FAO :           En - Shortnose greeneye  
                   Fr - Verdoeil nez court  
                   Sp - Ojiverde ñato

NATIONAL:

## DISTINCTIVE CHARACTERS:

Snout shorter than eye diameter, contained more than 1.3 times in eye; eye very large, less than 2 times in head teeth. Origin of dorsal fin much closer to tip of snout than to adipose fin. Scales in lateral line 50 to 55.

Colour: brownish or yellowish, covered with large dark blotches, especially the dorsal half; a dark mid-stripe along upper flanks; ventral surface of body around anus, and pharyngeal and peritoneal lining black; gill cover usually black with a metallic luster; margins of both jaws black; inner pelvic fin rays blackish; eyes green.

## DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Chlorophthalmus bicornis: lower jaw terminating in a projecting, denticulate bony plate; origin of dorsal fin closer to adipose fin than to tip of snout.

C. maculatus: lateral-line scales 41 to 43.

C. punctatus: snout length about equal to eye diameter

### SIZE:

Maximum: about 17 cm; common to 12 cm.

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Widespread throughout the area, from South Africa to the Gulf of Aden and eastward to the coasts of Pakistan, India and Sri Lanka. Also found in the Eastern Indian Ocean.

Benthic, inhabits shelf and offshore waters in depths between 150 and 980 m.

Feeds mainly on invertebrates.

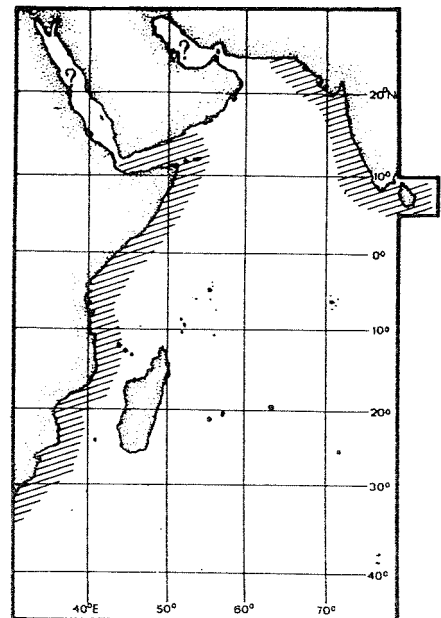
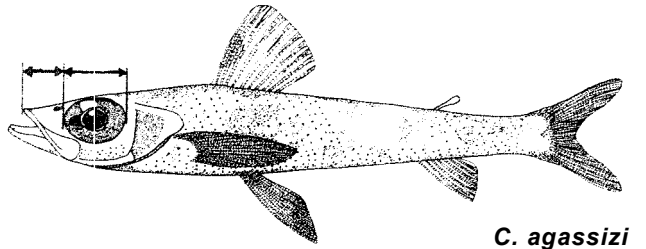
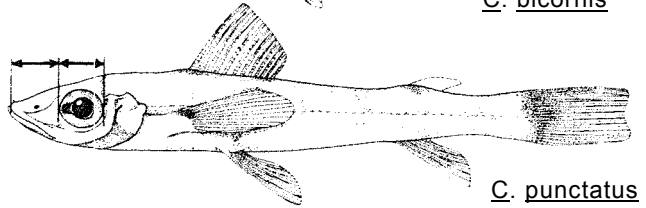
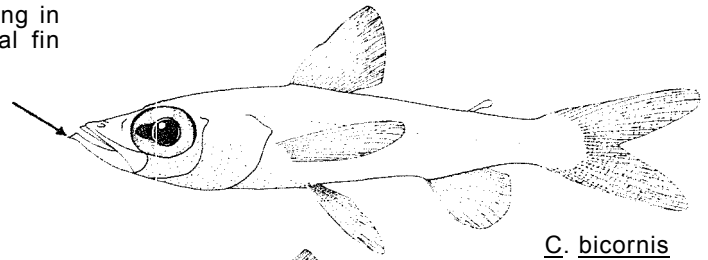
### PRESENT FISHING GROUNDS:

Taken mostly as bycatch throughout its range.

### CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Taken in bottom trawls.

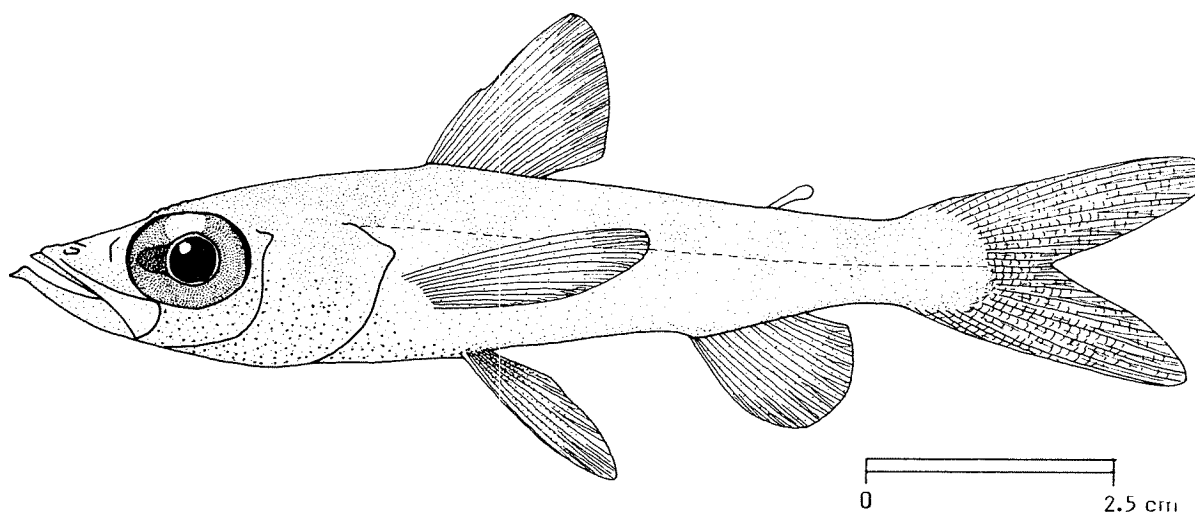


## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHLOROPHTHALMIDAE

FISHING AREA 51  
(W. Indian Ocean)Chlorophthalmus bicornis Norman, 1939

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

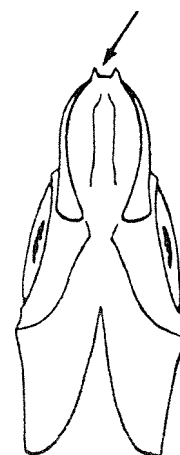
FAO :           En - Spinyjaw greeneye  
                   Fr - Verdoeil barbu  
                   Sp - Ojiverde barbón

NATIONAL:

## DISTINCTIVE CHARACTERS:

Snout shorter than eye diameter (about 1.3 times in eye); lower jaw terminating in a strongly projecting, transverse horizontal plate, the corners of which are produced to form strong, tooth-like processes; no other denticulation at edge of lower jaw. Origin of dorsal fin slightly closer to adipose fin than to tip of snout. Scales in lateral line 48.

Colour: silvery grey, with numerous minute black spots and traces of broad darker crossbars; bases and inner parts of pelvic fins black; eyes green.



underside of head

**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

Other Chlorophthalmus species: no projecting denticulate plate on lower jaw.

**SIZE:**

Maximum: 15 cm; common to 12 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Gulf of Aden and Kerala coast of India, but probably more widespread in the Northwestern Indian Ocean.

Benthic, inhabits deeper offshore waters, in depths ranging from 270 to 370 m depth.

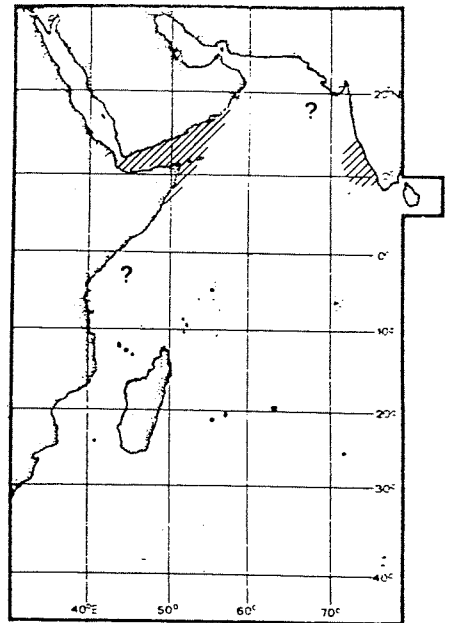
**PRESENT FISHING GROUNDS:**

Taken incidentally throughout its range.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

Taken in bottom trawls.

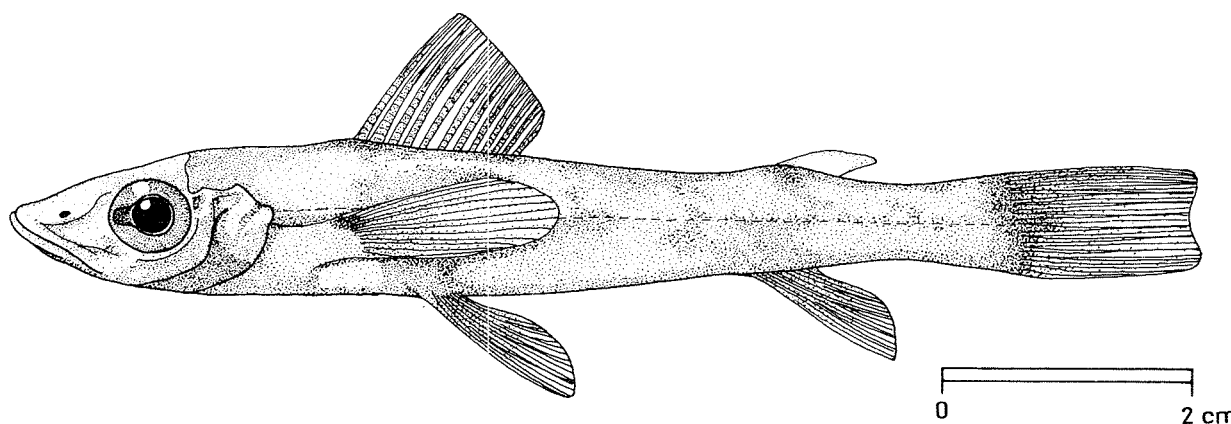


## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHLOROPHTHALMIDAE

FISHING AREA 51  
(W. Indian Ocean)*Chlorophthalmus punctatus* Gilchrist, 1905

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES

FAO :           En - Spotted greeneye  
                  Fr - Verdoeil tachté  
                  Sp - Ojiverde moteado

NATIONAL:

## DISTINCTIVE CHARACTERS:

Snout about equal to eye diameter; eye diameter about 3 times in head length. Origin of dorsal fin closer to tip of snout than to adipose fin. Scales in lateral line 56.

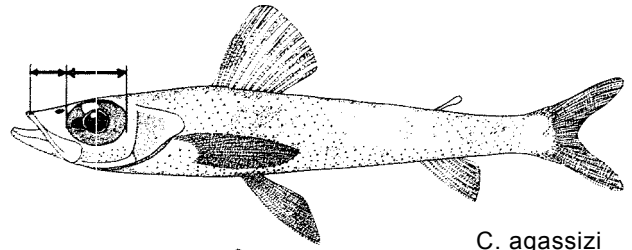
Colour: yellowish, with obscure dusky blotches; minute dark specks marking the oblique scale rows of the body; eyes green.

**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

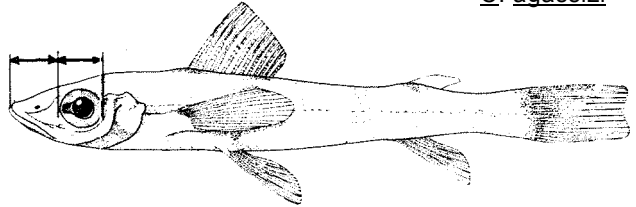
Chlorophthalmus agassizi: eye very large, less than 2 times in head length, and more than 0.5 times in snout length.

C. bicornis: lower jaw with a projecting denticulate plate; origin of dorsal fin closer to adipose fin than to tip of snout; lateral line scales 48 (56 in C. punctatus).

C. maculatus: lateral-line scales 41 to 43 (56 in C. punctatus).



C. agassizi



C. punctatus

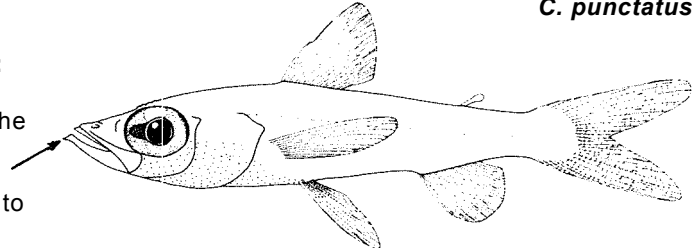
**SIZE:**

Maximum: 10 cm; common to 8 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

South Africa, from the Cape of Good Hope to the Natal coast, and Delagoa Bay.

Benthic, inhabits deeper offshore waters in 280 to 436 m depth.



C. bicornis

**PRESENT FISHING GROUNDS:**

Taken incidentally throughout its range.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

Taken in bottom trawls.

