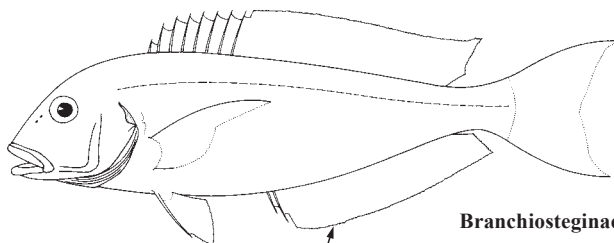


BRANCHIOSTEGIDAE Vol. 3, p. 1395

Tilefishes

Mostly on soft or rubble bottoms from 10 to 600 m. Branchiosteginae with 8 species and Malacanthinae with 1 species in the area.

long dorsal fin with 4-5 spines and 54-60 soft rays


Branchiosteginae

anal fin with 1-2 spines and 13-25 soft rays

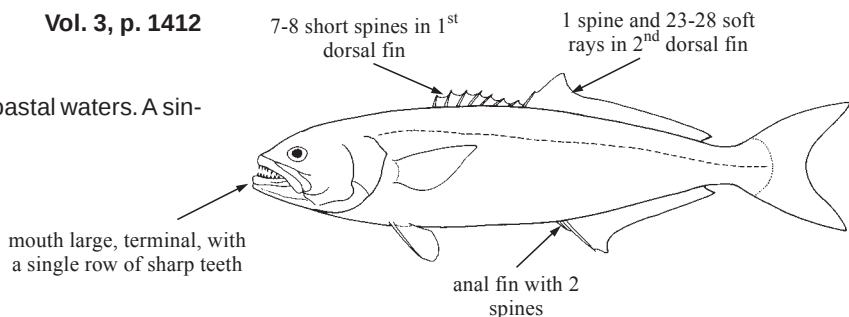
opercle with 1 sharp spine anal fin with 1 spine and 48-55 soft rays **Malacanthinae**

POMATOMIDAE

Vol. 3, p. 1412

Bluefishes

To 110 cm. Epipelagic in coastal waters. A single species



mouth large, terminal, with a single row of sharp teeth

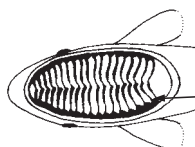
anal fin with 2 spines

ECHENEIDAE

Vol. 3, p. 1414

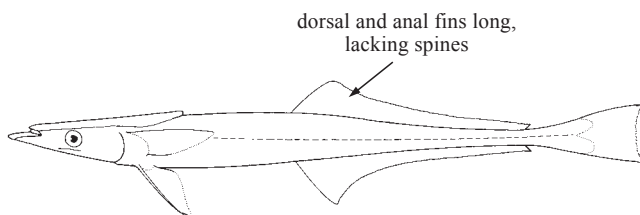
Remoras

To 90 cm. Pelagic in coastal and oceanic waters. They attach by means of their sucking disc to large fish, sea turtles, and marine mammals. Eight species in the area.



dorsal view of head

sucking disc



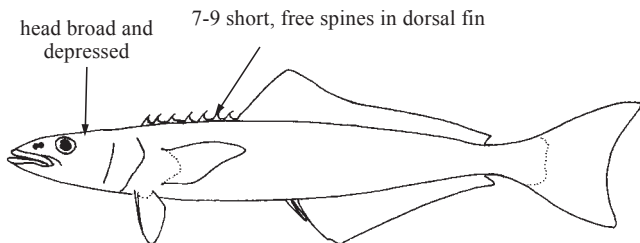
dorsal and anal fins long, lacking spines

RACHYCENTRIDAE

Vol. 3, p. 1420

Cobia

To 200 cm. Pelagic in coastal waters, from the surface to a depth of 50 m. A single species in the area.



head broad and depressed

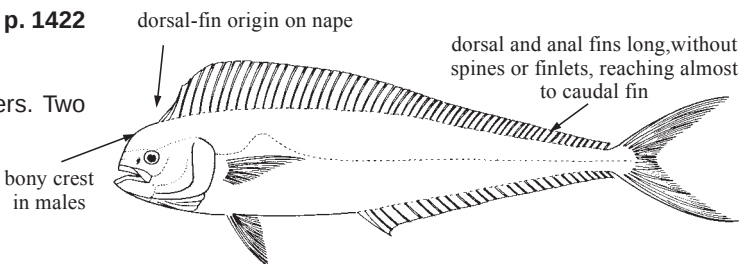
7-9 short, free spines in dorsal fin

CORYPHAENIDAE

Vol. 3, p. 1422

Dolphinfishes

To 200 cm. Pelagic in oceanic waters. Two species, both in the area.



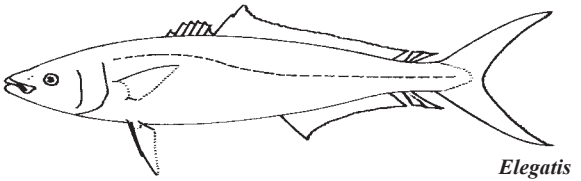
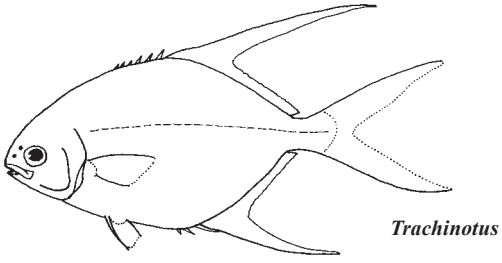
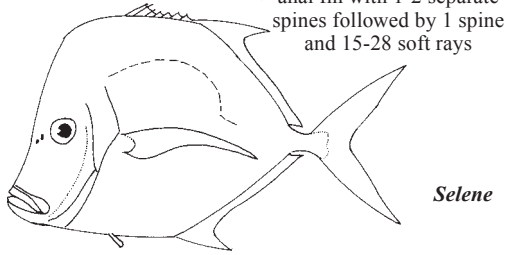
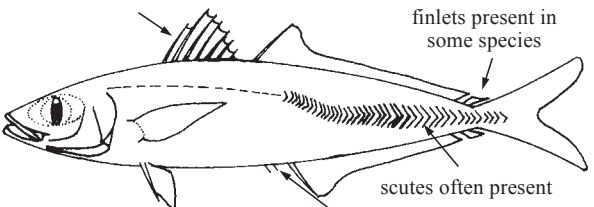
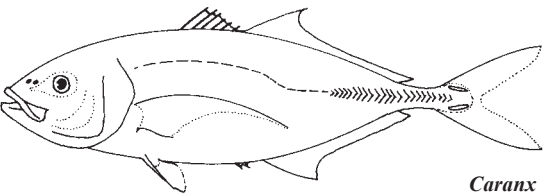
CARANGIDAE

Vol. 3, p. 1426

Jacks, scads, and allies

To 150 cm. Demersal or pelagic in coastal and oceanic waters. Thirty-two species in the area.

2 dorsal fins, sometimes separate, the 1st with 4-8 spines, the 2nd with 1 spine and 18-39 rays

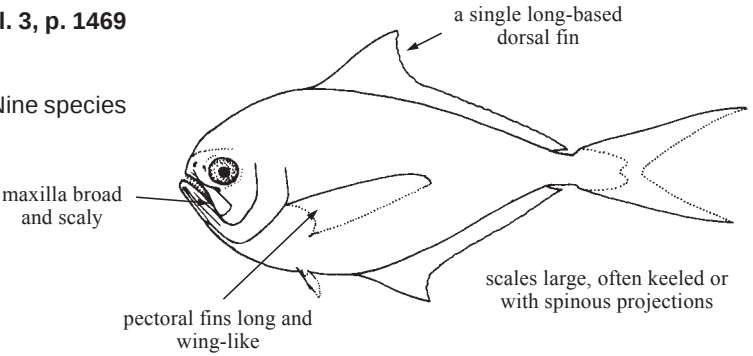


BRAMIDAE

Vol. 3, p. 1469

Pomfrets

To 100 cm. Epi- or mesopelagic. Nine species in the area.

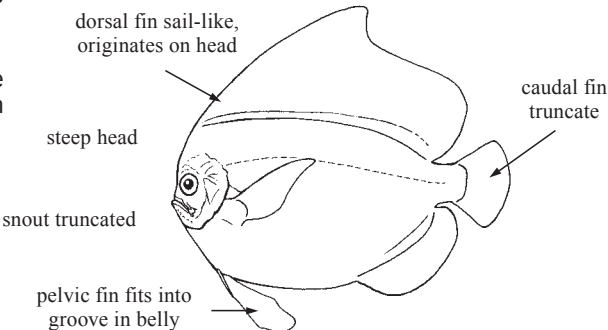


CARISTIIDAE

Vol. 3, p. 1473

Manefishes

To about 27 cm. Epi- to bathypelagic. A single species of questionable identity reported from the area.

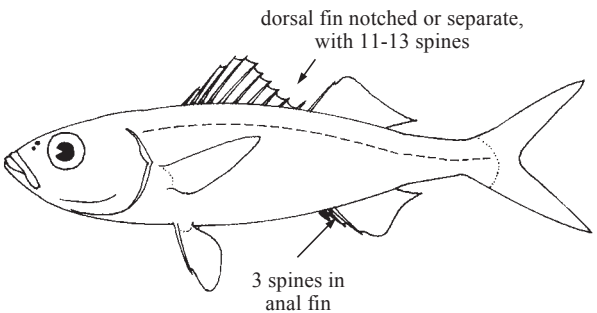
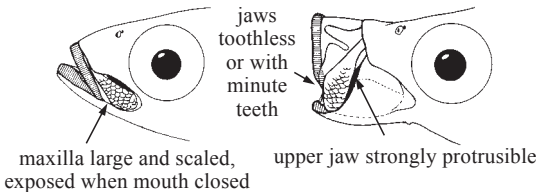


EMMELICHTHYIDAE

Vol. 3, p. 1475

Rovers, rubyfishes

To 55 cm. Near bottom at depths between 57 and 500 m. Two species in the area.

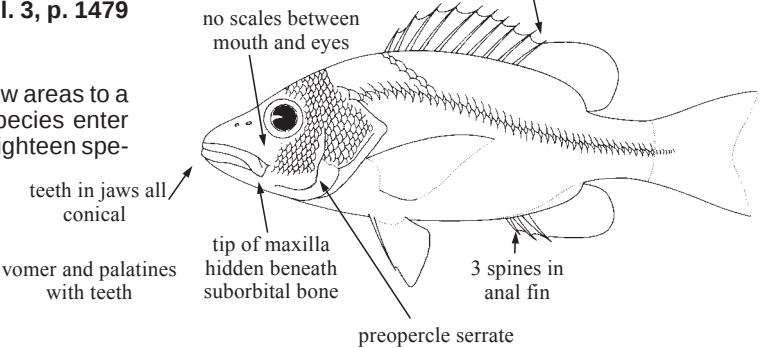


LUTJANIDAE

Vol. 3, p. 1479

Snappers

To 160 cm. Demersal, from shallow areas to a depth of around 550 m; some species enter brackish or hypersaline waters. Eighteen species in the area.

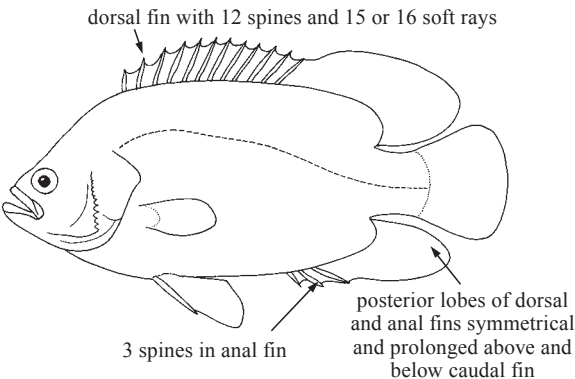


LOBOTIDAE

Vol. 3, p. 1505

Tripletails

To 110 cm. Pelagic in coastal and brackish waters drifting near the surface. A single species in the area.



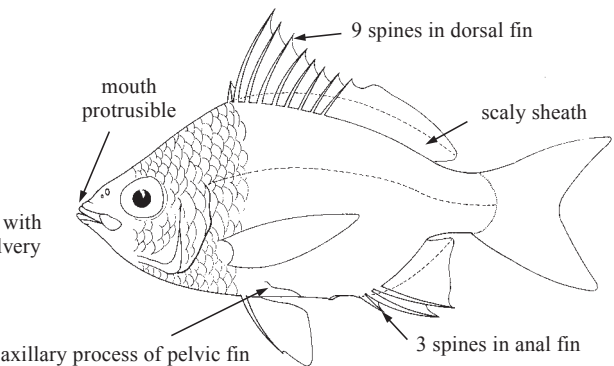
GERREIDAE

Vol. 3, p. 1506

Mojarras

To 40 cm. Demersal in coastal marine waters to a depth of about 50 m; also in brackish and hypersaline waters and in fresh water.

head and body with
well visible silvery
scales

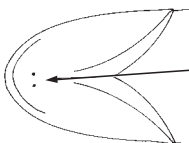


HAEMULIDAE

Vol. 3, p. 1522

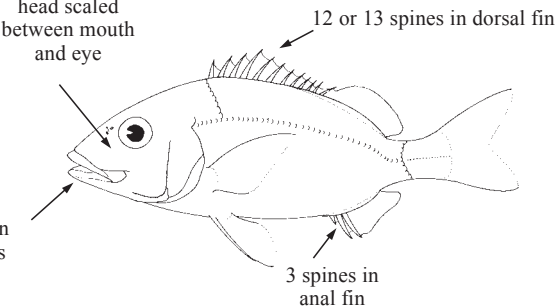
Grunts

To 75 cm. Demersal in marine waters from the coastline to a depth of about 100 m, but also in brackish waters and rarely in fresh water.



ventral view of head

head scaled
between mouth
and eye



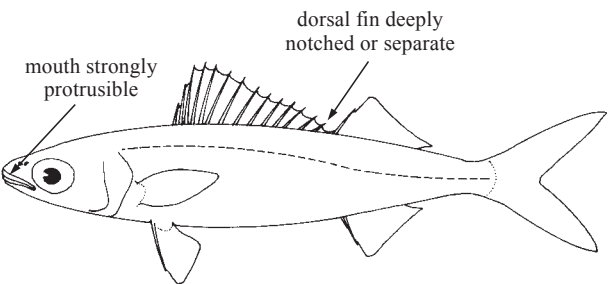
INERMIIIDAE

Vol. 3, p. 1551

Bonnetmouths

To 25 cm. Pelagic in coastal and oceanic marine waters. Two species in the area.

teeth absent in jaws and
roof of mouth



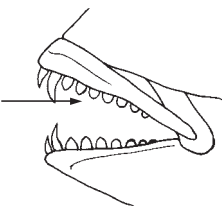
SPARIDAE

Vol. 3, p. 1554

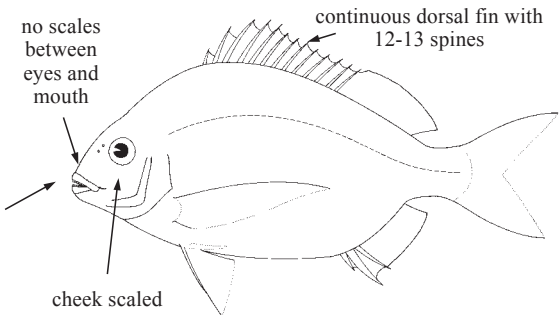
Porgies

To 75 cm. Demersal in in coastal waters typically over hard bottom. Nineteen species in the area.

roof of
mouth
usually
without



anterior teeth
canines or
incisors, lateral
teeth molars

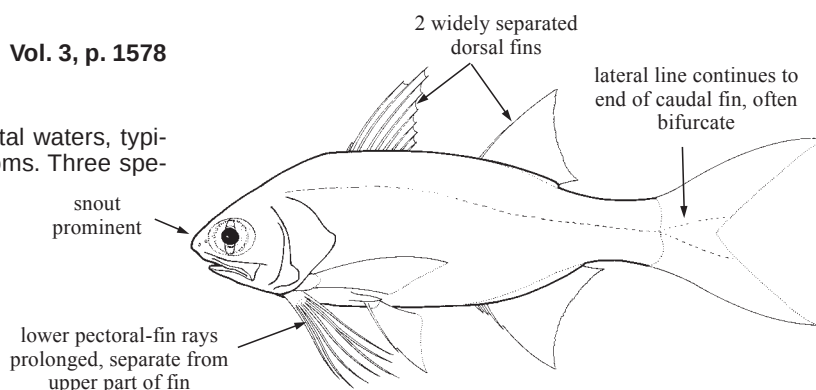


POLYNEMIDAE

Vol. 3, p. 1578

Threadfins

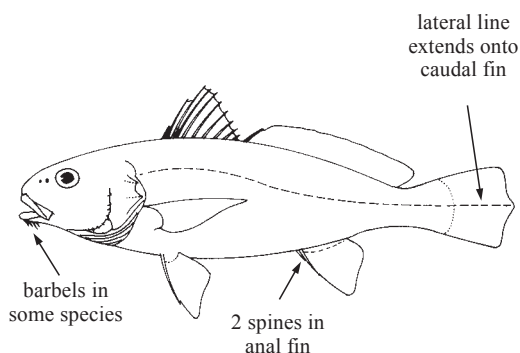
To 43 cm. Demersal in coastal waters, typically over sand or mud bottoms. Three species in the area.

**SCIAENIDAE**

Vol. 3, p. 1583

Croakers

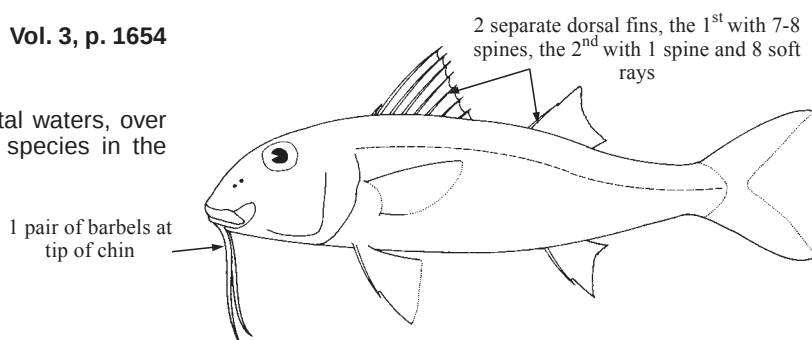
To 110 cm. Usually demersal in coastal waters, over sandy or muddy bottoms but some also on coral reefs. Around 60 species in the area.

**MULLIDAE**

Vol. 3, p. 1654

Goatfishes

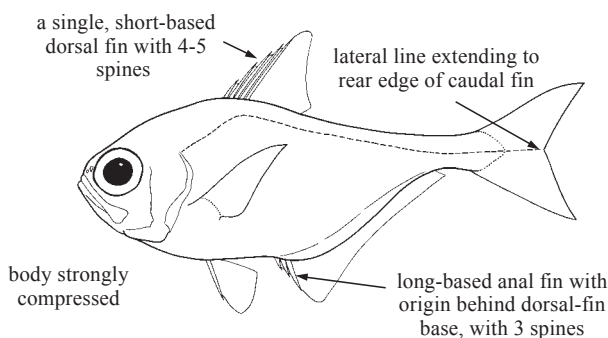
To 40 cm. Demersal in coastal waters, over sand or mud bottoms. Four species in the area.

**PEMPHERIDAE**

Vol. 3, p. 1660

Sweepers

To 15 cm. Demersal in coastal waters, on rocky or coral reef bottoms to a depth of 30 m. Two species in the area.

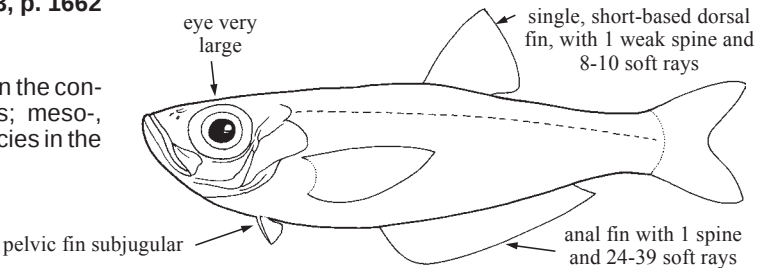


BATHYCLUPEIDAE

Vol. 3, p. 1662

Bathyclupeids

To around 21 cm. Deep-sea fishes on the continental slope and oceanic waters; meso-, bathy-, or benthopelagic. Three species in the area.

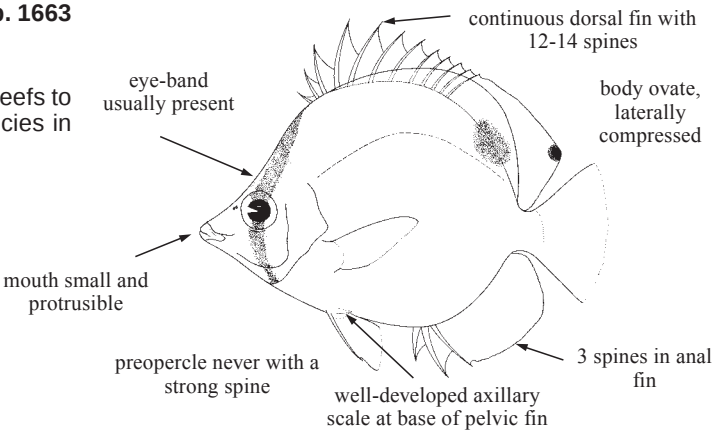


CHAETODONTIDAE

Vol. 3, p. 1663

Butterflyfishes

To 20 cm. Demersal on rocky or coral reefs to a depth of 200 m or more. Seven species in the area.

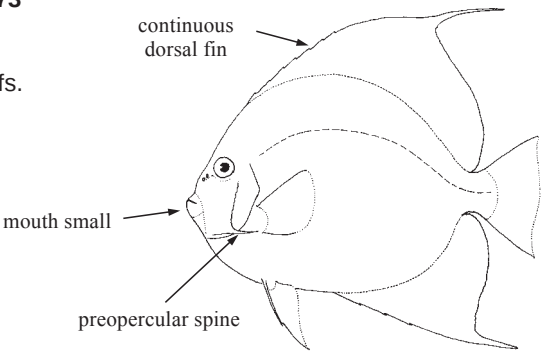


POMACANTHIDAE

Vol. 3, p. 1673

Angelfishes

To 60 cm. Demersal on rocky or coral reefs. Seven species in the area.

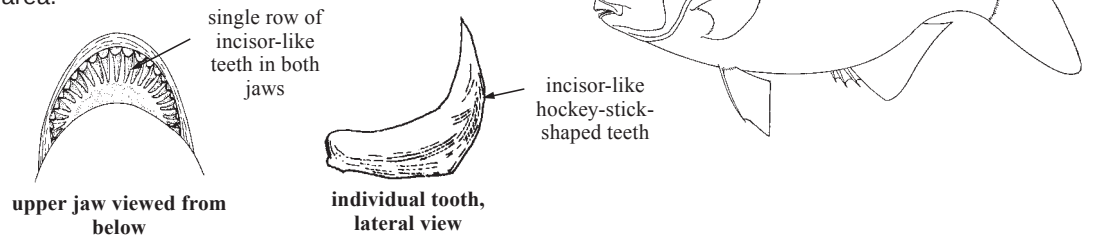


KYPHOSIDAE

Vol. 3, p. 1684

Sea chubs

To 76 cm. Demersal over coral or rocky reefs or schooling far offshore. Two species in the area.

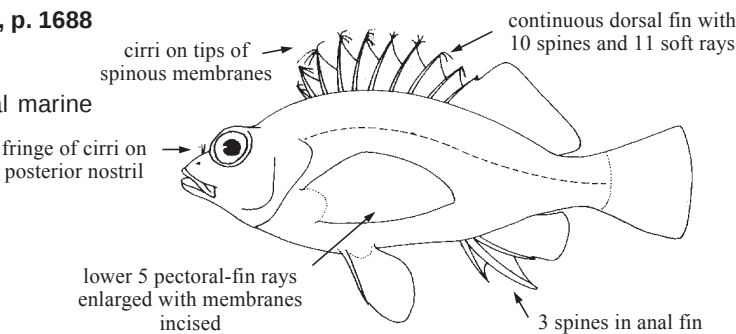


CIRRHITIDAE

Vol. 3, p. 1688

Hawkfishes

To about 9 cm. Demersal in coastal marine waters above a depth of 20 m.



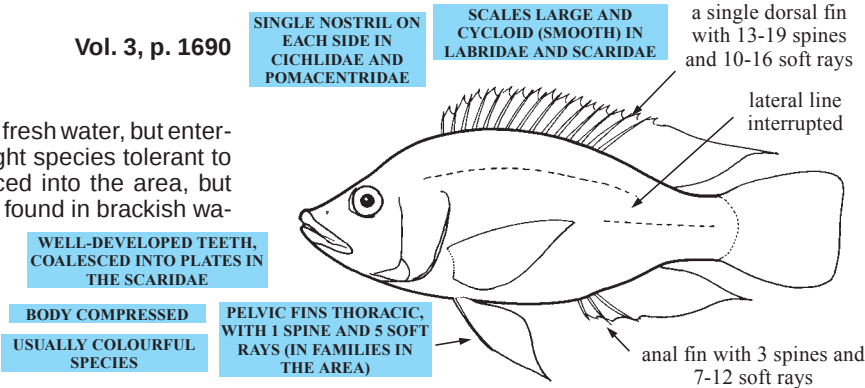
Order PERCIFORMES: Suborder LABROIDEI - Wrasses and allies

CICHLIDAE

Vol. 3, p. 1690

Cichlids

To about 74 cm. Usually fresh water, but entering brackish waters. Eight species tolerant to brackish water introduced into the area, but only 1 species regularly found in brackish water.

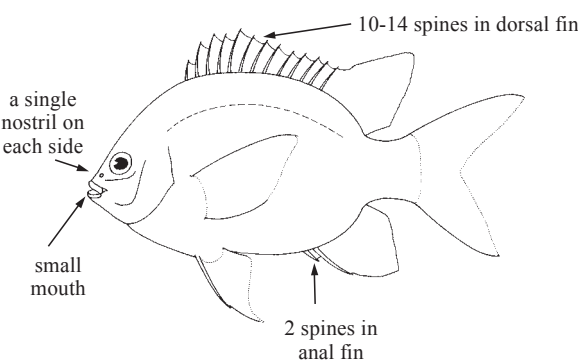


POMACENTRIDAE

Vol. 3, p. 1694

Damselfishes, sergeantfishes, chromis

To 38 cm. Demersal on coral reefs. Twenty species in the area.

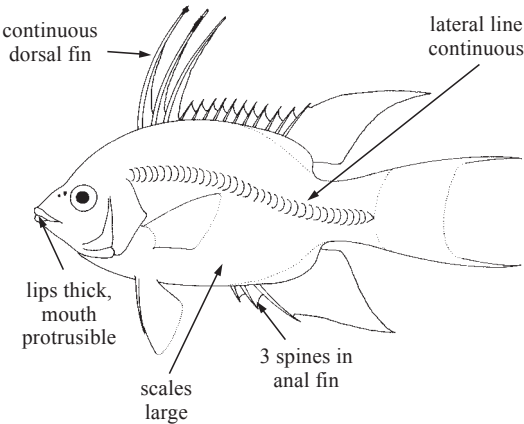
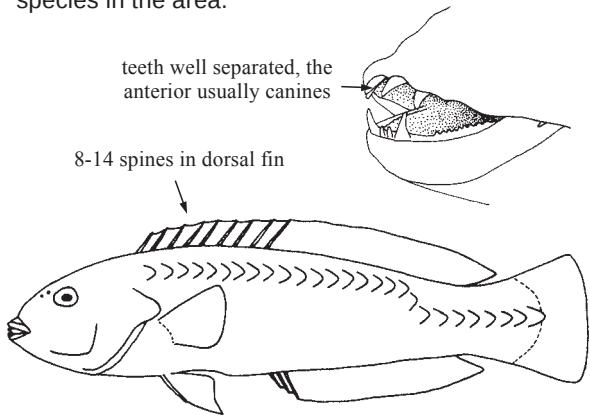


LABRIDAE

Vol. 3, p. 1701

Wrasses

To 70 cm, but generally smaller than 20 cm. Demersal in shallow coastal habitats. Twenty species in the area.

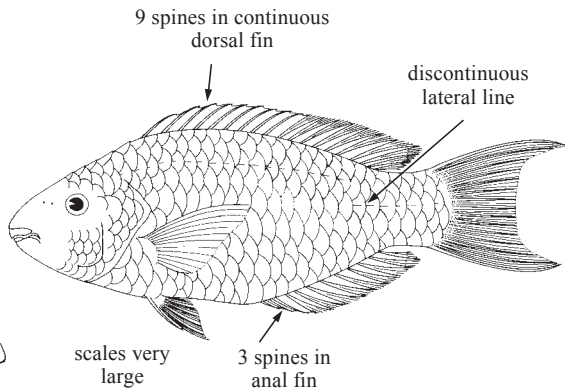
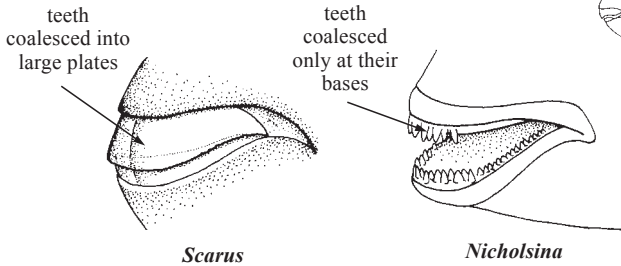


SCARIDAE

Vol. 3, p.1723

Parrotfishes

To 90 cm. Demersal on coral reefs. Fourteen species in the area.



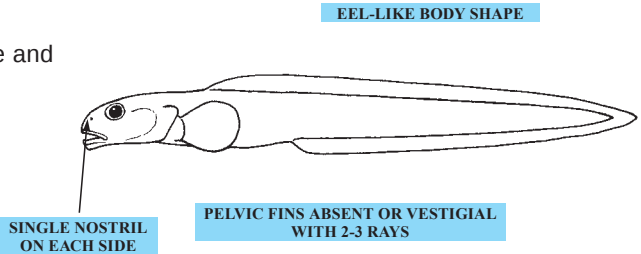
Order PERCIFORMES: Suborder ZOARCOIDEI - Eelpouts

ZOARCIDAE

Vol. 3, p.1740

Eelpouts

To 40 cm. Demersal on upper continental slope and abyssal depths. Four species in the area.



Order PERCIFORMES: Suborder TRACHINOIDEI - Stargazers and allies

A diverse assemblage of families difficult to characterize as a group; the composition of this suborder is provisional.

CHIASMODONTIDAE

Vol. 3, p.1742

Swallowers

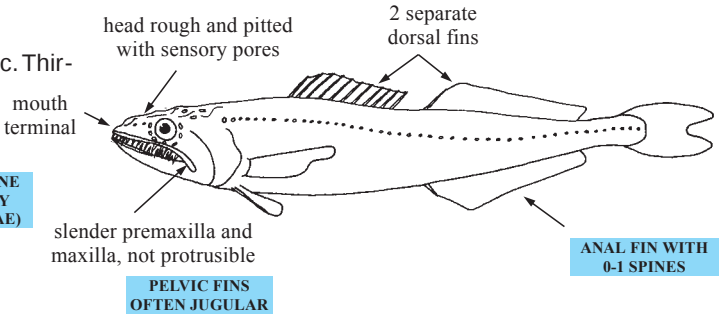
To about 26 cm. Meso- and bathypelagic. Thirteen species in the area.

LOWER JAW USUALLY PROJECTING BEYOND UPPER JAW

PELVIC FINS WITH 1 SPINE AND 5 SOFT RAYS (VERY SMALL IN AMMODYTIDAE)

BODY MODERATELY ELONGATE

SOFT DORSAL AND ANAL FIN ELONGATE

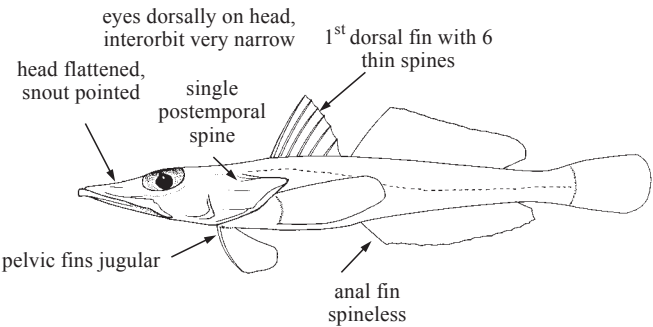


PERCOPHIDAE

Vol. 3, p. 1744

Flatheads

To about 25 cm. Demersal on continental shelves, between depths of 80 and 800 m.

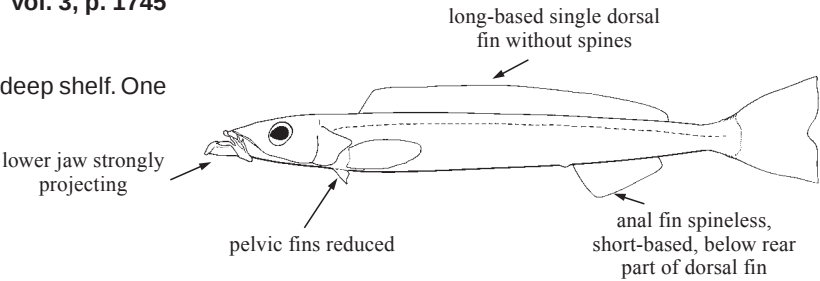


AMMODYTIDAE

Vol. 3, p. 1745

Sandlances

To about 12 cm. Demersal on deep shelf. One species in the area.

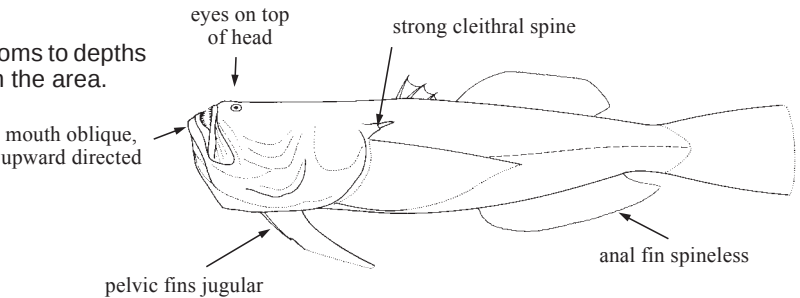


URANOSCOPIDAE

Vol. 3, p. 1746

Stargazers

To 44 cm. Demersal on soft bottoms to depths of about 550 m. Four species in the area.



Order PERCIFORMES: Suborder BLENNIOIDEI - Blennies and allies

TRIPTERYGIIDAE

Vol. 3, p. 1748

Triplefins

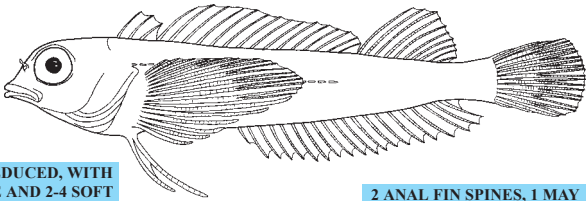
To 3 cm. Demersal on shallow rocky and coral reefs. Around 9 species in the area, 5 described and at least 4 undescribed.

DORSAL-FIN
BASE LONG

3 distinct dorsal fins, 1st with 3 spines, 2nd with 10-13 spines, 3rd with 7-10 soft rays

PELVIC FINS REDUCED, WITH 1 HIDDEN SPINE AND 2-4 SOFT RAYS LOCATED AHEAD OF PECTORAL FINS

2 ANAL FIN SPINES, 1 MAY BE HARD TO SEE



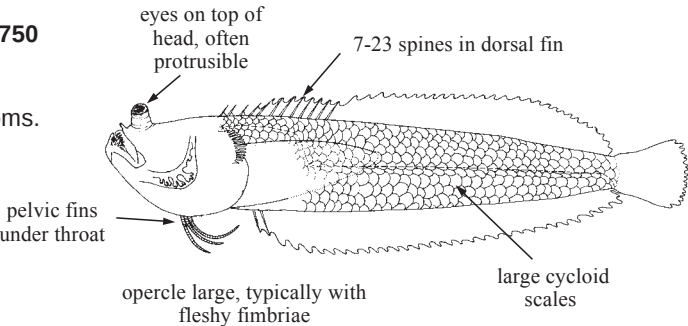
ctenoid scales present

DACTYLOSCOPIDAE

Vol. 3, p. 1750

Sand stargazers

To about 15 cm. Demersal on sandy bottoms. Sixteen species in the area.



eyes on top of head, often protrusible

7-23 spines in dorsal fin

pelvic fins under throat

opercle large, typically with fleshy fimbriae

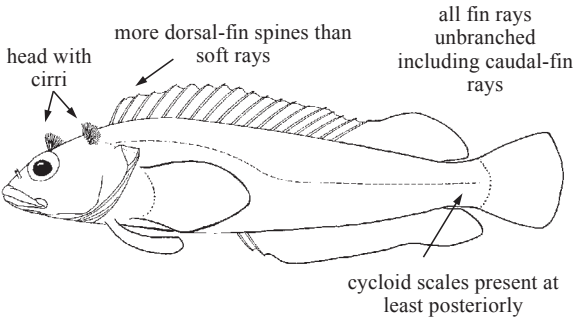
large cycloid scales

LABRISOMIDAE

Vol. 3, p. 1754

Labrisomids

To about 20 cm. Demersal on shallow, rocky, shelly, or reef habitats. At least 41 species in the area.



head with cirri

more dorsal-fin spines than soft rays

all fin rays unbranched including caudal-fin rays

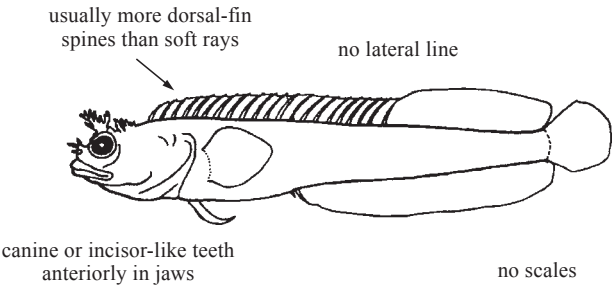
cycloid scales present at least posteriorly

CHAENOPSIDAE

Vol. 3, p.1761

Tubeblennies

To about 12 cm. Demersal, usually in holes in hard substrates. Around 47 species in the area.



usually more dorsal-fin spines than soft rays

no lateral line

canine or incisor-like teeth anteriorly in jaws

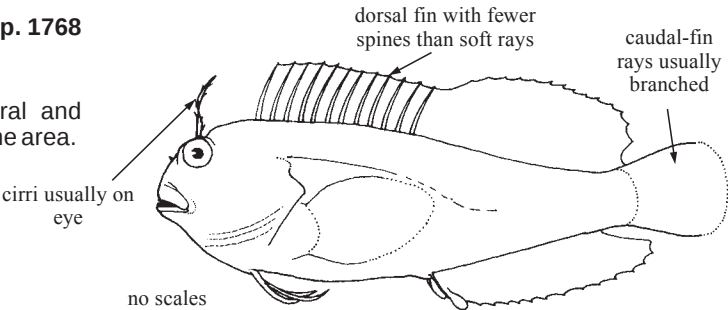
no scales

BLENNIIDAE

Vol. 3, p. 1768

Combtooth blennies

To about 13 cm. Demersal in littoral and coastal waters. Twenty one species in the area.



Order PERCIFORMES: Suborder GOBIESOCOIDEI

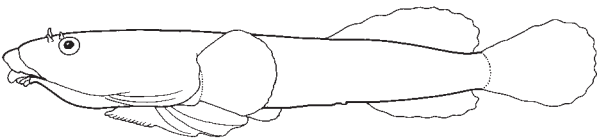
GOBIESOCIDAE

Vol. 3, p. 1773

**SINGLE POSTERIOR
SHORT DORSAL FIN**

Clingfishes

To 30 cm. Shallow marine, brackish, and fresh water. Seventeen species in the area.



**PELVIC FINS MODIFIED INTO
A PROMINENT VENTRAL
SUCKING DISC**

Order PERCIFORMES: Suborder CALLIONYMOIDEI

CALLIONYMIDAE

Vol. 3, p. 1775

Dragonets

To about 30 cm. Demersal, from shallow coastal areas to a depth of about 650 m. Five species in the area.

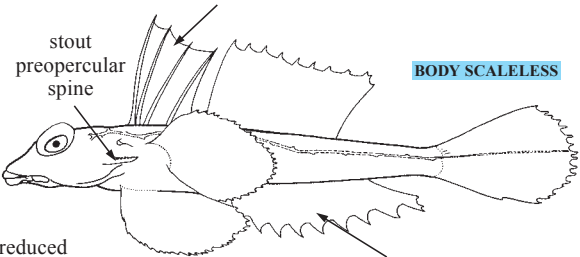
HEAD BROAD AND DEPRESSED

**SHARP SPINE ON EITHER
PREOPERCLE OR, OPERCLE
AND SUBOPERCLE**

**gill opening reduced
to a small pore**

**2 dorsal fins, 1st with 4 spines,
2nd with 12-14 soft rays**

BODY SCALELESS



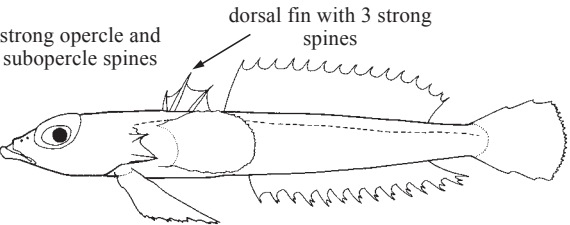
**PELVIC FINS WITH 1 SPINE
AND 5 SOFT RAYS**

DRACONETTIDAE

Vol. 3, p. 1777

Deepwater draconetts

To 11 cm. Demersal in deep water between 300 and 550 m. Two species in the area.



Order PERCIFORMES: Suborder GOBIOIDEI - Gobies and allies

ELEOTRIDAE

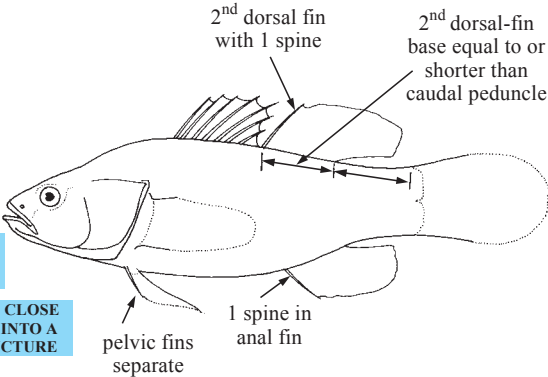
Vol. 3, p. 1778

Sleepers

To 60 cm, but generally much smaller. Demersal, mostly in freshwater, some species in coastal marine, brackish or hypersaline waters. Ten species in the area.

NO LATERAL LINE ON BODY, SENSORY PORES RESTRICTED TO HEAD

PELVIC FINS THORACIC CLOSE TOGETHER OR UNITED INTO A SINGLE CUP-LIKE STRUCTURE

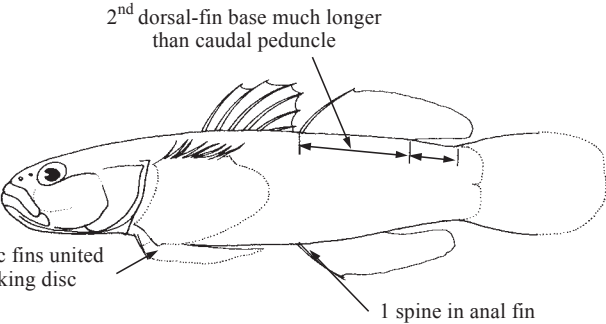


GOBIIDAE

Vol. 3, p. 1781

Gobies

To 18 cm, but most species smaller than 10 cm. Usually demersal in coastal waters, but some species found in depths greater than 500 m; also in brackish and fresh water. Around 124 species in the area.

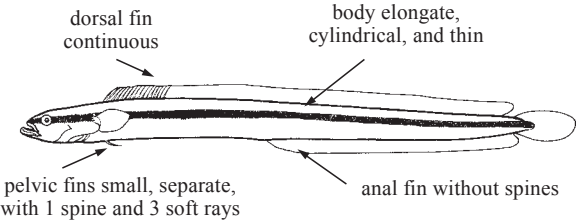


MICRODESMIDAE

Vol. 3, p. 1797

Wormfishes

To 27 cm. Demersal, burrowing in the substrate in coastal waters. Six species in the area.



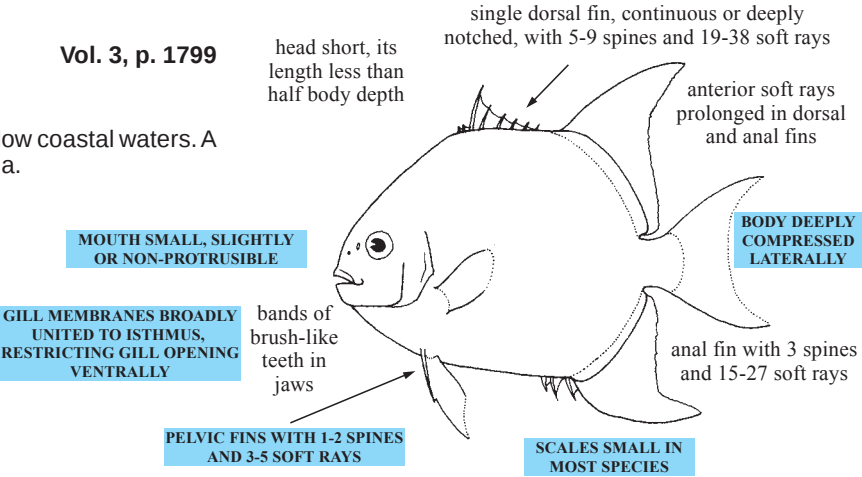
Order PERCIFORMES: Suborder ACANTHUROIDEI - Surgeonfishes and allies

EPHIPPIDAE

Vol. 3, p. 1799

Spadefishes

To 1 m. Demersal in shallow coastal waters. A single species in the area.

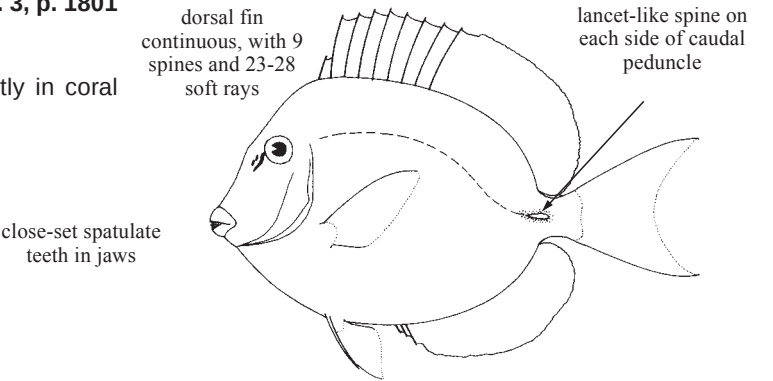


ACANTHURIDAE

Vol. 3, p. 1801

Surgeonfishes

To about 36 cm. Demersal, mostly in coral reefs. Three species in the area.



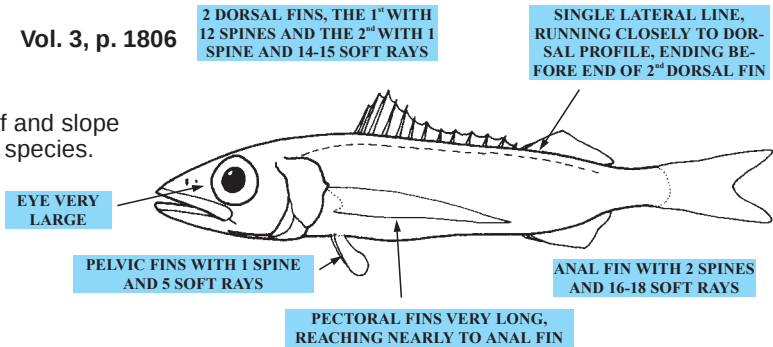
Order PERCIFORMES: Suborder SCOMBROLABRACOIDEI - Longfin escolar

SCOMBROLABRACIDAE

Vol. 3, p. 1806

Longfin escolar

To 30 cm. On the continental shelf and slope between 100 and 900 m. A single species.



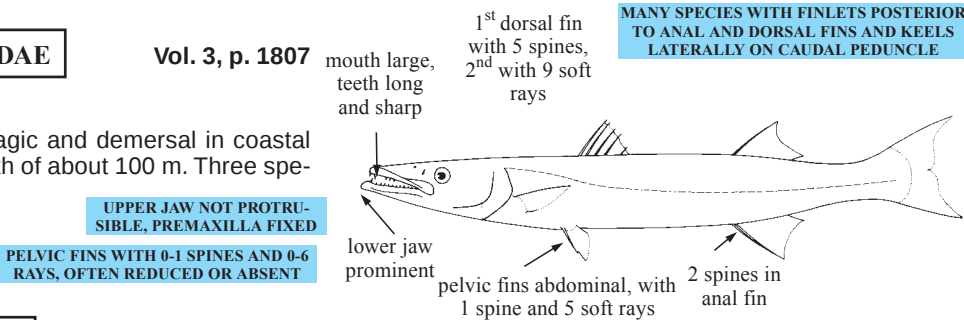
Order PERCIFORMES: Suborder SCOMBROIDEI - Tunas and allies

SPHYRAENIDAE

Vol. 3, p. 1807

Barracudas

To 200 cm. Pelagic and demersal in coastal waters to a depth of about 100 m. Three species in the area

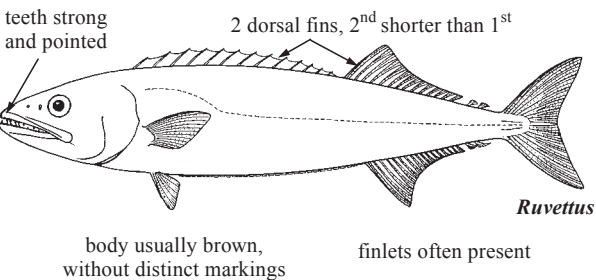
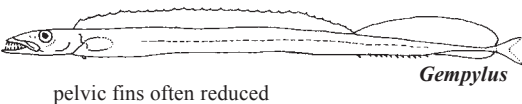


GEMPYLIDAE

Vol. 3, p. 1812

Snake mackerels

To about 300 cm. Pelagic in oceanic waters, typically between 200 and 500 m. Nine species in the area.

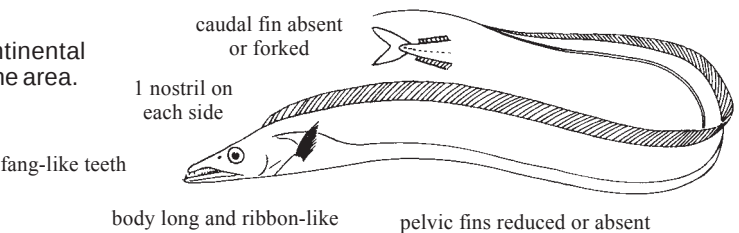


TRICHIURIDAE

Vol. 3, p. 1825

Cutlassfishes, hairtails

To 200 cm. Benthopelagic on continental shelves and slopes. Eight species in the area.

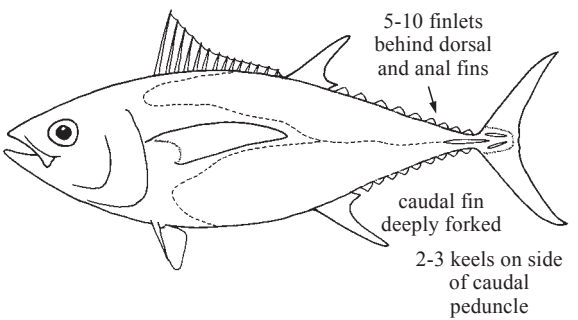


SCOMBRIDAE

Vol. 3, p. 1836

Tunas

To 300 cm. Pelagic in coastal and oceanic waters. Sixteen species in the area.

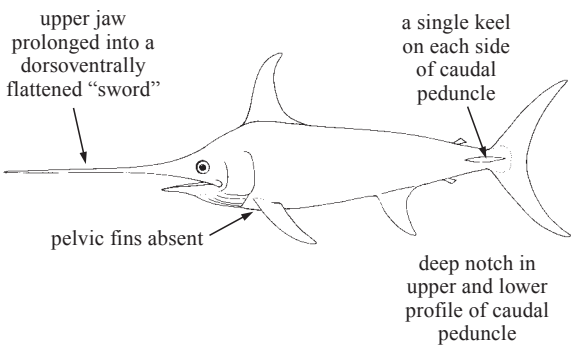


XIPHIIDAE

Vol. 3, p. 1858

Swordfishes

To 450 cm. Pelagic in oceanic waters. A single species in the family.

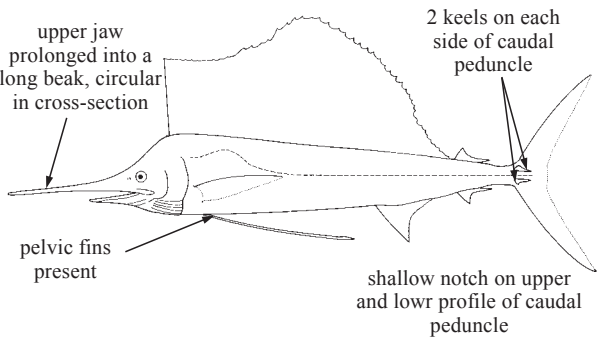


ISTIOPHORIDAE

Vol. 3, p. 1860

Billfishes

To 400 cm. Epipelagic in oceanic waters. Four species in the area.



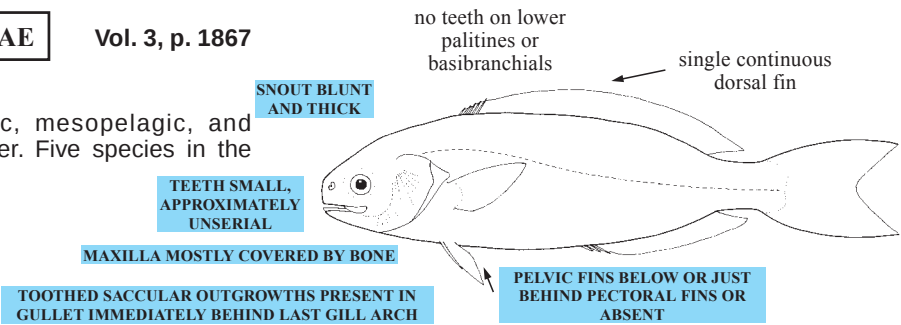
Order PERCIFORMES: Suborder STROMATEOIDEI - Butterfishes and allies

CENTROLOPHIDAE

Vol. 3, p. 1867

Medusafishes

To 120 cm. Pelagic, mesopelagic, and epibenthic deep water. Five species in the area.

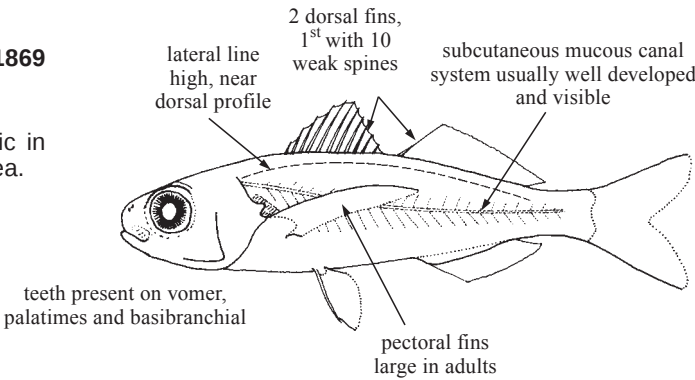


NOMEIDAE

Vol. 3, p. 1869

Driftfishes

To about 100 cm. Epi- and mesopelagic in oceanic waters. Seven species in the area.

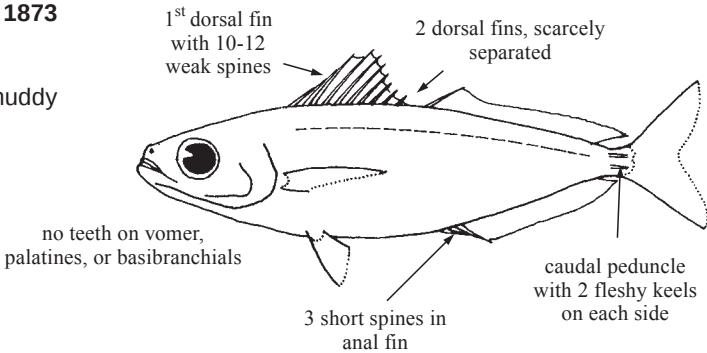


ARIOMMATIDAE

Vol. 3, p. 1873

Ariommas

To 20 cm. Demersal in deep water over muddy bottoms. Three species in the area.

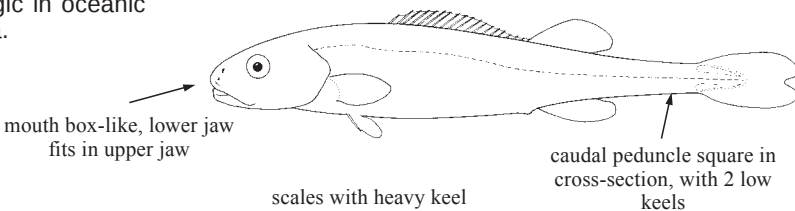


TETRAGONURIDAE

Vol. 3, p. 1878

Squaretails

To 70 cm. Epi- and mesopelagic in oceanic waters. Two species in the area.



STROMATEIDAE

Vol. 3, p.1879

Butterfishes

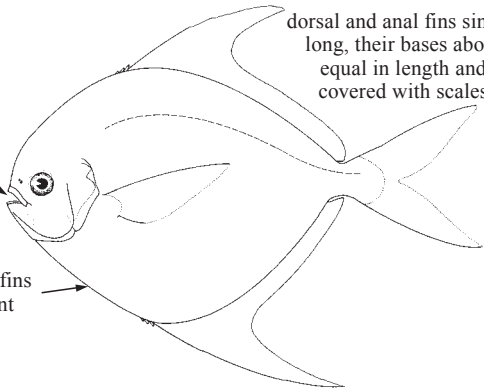
To 30 cm. Adults pelagic in coastal and oceanic waters. Three species in the area.

body deep and compressed

mouth small

pelvic fins absent

dorsal and anal fins single, long, their bases about equal in length and covered with scales



Order PLEURONECTIFORMES - Flatheads

BOTHIDAE

Vol. 3, p. 1885

Lefteye flounders

To about 50 cm. Demersal, usually on the continental shelf to a depth of 200 m, but some species may be found in depths greater than 500 m. Around 15 species in the area.

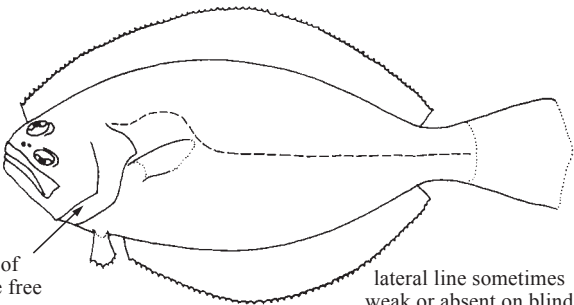
BOTH EYES ON ONE SIDE

BODY FLATTENED

eyes on left side

margin of preopercle free

lateral line sometimes weak or absent on blind side



SCOPHTHALMIDAE

Vol. 3, p. 1896

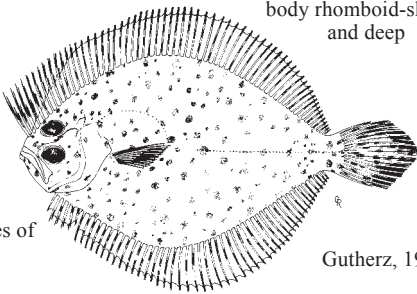
Turbots

To 46 cm. Demersal on soft sediment in shallow waters. A single species.

eyes on left side

lateral line equally developed on both sides of body

body rhomboid-shaped and deep



Guthertz, 1966

PARALICHTHYIDAE

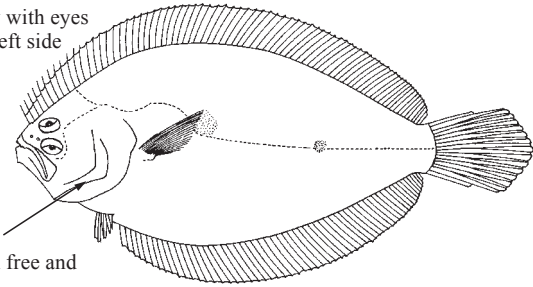
Vol. 3, p. 1898

Sand flounders

To 77 cm. Demersal on soft bottoms mostly in shallow water. Around 33 species in the area.

usually with eyes on left side

preopercle margin free and visible

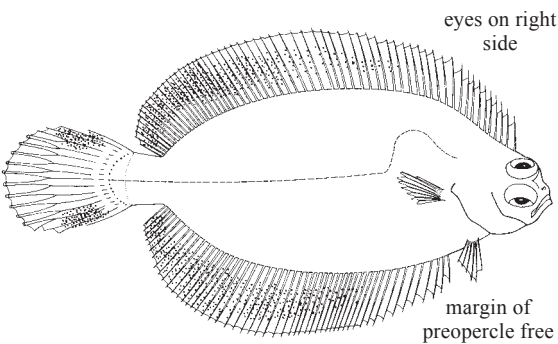


POECILOPSETTIDAE

Vol. 3, p. 1922

Righteye flounders

To about 18 cm. Demersal on soft bottoms, typically at depths between 180 and 1 600 m. Two species in the area.

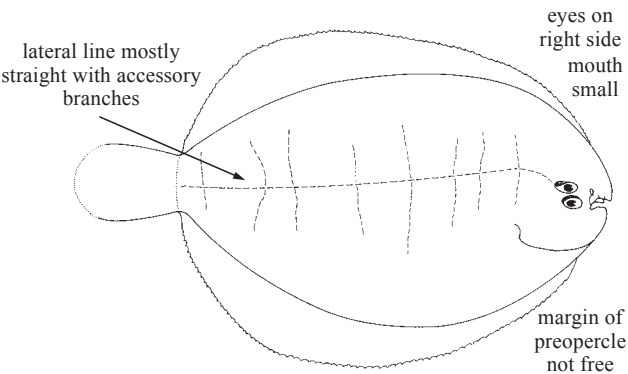


ACHIRIDAE

Vol. 3, p. 1925

American soles

To around 35 cm. Demersal on soft bottoms in estuarine and coastal habitats to depths of 300 m. Twelve species in the area.

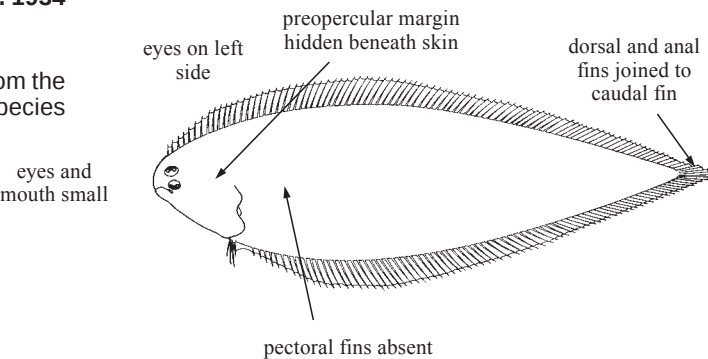


CYNOGLOSSIDAE

Vol. 3, p. 1934

Tongue soles

To 23 cm. Demersal on soft bottoms, from the shore to a depth of 1 500 m. About 21 species in the area.



Order TETRAODONTIFORMES - Pufferfishes and allies

TRIACANTHODIDAE

Vol. 3, p. 1960

Spikefishes

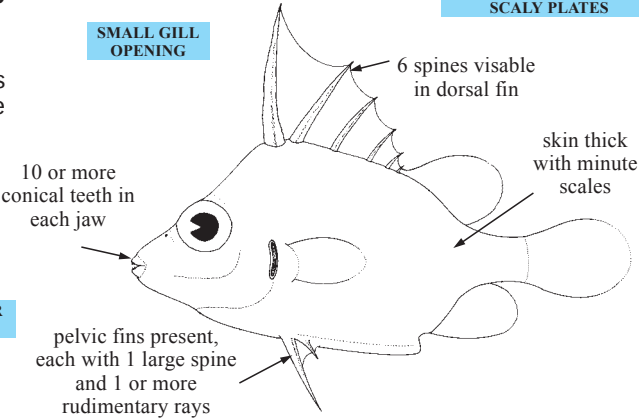
To 20 cm. Mostly demersal (one species is bathypelagic) at depths from 35 to 900 m. Five species in the area.

SMALL MOUTH WITH STRONG TEETH FREQUENTLY COALESCED INTO BITING PLATE

PELVIC FINS ABSENT OR STRONGLY REDUCED

SMALL GILL OPENING

SKIN THICK OR ROUGH, SOMETIMES WITH PRICKLES, SPINES, OR SCALY PLATES

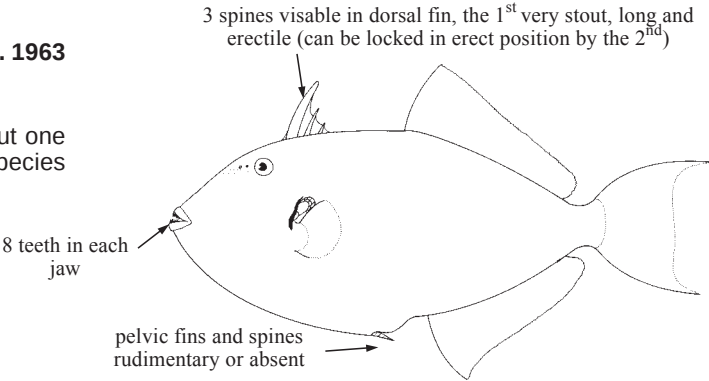


BALISTIDAE

Vol. 3, p. 1963

Triggerfishes

To 55 cm. Mostly demersal on reefs but one species in the area is epipelagic. Six species in the area.

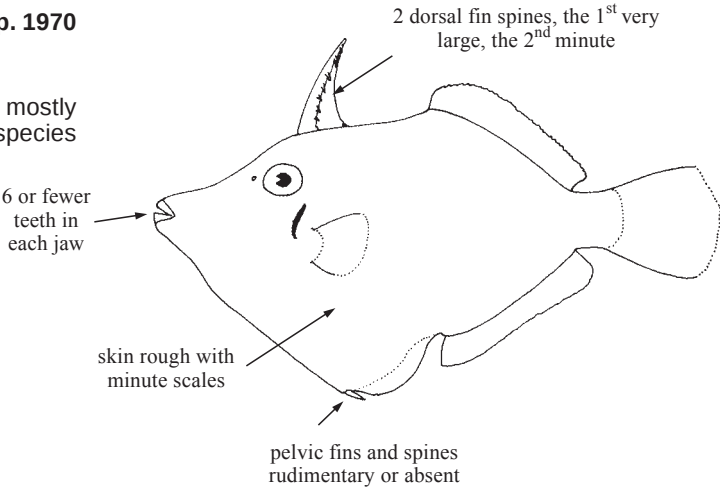


MONACANTHIDAE

Vol. 3, p. 1970

Filefishes

To 80 cm, mostly smaller. Demersal, mostly on reefs, to a depth of about 80 m. Ten species in the area.

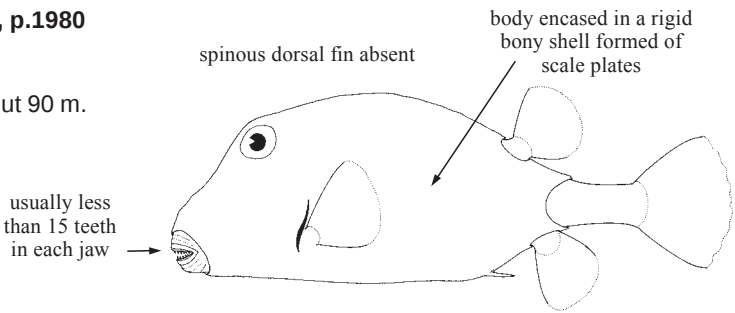


OSTRACIIDAE

Vol. 3, p.1980

Boxfishes

To 45 cm. Demersal to a depth of about 90 m.
Five species in the area.

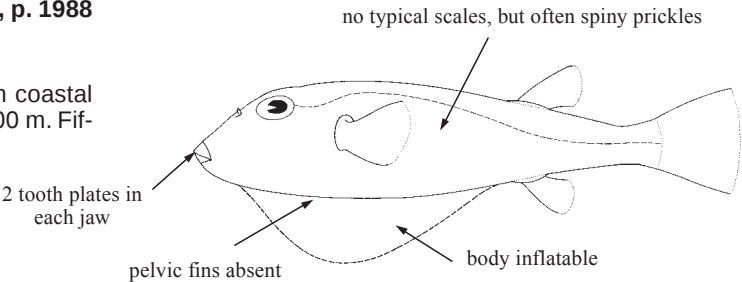


TETRAODONTIDAE

Vol. 3, p. 1988

Puffers

To 100 cm. Demersal and pelagic in coastal marine waters to a depth of about 100 m. Fifteen species in the area.

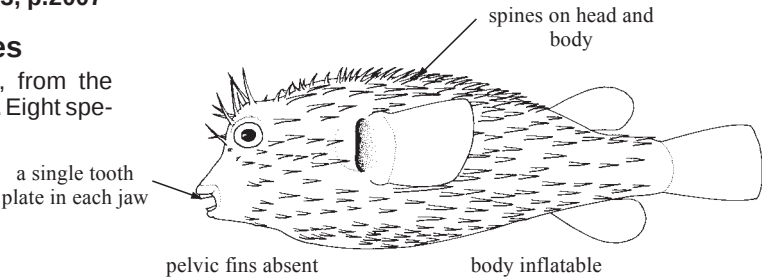


DIODONTIDAE

Vol. 3, p.2007

Porcupinefishes, burrfishes

To 100 cm. Demersal or pelagic, from the coastline to a depth of about 100 m. Eight species in the area.



MOLIDAE

Vol. 3, p. 2014

Molas

To 350 cm. Pelagic. Three species in the area.

