

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

DACTYLOPTERIDAE *

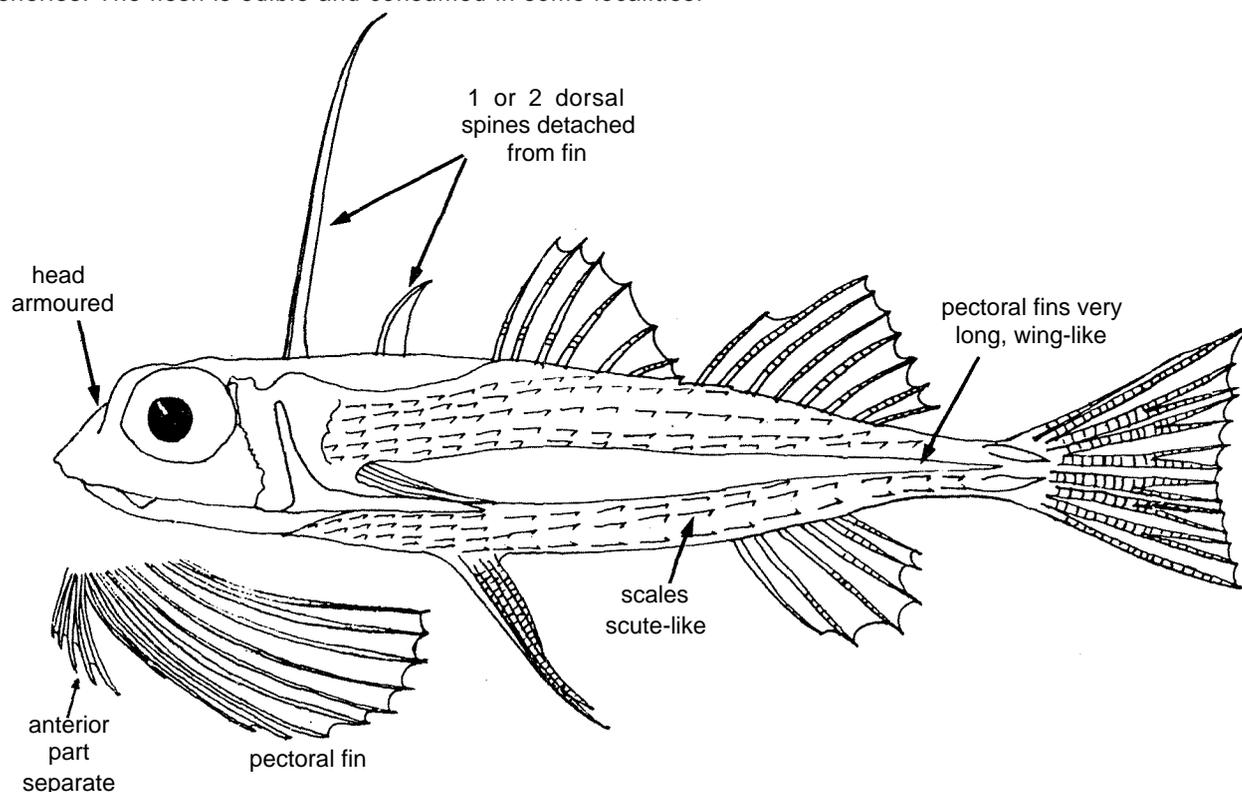
Flying gurnards

Moderately elongate fishes, with heavily armored heads. Head large; mouth small, subterminal, protractile; teeth minute, nodular or absent; eyes large; a small movable bone between plate-like bones around eye and preopercle; preopercle with a prominent elongate spine; gill openings restricted, and fused to isthmus. Spinous and soft parts of dorsal fins separated by a deep notch and a short spinous point, total number of spines 6 or 7, of which the first or the first two anterior ones are separated from the remainder of the fin; soft part of dorsal fin with 8 rays; anal fin with 6 or 7 soft rays; bases of pectoral fins horizontal, these fins divided into 2 sections, a short anterior part, with 5 rays, and a long posterior part, with 25 to 31 rays which reach to caudal fin base in adults; caudal fin emarginate; lower side of posterior part of trunk with 2 to 4 enlarged, keel-like scales. Scales scute-like, forming prominent keels. Lateral line present or absent (obscured by scute-like scales); if present, it extends to near base of caudal fin.

Colour: usually dusky red or purple with brown spots above, pinkish or whitish below; upper surface of pectoral fins brightly coloured, usually bluish, with dark brown and often whitish spots.

Small to moderate-sized marine, bottom-living fishes. Adults reach 40 cm and forage on the bottom using the anterior part of the pectoral fins to search for food. Most are taken inshore with seines over primarily sandy bottoms. The young are pelagic and often taken offshore with lights at night. Six or perhaps 7 species in 2 genera, throughout the world, but only 3 species in the Western Indian Ocean. Found only in tropical or warm temperate waters.

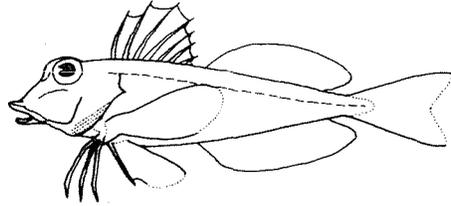
These fishes are usually of little commercial importance, but are often taken as bycatch in nearshore fisheries. The flesh is edible and consumed in some localities.



*Diagnosis applies only to Western Indian Ocean representatives

SIMILAR FAMILIES OCCURRING IN THE AREA:

Triglidae (sea-robins): also have very bony heads and large pectoral fins, but lack the small movable bone (pontinal) at angle of preopercle, and have all dorsal spines united by a fin membrane.



Triglidae

LIST OF SPECIES OCCURRING IN THE AREA:

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

Dactyloptena macracanthus (Bleeker, 1854)

DACTYL Dact 1

Dactyloptena orientalis Cuvier, 1829)

DACTYL Dact 2

Dactyloptena peterseni (Nyström, 1887)

DACTYL Dact 3

Prepared by S.G. Poss, California Academy of Sciences, San Francisco, California, USA

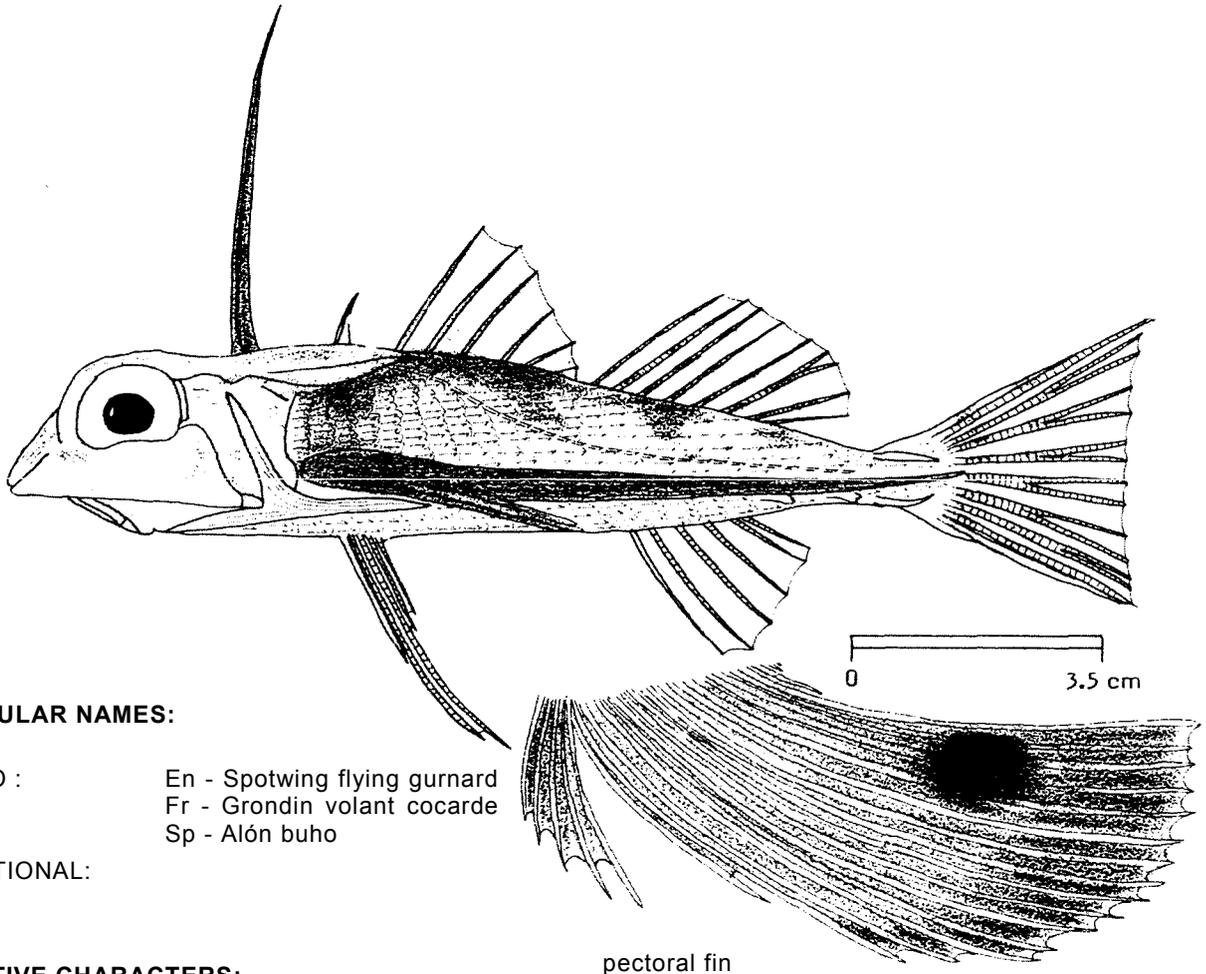
Main species illustrations provided by author

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: DACTYLOPTERIDAE

FISHING AREA 51
(W. Indian Ocean)*Dactyloptena macracanthus* (Bleeker, 1854)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO : En - Spotwing flying gurnard
 Fr - Grondin volant cocarde
 Sp - Alón buho

NATIONAL:

DISTINCTIVE CHARACTERS:

A moderately elongate fish. Body squarish in cross section. Head broad, blunt, depressed anteriorly; a prominent keeled spine extending posteriorly from nape to below second spine of continuous spinous part of dorsal fin; angle of preopercle with a long, prominent spine; jaws with a band of small nodular teeth. Spinous and soft dorsal fins separated by a deep notch; anterior 2 dorsal-fin spines separated from remainder of spinous dorsal fin, the first spine elongate, the second short; anal fin with 6 or 7 soft rays; bases of pectoral fins horizontal, pectoral fins divided into 2 sections, a short anterior part, with 5 rays, and a long posterior part, with 27 to 31 rays which reach to caudal fin base in adults (much shorter in young); caudal fin emarginate; lower side of posterior part of trunk with 3 or 4 enlarged keel-like scales, the first just above anus. Scales scute-like, with large sharp keels. Lateral line present and extending to near base of caudal fin.

Colour: dusky violet above and pinkish below; an oblong black blotch over middle of pectoral fin.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Other Dactyloptena species: lateral line absent (lateral line present in Dactyloptena macracanthus); no oblong black blotch on pectoral fin.

Triglidae are superficially similar in having the head encased in bony armour and large pectoral fins but differ in having the spinous dorsal fin entire and with all spines united by a fin membrane.

SIZE:

Maximum: 16.5 cm total length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR :

In the area, known from southern India and Sri Lanka. Reported elsewhere from the Philippines, Singapore, Ambon, Banda, Makassar and Menado.

PRESENT FISHING GROUNDS:

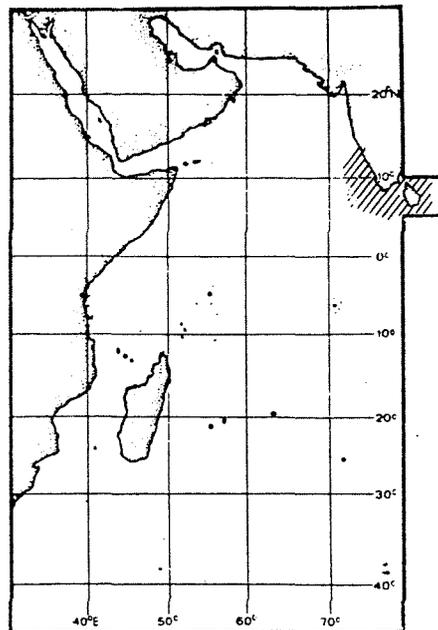
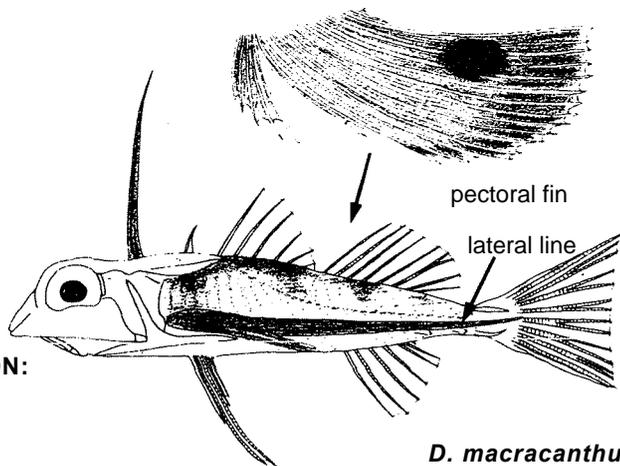
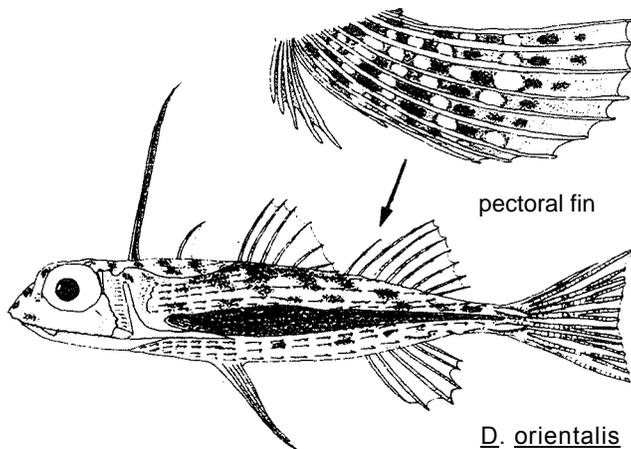
Not fished for commercially, but taken incidentally throughout its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Usually taken near shore with seines.

Marketed fresh occasionally.

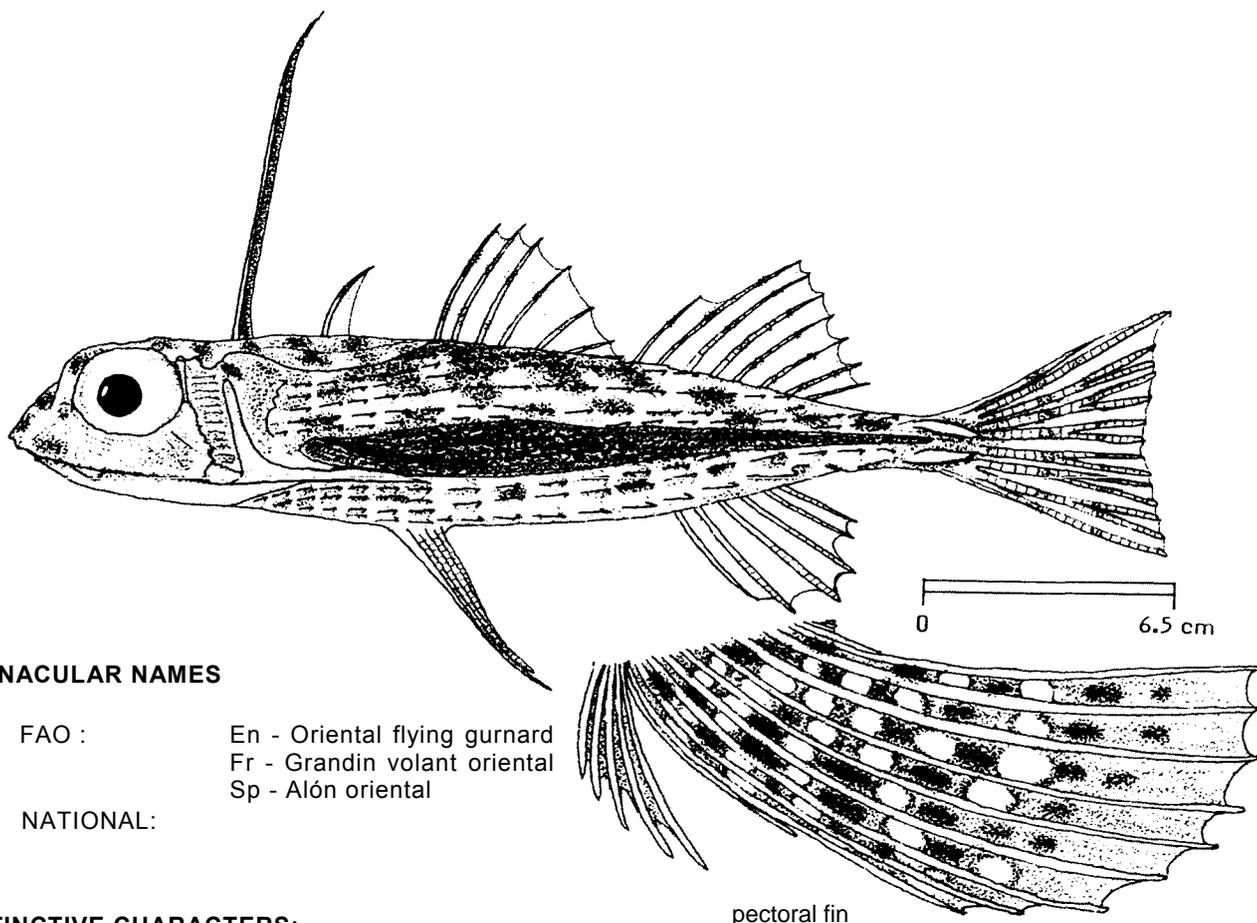


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: DACTYLOPTERIDAE

FISHING AREA 51
(W. Indian Ocean)*Dactyloptena orientalis* (Cuvier, 1829)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES

FAO : En - Oriental flying gurnard
Fr - Grandin volant oriental
Sp - Alón oriental

NATIONAL:

DISTINCTIVE CHARACTERS:

A moderately elongate fish. Body squarish in cross section. Head broad, blunt, depressed anteriorly; a prominent keeled spine extending posteriorly from nape to below second spine of continuous spinous part of dorsal fin; angle of preopercle with a long, prominent spine; jaws with a band of small nodular teeth. spinous and soft dorsal fins separated by a deep notch; anterior 2 dorsal-fin spines separated from remainder of spinous dorsal fin, the first spine elongate, the second short; anal fin with 6 or 7 soft rays; bases of pectoral fins horizontal, pectoral fins divided into 2 sections, a short anterior part, with 5 rays, and a long posterior part, with 27 to 30 rays which reach to caudal fin base in adults (much shorter in young); caudal fin emarginate; lower side of posterior part of trunk with 3 or 4 enlarged keel-like scales, the first just above anus. Scales scute-like, with sharp keels. Lateral line absent (obscured).

Colour: variable, usually yellowish brown above, lighter brown below, with small orange spots over top of head and back, with dusky, golden spots on pectoral fins (larger distally; 4 golden bands in caudal fin, with a yellow band along upper part of spinous dorsal fin).

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Dactyloptena macracanthus: lateral line present and extending to caudal peduncle; an oblong black blotch over middle of pectoral fin; no orange spots on head and back.

D. peterseni: a single dorsal spine anterior to continuous part of spinous dorsal fin (2 spines, one long and one short, separate from continuous part of spinous dorsal fin in D. orientalis).

Triglidae are superficially similar in having the head encased in bony armour and large pectoral fins, but differ in having the spinous dorsal fin entire and with all spines united by a fin membrane.

SIZE:

Maximum: 40 cm (total length); common to 20 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Throughout most of the area, from East Africa and the Red Sea (personal communication from A. Ben-Tuvia), eastward to India. Elsewhere, throughout the Indo-West Pacific from Japan to Australia.

A benthic fish inhabiting primarily sandy bottoms in shallow coastal waters; capable of "walking" on the bottom by alternately moving pelvic fins and short pectoral-fin rays. The enlarged pectoral fin rays are spread when the fish is alarmed.

Feeds primarily on benthic crustaceans, clams and small fishes.

PRESENT FISHING GROUNDS :

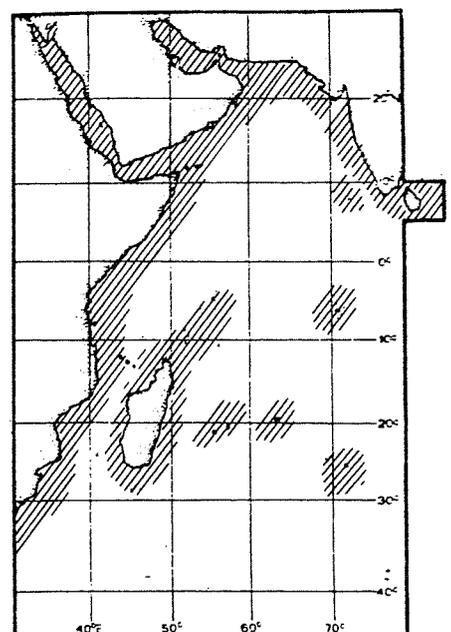
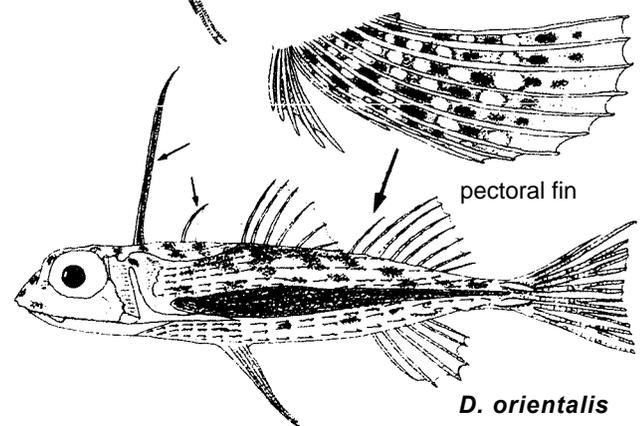
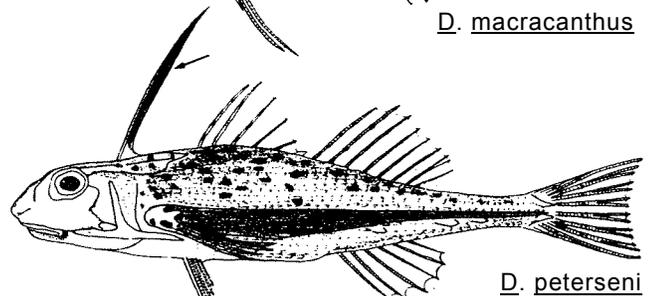
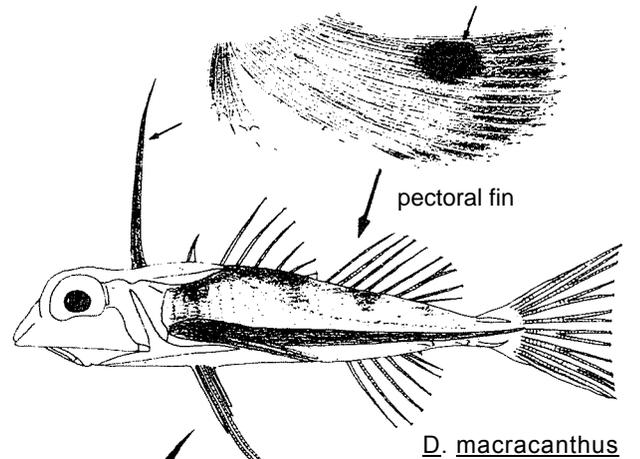
Not fished for commercially, but taken incidentally throughout its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

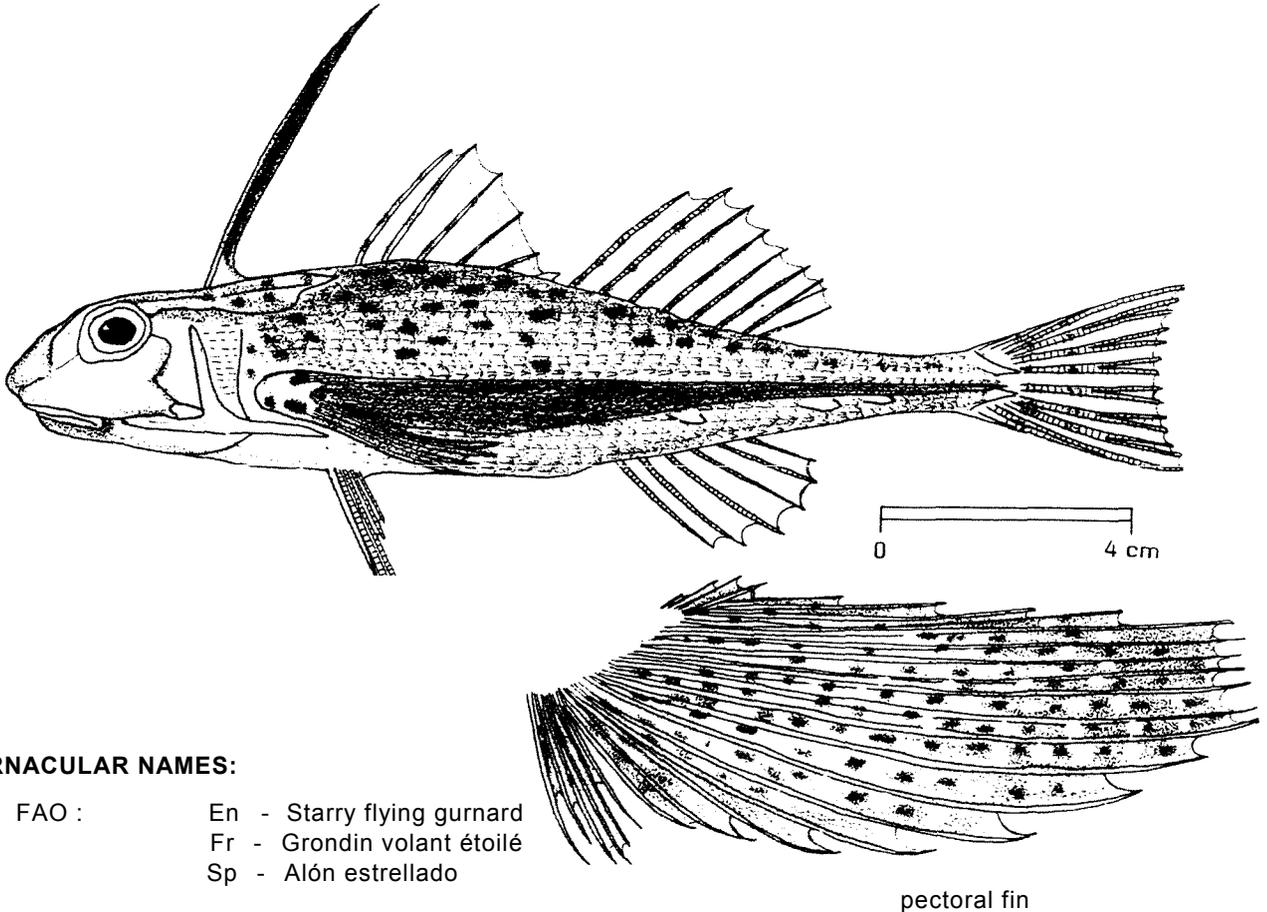
Adults are usually taken with seines; young are often taken at night near the surface where they can be attracted by light.

Marketed fresh occasionally, especially in India.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: DACTYLOPTERIDAE

FISHING AREA 51
(W. Indian Ocean)Dactyloptena peterseni (Nystrom, 1887)OTHER SCIENTIFIC NAMES STILL IN USE : Daicocus peterseni

VERNACULAR NAMES:

FAO : En - Starry flying gurnard
Fr - Grondin volant étoilé
Sp - Alón estrellado

NATIONAL:

DISTINCTIVE CHARACTERS:

A moderately elongate fish. Body squarish in cross section. Head broad, blunt, depressed anteriorly, top and sides encased in a bony shield; interorbital region concave, its depth at midline about two thirds width of pupil; a prominent keeled spine extending posteriorly from nape to below second spine of continuous part of dorsal fin; angle of preopercle with a long, prominent spine; jaws with a band of small nodular teeth. Spinous and soft dorsal fins separated by a deep notch; a single elongate filamentous spine widely separated from remainder of spinous dorsal fin; anal fin with 6 soft rays; bases of pectoral fins horizontal, pectoral fins divided into 2 sections, a short anterior part, with 5 rays, and a long posterior part, with 25 or 26 rays which reach to caudal fin base in adults; caudal fin emarginate; lower side of posterior part of trunk with 3 enlarged keel-like scales the first above middle of anal fin. Scales scute-like, with sharp keels. Lateral line absent (obscured).

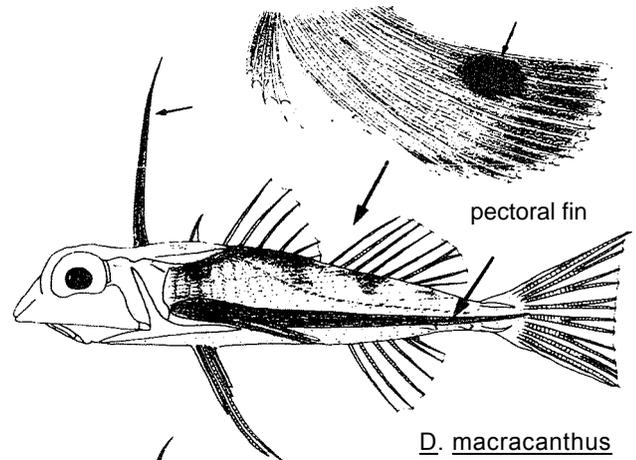
Colour: pale red above, whitish below, top of head and upper part of body with small round black spots, pectoral fins pale brown, with numerous dark brown spots which are slightly larger than those on body.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Dactyloptena macracanthus: lateral line present and extending to caudal peduncle lateral line absent in D. peterseni); an oblong black blotch over middle of pectoral fin.

D. orientalis: 2 separate spines anterior to continuous part of spinous dorsal fin (one elongate spine widely separated from remainder of dorsal fin in D. peterseni).

Triglidae are superficially similar in having the head encased in bony armour and large pectoral fins but differ in having the spinous dorsal fin entire and with all spines united by a fin membrane.



SIZE:

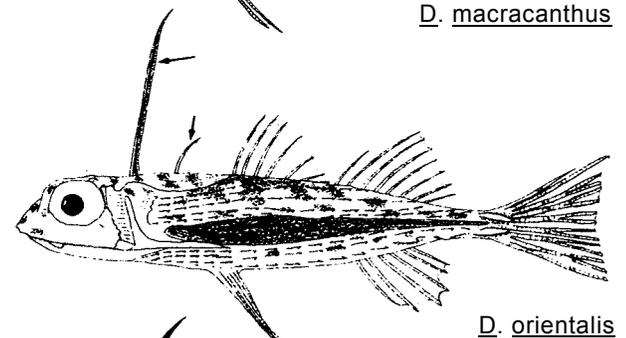
Maximum: 25 cm (total length); common to 15 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, known from South Africa*, elsewhere from southern Japan and South China Sea.

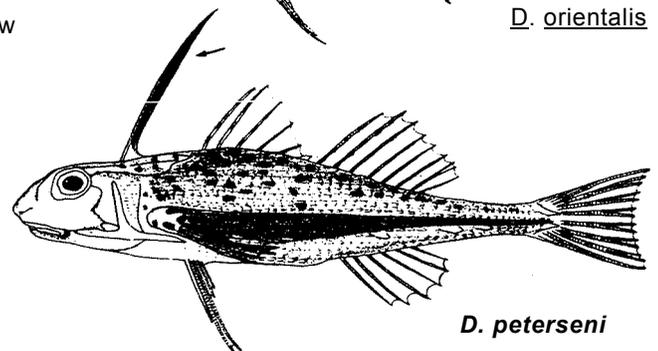
A benthic fish found on sandy bottoms in shallow coastal waters.

Feeds primarily on benthic crustaceans.



PRESENT FISHING GROUNDS:

Not fished for commercially.

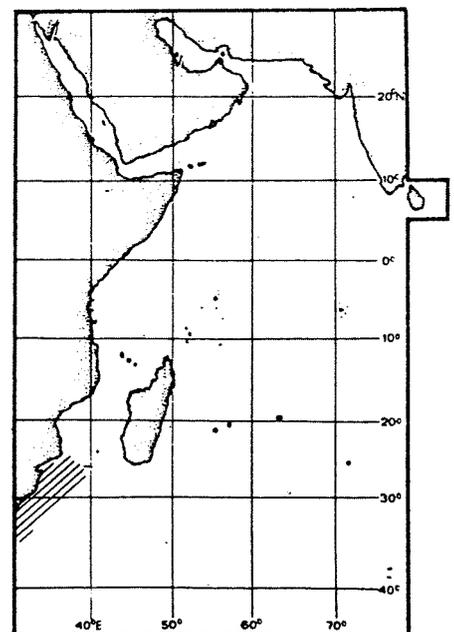


CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Adults are taken mostly with seines.

Rarely used as food.



*Record based on Smith (1961) Sea Fishes of Southern Africa