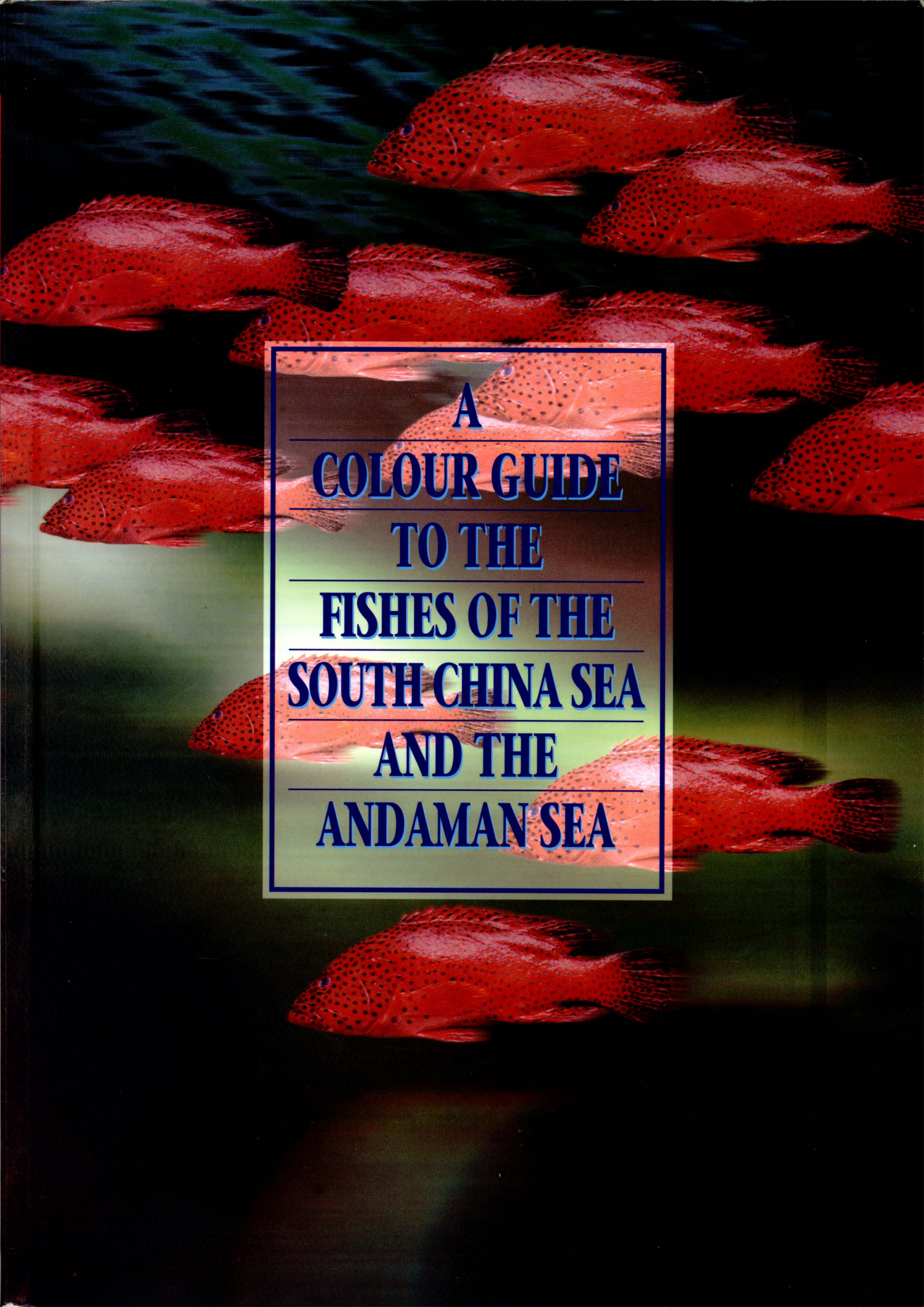


A COLOUR GUIDE TO THE FISHES OF THE SOUTH CHINA SEA AND THE ANDAMAN SEA

A Colour Guide to the Fishes of the South China Sea and the Andaman Sea

Primary Production Department/
Marine Fisheries Research Department, SEAFDEC
Singapore, May 1982
Revised October 1996

新加坡水產業工商聯合會
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Primary Production Department,
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Marine Fisheries Research Department,
Southeast Asian Fisheries Development Center,
Changi Point, Singapore 1749.
REPUBLIC OF SINGAPORE.

COMPILATION
Tan Sen Min
Lim Pang Yong
Tetsushi Senta
Hooi Kok Kuang
Raymond Lim Sian Heong
Loy Ngiap Whay
Stephen Lee Siauw Foen
Ng Bak Nam
Gwee Chie Seng
Albert Lee Chye Heng
Wong Peng Hock

COVER DESIGN
PCL Printers Pte Ltd

LOCAL CHINESE NAMES:
Chiam Chai Seng

ARRANGEMENTS OF PHOTOS & INDEX:
Florence Wong-Lim KY
Lim-Chan Hwee Hoon

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FOREWORD

The economies of the countries in ASEAN are largely agriculture-based with significant contribution from the fisheries sector. Over the last ten years there has been significant developments in the fishing industry in the region. In 1992, the ASEAN countries landed 7.3 million tonnes of fish, of which about 54% were sold as processed fisheries products. In the same year about 2.3 million tonnes of fish and fisheries products valued at US$4.5 billion were exported from the region.

In parallel with the dynamic growth of the fishing industry, there has also been an increase in international trade in fish and fisheries products from the ASEAN region and also intra-regional trade amongst the ASEAN countries.

The Marine Fisheries Research Department (MFRD), of the Southeast Asian Fisheries Development Center first published this 'Colour Guide to the Fishes of the South China Sea and the Andaman Sea' in 1982 as a reference for the fisheries trade and industry. Since then, the demand for this publication has led to a second revised edition in 1989.

Recognising the usefulness of this publication to the fisheries industry in ASEAN, the MFRD in collaboration with the Seafood Industries Association, Singapore (SIAS) have now produced this third revised edition. This edition has included marketing information and additional fish species (tuna and billfishes) of importance to the fisheries trade in the region.

Through this mechanism of collaboration with the SIAS, the MFRD is able to generate and transfer information relevant to the industry effectively to the fisheries industry, fish processors and traders.

I would like to congratulate and thank the staff of MFRD and the committee members of SIAS for their dedication and effort in providing this useful information for the benefit of the fisheries industry in the ASEAN region.



DR NGIAM TONG TAU
SEAFDEC Council Director for Singapore
and Director, Primary Production Department, Singapore

Explanatory Notes

The colour of a fish is not usually considered as a character in its identification. However, it is helpful, especially in the field, where it is often difficult to go through elaborate keys and descriptions. The photographs reproduced in this book have, in fact, been taken for our own use. With the kind permission from the Aquaculture Department, Southeast Asian Fisheries Development Center illustrations of prawns on page 45, 46 and 47 were taken from:

Legaspi J. — Important penaeid prawns/shrimps of the Philippines (Poster). Aquaculture Department, SEAFDEC and Japan International Cooperation Agency.

The 215 species belonging to 59 families described are mostly demersal species although some pelagic and midwater species are also included. For each species, the type of gear, area and depth of the sea where the fish were caught is given at the end of description. This serves to give an idea of the locality from where the fish is caught and not as a indication of the extent of its distribution. The local indigenous names obtained with the help of fish dealers and fishermen include the local Malay name and Chinese script followed by its hanyu pinyin equivalent. Each specimen is identified by a catalogue number which coincides with MFRD checklist publication. In accordance to usual taxonomic practice, all the fishes are placed facing left, except for *Psettodes erumei*(Indian halibut) on page 43 which has a blind side.

In the descriptions following each species, use of technical terms have been restricted to a minimum. However, certain standard technical terms and abbreviations were used for brevity and to conserve space. These terms are explained below:-

Abbreviations:—

D = dorsal fin
D_1 = first dorsal fin
D_2 = 2nd dorsal fin
e.g. D_1 II, 8-9 = First dorsal fin with two spines and 8 to 9 soft rays.

A = anal fin
e.g. A II, I, 17-18 = Anal fin with two detached spines followed by one spine and 17 to 18 soft rays.

P = pectoral fin
e.g. P_1, 17-18 = Pectoral fin with one detached spine and 17 to 18 soft rays.

BL = body length (standard length) — see fig. 1.
TL = total length; measured from the tip of the jaw to the tip of the upper lobe of caudal fin.

Technical terms:—

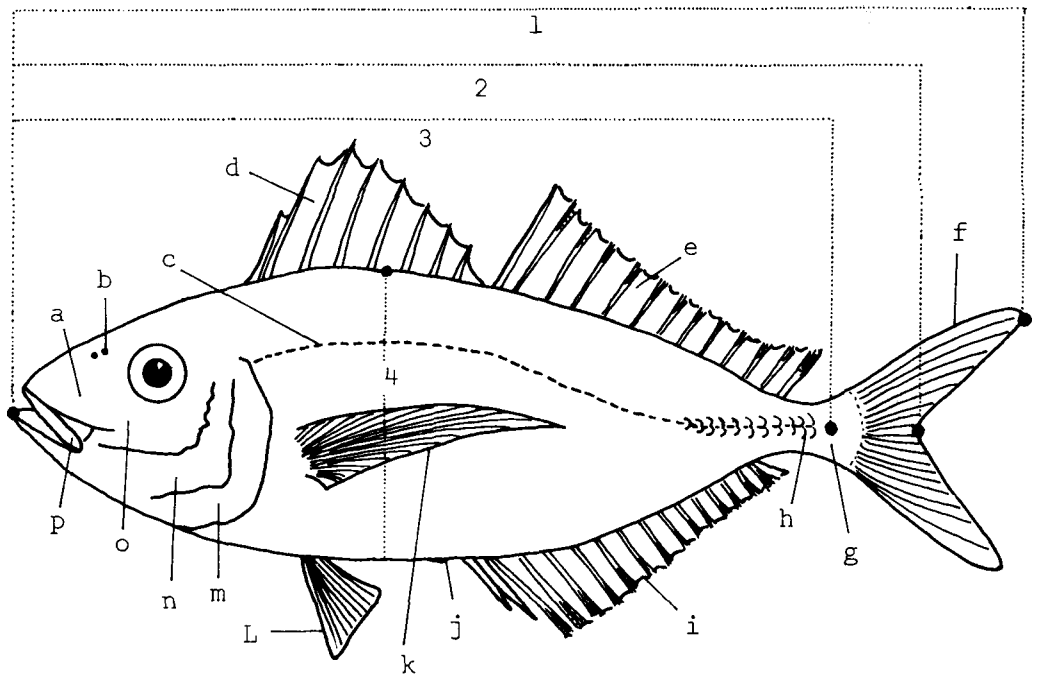
Adipose fin	=	fleshy fin with no rays, usually between the dorsal and caudal fins.
Adipose tissue	=	fatty tissue, sometimes partially covering the eye.
Axillary scale	=	modified scale found in the axil of fins (usually pelvic fin).
Barbel	=	an elongate fleshy tentacle-like projection, usually on chin.
Caudal pit	=	a small depression on dorsal or ventral part of caudal penduncle.
Cranial crest	=	a protuberance on the top of the skull (in region of cranium bone).
Deciduous	=	easily shed.
Depth	=	number of times the maximum depth of the body goes into the body length.
Finlet	=	detached fin, usually behind dorsal or anal fins.
Headshield	=	bony shield on head, usually exposed or covered by a thin skin, prominent in catfishes (Fam. Ariidae).
Interorbital	=	Space on top of head between the eyes.
Isthmus	=	Narrow fleshy projection of the body on the ventral part of head, separating the gill openings on each side.
Palate	=	roof of mouth.
Protractile	=	capable of being drawn out or extended.

Fig. 1 Nomenclature of external and anatomical morphology based on a hypothetical species

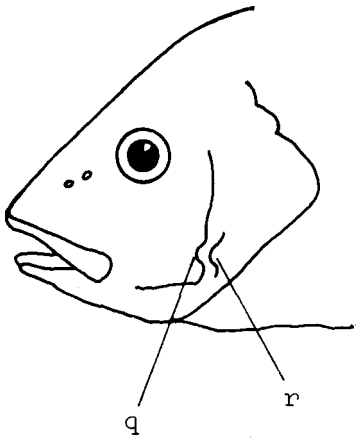
I. External features of fish.
II. Position of preopercular notch and interopercular knob
III. Parts of a gill
IV. Upper jaw showing palate (roof of mouth)
1. Total length
2. Fork length
3. Body length
4. Depth of body

a. preorbital
b. nostril
c. lateral line
d. 1st dorsal fin
e. 2nd dorsal fin
f. upper lobe of caudal fin
g. caudal peduncle
h. scutes
i. anal fin
j. anus
k. pectoral fin
l. pelvic fin
m. operculum
n. preoperculum
o. suborbital
p. maxillary
q. preopercular notch
r. interopercular knob
s. upper gill arch
t. lower gill arch
u. gill raker
v. gill filaments
w. palatines
x. vomer

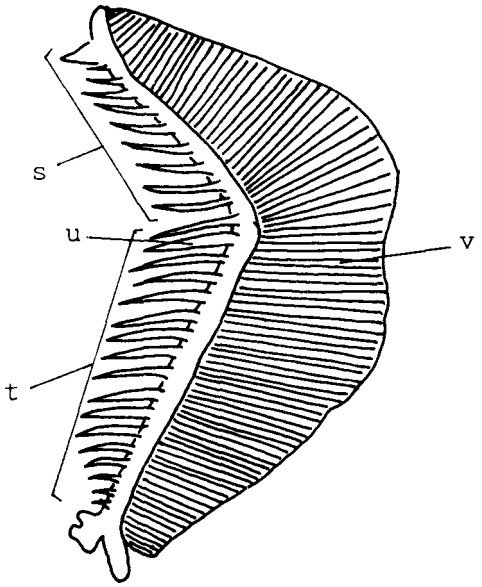
I



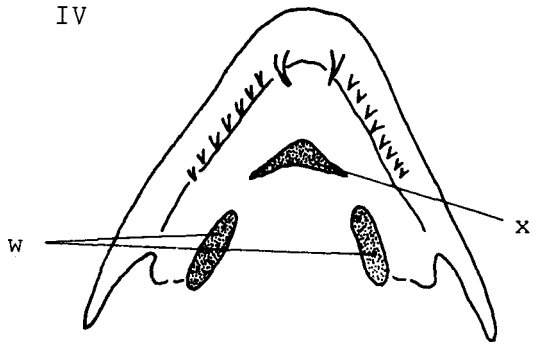
II



III



IV



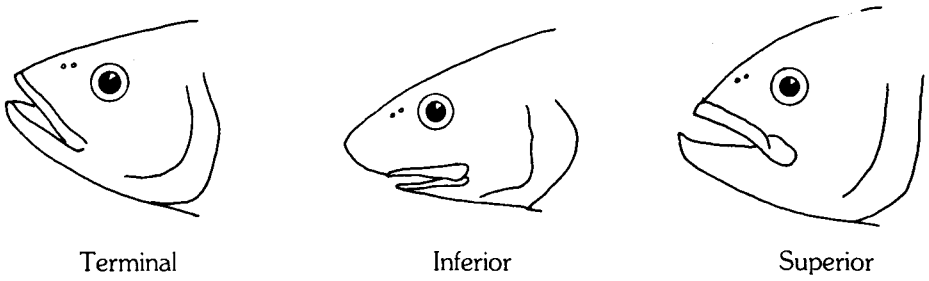


Fig. 2 Terminology for description of position of mouth

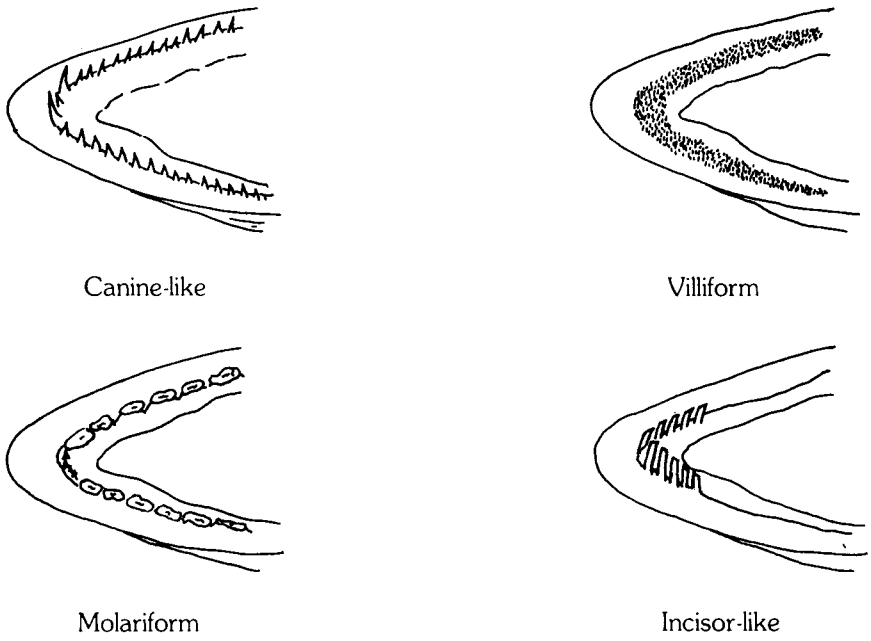


Fig. 3 Terminology to describe that types of mouth

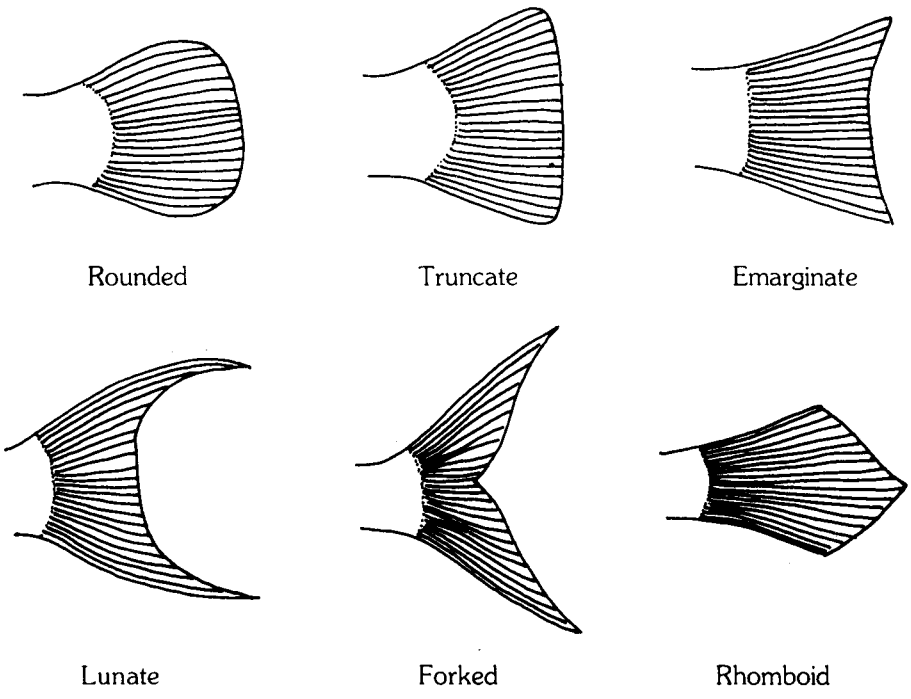


Fig. 4 Terminology to describe the shapes of caudal fin

Class Chondrichthyes
Sub-Class Elasmobranchii

(Sharks & Ray)

Fam. **Sphyrnidae** *Sphyrna lewini* (Griffith) RD 7209001

BL = 64.1 cm Hammer-head shark

Body elongate, subcylindrical, lateral expansions of head hammer-shaped. 1st dorsal much larger than pectorals and behind pectoral axil. 2nd dorsal base much less than anal base. Anal base equal to pectoral base. Hind tip of 2nd dorsal reaches upper caudal pit. Ash-grey above and yellowish below. Ovo-viviparous. Found in coastal water and open seas, the most common species in the region. Large specimens can be dangerous. Reaches 450 cm. Specimen caught by trawl, South China Sea, 30-40 m.

Indigenous names: Yu songgul, Yu parang; 小生沙 (xiǎo shēng shā); 状元沙 (zhuàng yuán shā)

Seasonality:
Whole year round
Products presentation:
Fin (High commercial value),meat-fillet (commonly used)
Usage:
Soup, dumpling, omelette, fish & chips
Market:
China, Taiwan, HongKong, Thailand, Malaysia, Vietnam, Philippine, Brunei, Singapore, Australia, Greece, Cyprus, Turkey, UE & USA

Fam. **Rhinobatidae** *Rhynchobatus djiddensis* (Forskal) RD 7209004

BL = 80 cm Shovel-nose ray

Body elongate, depressed, snout pointed, head broad and depressed. Spiracles large, close to eyes, behind which are single rows of backwardly directed tubercles. A row of tubercles along midline of back, 2 short rows on each shoulder. Teeth blunt, modified for crushing its food, mainly crustaceans. Common, often caught in shallow water and trawling grounds. Fins valued as shark's fin. May reach 400 cm in length. Trawl, South China Sea, 30-40 m.

Indigenous names: Yu kemejan; 犁笨沙 (lí bèn shā)

Seasonality:
Whole year round
Products presentation:
Fin (High commercial value), meat-fillet (commonly used)
Usage:
Soup, dumpling, omelette, fish & chips
Market:
China, Taiwan, HongKong, Thailand, Malaysia, Vietnam, Philippine, Brunei, Singapore, Australia, Greece, Cyprus, Turkey, UE & USA

Fam .**Dasyatidae** *Gymnura poecilura* Shaw RD 7209005

BL = 38.0 cm Long-tailed butterfly ray

Disc very broad and depressed. Tail about as long as length of disc, white with 9-12 black bands. A serrated spine close to base of tail. Usually caught by trawl.Usual size 22-36 cm wide. Attains 180 cm in width. Trawl, South China Sea, 30-40 m.

Indigenous names: Pari tembikar; 弼方 (bì fāng)

Seasonality:
Whole year round
Products presentation: Skin, fillet or cutlet
Usage:
Skin can be used for making handbag, wallet & other leather products. BBQ, curry soup, fried with chilli
Market:
USA, Thailand, Malaysia, Indonesia, Brunei & Singapore

Fam .**Dasyatidae** *Dasyatis kuhlii* (Muller & Henle) RD 7210030

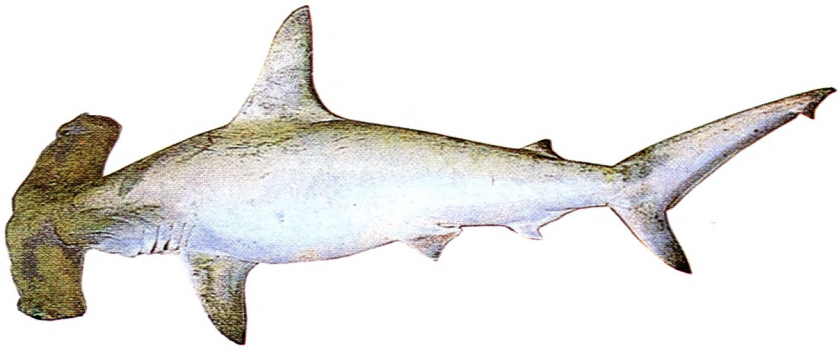
BL = 22.9 cm Spotted stingray

Disc rhombic, broader than long. Tail about as long as disc, with black tip and 2 blackish cross-bands. Adults with large blue ocelli. It is a small ray, growing to about 150 cm in width. Buries itself in the sand in coral areas. Trawl, off Pulau Tioman, South China Sea, 60-62 m.

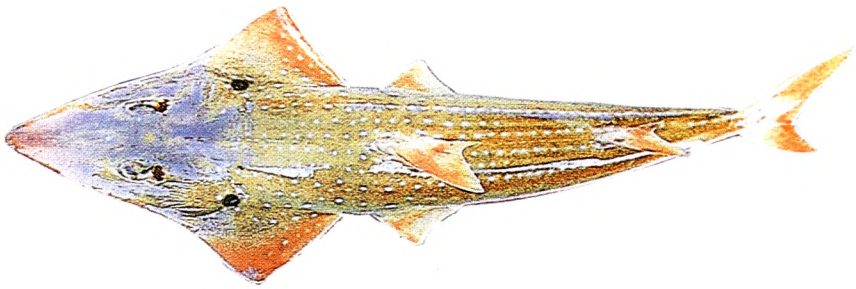
Indigenous names: Pari lalat; 花点金方 (huā diǎn jīn fāng)

Seasonality:
Whole year round
Products presentation:
Skin, fillet or cutlet
Usage:
Skin can be used for making handbag, wallet & other leather products. BBQ, curry soup, fried with chilli
Market:
USA, Thailand, Malaysia, Indonesia, Brunei & Singapore

Sphyrna lewini
(Griffith)



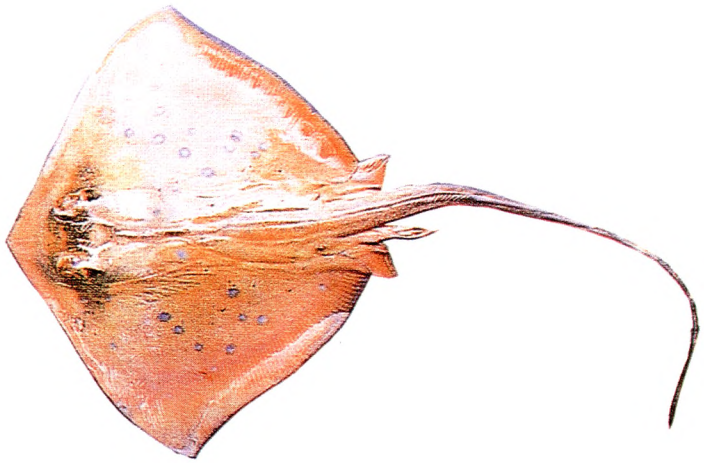
Rhynchobatus djiddensis
(Forskal)



Gymnura poecilura
Shaw



Dasyatis kuhlii
(Muller & Henle)



Class Osteichthyes
Sub-Class Teleostomi
(Bony fishes)

Fam. **Megalopidae** *Megalops cyprinoides* (Broussonet) RD 7209025
D 17-20, A 23-28, Tarpon, Ox-eye
BL = 41.3 cm

Body oblong, slightly compressed. Depth 3.5-5. Lower jaw prominent. Villiform teeth in jaws, vomer, palatines and tongue. Last dorsal ray produced into a long filament. Anal concave, much longer than dorsal. In seas and estuaries, preferring brackish water and penetrating into fresh water. Not abundant locally. Large specimens may attain 100 cm. Trawl, off Pulau Tioman, South China Sea, 62-64 m.
Indigenous names: Bandang; 海龙 (hǎi lóng)

Seasonality:
Rare species
Product presentation:
Whole
Usage:
Soup, curry, asam
Market:
Thailand, Malaysia, Indonesia & Singapore (mainly consumed by Malays)

Fam. **Clupeidae** *Dussumieria hasseltii* Bleeker RD 7210072
D 18-19, A 16 Sprat, round herring
BL = 17.0 cm

Elongate, with rounded belly and small terminal mouth. Depth 4-5. No scutes on belly. Dorsal origin nearer to caudal than to snout tip. Origin of anal far behind dorsal. Origin of pelvic below middle of dorsal. Caudal deeply forked. Teeth on jaws, palatines and tongue. Scales very deciduous. Upper half dark greenish, silvery below, a golden lateral band from opercle to caudal. First ray of dorsal and pectoral vath dark spot. Very common market fish, caught in coastal waters by drift nets, lift-nets and trawl. Usual market size 16-17 cm. Trawl, off Irrawaddy area, North Andaman Sea, 40-44 m.
Indigenous names: Tamban jeboh; 邋冬 (xiān dōng)

Seasonality:
Around April-September
Products presentation:
Whole or headless
Usage:
Deep fried, fish & chips, pet food, canning
Market:
Thailand, Malaysia, Indonesia & Australia

Fam. **Clupeidae** *Anodontosoma chacunda* (Hamilton-Buchanan)
D 17-18, A 19-20, RD 7209011
BL = 13.3 cm Gizzard shad

Small fish with deep compressed bodies and small inferior mouths. Depth 2-2.5. Ventral border of abdomen with scutes. Stomach gizzard-like. Silvery, upper half darker with faint longitudinal rows of brown dots. Distinct black spot on shoulder. Common in coastal water. Usual size 15-16 cm. Trawl, South China Sea, 30-40 m.
Indigenous names: Selangat; 黄鱼 (huáng yú)

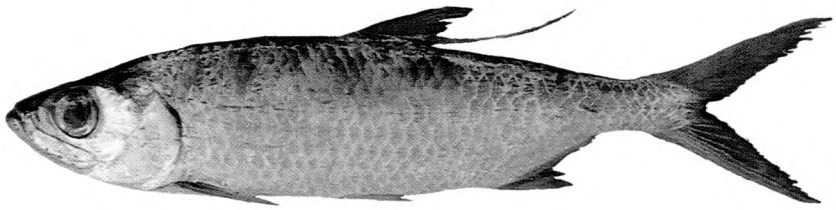
Seasonality:
Rare species
Products presentation:
Whole or fish paste (for making fish ball, otak-otak)
Usage:
Cooked with asam
Market:
Malaysia, Indonesia (low value), Thailand & Philippine

Fam. **Chirocentridae** *Chirocentrus dorab* (Forskal) RD 7209006
D 16-18, A 32-36 Wolf-herring, dorab
BL = 42.0 cm

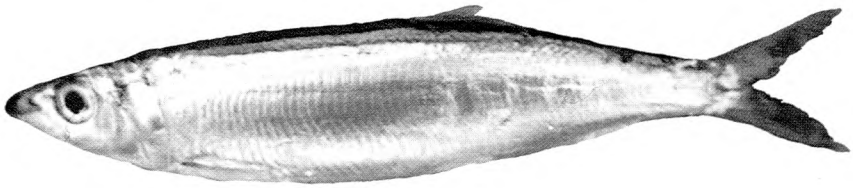
Body elongate, compressed, scales small and deciduous. Depth 6-7. No lateral line. Mouth large and oblique with large teeth. Carnivorous. Maxilla reaches front half of eye. Dorsal above anterior part of long anal. Pelvics small. Caudal deeply forked. Blue above. bright silvery below. Very popular and common in market, caught by floating lines (pelontang) trawl and drift nets. Usual size about 45 cm, may attain 150 cm. Trawl, South China Sea,30-40 m.
Indigenous names: Parang-parang; 西刀 (xī dāo)

Seasonality:
February - October
Products presentation:
Whole, Fish paste or headless or cutlet
Usage:
Deep-fried, making of fish ball, otak-otak, fillet for raw eating
Market:
HongKong, Thailand, Malaysia, Indonesia, Singapore & Brunei

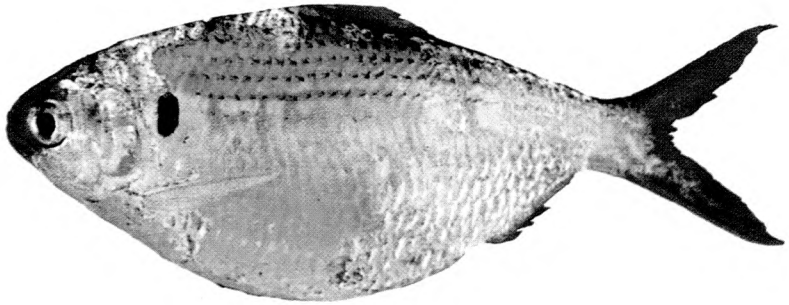
Megalops cyprinoides
(Broussonet)



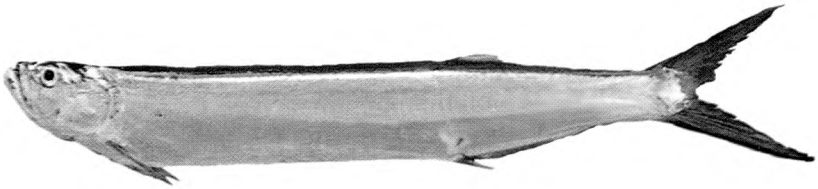
Dussumieria hasseltii
Bleeker



Anodontosoma chacunda
(Hamilton-Buchanan)



Chirocentrus dorab
(Forskal)



Fam. **Clupeidae** *Pellona ditchela* Valenciennes RD 7212062
D 13-16, A 36-39 Shad
BL = 19.0 cm Indian pellona

Body very compressed, ventreal profile very convex. Depth 2.5-3. 26-28 abdominal scutes. Pelvic fins present but small. Lower jaw prominent. Attains 20 cm. Common but landed in small numbers. Caught by trawl in shallow waters, especially in areas with river influence. Trawl, off Irrawady area, North Andaman Sea, 38-39 m.

Indigenous names: Beliak mata; 阔目 (kuò mù)

Seasonality:
Rare species
Product presentation:
Fish paste, pet food
Usage:
Making of fish ball, otak-otak, animal feed
Market:
Thailand, Malaysia, Indonesia & Singapore

Fam.**Clupeidae** *Ilisha elongata* (Bennet) RD 7212063
D 18-20, A 38-44 Slender shad
BL = 37.8 cm Elongate ilisha

Body compressed but elongate. Depth 31/2-4, abdominal scutes present. Pelvic fins very small, anal fin long, dorsal fin short, originates behind mid-point of body. Lower jaw very prominent. Usual size 15-20 cm, but attains 40 cm. Common in coastal waters but not abundant. Trawl, off Irrawady area, North Adaman Sea 40-44 m.

Indigenous names: Beliak mata; 目力 (mù lì)

Seasonality:
Rare species
Products presentation:
Fish paste, pet food
Usage:
Making of fish ball, otak-otak, animal feed
Market:
Thailand, Malaysia, Indonesia & Singapore

Fam. **Clupeidae** *Opisthopterus tardoore* (Cuvier) RD 7310051
D 15-17, A 57-60 Long-finned herring
BL = 19.6 cm Tardoore

Body very compressed and elongate, with convex ventral profile. Depth 3-3.5. Abdominal scutes present. Pelvic fins absent, anal fin very long, originates well before short dorsal fin. Dorsal fin originates well behind midpoint of body. Lower jaw very prominent, mouth points upwards. Usual size 18-20 cm. Common in coastal waters but not abundant. Trawl, off Sarawak, South China Sea, 32-34 cm.

Indigenous names: Nipis; 剃头刀 (tì tóu dāo); 刀铁 (dāo tiě)

Seasonality:
Rare species
Products presentation:
Fish paste, pet food
Usage:
Making of fish ball, otak-otak, animal feed
Market:
Thailand, Malaysia, Indonesia & Singapore

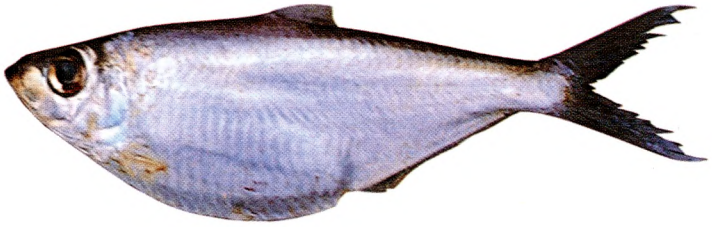
Fam. **Engraulidae** *Stolephorus indicus* (Van Hasselt) RD 7209017
D 16, A 18-21 Indian anchovy

Body elongate, nearly cylindrical, Depth 5-5.5. 4-5 ventral scutes between pectoral and pelvic. Dorsal originates in midpoint of body. Snout prominent, mouth inferior. Pelvics nearer to pectoral than to anal. Conspicuous mid-lateral silvery band. Usual size 14 cm but attains 17 cm. Schools in coastal waters, mainly caught by bamboo stake traps, incidentally in trawl. Marketed fresh, cooked in brine or dried. Trawl, South China Sea, 30-40 m.

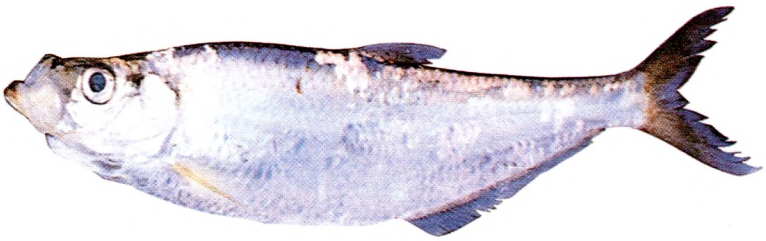
Indigenous names: Bilis; 大柴江 (dà chái jiāng)

Seasonality:
Whole year round
Products presentation:
Whole, whole dried or dried fillet boneless
Usage:
Soup, deep-fried with salt or sugar raw eating
Market:
China, Japan, Thailand, Taiwan, Vietnam, Indonesia, Malaysia, Singapore, Korea, HongKong

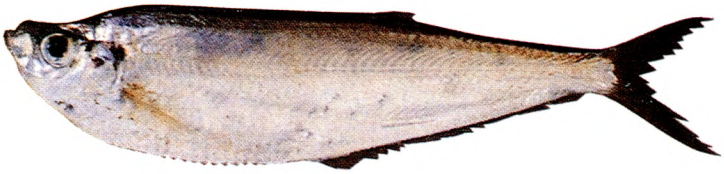
Pellona ditchela
(Valenciennes)



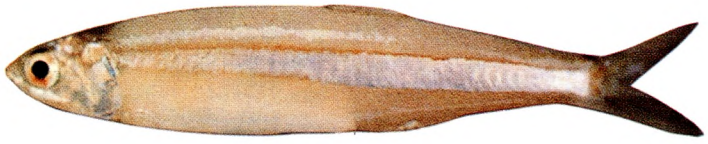
Ilisha elongata
(Bennet)



Opisthopterus tardoore
(Cuvier)



Stolephorus indicus
(Van Hasselt)



Fam. **Synodontidae** *Saurida undosquamis* (Richardson) RD 7209068
D 11-12; A 10-12; P 14-15 Lizardfish
BL = 22.0 cm

Body very elongate and cylindrical. Depth 6-8. Adipose fin present. Pelvic with 9 rays. Mouth large, numerous sharp canine teeth. About 7-9 faint dark blotches along lateral line. Anterior edge of first dorsal and upper caudal lobe with several distinct dark dots. Common in shallow muddy areas. Caught with bottom trawl. Marketed fresh, used in making fish balls. Usual size 25-30 cm, attains 40 cm. Trawl, South China Sea, 62-74 cm.
Indigenous names: Ubi; 来哥 (lái gē)

Seasonality:
Whole year round
Product presentation:
Whole, headless, or paste
Usage:
Surimi, fish ball, fish cake, any fish based products
Market:
China, HongKong & Southeast Asia

Fam. **Synodontidae** *Saurida tumbil* (Bloch) RD 7206007
D 11-13; A 10-11; P 14-15 Lizardfish
BL = 26.5 cm

Body cylindrical and elongate. Depth 6-8. Adipose fin present. Pelvic with 9 rays. Teeth strong, sharp and pointed. Second dorsal ray longest, filamentous. Upper edge of caudal without dark spots. Common in shallow muddy areas, and in trawl catch. Usually made into fish balls. Usual size 20-30 cm, attains 45 cm. Trawl, South China Sea, 49 m.
Indigenous names: Ubi; 红来哥 (hóng lái gē)

Seasonality:
Whole year round
Products presentation:
Whole, headless, or paste
Usage:
Surimi, fish ball, fish cake, any fish based products
Market:
China, HongKong & Southeast Asia

Fam. **Synodontidae** *Synodus hoshinonis* Tanaka RD 7209047
D 12-13; A 8-10; P 12-13 Lizardfish
BL = 12.4 cm

Body elongate and cylindrical. Adipose fin present, pelvics with 8 rays, inner ones about twice length of outer. Head depressed, snout triangular, rather pointed. 8-9 brown blotches on lateral side of body. Coastal species, not abundant, of little commercial value, usually included in trash fish of trawl catch.Size around 20-25 cm. Trawl, South China Sea,63-65 m.
Indigenous names: Ubi; 花点来哥 (huā diǎn lái gē)

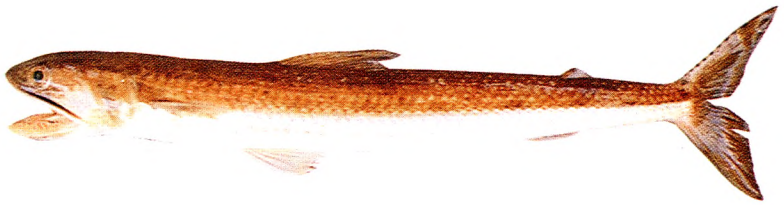
Seasonality:
Whole year round
Products presentation:
Whole, headless, or paste
Usage:
Surimi, fish ball, fish cake, any fish based products
Market:
China, HongKong & Southeast Asia

Fam. **Synodontidae** *Trachinocephalus myops* RD 7206042
(Bloch & Schneider) Bluntnose lizardfish
D 11-13; A 15-16; P 12-13
BL = 17.6 cm .

Body elongate, head bluntly rounded, snout shorter than eye diameter, eyes near to tip of snout. Mouth large with small close-set teeth. Pelvics with 8 rays, inner ones more than twice longer than outer. Oblique black blotch on shoulder. Two brown-edged Hue stripes along sides when fresh. Coastal species not abundant, of little commercial value, Size 20-30 cm, attains 40 cm. Trawl, South China Sea, 47-49 m.
Indigenous names: Ubi; 黄来哥 (huáng lái gē)

Seasonality:
Whole year round
Products presentation:
Whole, headless, or paste
Usage:
Surimi, fish ball, fish cake, any fish based products
Market:
China, HongKong & Southeast Asia
Malaysia

Saurida undosquamis
(Richardson)



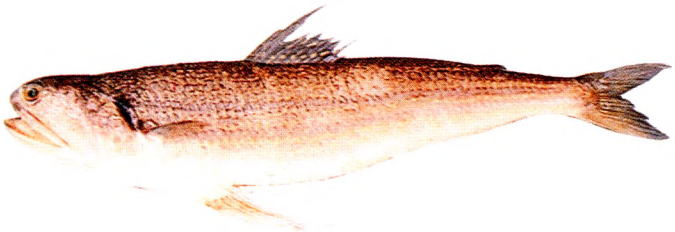
Saurida tumbil
(Bloch)



Synodus hoshinonis
Tanaka



Trachinocephalus myops
(Bloch & Schneider)



Fam. **Ariidae** *Arius argyropleuron* (Valenciennes) RD 7401012
D I 7, A 19-20 Catfish
BL = 29.1 cm

Elongate, depth 4.5-5, head more than 3 times in length, broader than high, headshields present with rough and granulated lines. Snout rounded, slightly prominent. 3 pairs of barbels. Dorsal spine weak. Adipose fin small. Teeth on palate granular. Attains 46 cm. Common in sea around estuaries and rivers. Caught by trawl in the North Andaman Sea, depth 35-38 m.

Indigenous names: Duri; 乌皮成 (wū pí chéng)

Seasonality:
Whole year round
Product presentation:
Whole, headless, or fillet
Usage:
Salted fish, soup, fish burger, breaded products
Market:
Saudi Arabia, Middleast, India, Blangadesh, Pakistan, Thailand, Malaysia, Brunei & Singapore

Fam. **Ariidae** *Arius thalassinus* (Ruppell) RD 7209028
D 1 7, A 15-18 Giant catfish
BL = 34.0 cm

Elongate depth 4.5-5. Head 4 to more than 4 times in length, much broader than high. Snout obtuse when young, when adult, pointed and projecting much beyond the lower jaw. However specimens caught show that this character does not necessarily vary with size, and that there may be two closely related species involved. 3 pairs of barbels, maxillary barbels reaching to base of pectoral. Adipose fin small, its base shorter than high, equal to half length of dorsal. Teeth on palate villiform, in three groups on each side, forming a large triangular patch. Most common catfish in the trawl catch from coastal waters. Attains 100 cm. Trawl, bottom-long-line, South China Sea, 47-70 cm.

Indigenous names: Jahan, Goh, Duri; 占茨成 (zhān cí chéng); 白成 (bái chéng)

Seasonality:
Whole year round
Products presentation:
Whole, headless, or fillet
Usage:
Salted fish, soup, fish burger, breaded products
Market:
Saudi Arabia, Middleast, India, Blangadesh, Pakistan, Thailand, Malaysia, Brunei & Singapore

Fam. **Ariidae** *Osteogeneiosus militaris* (Linnaeus) RD 7401014
D I 7, A 19-21, P I 9-10 Soldier catfish
BL = 32.7 cm

Body elongate, head strongly depressed, with projecting upper jaw. Depth 5.5-6, head about 3.5 times in length. One pair of stiff, bony maxillary barbels, extending to the base of the pectorals. Base of adipose fin about equal to that of dorsal. Teeth on palate conical, in two longitudinal, semi-oval patches. Coastal waters and trawling grounds, around estuaries and tidal rivers. Attains 35 cm. Common in the trawl catch from the North Andaman Sea, depth 35-38 m.

Indigenous names: Duri monchong; 黄枝成 (huáng zhī chéng)

Seasonality:
Whole year round
Products presentation:
Whole, headless, or fillet
Usage:
Salted fish, soup, fish burger, breaded products
Market:
Saudi Arabia, Middleast, India, Blangadesh, Pakistan, Thailand, Malaysia, Brunei & Singapore

Fam. **Plotosidae** *Plotosus anquillaris* (Bloch) RD 7210042
D 1 I4-5, D 2 80-100, A 70-77 Striped catfish eel
TL = 14.2 cm

Body elongate, tail tapering and pointed, head depressed. Depth 7-9. Upper lip prominent, 4 pairs of barbels. First dorsal short, with well developed spine. Second dorsal and anal confluent with caudal. Common in coastal waters, around estuaries and rivers. Dorsal and pectoral spines with poison glands. Young with 2-3 longitudinal white stripes. Usual size 17-23 cm. Trawl, South China Sea, 62-64 m.

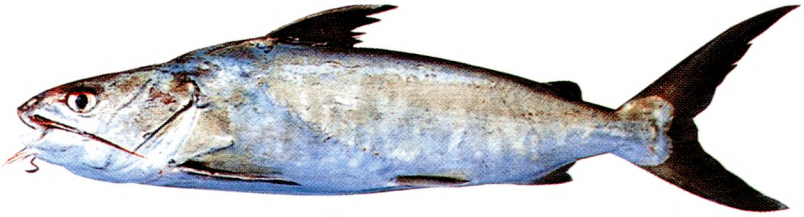
Indigenous names: Usat; 沙麻 (shā má)

Seasonality:
Whole year round
Products presentation:
Whole, headless, or live fish
Usage:
Soup, fried with chilli
Market:
Southeast Asia

Arius argyropleuron
(Valenciennes)



Arius thalassinus
(Ruppell)



Osteogeneiosus militaris
(Linnaeus)



Plotosus anquillaris
(Bloch)



Fam. **Muraenesocidae** *Congresox talabonoides* (Bleeker) RD 7209085
TL = 96.2 Pike-conger eel

Body cylindrical, eel-shaped without scales. Outer teeth in lower jaw sharp and pointed, directed horizontally outwards. Vomerine teeth large and conical. Dorsal and anal fins confluent with caudal. Pectorals well developed about 4 times in length of head. Caught by longlines, sometimes occuring in trawl catch. Used mainly for fish balls but swim-bladder is considered a delicacy amongst Chinese. Usual size 150 cm, attains 200 cm in total length. Trawl, botton-long-line, South China Sea, 74-92 m.

Indigenous names: Malong; 麻鱼 (mā yū)

Seasonality:
Whole year round
Product presentation:
Whole, headless, or fillet & paste
Usage:
Soup, surimi, BBQ with seasoning, salted seasoned cutlet
Market:
Japan, China, Korea, HongKong, Thailand, Mynmar, Vietnam, Malaysia & Singapore

Fam. **Sphyraenidae** *Sphyraena langsar* Bleeker RD 7209034
D_1 V D_2 I, 8-9; A II, 8-9 Barracuda
BL = 20.0 cm

Body much elongate, somewhat compressed, snout large and pointed. Mouth large, strong teeth in both jaws. Depth 6.5-7, Head about 3 times in length of body. Angle of preoperculum rectangular, Lateral lines scales 82-87. Eye about 5 times in head. Caught with trawls, trolling lines and set nets. Attains 30 cm. Trawl, South China Sea, 62-64 m.

Indigenous names: Kachang-kachang; 幼鳞沙君 (yòu lín shā jūn)

Seasonality:
April to September
Products presentation:
Whole, headless, or butterfly cut
Usage:
Surimi, tempura, fish ball & fish based products
Market:
Japan, HongKong, Malaysia, Singapore

Fam. **Sphyraenidae** *Sphyraena jello* (Cuvier) RD 7209024
D_1 V, D_2I, 8-9; A II 8 Barracuda
BL=98.0 cm Banded barracuda

Body elongate, slightly compressed, Depth 6.5-9, head about 3-3.5 times in length of body. Snout pointed with lower jaw projecting beyong the upper. Angle of preoperculum rounded. Lateral line scales 120-135. All fins except pelvic black. Very common in coastal waters, caught with trawl, trolling lines and set nets. Sometimes appear in large schools near the surface. Reputed to be dangerous, attacking swimmers in coastal waters. Usual size 50-100 cm, attains 150 cm. Trawl, South China Sea, North Andaman Sea, 62-64 m, 40-44m respectively.

Indigenous names: Alu-alu; 粗鳞沙君 (cū lín shā jūn)

Seasonality:
Whole year round
Products presentation:
Whole, fillet or cutlet
Usage:
Soup, fish & chips
Market:
Japan, Taiwan, Thailand, Malaysia, India Indonesia & Singapore

Fam. **Sphyraenidae** *Sphyraena obtusata* Cuvier RD 7212051
D1 V, D21,9; A II-III, 8-9 Obtuse barracuda
BL = 21.5 cm

Body elongate, slightly compressed. Depth about 6; head 2.8-3.4 times in length. Angle of preoperculum rectangular, lateral line with 80-90 scales. Eye about 4.5 times in head. Lower jaw projecting beyond upper, with a slight fleshy knob at end. Caught in shallow waters by trawl, drift nets. Usual size 20-30 cm, attains 40 cm. Trawl, Andaman Sea 40-48 m.

Indigenous names: Kachang-kachang; 沙君仔 (shā jūn zǎi)

Seasonality:
April to August
Products presentation:
Whole, headless & butterfly cut
Usage:
Surimi, tempura, fish ball, fish based products
Market:
Japan, Taiwan, HongKong, Thailand, Malaysia, Indonesia & Singapore

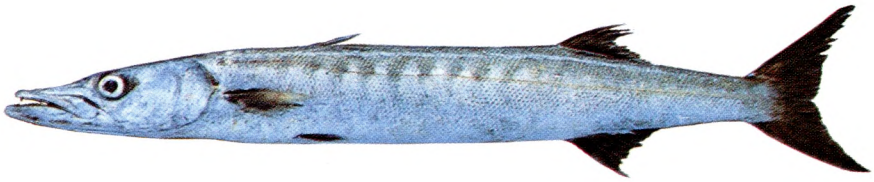
Congresox talabonoides
(Bleeker)



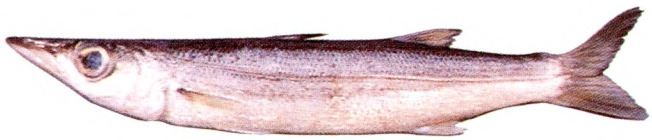
Sphyraena langsar
Bleeker



Sphyraena jello
(Cuvier)



Sphyraena obtusata
Cuvier



Fam. **Polynemidae** *Polynemus sextarius* Bloch
D_1 VIII, D_2I, 12-14; A II-III, 12-13
BL = 14.6 cm

RD 7212043
Blackspot threadfin

Seasonality:
Rare species
Product presentation:
Whole
Usage:
Steamed fish
Market:
HongKong

Body oblong, compressed. Depth 3-3.2 Snout prominent, projecting well beyond the mouth. Mouth moderately large, upper lip feebly developed, lower lip well developed. Eyes large 3.0-3.8 in head, covered by adipose tissue. Pectorals moderate, upper rays divided, with six free filamentous rays. A large black blotch at beginning of lateral line. Very common but small fish of coastal waters and estuaries. Caught by trawl. Usual size 13-20 cm, maximum 30 cm. North Adaman Sea, 38-39 m.
Indigenous names: Senangin; 午荀 (wǔ xún)

Fam. **Polynemidae** *Polynemus indicus* Shaw
D_1 VIII,D_2I, 13-14; AII-III 11-12
BL = 51.0 cm

RD 7509001
Threadfin

Seasonality:
Whole year round
Products presentation:
Whole, headless, fillet, maw, head & tail
Usage:
Fish & chips, curry fish head, steamed tail, maw for soup
Market:
HongKong, Taiwan, Malaysia, Singapore

Body elongate, slightly compressed. Depth 3.3 Snout prominent. Upper lip absent, lower lip well developed. Eyes very small, 7 times in head, with adipose tissue. Pectorals moderate most of upper rays divided, with 5 free pectoral filaments, longest reaching to anal fin origin. Large specimens body colour purple/black, with faint dark longitudinal stripes on body and tail, all fins yellowish. Common especially on west coast of West Malaysia and North Adaman Sea, in shallow muddy and sandy bottoms not more than 60 m deep. Caught by bottom drift nets, traps and trawls. Size 70-80 cm, maximum 140 cm. Trawl, North Andaman Sea, 34-40 m.
Indigenous names: Kurau, Senangin; 顺风午 (shùn fēng wǔ); 钓午 (diào wǔ)

Fam. **Scombridae** *Rastrelliger kanagurta* (Cuvier)
D_1VIII-XI, $D_2$11-12; A11-12
BL = l7.8

RD 7209010
Indian mackerel

Seasonality:
March to September
Products presentation:
Whole, or gilled & gutted
Usage:
Cooked, steamed, deep-fried, curry & asam
Market:
Thailand, Malaysia, Singapore, Saudi & Middle East countries & Brunei

Body slightly compressed, tapering. Depth 3.54. Head longer than body depth Moouth large, oblique. With adipose eyelid. Jaws with fine pointed teeth, palate without teeth. 30-46 long gill rakers on first gill arch. 2nd dorsal and anal fins followed by 5 finlets. Caudal deeply forked. Very common and abundant fish, caught mainly by purse-seines and bamboo stake traps (kelongs), incidentally by trawl. Marketed fresh or cooked in brine. popular food fish. Trawl, South China Sea, 30-40 m.
Indigenous names: Kembong; 甘望 (gān wàng)

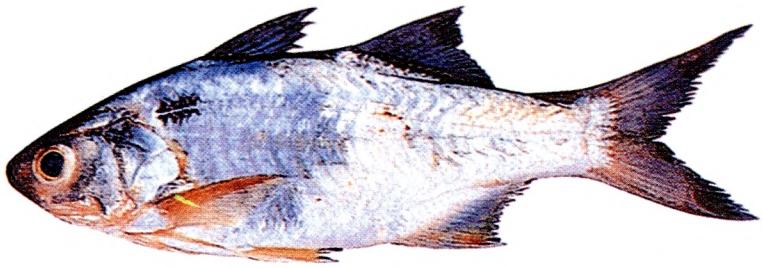
Fam. **Scombridae** *Rastrelliger brachysoma* (Bleeker)
D1 VIII-XI, D2 10-13; A 9-12
BL = 203 cm

RD 7212035
Short-bodied mackerel

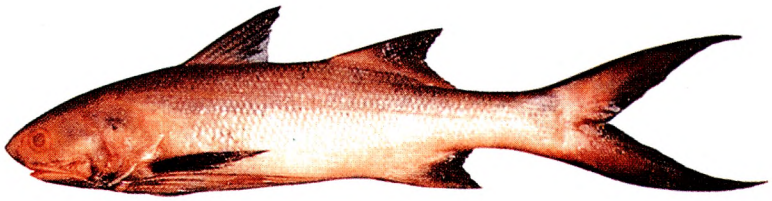
Seasonality:
March to September
Products presentation:
Whole, or gilled & gutted
Usage:
Cooked, steamed, deep-fried & asam
Market:
Middle East countries, Thailand, Malaysia, Brunei & Singapore

Body slightly compressed. Depth 2.8-3.5. Head equal to or less than body depth. Mouth large, oblique. Adipose well developed. Jaws with fine teeth, no teeth on palate. Gill rakers long, 30-48 on first gill arch. 5 finlets each behind 2nd dorsal and anal fins. Caudal deeply forked. Common fish, caught by purse-seines and kelongs, incidentally by trawls. Marketed fresh or cooked in brine. Usual size 15-20 cm. Trawl, North Andaman Sea, 38-39 m.
Indigenous names: Kembong; 巴株 (bā zhū); 巴都 (bā dōu)

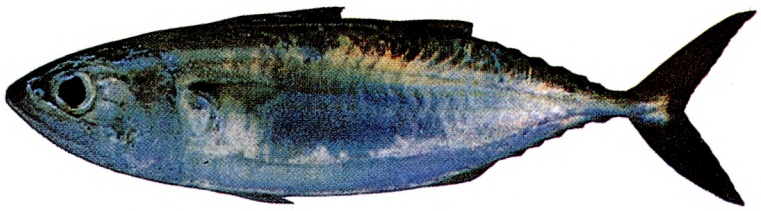
Polynemus sextarius
Bloch



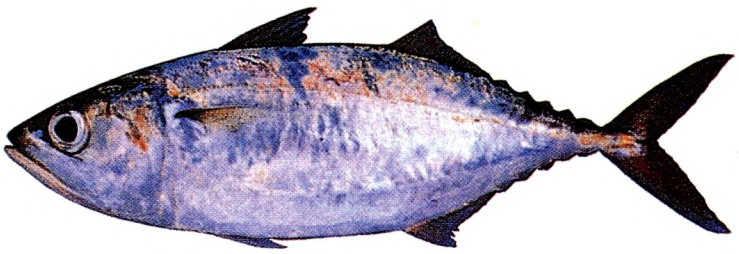
Polynemus indicus
Shaw



Rastrelliger kanagurta
(Cuvier)



Rastrelliger brachysoma
(Bleeker)



Fam. **Scombridae** *Scomberomorus guttatus* (Bloch & Schneider) RD 7209007
D_1XV-XVI, D_2IV, 14-16; A 14-18 Spotted spanish mackerel
BL = 28.0 cm Indo-Pacific spanish mackeral

Body elongate, compressed. Head pointed nearly equal to depth. Depth 4-4.5. Dorsal and anal with 8-9 finlets. Upper jaw reaching to almost below hind margin of eye. Lateral line almost straight. 3 rows of dark spots along sides of body. Very common pelagic coastal fish, in good demand. Caught with drift nets, trawls, bamboo stake traps (kelongs). Usual size 35-55 cm. Trawl, South China Sea, 30-40 m.

Indigenous names: Tenggiri papan; 马鲛 (mǎ jiāo)

Seasonality:
February to October
Product presentation:
Whole, headless, or fillet
Usage:
Deep-fried, fish ball, fish paste for "Yong tau foo" & otak-otak
Market:
HongKong, China, Japan, Malaysia, Singapore & Taiwan

Fam. **Scombridae** *Scomberomorus commerson* (Lacepede) RD 7301002
D_1 XV-XVII, D_2 14-17; A 14-17 Barred spanish mackerel
BL = 62.5 cm

Body elongate, moderately compressed. Depth 4.5-6. Dorsal and anal with 8-10 finlets. Upper jaw reaching to posterior margin of eye. Lateral line wavy with abrupt bent below anterior dorsal finlets. Sides with numerous wavy vertical bands extending low to ventral. Very common locally often caught in great numbers. Very popular food fish. Usual size 60-90 cm, attains 235 cm. Caught with drift nets, trawls, bamboo stake traps (kelongs). Trawl, South China Sea, North Andaman Sea (34-38 m).

Indigenous names: Tenggiri batang; 峇冬 (bā dōng)

Seasonality:
February to October
Products presentation:
Whole, headless, fillet, or cutlet
Usage:
Deep-fried, fish paste for otak otak, & curry
Market:
China, HongKong, Taiwan, USA, Japan, Thailand, Malaysia, Singapore

Fam. **Trichiuridae** *Trichiurus lepturus* Linnaeus RD 7210007
D 127-133; A75-80 Hairtail,
TL = 78.5 cm Ribbonfish

Body very elongate and strongly compressed, ribbon like, tapering to a hair-like tail. Depth 14-15.5, mouth large, teeth fang-like. Pelvic and caudal fins absent. Lateral line descends in pectoral region and continues to tail along lower part of sides. Coastal waters and trawling grounds. Common and popular food fish. Usual size 70-90 cm, attains 110 cm. Trawl, off Pulau Tioman, South China Sea, 55-64 m.

Indigenous names: Timah, Selayur, Langai; 黄鳍白带 (huáng qí bái dài)

Seasonality:
Whole year round
Products presentation:
Whole or cutlet
Usage:
Surimi, deep-fried
Market:
China, Hongkong, Taiwan, Japan, Korea

Fam. **Trichiuridae** *Tentoriceps cristatus* (Klunzinger) RD 7210006
D V, 126-144; A I 82-91 Crested hairtail

Body ribbon-like, elongated. Depth 17-24. Upper profile of head convex, a steep continous curve from the tip of the snout to the origin of dorsal, cranial crest present. Pectoral fins short does not reach lateral line when stretched upwards. Pelvic fins rudimentary. Common in trawl catch but not in market as it has little commercial value. Usual size 35-60 cm. Trawl, off Pulau Tioman, South China Sea, 64-67 m.

Indigenous names: 白带仔 (bái dài zǎi)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Surimi
Market:
China, Korea, Japan

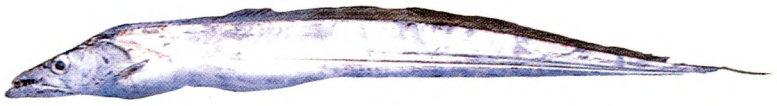
Scomberomourus guttatus
(Bloch & Schneider)



Scomberomorus commerson
(Lacepede)



Trichiurus lepturus
Linnaeus



Tentoriceps cristatus
(Klunzinger)



Fam. **Carangidae** *Decapterus russelli* (Ruppell) RD 7209044
D_1VIII, D_2I 30-31; A II, I 24-27 Round scad
BL = 18.2 cm

Body elongate, subcylindrical, more or less compressed. Depth 4.5-5.5. Curved part of lateral line longer than straight part, which has 40-45 scutes. Dorsal and anal fins end in a finlet each. Pelagic, coastal, common throughout the year but occuring in abundance during certain seasons. Caught by lift net in East Coast of West Malaysia, also with trawl. Popular food fish. Usual size 15-30 cm, attains 45 cm. Trawl, off Pulau Tioman, South China Sea, 63-65 m.
Indigenous names: Selayang; 吊景 (diào jǐng)

Seasonality:
Whole year round
Product presentation:
Whole or headless
Usage:
Canning, fish bait
Market:
Thailand, China, Philippine, Middle East Countries

Fam. **Carangidae** *Decapterus macrosoma* Bleeker RD 7209045
D_1I,VIII,D_2I, 31-34; A II, I 27-30 Round scad
BL = 17.8 cm

Elongate somewhat compressed. Depth nearly 6. Anterior part of lateral line slightly arched, longer than straight part which has 28-30 scutes. Dorsal and anal fins with a finlet each. Pectoral fins short, ending below the end of first dorsal. Usual size 15-25 cm, attains 30 cm. Trawl, off Pulau Tioman, South China Sea, 63-65 m.
Indigenous names: Selayang; 吊景 (diào jǐng)

Seasonality:
Whole year round
Products presentation:
Whole or headless
Usage:
Canning, fish bait
Market:
China, Thailand, Philippine & Middle East

Fam. **Carangidae** *Megalaspis cordyla* (Linnaeus) RD 7212033
D_1I,VIII,D_2I, 10-11; A II, I, 8-10 Torpedo, Hard-tail
BL = 24.0 cm

Body torpedo-shaped, compressed. Depth 4-4.5, about equal to length of head. Anterior curved part of lateral line short, terminating below the spinous dorsal, the straight portion with 53-58 scutes, the posterior ones with a strong spine. Dorsal with 7-9 finlets, anal with 6-8 finlets. Pectorals sickle-shaped, longer than head. Caudal peduncle hard and strong. One of most common fishes in the market, caught in great numbers along the coasts of West Malaysia, mainly by drift nets, lift nets and purse seines. Popular food fish. Usual size 25-30 cm. Attains 50 cm. Trawl, North Andaman Sea, 38-39 m.
Indigenous names: Chencharu; 硬尾 (yìng wěi)

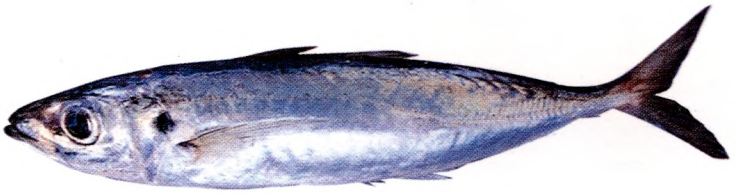
Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Salted fish, BBQ
Market:
Thailand, Malaysia, Middle East Countries

Fam. **Carangidae** *Selar crumenophthalmus* (Bloch) RD 7209042
D_1I, VIII,D_2I, 23-26; A II, I 20-23 Big eye scad
BL = 20.0 cm

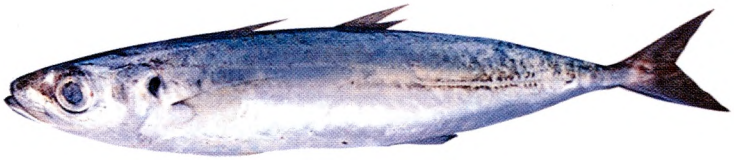
Body oblong, moderately compressed. Depth 3.3-3.8. Curved part of lateral line equal to straight part, which has 32-38 scutes, scutes rather low. Lower margin of gill opening with a deep furrow. Eyes large, 3 times in head length. Common food fish, caught by trawls and traps. Common size 20 cm, attains 30 cm. Trawl, off Pulau Tioman, South China Sea, 63-65 m.
Indigenous names: Selar puchat, Pelata, Selar papan; 金神 (jīn shén); 大目龙 (dà mù lóng)

Seasonality:
Whole year round
Products presentation:
Whole, gutted, or butterfly cut
Usage:
Cooked, deep-fried
Market:
Japan, Thailand, Malaysia, Singapore & Middle East countries

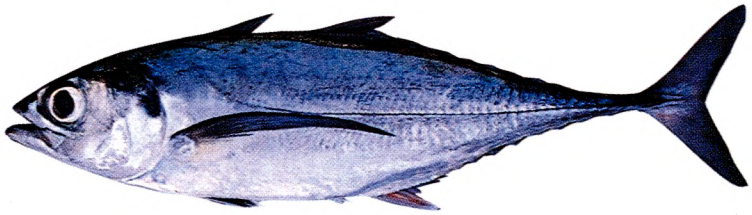
Decapterus russelli
(Ruppell)



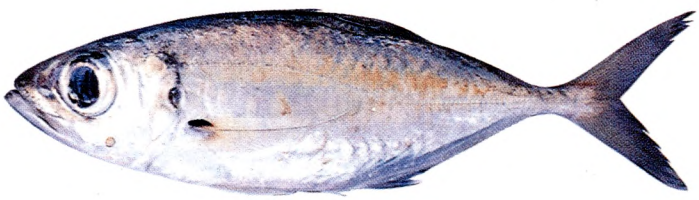
Decapterus macrosoma
Bleeker



Megalaspis cordyla
(Linnaeus)



Selar crumenophthalmus
(Bloch)



Fam. **Carangidae** *Alepes* (= Selar) *kalla* (Cuvier) RD 7209012
D1I,VIII,D2I 23-34; A II, 18-20 Scad, crevalle
BL = 12.2 cm

Body oval, tapering posteriorly, ventral profile more convex than dorsal. Eyes large 3-4 times in head. Anterior portion of eye not covered by adipose tissue. No furrow on lower part of gill opening. Anterior part of lateral line moderately curved, straight part twice longer than curved part. Breast scaly, pectoral sickle-shaped, much longer than head. Coastal waters, caught occassional with trawl and bamboo stake traps (kelongs). Size around 20 cm. Trawl, South China Sea, 30-40 m.

Indigenous names: Pelata; 臭青仔 (chòu qīng zǎi)

Seasonality:
Rare species
Product presentation:
Whole
Usage:
Deep fried, salted fish
Market:
Thailand, Malaysia & Middle East Countries

Fam. **Carangidae** *Alepes* (=Selar malam) *melanoptera* Swainson RD 7209008
D_1I,VIII,D_2I 23-34; AII, I 20-21 Blackfin crevalle, scad
BL = 19.2 cm

Body oblong, compressed, ventral and dorsal profile equally convex. Depth 2.8-3. Eye 4-4.5 times in head. Anterior portion of eye not covered by adipose tissue. No furrow in lower part of gill opening. Lateral line strongly arched anteriorly, about half of the length of straight posterior part which has 48-56 scutes. Breast fully scaled, spinous dorsal black. Common but not abundant, caught with bamboo stake traps and trawls. Coastal waters, common size around 20 cm, maximum 30 cm. Trawl, South China Sea, 30-40 cm.

Indigenous names: Betong, Songsong arus, Selar papan; 文中仔 (wēn zhōng zǎi)

Seasonality:
Whole year round
Products presentation:
Whole, gutted
Usage:
Fried or asam
Market:
Taiwan, Malaysia, Singapore

Fam. **Carangidae** *Atule* (=Selar) *mate* (Cuvier) RD 7209043
D1I, VIII, I-22-24; A II, I 19-21 One-finlet scad
BL = 19.0 cm

Body oblong compressed, dorsal and ventral profile equally convex. Depth 3-3.5. Eye 3.5-4 in head. Adipose tissue covers all but central slit of eye. Lateral line anteriorly weakly arched, slightly shorter than posterior straight part, which has 40-45 scutes. Breast totally scaled. Last dorsal and anal ray longest and finlet like. Very common fish in coastal waters and trawling grounds. Usual size 15-17 cm, attains 25 cm. Trawl, off Pulau Tioman, South China Sea, 63-65 m.

Indigenous names: Selar gelek; 勿勝色腊 (wù lāo sè là)

Seasonality:
Whole year round
Products presentation:
Whole, gutted
Usage:
Fried
Market:
Thailand, China, Taiwan, Malaysia, Singapore, Middle East

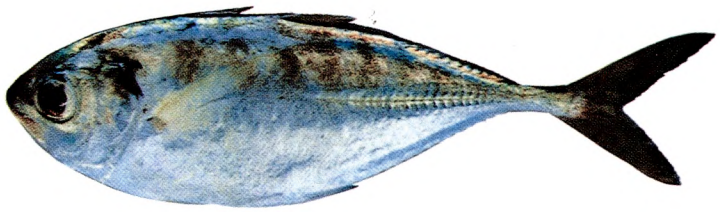
Fam. **Carangidae** *Selaroides leptolepis* Valenciennes RD 7209013
D1I,VIII,D2I, 24-25; A II, I, 20-21 Yellow-banded scad
BL = 12.9 cm

Body oblong compressed, depth 3.2-3.5 Eyes large 3.2-3.5 in head. Lateral line scarcely arched, straight portion one-third of lateral line, with 25-34 weak scutes. Breast with small, but conspicuous scales. No teeth in upper jaw. Characteristic golden lateral band on sides. One of most abundant and popular small-sized fish. Caught in the east coast of West Malaysia by lift nets and seines in large quantities. Marketed fresh or dried. Excellent food fish and as bad for larger fishes. Usual size 15 cm, maximum 20 cm. Trawl, South China Sea, 30-40 cm.

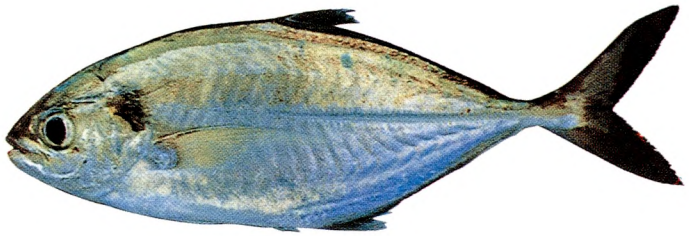
Indigenous names: Selar kuning; 君冷 (jūn lěng)

Seasonality:
Whole year round
Products presentation:
Whole, Butterfly cut
Usage:
Tempura, Nasi Lemak, Fried Satay Fish
Market:
Japan, Malaysia, Korea, Singapore, Korea

Alepes (= Selar) *kalla*
(Cuvier)



Alepes (=Selar malam) *melanoptera*
Swainson



Atule (=Selar) *mate*
(Cuvier)



Selaroides leptolepis
Valenciennes



Fam. **Carangidae** *Alectis indicus* (Ruppell) RD 7209016
D_1,VI,D_2I,19;A II, I, 16 Threadfin trevally
BL = 7.6 cm (juvenile)

Body deep and very compressed. Head profile almost vertical with a marked hump above eyes. In young the body is as deep as long and pentagonal in shape with the anterior dorsal and anal rays produced into threadlike above the upper jaw. Scales on body minute, embedded and inconspicuous. Lateral line curved anteriorly becoming straight below 10th dorsal ray, 5-12 weak scutes on caudal peduncle. Good food fish, seasonally common in markets but not abundant. Caught with gill nets and trawls Usual sice 30 cm, maximum 100 cm. Trawl, South China Sea, 30-40 m.
Indigenous names: Chermin; 照明仔 (zhào míng zǎi); 正镜鱼 (zhèng jìng yú)

Seasonality:
Whole year round
Product presentation:
Whole, fillet, steak
Usage:
Steamed, fried, soup, curry
Market:
Asian countries

Fam. **Carangidae** *Aletis ciliaris* (Bloch) RD 7210059
D_1VI,D_2I 19-22; A II, I, 15-17 Threadfin trevally
BL = 10.2 cm (juvenile)

Body deep and compressed. Head profile more convex than angular. In young, body is an deep as long and diamond-shaped with anterior dorsal and anal rays produced into thread-like filaments. Body becomes more elongated when adult and loses the ray filaments. Eye close to upper jaw, one eye diameter away. As in Alectis indicus it is a good food fish, although not so abundant. Trawl, off Pulau Tioman, South China Sea, 66-77 m.
Indigenous names: Chermin; 照明仔 (zhào míng zǎi)

Seasonality:
Whole year round
Products presentation:
Whole, fillet, steak
Usage:
Steamed, fried, soup, curry
Market:
Asian countries

Fam. **Carangidae** *Atropus atropus* (Bloch) RD 7206054
D_1I, VIII, $D_2$21-222; A II, I, 17-18 Kuweh trevally
BL = 12.3 cm

Body deep, oval-sharped, strongly compressed. Depth 2-2.5. Eye about 3 times in head without adipose tissue. Pectorals sickle-shaped, longer than head. Breast without scales. Pelvic fin long and black, fits into an abdominal groove. Lateral line arched anteriorly, 30-35 weak scutes on posterior part. Coastal waters, caought with trawls and traps. Usual size 20 cm, maxumum 30 cm. Trawl, off Pulau Tioman, South China Sea 47-48 m.
Indigenous names: Rambai; 白鱼 (bái yú); 水晶 (shuǐ jīng)

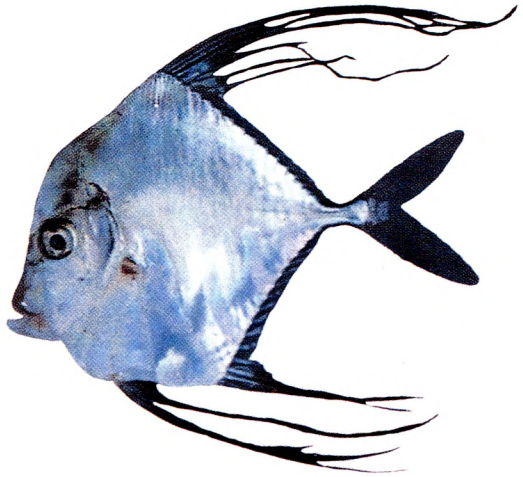
Seasonality:
Whole year round
Products presentation:
Whole, fillet, steak
Usage:
Steamed, fried, soup, curry
Market:
Asian countries

Fam. **Carangidae** *Uraspis carangoides* Bleeker RD 7210058
D_1I,VIII,D_2I 28; A II, I, 21 White tongue crevalle
BL = 13.3 cm

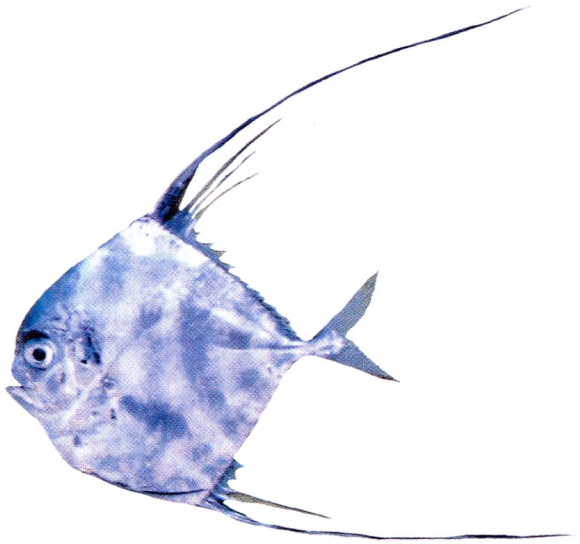
Body oblong, compressed. Depth about 2.5, scales minute, breast without scales. Characterised by the distinctive colour pattern of close set dusky black bands and black fins. Tongue milky white, sharply contrasting with the surrounding black membrane. Caught by trawls, not common. Trawl off Pulau Tioman, South China Sea, 66-70 m.
Indigenous names: 针姑 (zhēn gū); 乌水晶 (wū shuǐ jīng)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Fried, curry
Market:
Asian countries

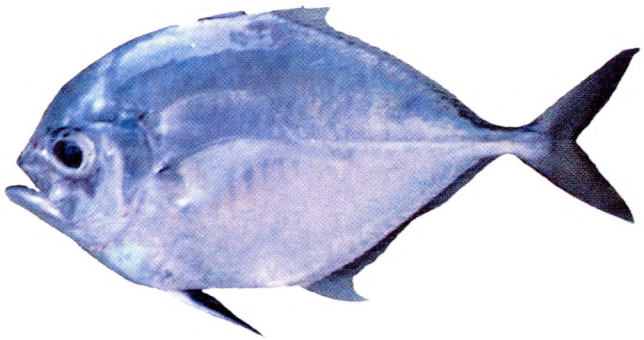
Alectis indicus
(Ruppell)



Aletis ciliaris
(Bloch)



Atropus atropus
(Bloch)



Uraspis carangoides
Bleeker



Fam. **Carangidae** *Carangoides malabaricus* (Bloch & Schneider) RD 72060370
D_1I, VIII, D_2I, 21-22; A II, I, 18-19 Malabar cavalla,
BL = 18.4 cm Malabar trevally

Body oblong much compressed, head profile steep. Depth 2-2.3. Eye 2.5-4 times in head. Breast naked from above base of pectoral fin to anus. Pectoral fins sickle-shaped, longer than head. Curved part of lateral line longer than straight part. 10-28 feeble scutes on caudal peduncle. Common in coastal waters, caught by trawl. Usual size 25-30 cm, attains 60 cm. Trawl, South China Sea and North Andaman Sea, 47-49 m, and 50-55 m respectively.
Indigenous names: Rambai, chupak; 水真 (shuǐ zhēn)

Seasonality:
Whole year round
Product presentation:
Whole, steak
Usage:
Steamed, fried, soup, curry
Market:
Asian countries

Fam. **Carangidae** *Carangoides armatus* (Forskal) RD 7212004
D_1I, VIII,D_2I, 20-22; A II, I, 16-18 Long-finned trevally
BL = 18.4 cm

Body ovate, strongly compressed. Snout profile steep. Depth 2-2.5. Bands of villiform teeth in jaws. Anterior rays of second dorsal and anal much prolonged. Some of middle rays prolonged into free filalments. Breast naked anterior to line from pectoral base to behind pelvics. Coastal waters. Not abundant. Trawl, Andaman Sea, 46-48 m.
Indigenous names: Rambai, chupak; 白水真 (bái shuǐ zhēn)

Seasonality:
Whole year round
Products presentation:
Whole, steak
Usage:
Steamed, fried, soup, curry
Market:
Asian countries

Fam. **Carangidae** *Carangoides chrysophrys* Valenciennes RD 7209075
D_1I,VIII,D_2I, 18-21; A II, I, 15-17 Longnose cavalla,
BL = 47.0 cm Longnose trevally

Body compressed oval, dorsal profile more convex than ventral. Depth 2-2.5. Eye 4.5-5 times in head. Teeth in jaws in villiform bands. Breast naked from base of pectoral to pelvic. Anterior part of lateral line with low curve, longer than straight part. 17-26 feeble scutes. Pectoral sickle-shape, much longer than head. Opercle wiht diffuse black spot. When caught, edges of head and body turns black. Coastal to deep waters, caught by trawl, longline, gill nets. Usual size 30 cm, maximum 60 cm. Botton long-line, off Sarawak, South China Sea, 68-70 m, vertal handline, Adaman Sea and South China Sea.
Indigenous names: Sagai; 乌脚靴 (wū jiǎo xuē); 白肉青针 (bái ròu qīng zhēn)

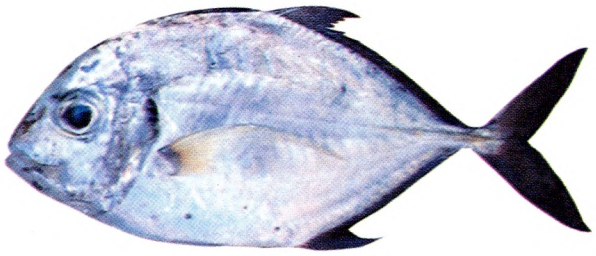
Seasonality:
Whole year round
Products presentation:
Whole, headed-gutted, fillet, steak
Usage:
Fried, soup, curry
Market:
Asian countries

Fam. **Carangidae** *Carangoides gymnostethoides* Bleeker RD 7206070
D_1I, VII-VIII,D_2I, 28-31; A II, I, 24-26 Bludger trevally
BL = 61.0 cm

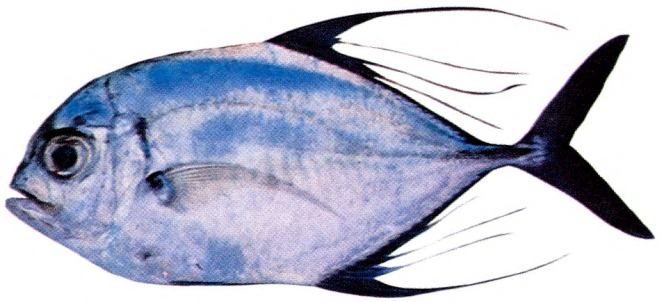
Body elongate, compressed. Depth 3-4. Bands of villiform teeth in jaws. Head naked except for fine scales on cheeks and temporal region. Breast naked to line joining bases of pectorals and pelvics. Anterior part of lateral line slightly curved, a little longer than straight part, 20-25 small and low scutes. Coastal to deep waters, caught by trawls, longlines, gill nets. Usual size 30 cm, maximum 60 cm. Common. Trawl, bottom long-line, South China Sea,47-52 m.
Indigenous names: 青针 (qīng zhēn)

Seasonality:
Whole year round
Products presentation:
Whole, steak
Usage:
Steamed, fried, soup, curry
Market:
Asian countries

Carangoides malabaricus
(Bloch & Schneider)



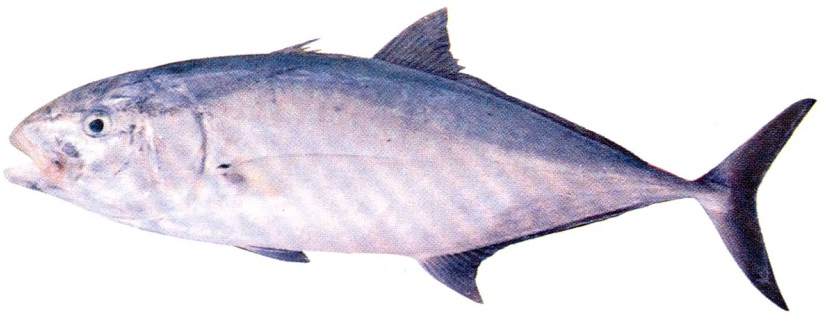
Carangoides armatus
(Forskal)



Carangoides chrysophrys
Valenciennes



Carangoides gymnostethoides
Bleeker



Fam. **Carangidae** *Scomberoides* (=Chorinemus) *tol* Cuvier
D_1I, VII, D_2I, 19-21; A II, I, 18-20
BL = 18.4 cm

RD 7210075
Queenfish
Slender leatherskin

Seasonality:
Whole year round
Product presentation:
Whole
Usage:
Salted fish
Market:
Asian countries

Body elongate, compressed. Depth 4.5. Head with a concave frontal profile, longer than high. Upper jaw extends at most to below hind border of eye. Scales needle-like, giving the skin a leather-like appearance, lateral line indistinct, almost straight. No scutes. Pectorals short, lower gill rakers 17 to 20. Tip of secong dorsal with black spot. 5-8 oval vertically oblong dusky blotches on sides. Coastal waters, caught by trawl and gill nets. Not eaten by local chinese for religous reasons. Trawl, off Pulau Tioman, South China Sea, 64-67 m.
Indigenous names: Talang; 亚参鱼 (yà cān yú); 乌参 (wū cān); 皮刀 (pī dāo)

Fam.**Carangidae** *Scomberoides* (=Chorinemus) *commersonianus* Lacepede
D_1I, VII,D_2I, 19-20; A II, I, 18
BL = 45.5 cm

RD 7212030
Talang queenfish
Spotted leatherskin

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Dried salted fish
Market:
Asian countries

Body elongate, compressed. Depth about 3. Upper jaw extends well beyond eye. Scales small, lanceolate. Lateral line wavy anteriorly. No scutes present. Pectorals short, lower gill rakers 7 to 12. Tip of second dorsal without black spot. 6-8 dark round spots above and along lateral line. (Differs from Scomberoides lyson which has 15-20 lower gill rakers, double row of black spots on sides of body, upper jaw extends only to hind margin of eye and tip of second dorsal pigmented). Coastal waters, caught by gill nets and trawls. Marketed fresh or dried. Usual size 30-35 cm. Maximum 100 cm. Trawl, North Andaman Sea, 50-55 m.
Indigenous names: Talang; 三保公鱼 (sān bǎo gōng yú); 白参 (bái cān)

Fam. **Carangidae** Seriolina (=Zonichthys) nigrofasciata (Ruppell)
D_1I,V-VII,D_2I,31-35; A II, I, 15-17
BL = 22.0 cm

RD 7206072
Black-banded trevally,
Kingfish

Seasonality:
Whole year round
Products presentation:
Whole, steak
Usage:
Fried, curry
Market:
Asian countries

Body oblong, somewhat compressed, rounded abdomen. Depth 3-4. Head profile rounded in young, less obtuse in adults. Broad bands of villiform teeth in jaws. Gill rakers rudimentary, 5 knobs on lower gill arch. Lateral line slightly arched anteriorly, without scutes. Scales minute, rudimentary. 5-7 dusky oblique bands on body and head, disappearing with age. Coastal and open seas, caughy with trawl and longlines. Fairly common, usual size 20-30 cm, maximum 60 cm. Trawl, South China Sea. cm, maximum 60 cm.
Indigenous names: Aji-aji; 香鱼 (xiāng yú)

Fam. **Carangidae** *Elagatis bipinnulatus* (Quoy & Gaimard)
D_1VI,D_2I, 24-27; A II, I, 15-17
BL = 48.6 cm

RD 7304003
Rainbow runner

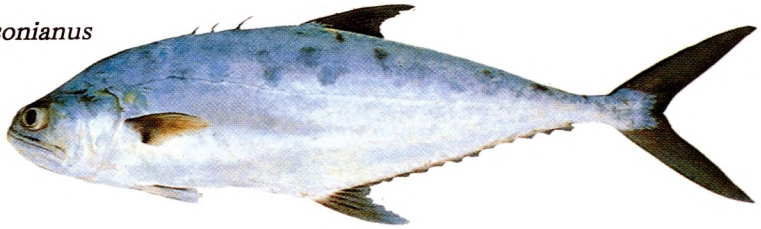
Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Not commonly used
Market:
Limited

Body long and slender, subcylindrical, abdomen rounded. Depth 3-5. Head long and pointed, mouth small, upper jaw not reaching to reaching to below eye. Jaws with small villiform teeth. Gill rakers 25-26. Lateral line slightly curved anteriorly, no scutes present. One 2-rayed finlet behind dorsal and anal fins. Pectorals short. Characteristic 2 narrow blue bands on sides with a broad yellow band between. Large pelagic fishes, prefering open tropical oceans, especially around coral and rocky reefs. Mostly caughy by handlines. Occasionally seen amongst longline catch in market. Not in demand, probably unfamiliar to consumers. Common size 50-60 cm, maximum 90 cm. Vertical handline, Vanguard Bank area, South China Sea, 96-108 m.
Indigenous names: Pisang-pisang; 虫素 (chóng sù); 金丝 (jīn sī)

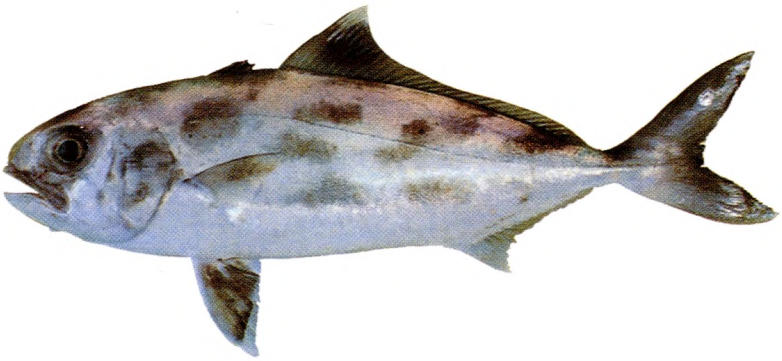
Scomberoides (=Chorinemus) *tol*
Cuvier



Scomberoides (=Chorinemus) *commersonianus*
Lacepede



Seriolina (=Zonichthys) *nigrofasciata*
(Ruppell)



Elagatis bipinnulatus
(Quoy & Gaimard)



Fam. **Leiognathidae** *Leiognathus elongatus* (Gunther) RD 7509005
D VIII, 15-16' A II 14 Slender ponyfish
BL = 9.3 cm

Body elongate, slender, slightly compressed. Depth 3. A backward directing spine (nuchal spine) on forehead (characteristich of genus). Head naked, small scales on cheek and breast. Mouth protractile, directed downwards. No cannie teeth. Abundant in coastal waters. Caught with trawls, beach seines. Of little commercial value because of its size. Included as trash fish, used for fish meal and duck food. Usual size 6-10 cm, attains 12 cm. Trawl, off Pulau Tioman, South China Sea, 49 m.

Indigenous names: Kekek; 青花莲 (qīng huā lián)

Seasonality:
Whole year round
Product presentation:
Whole
Usage:
Fish meal and trash fish
Market:
Limited

Fam. **Leiognathidae** *Leiognathus smithursti* (Ramsay & Ogilby) RD 7212013
D VIII, 15-16; A III 14 Smithursti's ponyfish
BL = 12.7 cm

Body oval, moderately compressed. Depth 1.8-2. Nuchal spine present. Head naked. Scales minute, none on breast. Mouth protractile, directed downwards. 2nd dorsal and 2nd anal spine greatly elongated. Common in swallow inshore waters, caught with beach seines, and trawl. Large ones of some commercial value as food, smaller specimens included as trash fish. Usual size 8-12 cm, maximum 16 cm. Trawl, off Pulau Tioman, South China Sea, 63-65 m.

Indigenous names: Kekek; 格格 (gé gé)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Steamed, curry asam
Market:
Asian countries

Fam. **Leiognathidae** *Leiognathus bindus* (Valenciennes) RD 7209067
D VIII, 16-17; A III 14 Orangefin ponyfish
BL = 7.9 cm

Body ovate, deeply compressed. Depth 1.8-2. Nuchal spine present. Head naked, breast with small scales. Mouth protractile, directed forwards. Head profile slightly concave above eye. tTis of spinous dorsal and anal with conspicuous orange spot. Pectoral axil with fine dark dots. Abundant in inshore waters, caught with trawls and beach seine. Included as trashfish, used as fish meal and duck food. Usual size 5-10 cm, maximum 11 cm. Trawl, off Pulau Tioman, South China Sea (66-67 m) and North Andaman Sea.

Indigenous names: Kekek; 金钱花 (jīn qián huā)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Fish meal
Market:
Limited

Fam. **Leiognathidae** *Leiognathus leuciscus* (Gunther) RD 7212011
D VIII, 15-16; A III 14 Whipfin ponyfish
BL = 20.0 cm

Body rather elongate, slightly compressed. Depth 2.3-2.5. Head naked, nuchal spine present. Mouth protractile, directed downwards. 2nd dorsal spine elongated, reaching almost to caudal. 2nd anal spine slightly elongated. Common in coastal waters and trawling grounds. Included as trash fish. Usual size 6-10 cm, maximum 12 cm. Trawl, Andaman Sea, 46-48 m.

Indigenous names: Kekek; 白花莲 (bái huā lián)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Fish meal
Market:
Limited

Fam. **Leiognathidae** *Leiognathus equulus* (Forskal) RD 7212012
D VIII, 16; A III 14 Common ponyfish
BL = 15.5 cm

Body ovate, moderately compressed. Depth 1.7-1.8. Head naked, nuchal spine present. Mouth protractile, directed downwards. Common in coastal and brackish waters. Caought by trawls. Largest of the leiognathids. Common food fish. Usual size 12-16 cm, maximum 22 cm. Trawl, Andaman Sea, 46-48 m.

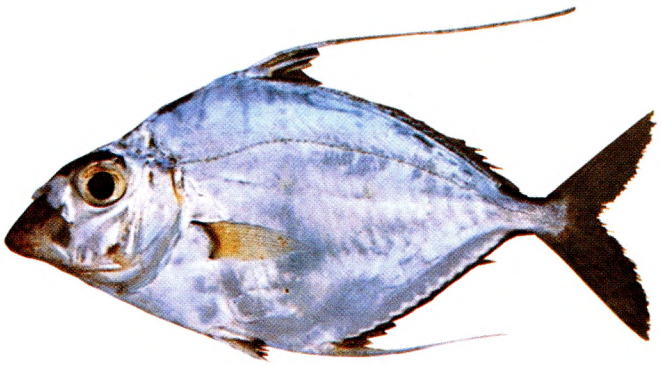
Indigenous names: Kekek; 深水格格 (shēn shuǐ gé gé)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Steamed, curry asam
Market:
ASEAN countries

Leiognathus elongatus
(Gunther)



Leiognathus smithursti
(Ramsay & Ogilby)



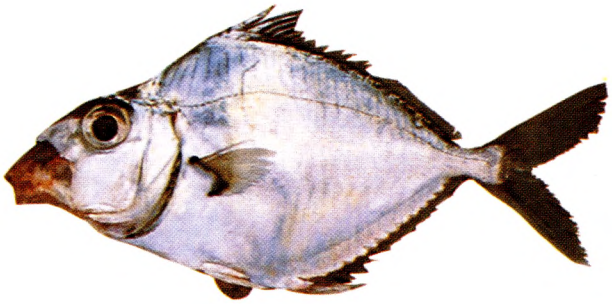
Leiognathus bindus
(Valenciennes)



Leiognathus leuciscus
(Gunther)



Leiognathus equulus
(Forskal)



Fam. **Rachycentridae** *Rachycentron canadus* (Linnaeus) RD 7209077
D_1VII-IX, D_2III-IV, 30-33; A II-III, 23-25 Black Kingfish, Cobia
BL = 66.8 cm

Body elongate, subcylindrical. Depth 6-7. Head depressed, broad. Mouth terminal, large, with bands of villiform teeth, spines of 1st dorsal free, depressible into a groove. No finlets, Caudal truncate in young but becomes lunate in adults. Colour brown with two silvery bands on flanks. Pelagic, common off east coast of West Malaysia, also around shallow coral reefs and off rocky shores. Caught mainly with trawls, handlines and traps. Not popular food fish. Botton long-line, off Sarawak, South China Sea, 70 m.

Indigenous names: Aruan tasek; 海鯧 (hǎi lèi)

Seasonality:
Whole year round
Product presentation:
Whole, steak, fillet
Usage:
Not commonly used
Market:
Limited

Fam. **Lactaridae** *Lactarius lactarius* (Bloch) RD 7212037
D_1VII-VIII, D_2I, 20-22; A III, 25-28 Whitefish,
BL = 14.7 cm False trevally

Body oblong compressed. Depth 2.5-3. Head compressed, mouth large, strongly oblique, lower jaw with prominent chin. Pectorals pointed, a little shorter than head. Anal fin base longer 2nd dorsal fin base. Caudal fin forked. Scales large and deciduous. Seasonally abundant but not very popular food fish. Coastal waters, caught with trawls. Usual size 15-30 cm, attains 40 cm. Trawl, North Andaman Sea, 38-39 m.

Indigenous names: Shrumbu, Selemah; 安南鱼 (ān nán yǔ)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Not commonly used
Market:
Limited

Fam. **Menidae** *Mene maculata* (Bloch) RD 7212066
D III-IV, 40-43; A,30-33 Moonfish
BL = 13.2 cm

Body strongly compressed, nearly triangular. Depth 1.4. Dorsal profile slightly rounded, nearly horizontal; ventral profile steep and angular. Scales very minute. Anal rays short embedded. Pectorals small, caudal forked. Pelvics with 1st ray filamentous. Not common, caught by purse seines. Found around reefs in deep waters, as well as in coastal waters. Trawl, North Andaman Sea, 40-44 m.

Indigenous names: Gedabang, Kapak; 阔剃刀 (kuò tì dāo)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Not commonly used
Market:
Limited

Fam. **Nomeidae** *Ariomma* (= Psenes) *indica* (Day) RD 7209032
D_1X,D_2I 14-16; A III,13-15 Butterfish
BL = 12.0 cm

Body elongate oval, compressed. Depth 2.3-2.5. Mouth small, oblique, not protractile. Dorsal fin deeply notched, almost separated into two fins. Caudal forked. Caught by trawl, sometimes in large numbers, usually in deep tropical waters. Of minor commercial importance. Attains 23 cm. Trawl, off Pulau Tioman, South China Sea, 62-64 m.

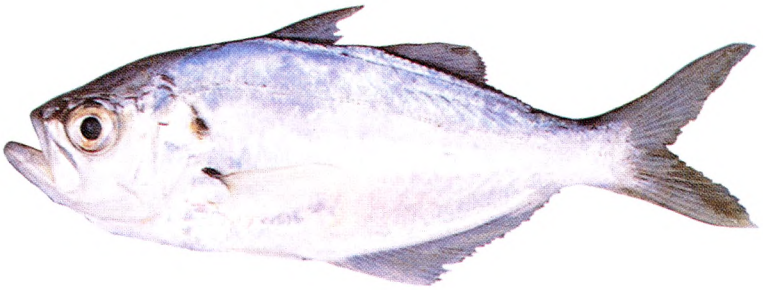
Indigenous names: Memtimah; 肉鱼 (ròu yǔ)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Pan fried
Market:
Limited

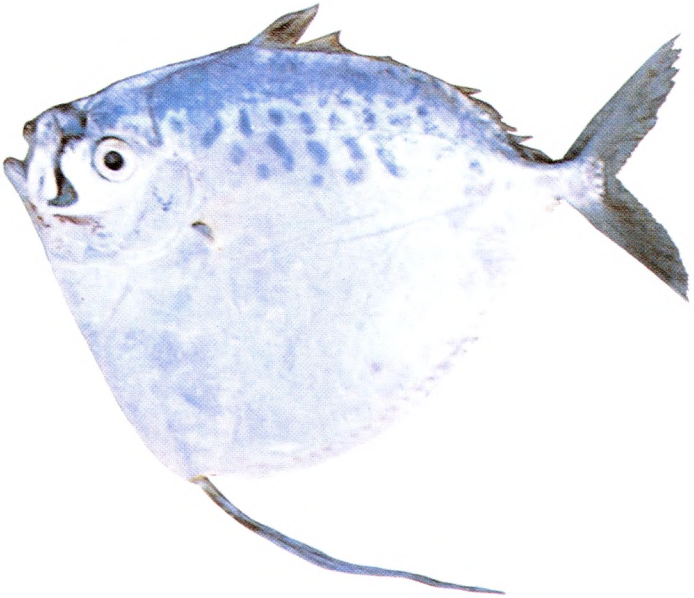
Rachycentron canadus
(Linnaeus)



Lactarius lactarius
(Bloch)



Mene maculata
(Bloch)



Ariomma **(= Psenes)** *indica*
(Day)



Fam. **Stromateidae** *Psenopsis anomala* (Temminck & Schlegel) RD 7210047
D VI, 27-32; A III 25-29 Japanese butterfish
BL = 10.2 cm

Body elongate-oval, compressed. Snout short, anterior bluntly rounded, equal to eye diameter. Body with round deciduous scales. Dorsal fin not notched, 10-12th rays longest. Caudal forked. Mouth small. Caught by trawls in deep waters. More common in sub-tropical areas, near South Vietnam, Taiwan, Usual size 15 cm, maximum 30 cm. Trawl, South China Sea.

Indigenous names: Memtimah; 肉鱼 (ròu yú)

Seasonality:
Whole year round
Product presentation:
Whole
Usage:
Pan fried
Market:
Asian market

Fam. **Formionidae** *Formio niger* (Bloch) RD 7509012
D_1IV,D_2I,41-46; AII 35-40 Black pomfret
BL = 16.5 cm

Body fairly deep and compressed. Depth 1.8-2.2. Gill openings extend to underside of head. Dorsal and ana] fins about equal. Pectoral fin long, sickle-shaped. Pelvics well developed in juveniles, absent in adults. Caudal deeply forked. Caudal rwdunde with acutes. Coastal waters. Feeds on crustaceans and small fish. Common and popular. Large specimens about 30 cm. Trawl, off Pulau Tioman, South China Sea, 47-48 m.

Indigenous names: Bawal hitam; 乌鲳 (wū chāng)

Seasonality:
Whole year round
Products presentation:
Whole, frozen
Usage:
Pan fried
Market:
Asian market

Fam. **Stromateidae** *Pampus argenteus* (Euphrasen) RD 7401019
DI, 37-43; A I 35-38 Silver pomfret,
BL =19.6 cm White pomfret

Body oval, strongly compressed. Depth 1.3-1.5. Gill openings restricted to a slit in front of pectoral fin base. 5-7 embedded spines in front of dorsal and anal fins. Anterior part of dorsal and anal fins falcate, posterior part low, consisting of rays of equal length. Caudal fin deeply forked, lower lobe longer. No pelvic fins. Occurs in shoals in coastal waters especially muddy areas, caught mainly-with trawls and traps. Feeds predominantly on larger planktonic invertebrates and small fish. Very common fish in market and always in great demand. Trawl, off Sarawak, South China Sea and North Andaman Sea, 35-38 m.

Indigenous names: Bawal puteh; 长鳍鲳 (chǎng qí chāng); 白鲳 (bái chāng)

Seasonality:
Whole year round
Products presentation:
Whole, fillet, frozen
Usage:
Steamed, fish soup, fish porridge
Market:
Asian market

Fam. **Stromateidae** *Pampus chinensis* (Euphrasen) RD 7401016
D 43-50; A 39-42 Chinese pomfret,
BL = 24.1 cm White pomfret

Body very deep and compressed. Depth 1-1.3. Gill opening restricted to a vertical slit in front of pectoral fin base. No embedded spines in front of dorsal and anal fins. Anterior part of dorsal and anal moderately falcate, the posterior part with rays decreasing in length gradually. Caudal fin emarginate or feebly forked. No pelvic fins. Coastal, especially muddy areas, caught with trawls and traps. Feeds on larger planktonic invertebrates, salps and small fish. Very comman and very popular amongst local Chinese, especially as a restaurant dish. Highly esteemed, most expensive fish in the market. Trawl, off Irrawaddy area, North Andaman, 35-36 m.

Indigenous names: Bawal tambak; 斗鲳 (dòu chāng); 斗底 (dòu dǐ)

Seasonality:
Whole year round
Products presentation:
Whole, fillet, frozen
Usage:
Steamed, fish soup, fish porridge
Market:
Asian market

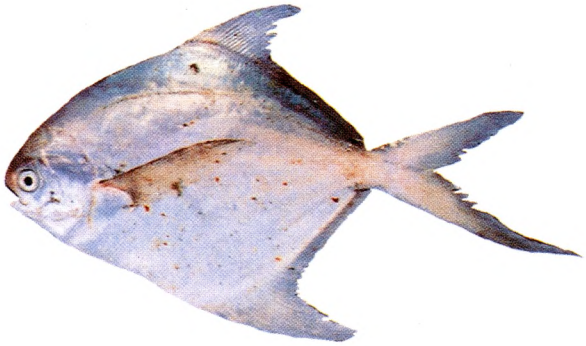
Psenopsis anomala
(Temminck & Schlegel)



Formio niger
(Bloch)



Pampus argenteus
(Euphrasen)



Pampus chinensis
(Euphrasen)



Fam. **Mullidae** *Upeneus* (Pennon) *bensasi* Temminck & Schlegel RD 7209019
D_1VIIID_2I, 8; A I, 6 Red mullet, Goatfish
BL = 9.8 cm

Body elongate and slender. Depth 3.8-4.2. One pair of sensory barbels on chin. No spine on operculum. Teeth in both jaws, vomer and palatines. 4 vertical rows of scales on space between 1st and 2nd dorsal fins, 10 vertical rows of scales from 2nd dorsal to base of upper caudal fin. Red stripes on dorsal fins and caudal fin, more on lower lobe of caudal. Anal fin without stripes. Common in trawl catch, but considered as trash fish due to its small size. Abundant in coastal waters. Usual size 10-15 cm, maximum 24 cm. Trawl, off Pulau Tioman, off Sarawak,South China Sea, 30-50 m.

Indigenous names: Biji nangka; 红鱼 (hóng yú)

Seasonality: Whole year round
Product presentation: Whole
Usage: Fish meal and trash fish
Market: Limited

Fam. **Mullidae** *Upeneus* (Pennon) *tragula* Richardson RD 7210003
D_1VIII,D_2I, 8; A I, 6-7 Red mullet, Goatfish
BL = 15.0 cm

Body elongate and slender. Depth 4-4.2. One pair of yellow sensory barbels on chin. No spine on operculum. Teeth and scales as in Upeneus bensasi. Caudal fin deeply forked. Body colour light brown, with a dark red band from snout to caudal peduncle. Dorsal and caudals fins with reddish stripes. Scales with red spots, forming regular longitudinal lines. Found in trawl catch from coastal waters not exceeding 40 m. Not very abundant, little commercial value. Usual size 15-20 cm, attains 28 cm. Trawl off Pulau Tioman, South China Sea, 55-64 cm.

Indigenous names: Biji nangka; 花点红鱼 (huā diǎn hóng yú); 正红鱼 (zhèng hóng yú)

Seasonality: Whole year round
Products presentation: Whole
Usage: Fish meal, little commercial value
Market: Limited

Fam. **Mullidae** *Upeneus moluccensis* Bleeker RD 7209062
D_1VIII, D_2I, 8; A I, 6 Gold-banded Goatfish
BL = 16.0 cm

Body elongate and slender. Depth 3.8-4.2. One pair of sensory barbels on chin. No spine on operculum. Teeth in both jaws, vomer and palatines. 5 vertical rows of scales between 1st and 2nd dorsal fins, 12 rows between 2nd dorsal and upper part of caudal peduncle. one bright golden band on sides. Both dorsal fins and upper lobe of caudal with dusky stripes. Common in reawl catch from coastal waters. Included in trash fish. Usual size 15 cm,maximum 25 cm. Trawl pff Pulau Tioman, South China Sea, 66-67 m.

Indigenous names: Biji nangka; 红鱼 (hóng yú)

Seasonality: Whole year round
Products presentation: Whole
Usage: Fish meal, satay fish
Market: Limited

Fam. **Mullidae** *Upeneus sulphureus* Cuvier RD 7209063
D_1VIII,D_2I, 8; A I, 6 Yellow goatfish
BL = 13.0 cm

Body elongate, slender. Depth 3.2-3.8. One pair of white barbel on chin. Teeth, scales as in Upeneus Moluccensis. Two narrow yellow bands on sides. Upper lobe of caudal fin dusky but without stripes. Base of pelvic and ana] fins yellow. Very common and abundant in trawl catch in coastal and deep waters (60 m). Included in trash fish. Usual size 10-15 cm, attains 23 cm. Trawl, off Pulau Tioman, off Sarawak, South China Sea and NorthAdaman Sea.

Indigenous names: Biji nangka; 红鱼 (hóng yú)

Seasonality: Whole year round
Products presentation: Whole
Usage: Fish meal, satay fish
Market: No actual market

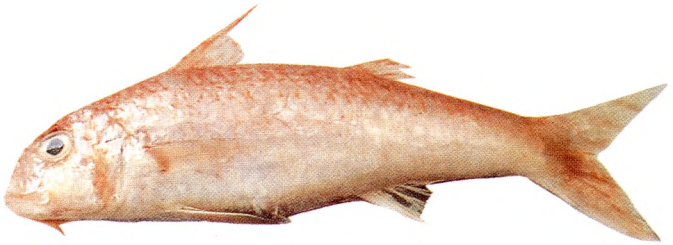
Fam. **Mullidae** *Parupeneus heptacanthus* Lacepede RD 7209029
D_1VIII, D_2I,8-9; A I, 6-7 Red mullet, Goatfish
BL = 17.0 cm

Body oblong, compressed. Dorsal profile strongly arched from tip of snout to 1st dorsal. Depth 3.2-3.5. Chin with two barbels. Teeth in both jaws, none on vomer and palatines. 3 vertical rows of scales of scales between the dorsal fins, 9 vertical rows along upper part of caudal peduncle. Red "pleural" spot below 1st dorsal. Common in trawl catch. Usual size about 20 cm, maximum 30 cm. Trawl, off Pulau Tioman, South China Sea, 30-64 m.

Indigenous names: Biji nangka; 粗鳞红鱼 (cū lín hóng yú); 木头红鱼 (mù tóu hóng yú); 红鱼 (hóng yú)

Seasonality: Whole year round
Products presentation: Whole, frozen
Usage: Steamed, pan-fried
Market: England, Spain, Italy

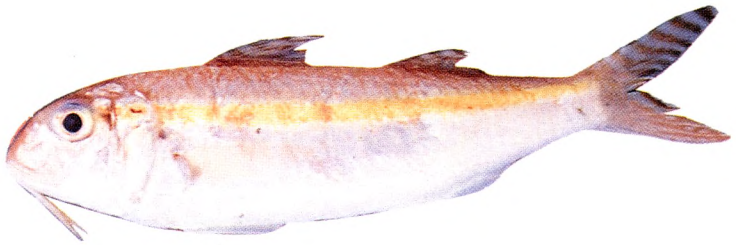
Upeneus **(Pennon)** *bensasi*
Temminck & Schlegel



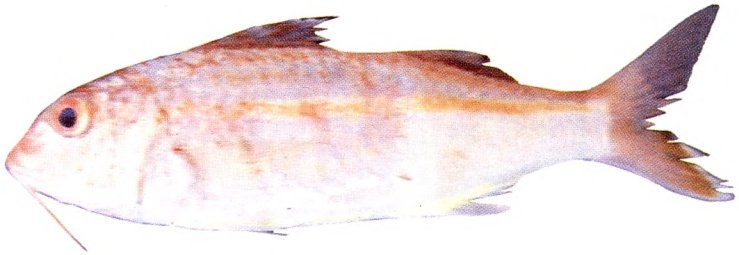
Upeneus **(Pennon)** *tragula*
Richardson



Upeneus moluccensis
Bleeker



Upeneus sulphureus
Cuvier



Parupeneus heptacanthus
Lacepede



Fam. **Lobotidae** *Lobotes surinamensis* (Bloch) RD 7212001
D XI-XII, 15-16; A III 11 Dusky perch
BL = 14.2 cm Triple-tail

Body oblong, moderately compressed. Head with a prominent short snout and a concave dorsal profile. Depth about 2. Eyes small, 5-8 times in head. Lower jaw projecting beyond upper jaw. Villiform teeth in jaws, none on vomer and palatines. Soft dorsal, anal and caudal fins rounded terminally. Pectorals short and rounded. Carnivorous, inhabits brackish and coastal waters, attains 100 cm. Not common locally. Caught with gill nets and handlines. South China Sea, 38 m.

Indigenous names: Sepak karang; 乌郭 (wū guō); 打铁泊 (dǎ tiě pō)

Seasonality:
Whole year round
Product presentation:
Whole
Usage:
Not commonly used
Market:
Limited

Fam. **Kyphosidae** *Kyphosus lembus* (Cuvier) RD 7303006
D X-XI, 14, A III 12-13 Drummer
BL = 13.0 cm

Body oval and moderately compressed. Depth 2.3-2.5. Soft dorsal base slightly longer than spinous dorsal base. 50-55 scales on lateral line. Body uniform grey, sides with alternating darker and lighter longitudinal bands. Herbivores feeding on algae and seaweeds around reefs. Not often seen in market. Attains 36 cm. Off Pulau Tioman, South China Sea, 60-64 m.

Indigenous names: Beras beras; 旧鸽 (jiù gū); 油甘 (yóu gān)

Seasonality:
Not seasonal
Products presentation:
Whole
Usage:
Not commonly used
Market:
Limited

Fam. **Priacanthidae** *Priacanthus tayenus* Richardson RD7209026
D X, 12; A III 13 Bigeye snapper
BL = 21.0 cm

Body oblong and compressed. Depth about 3. Eyes very large. Scales rough and firmly attached. Pelvics attached to body by a membrane, with distinct blackish-red spots. Caudal fin lunate. Soft dorsal and anal fins pointed. Deeper coastal waters, occuring frequently in trawl catch. Landed in substantial numbers, but low-priced. Used mainly for making fish balls or as fish meal. Usual size 15-20 cm, attains 25 cm. Trawl, South China Sea.

Indigenous names: Temenggong; 红目龙 (hóng mù lóng)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Surimi
Market:
Asian market

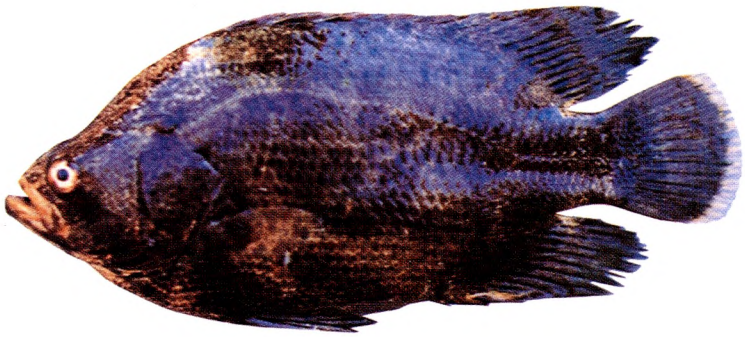
Fam. **Priacanthidae** *Priacanthus maracanthus* Cuvier RD 7209026
D X, 13-14; A III 13-15 Bigeye snapper
BL = 21.0 cm

Body oblong and compressed. Depth about 3. Eyes very large. Scales rough and firmly attached. Pelvics attached to body by a membrane. Pelvic, dorsal and anal fins with yellow-orange spots. Caudal truncate or slightly emarginate. Soft dorsal and anal fins rounded. Deeper coastal waters, common in trawl catch, together with *Priacanthus tayenus*, but less abundant. Usual size 15-20 cm, attains 30 cm. Trawl, South China Sea.

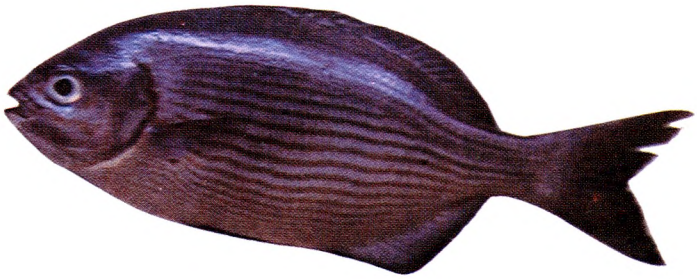
Indigenous names: Temenggong; 红目龙 (hóng mù lóng)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Surimi
Market:
Asian market

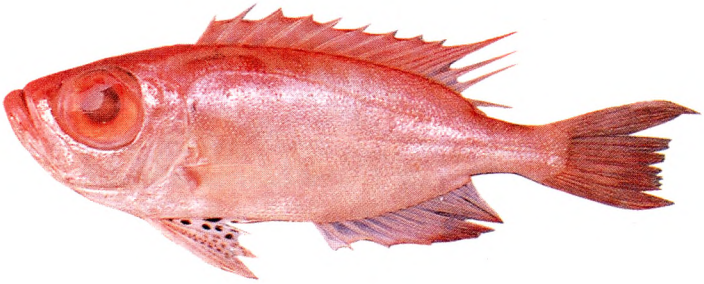
Lobotes surinamensis
(Bloch)



Kyphosus lembus
(Cuvier)



Priacanthus tayenus
Richardson



Priacanthus maracanthus
Cuvier



Fam. **Apogonidae** *Apogon quadrifasciatus* Cuvier — RD 7209053
D_1 VII, D_2 1. 9; A 11 8 — Four-band cardinal fish
BL = 5.7 cm

Seasonality: Whole year round
Product presentation: Whole
Usage: Fish meal
Market: Limited

Body oblong, moderately compressed. Depth 2.5-3. Head large, mouth vade. Soft dorsal higher than spinous dorsal. Villiform teeth in jaws, vomer and palatines. Two dark longitudinal lines on upper half of sides. Small fishes in coastal and brackish waters. Usual size 7-9 cm. Included in trash fish. Trawl, off Pulau Tioman, South China Sea, 63-65 m.
Indigenous name: Sebekah; 白册 (bái cè)

Fam. **Apogonidae** *Apogon frenatus* Valenciennes — RD 7210009
D_1VII, D_2I 8-9; A II, 8 — Cardinal fish
BL= 6.9 cm

Seasonality: Whole year round
Products presentation: Whole
Usage: Fish meal
Market: Limited

Body rather elongate. Depth 2.9-3.3. Mouth somewhat oblique. A dark brown lateral band from snout to caudal. Base of caudal with a dark spot. Membranes between anterior spines of 1st dorsal brown. Small fish in coastal and brackish waters. Included in trash fish. Trawl, off Pulau Tioman, South China Sea, 54-64 m.
Indigenous name: Sebekah; 白册 (bái cè)

Fam. **Apogonidae** *Apogonichthys ellioti* (Day) — RD 7210008
D_1 VII, D_2 I, 9; A II 8 — Cardinal fish
BL = 10.2 cm

Seasonality: Whole year round
Products presentation: Whole
Usage: Not commonly used
Market: Limited

Body elongate, compressed. Depth 3-3.2. Mouth very oblique. Villiform teeth on jaws, vomer and pala tines. Caudal rounded or sub-truncate, 4-5 faint cross bars on sides. Upper edge of dorsal fins and caudal black. 2nd dorsal and ana] with a black medium band. Small fish in coastal and brackish waters. Trawls, off Pulau Tioman, South China Seam 54-64 m.
Indigenous name: Sebekah; 白册 (bái cè)

Fam. **Apogonidae** *Apogonichthys poecilopterus* (Cuvier) — RD7212053
D_1 VII, D_2 I 8-9; A II 8 — Cardinal fish
BL = 8.8 cm

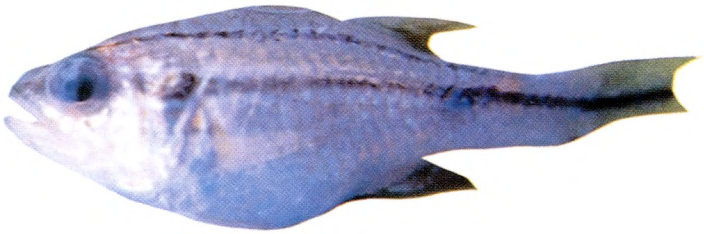
Seasonality: Whole year round
Products presentation: Whole
Usage: Not commonly used
Market: Limited

Body oblong, compressed. Depth 2.6-3. Lower jaw prominent. Caudal rounded, almost truncate. 4-5 faint vertical bars on sides. Upper part of 1st dorsal dark, 2nd dorsal sometimes spotted. Small fish in coastal and brackish waters. Trawl, South China Sea and North Andaman Sea.
Indigenous name: Sebekah; 白册 (bái cè)

Fam. **Centropomidae** *Lates calcarifer* (Bloch)
D VII-IX, 10-11; A III, 7-8 — Seabass, Cock-up,
BL = 30.5 cm — Barramundi

Body elongate, compressed with a deep caudal peduncle. Mouth large, slighfly oblique, upper jaw reaching to behind eye. Head pointed with a concave profile, more prominent in males. Dorsal fin with a deep notch almost separating soft part of fin. Colour either olive brown with silver sides and belly or green/blue with silver sides. Juveniles with a prominent pale line from snout to top of head. Common in Indo-Pacific region, especially near coastal waters, estauries and lagoons, including brackish water. Caught mainly with handlines, gillnets and traps. Considered a very good sport fish. Usual size 25-100 cm, maximum size of 200 cm. Very popular culture species especially in floating cage-nets in Southeast Asia.
Indigenous names: Siakap, Kakap; 金目鲈 (jīn mù lú)

Apogon quadrifasciatus
Cuvier



Apogon frenatus
Valenciennes



Apogonichthys ellioti
(Day)



Apogonichthys poecilopterus
(Cuvier)



Lates calcarifer
(Bloch)



Fam. **Serranidae** *Diploprion bifasciatum* Kulh & van Hasselt RD 7210034
D VIII, 12-15; A II 12-13 Two-banded seaperch
BL = 12.2 cm

Body oblong-oval, much compressed, anteriorly elevated. Depth 2-2.5. Mouth large, strongly oblique. Lateral line strongly arched. Caudal rounded. Golden yellow with 2 dark vertical bands one through the eye, the other broader, from 1st dorsal to beginning of anal. 1st dorsal black. Fairly common in coastal waters but not an important food fish. Size about 24 cm. Trawl, off Pulau Tioman, South China Sea 59-60 m.

Indigenous name: Sebakah laut; 花点册 (huā diǎn cè)

Seasonality:
Whole year round
Product presentation:
Whole
Usage:
Not commonly used
Market:
Limited

Fam. **Serranidae** *Anyperodon leucogrammicus* (Valenciennes) RD 7303001
D XI, 14-15; A III 9 White-lined rock-cod
BL = 27.0 cm

Body elongate, compressed, covered with small ciliated scales. Depth about 3.5. Mouth large, lower jaw projecting. Villiform teeth in jaws, a pair of small canines in upper jaw. Palatines and tongue toothless. Caudal rounded. Orange-red spots on body, dorsal and caudal fins, 3-5 white stripes on body, may disappear in adults. Coral reefs. Not common.

Indigenous name: Kerapu; 花点猴 (huā diǎn hóu); 赤猴 (chì hóu); 石斑 (shí bān)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Steamed, cooked, pan-fried
Market:
Asian market

Fam. **Serranidae** *Cromileptes altivelis* (Valenciennes) RD 7407001
D X, 18-19; A III 10 Humpback seabass
BL = 17.1 cm Polka-dot grouper

Body oblong, strongly compressed. Depth 2.6-3. Head Profile concave, mouth large, oblique. Jaws with villiform teeth, no canines. Caudal fin rounded. Body greyish brown with numerous black spots on head, body and all fins. Fairly common, caught by handlines, traps around coral reefs. Usual size 3040 cm, maximum 70 cm.Esteemed food fish.

Indigenous name: Kerapu tikus; 老鼠猴 (lǎo shǔ hóu), 糯米猴 (nuò mǐ hóu)

Seasonality:
Whole year round
Products presentation:
Whole, live
Usage:
Delicacy & delicious meal for steam cooking
Market:
HongKong, Malaysia, Singapore

Fam. **Serranidae** *Plectropomus maculatus* (Bloch) RD 7206029
D VII-VIII, 10-12; A III 7-8 Spotted coral-trout
BL = 48.0 cm

Body elongate, compressed. Depth 3.3-4. Scales very small, 83-86 on lateral line. Mouth large with canines in jaws. Caudal weekly emarginate. Colour variable, brilliant orange or dull brown, with bright elongated blue spots. Coastal water around coral reefs. Common in market, easily sold. Usual size 40-50 cm, attains 100 cm. Trawl, off Sarawak, off Pulau Tioman, South China Sea, 47-49 m.

Indigenous name: Kerapu sonoh; 金猴 (jīn hóu)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Steam cooked, pan-fried, fish & chips
Market:
Asian countries, Australia, USA & European countries

Fam. **Serranidae** *Plectropomus leopardus* (Lacepede) RD 7209054
D VIII, 10-12; A III, 7-8 Blue-spotted seabass
BL = 54.2 cm Leopard coral trout

Body elongate, slightly compressed. Depth 3.2-3.8. Scales small, 73-81 on lateral line. Caudal emarginate. Colour variable, brown or reddish brown, with numerous round blue spots, edged with black, on head body and fins (except pectoral and pelvic). Not as common as Plectropomus maculatus. Usual size 60-80 cm, attains 120 cm. Trawl, off Pulau Tioman, South China Sea, 66-67 m.

Indigenous name: Kerapu bara; 红猴 (hóng hóu)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Steam cooked, pan-fried, fish & chips
Market:
Asian countries, Australia

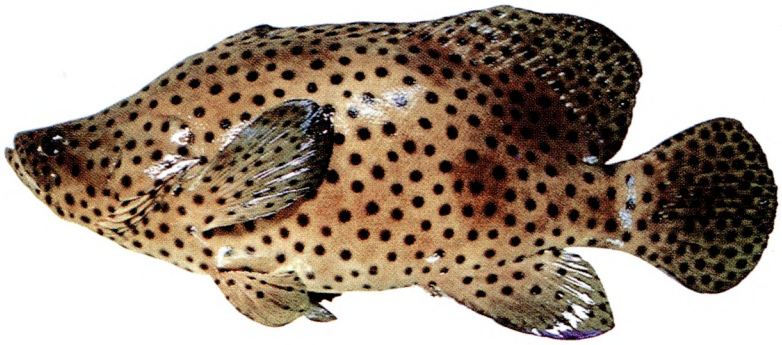
Diploprion bifasciatum
Kulh & van Hasselt



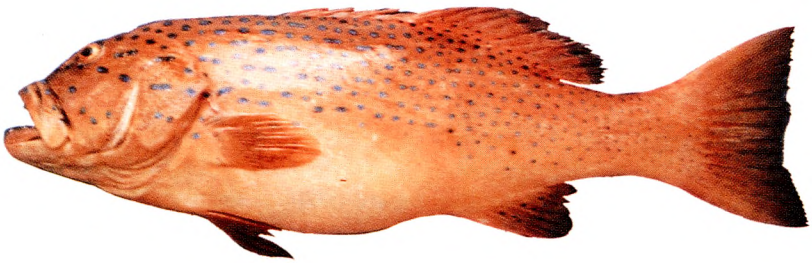
Anyperodon leucogrammicus
(Valenciennes)



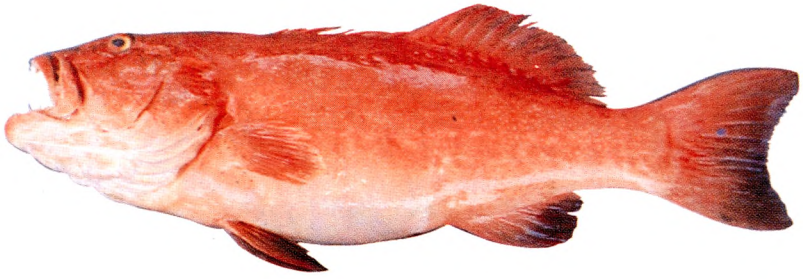
Cromileptes altivelis
(Valenciennes)



Plectropomus maculatus
(Bloch)



Plectropomus leopardus
(Lacepede)



Fam. **Serranidae** *Cephalopholis sonnerati* (Valenciennes) RD 7302035
D IX, 14-15; A III 8-9 Red grouper
BL = 25.0 cm Red coral trout

Body oblong, robust. Depth 2.6-2.8. Lateral line scales 40-55, soft dorsal, anal and caudal fins rounded. No enlarged canies at side of jaws. 9 dorsal spines. Head, body and fins orange-red, fins sometimes fringed with black. Head and front of back often with numerous blue or golden spots. Caught by handlines in rocky areas of around 80m depth. Not common. Vertical handline, Andaman Sea, 82-94 m.

Indigenous name: Kerapu merah; 红猴 (hóng hóu)

Seasonality:
Whole year round
Product presentation:
Whole, gilled, gutted, live fish, ice-chilled & frozen
Usage:
Steamed, & deep-fried
Market:
Southeast Asia, mediterranean countries, eg Greece

Fam. **Serranidae** *Cephalopholis miniatus* (Forskal) RD 7303004
D IX 15-16; A III 9 Vermilion seabass (grouper)
BL = 24.5 cm

Body oblong, stout. Depth 2.7-3. No enlarged canines at sides of jaws. Caudal fin rounded. 9 dorsal spines. Colour red, with numerous small round blue spots, edged with brown, on head, body and fins. Caught by handlines and traps around coral reefs. Not common in market. Common size 30-40 cm.

Indigenous name: Kerapu bara; 花点红猴 (huā diǎn hóng hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, whole/gilled, gutted, live fish, ice-chilled & frozen
Usage:
Steamed
Market:
Southeast Asia

Fam. **Serranidae** *Cephalopholis argus* (Bloch & Schneider) RD 7303002
D IX 16; A III 8 Blue-spotted seabass (grouper)
BL = 27.5 cm

Body robust. Depth 2.5-3. No enlarged canines at sides of jaws. 9 dorsal spines. Caudal fin rounded. Body brown with 6 darker indistinct broad crossbars. Head, body and fins covered with small light blue ocelli. Caught by handlines and traps around coral reefs. Not common.

Indigenous name: Kerapu bunga; 乌猴 (wū hóu); 石猴 (shí hóu); 古猴 (gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Cephalopholis boenak* (Bloch) RD 7209082
D IX 15-17; A III 8 Brown-banded seabass (grouper)
BL = 19.8 cm

Body oblong, robust. Depth 2.5-2.9. No canines at sides of jaws. 9 dorsal spines. Caudal fin rounded. Body dark or light brown, 8 more or less distinct darker vertical bands. Distinct round spot on operculum. Soft dorsal, anal and caudal with narrow white margins. Small groupers 15-20 cm, attains 30 cm. Common in shallow coastal waters, caught by traps and handlines. Trawl, off Pulau Tioman, South China Sea, 63-64 m.

Indigenous name: 金边猴 (jīn biān hóu); 石猴 (shí hóu); 古猴 (gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, whole/gilled/gutted, ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Variola louti* (Forskal) RD 7506015
S IX 13-14; A III 8 Moontail seabass
BL = 14.6 cm

Body oblong, compressed. Depth 2.8-2.9. Jaws with villiform teeth, outer row enlarged. 1.2 curved. Canines on each side of upper jaw, lower jaw with a canine anteriorly and 2-3 laterally. Soft dorsal, anal and pelvic fins ending posteriorly in a point. Caudal deeply lunate. Body red with blue spots. Common size 40 cm, maximum 60 cm. Caught by handlines and traps around coral reefs. Vertical handline, Grainger Bank, South China Sea,67-130 m.

Indigenous name: 深水金猴 (shēn shuǐ jīn hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round
Usage:
Deep-fried
Market:
Southeast Asia

Cephalopholis sonnerati
(Valenciennes)



Cephalopholis miniatus
(Forskal)



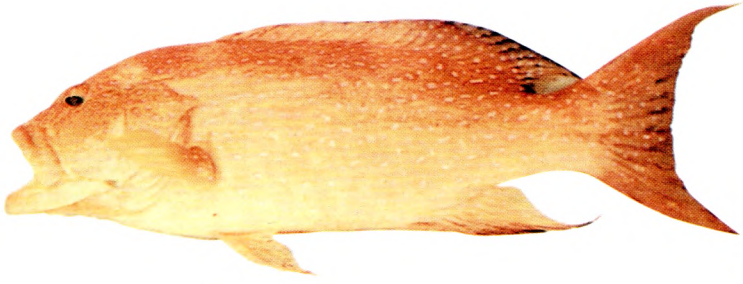
Cephalopholis argus
(Bloch & Schneider)



Cephalopholis boenak
(Bloch)



Variola louti
(Forskal)



Fam. **Serranidae** *Epinephelus coioides* (Hamilton) RD 7206030
D XI,15-16; A III 8 Greasy grouper
BL = 51.0 cm

Body elongate, robust. Depth 3.3-3.7, varing with size. Mouth very large, upper jaw extends well behind hind margin of eye. Upper edge of preoperculum serrated and slightly convex. 27-30 gill rakers on lower gill arch, pyloric caeca about 50. Dorsal with 11 spines. Caudal rounded. Body light grayish brown with numerous brownish orange spots the size of pupil; 5 slightly diagonal graylish brown bars. Previously confused with E. tauvina and E. suillus. This grouper is highly esteemed as a restaurant'live' fish and is widely cultured in floating cages in Southeast Asia. The young occur in shallow coastal waters and are caught by traps and handlines. Larger individuals are caught offshore by trawl and longline. Trawl, off Pulau Tioman, South China Sea, 47-49 m.

Indigenous name: Kerapu, Keretang; 赤猴 (chì hóu); 花盾猴 (huā dùn hóu)

Seasonality:
Whole year round
Product presentation:
Whole/round, whole/gilled/gutted, fillets, live fish ice-chilled & frozen
Usage:
Steamed, deep-fried, pan-fried
Market:
Southeast Asia, Japan, USA & Australia

Fam. **Serranidae** *Epinephelus malabaricus* (Bloch & Schneider)
D XI, 14-16; A III, 8 Malabar grouper
BL = 97.4 cm

Body moderately elongate, robust. Depth 3.0-3.6 in SL. Gill rakers 8-11 + 15-18. Eye relatively small. Pyloric caeva numerous, more than 80. Caudal rounded. Body light grayish to yellowish brown with 5 slightly oblique broad dark brown bars on body, bifurcating ventrally and may contain pale areas. Head and body with numerous small well-separated black spots and scattered pale spots and blotches. This grouper is also reared in floating cages but not as popular as E. coiodes. Occurs on protected reefs and adjacent habitats and readily penetrates estuarine areas. Larger individuals caughy offshore by trawls and longlines. Trawl, off Pulau Tioman, South China Sea.

Indigenous name: Kerapu, Keretang; 赤猴 (chì hóu); 花盾猴 (huā dùn hóu)

Fam. **Serranidae** *Epinephelus areolatus* (Forskal) RD 7206074
D XI, 15-16; A III 8 Areolated grouper
BL = 20.0 cm

Body slender, moderately compressed. Depth 3-3.5. Dorsal with 11 spines. Caudal truncate to emarginate. Ground colour brown covered by large hexagonal dark spots, usually darker on fins. Soft dorsal, anal and caudal with a white margin. Common and popular in market. Coastal to deep waters, caught by trawls, traps, and handlines. Common size 20-30 cm, maximum 40 cm. Trawl, South China Sea, 47-49 m.

Indigenous name: Kerapu ekor puteh; 花猴 (huā hóu); 胶支猴 (jiāo zhī hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus sexfasciatus* (Valenciennes) RD 7505001
D XI, 14-15; A III 8 Six-banded grouper
BL = 18.5 cm

Body elongate, robust. Depth 3.3-3.8. Caudal rounded. Dorsal with 11 spines. Last dorsal spine much shorter than 3rd dorsal spine (longest). Pectorals as tong as head without snout. Ground colour light brown with six vertical dark brown bands. Soft dorsal and caudal pale with distinct black dots. Coastal waters, very common species in market. Caught by trawl. Usual size 15-25 cm.

Indigenous name: Kerapu; 鲁古猴 (lǔ gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, whole/gilled/gutted, & fillets. Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus heniochus* Fowler RD 7210060
D XI, 15; A III 8 Banded-cheek grouper
BL = 10.7 cm

Body oblong compressed. Depth 3-3.2. Snout moderately pointed. Three spines on operculum. Scales small and ciliated. Caudal rounded becoming sub-truncate in adults. Colour golden brown with three oblique black lines on cheek. Small fine well-spaced black dots on upper part of body, soft dorsal and caudal fins. Common but not abundant, caught by trawl from coastal waters. Not very popular food fish. Usual size 20-25 cm. Trawl, off Pulau Tioman, South China Sea, 64-66 m.

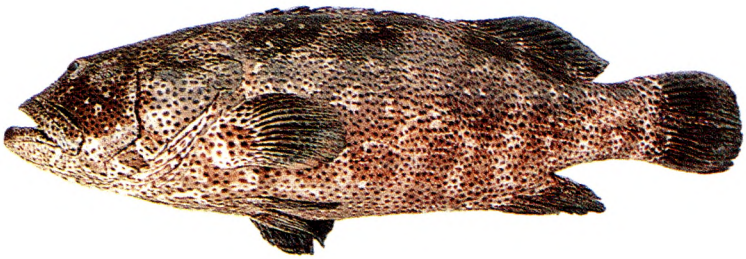
Indigenous name: Kerapu; 鲁古猴仔 (lǔ gǔ hóu zǎi)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Epinephelus coioides
(Hamilton)



Epinephelus malabaricus
(Bloch & Schneider)



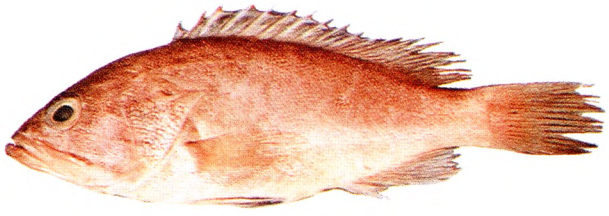
Epinephelus areolatus
(Forskal)



Epinephelus sexfasciatus
(Valenciennes)



Epinephelus heniochus
Fowler



Fam. **Serranidae** *Epinephelus morrhua* (Valenciennes) RD 7302013
D XI, 14-15; A III, 8 Curve-banded grouper
BL = 33.0 cm

Body oblong, robust. Depth 3-3.3. Dorsal with 11 spines. Caudal fin rounded. Three subspecies are recognised by some scientists, based on differences in colour patterns. The specimen shown is the darker variety with curved brown bands running from head to caudal depuncle. Common, caught in deeper waters, especially coral areas by handline and longline. Occassionally caught by trawl. Usual size 30-40 cm. Vertical handline, Andaman Sea and Vanguard Bank area, South China Sea, 80-120 m.

Indigenous name: Kerapu; 鲁古猴 (lǔ gǔ hóu)

Seasonality:
Whole year round
Product presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed, deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus poecilonotus* (Temminck & Schlegel) RD 7507013
D XI, 14-15; A III, 8 Dot-dash grouper
BL = 32.2 cm.

Body depth 2.6-3.1 in SL, gill rakers 8-10 + 15-18. Differ from E. morrhua based on colour pattern. E. poecilonotus has large dark spot on back beneath the spinous portion of dorsal fin and extending into the fin; the curved dark bands below the spot are arranged semiconcentrically. Incised part of membranes of spinous dorsal fins bright yellow to orange-yellow. Usually found in deep water, especially in coral areas, caught by handline and longlines. Vertical handline, Vanguard Bank, South China Sea, 80-120m.

Indigenous name: Kerapu; 鲁古猴 (lǔ gǔ hóu)

Fam. **Serranidae** *Epinephelus chlorostigma* Valenciennes RD 7302012
D XI, 16-17; A III 8 Brown-spotted grouper
BL = 40.3 cm

Body oblong, robust. Depth 3-3.5. Dorsal with 11 spines. Caudal fin truncate. Generally brownish with numerous close-set dark hexagonal or round spots, greater than inter-space, on head, body and fins. Common, caught in deeper waters, especially in coral areas by handline and longline. Usual size 40-50 cm. Vertical handline, Andaman Sea and Vanguard Bank area, South China Sea, 80-120 m.

Indigenous name: Kerapu minyak; 鲁古猴 (lǔ gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, whole/gilled/gutted. Ice-chilled & frozen
Usage:
Steamed & deep-fried & fillets
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus bleekeri* (Vaillant & Bocourt) RD 7310011
D XI, 16; A III, 8 Bleeker's grouper
BL = 18.0 cm

Body elongate, robust. Depth 3-3.5. Dorsal with 11 spines. Caudal fin truncate. Ground colour brown with golden spots on head body and fins. Only upper half of caudal spotted. Rather common but not abundant. Mostly caught with handline and longline, sometimes with trawl. Usual size 30-40 cm, attains 70 cm. Trawl, off Sarawak, South China Sea, 32-36 m, Vertical handline, Andaman Sea, 104 m.

Indigenous name: Kerapu; 胶支猴 (jiāo zhī hóu); 赤猴 (chì hóu); 花猴 (huā hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus amblycephalus* (Bleeker) RD 7302032
D XI, 16; A III, 8 Banded grouper
BL = 40.5 cm

Body oblong, Rout Depth about 3. Head large. Dorsal with 11 spines. Caudal fin rounded. Ground colour light brown with tinge of pink, especially on belly, 7 broad dark brown bands running vertically on head, body and caudal peduncle, each edged with fine black dots. Common but not abundant in handline catches from deep rocky areas and coral reefs. Not a popular grouper in the market. Usual size 30-40 cm. Vertical handline, Andaman Sea and South China Sea, 80-120 m.

Indigenous name: Anak keretang; 鲁古猴 (lǔ gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, whole/gilled/gutted. Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

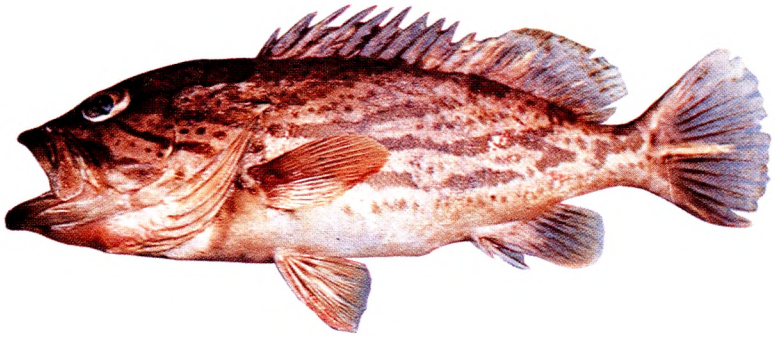
Fam. **Serranidae** *Epinephelus fasciatus* (Forskal) RD 7506024
D XI, 16; A III, 8 Red-banded grouper
BL = 24.2 cm

Body ablong robust. Depth 2.8-3. Mouth large, with canines at front of jaws. Preoperculum with convex serrated edge. Colour orange or red, with 6-7 broad transverse bands. Edge of spinous dorsal black. Caudal rounded. Not common, caught with handlines in rocky areas. Usual size about 20 cm. Vertical handline, Vanguard Bank area, South China Sea, 80-120 m.

Indigenous names: Kerapu bara; 鲁古猴 (lǔ gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Epinephelus morrhua
(Valenciennes)



Epinephelus poecilonotus
(Temminck & Schlegel)



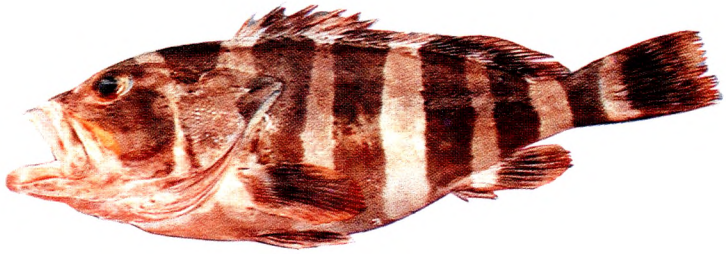
Epinephelus chlorostigma
Valenciennes



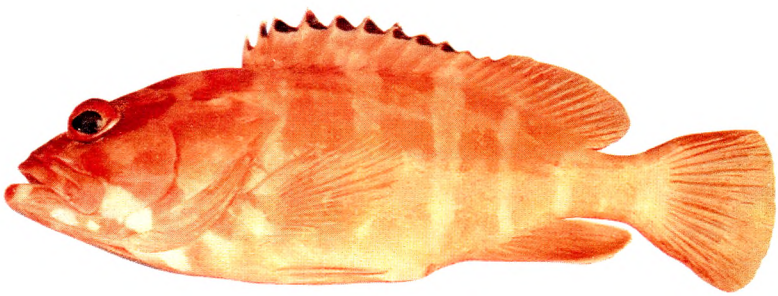
Epinephelus bleekeri
(Vaillant & Bocourt)



Epinephelus amblycephalus
(Bleeker)



Epinephelus fasciatus
(Forskal)



Fam. **Serranidae** *Epinephelus fasciatomaculatus* (Peters) RD 7308005
D XI, 15; A III, 8 Rock grouper
BL = 18.4 cm

Body oblong. Depth 3-3.5. Dorsal with 11 spines. Caudal fin rounded to subtruncate. Ground colour light brown; body, head and medium fins covered with reddish-brown spots, extending to caudal fin. Six dark-brown vertical bands, 3rd-5th incline backwards with basal portions forked. Seldom seen in market. Occassionally caught with trawl. Usual size 15-20cm attains 30 cm. Trawl, off Sarawak, South China Sea, 32-36 m.

Indigenous name: Kerapu; 胶支猴 (jiāo zhī hóu); 赤猴 (chì hóu)

Seasonality:
Whole year round
Product presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed, deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus undulosus* (Quoy & Gaimard) RD 7304028
D XI, 18-19; A III, 8 Brown-lined grouper
BL = 44.6 cm

Body oblong, rather deep. Depth 2.8. Dorsal with 11 spines. Caudal fin truncate. Pectorals short. Ground colour greyish with tinge of pink. Head with longitudinal series of dark brown spots confluent into wavy lines on upper part of body and tail, disappear in larger specimens. Seldom seen in market. Caught by trawl in deeper waters. Trawl, off Sarawak, South China Sea, 65-77 m.

Indigenous name: Kerapu; 古猴 (gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus latifasciatus* (Temminck & Schlegel) RD 7304026
D XI, 11-12; A III, 8 Laterally-banded grouper
BL = 19.0 cm

Body oblong somewhat stout. Depth 3-3.5. Caudal fin truncate. Dorsal with 11 spines and about 12 rays. Ground colour greyish with 3 white broad lateral band, each edged with black. In larger specimens, the broad bands disappear, leaving the black lines against a pale background. Caught by trawl, longline and handline in rocky coastal waters, smaller fish living on muddy sea-bed. Rarely seen in market. Trawl, off Sabah, South China Sea, 44-50 cm.

Indigenous name: Kerapu; 古猴 (gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus grammicus* (Day) RD 7401021
D XI, 12-13; A III, 8 Lined grouper
BL = 24.5 cm

Body oblong, robust. Depth 3-3.5. Caudal fin slightly rounded. Upper jaw reaches to below posterior margin of eye. Colour of body golden brown with three thin horizontal black lines on upper half of body, extending to head. Caudal with round black spots. Seldom caught in trawl, in coastal waters around coral reefs. Specimen caught by trawl in North Andaman Sea. Usual size 25-35 cm. Trawl, North Andaman Sea, 36-39 m; Vertical handline, Vanguard Bank area, South China Sea, 80-120 m.

Indigenous name: Kerapu; 古猴 (gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Serranidae** *Epinephelus erythrurus* (Valenciennes) RD 7503002
D XI, 14-16; A III, 8-9 Grouper
BL = 18.4 cm

Body oblong, robust Depth 3-3.5. Caudal fin rounded. Ground colour olive green when young, brownish in larger specimens. Body with brown honeycombed network, Coastal waters and coral reefs. Not abundant. Usual size 20-25 cm. Caught by traps, handlines.

Indigenous name: Kerapu; 古猴 (gǔ hóu)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Epinephelus fasciatomaculatus
(Peters)



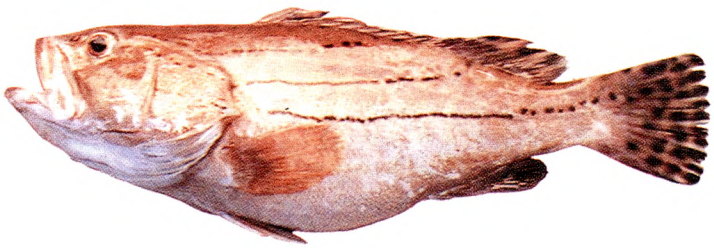
Epinephelus undulosus
(Quoy & Gaimard)



Epinephelus latifasciatus
(Temminck & Schlegel)



Epinephelus grammicus
(Day)



Epinephelus erythrurus
(Valenciennes)



Fam. **Nemipteridae** *Nemipterus peronii* (Valenciennes) RD 7509007
D X 9; A III 7 Rosy threadfin bream
BL = 16.1 cm

Body oblong, robust. Depth 3.2-3.8. No spines on head. Base of pelvic fin with an axillary scale. Fins not filamentous. Generally rosy in ground colour with 9 saddle-like reddish blotches on back. One reddish spot on lateral line, above pectoral fin base. Dorsal and caudal fins rosy, pelvic and anal white. Abundant in trawl catch, especially from the South China Sea. Usual size 15-25 cm. Very common in market. Trawl, South China Sea, 49m.
Indigenous names: Kerisi; 粗鳞哥里 (cū lín gē lǐ)

Seasonality:
Whole year round
Product presentation:
Whole/round, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus tolu* (Valenciennes) RD 7308002
D X 9; A III 7 Notched threadfin bream
BL = 19.0 cm

Body slender. Depth 3.3-3.7. Head without spines. Pelvic fin with axillary scale. Dorsal spines longer than rays, 5th and 8th dorsal spines lognest, interspinous membrane deeplu notched. No filaments in fins. Ground colour pinkish with 8-9 saddle like blotches on back when fresh. A red spot on lateral line above pectoral fin base. Dorsal fin with orange margin. Pelvic and anal fins white. Caudal rosy. Common but not abundant in trawl catch from the South China Sea. Usual size 15-25 cm, attains 35 cm. Trawl, South China Sea, 63-64 m.
Indigenous names: Kerisi; 钓里 (diào lǐ); 哥里 (gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus tambuloides* (Bleeker) RD 7309016
D X 9; A III 7 Five-lined threadfin bream
BL = 19.7 cm

Body elongate, slightly compressed. Depth 3.4-3.7. Head without spines. Pelvic fin with axillary scale. No filaments in fins. Groung colour light pink with 5 bright yellow lateral lines on body. A curved yellow band on snout from eye to eye. Throat to lower caudal peduncle yellow. Dorsal fin with yellow margin. Caudal rosy, tip of upper lobe yellow. Anal white with a thin yellow line near the base. Common in trawl catch from South China Sea and Andaman Sea. Usual size 16-25 cm, attains 30 cm. Trawl, South China Sea, 67m.
Indigenous names: Kerisi; 金丝哥里 (jīn sī gē lǐ); 钓里 (diào lǐ)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & Deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus bleekeri* (Day) RD 7304027
D X 9; A III 7 Threadfin bream
BL = 19.5 cm

Body elongate, slightly compressed. Depth 3.1-3.3. Head without spines. Pelcics with axillary scale. No filaments in fins. Caudal large, with sharply pointed lobes. Ground colour rosy, with 2 broad pale yellowish longitudinal lines. Belly eith a yellow line on each side, ruuning from throat to lower caudal peduncle, joining at anal. Anal fin white. Dorsal fin edge yellow. Caudal rosy with tip of upper lobe yellow. Not common. Caught by trawl in deeper waters, Trawl, South China Sea, 63-64 m.
Indigenous names: Kerisi; 黄尾哥里 (huáng wěi gē lǐ)

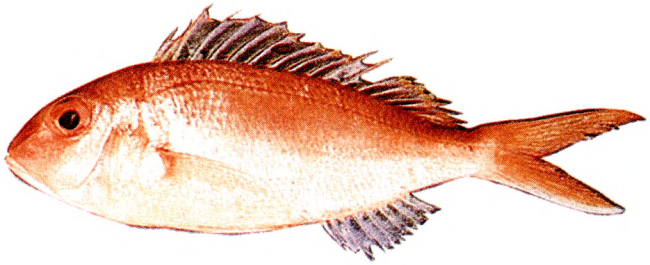
Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus delagoae* Smith RD 7312003
D X 9; A III 7 Delagoa threadfin bream
BL = 23.5 cm

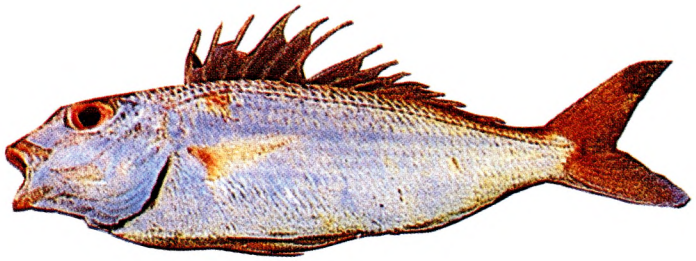
Body slender, slightlly compressed. Depth 3.7-3.9. Head without spines. No filaments in fins. Pelvic base with axillary spine. Scales on sides vertically elongated. Ground colour rosy on head and back, silvery on belly. Sides with 5 greenish-yellow longitudinal upward curved stripes. No spots on lateral line. Dorsal fin rosy with yellow/orange margin. Anal white 3-4 yellow stripes. Pelvis fins long reaching to anal origin. Not common, caughy by trawl in South China Sea. Trawl, off Penang, Straits of Malacca, 61-63 m.
Indigenous names: Kerisi; 幼鳞哥里 (yòu lín gē lǐ); 红哥里 (hóng gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole/round, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & deep-fried
Market:
Southeast Asia

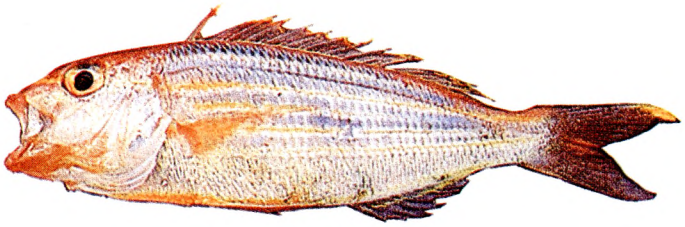
Nemipterus peronii
(Valenciennes)



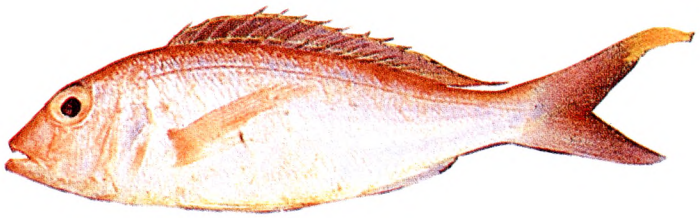
Nemipterus tolu
(Valenciennes)



Nemipterus tambuloides
(Bleeker)



Nemipterus bleekeri
(Day)



Nemipterus delagoae
Smith



Fam. **Nemipteridae** *Nemipterus marginatus* (Cuvier &Valenciennes) RD 7309020
D X 9; A III 7 Pate-finned threadfin bream
BL = 18.2 cm

Body slender, slightly compressed. Depth 3.2-3.3. Head without spines. Pelvic with an axillary scale. No filaments in fins. Ground colour rosy with two main yellow bands on sides. Head without yellow lines. Dorsal and anal high, without basal longitudinal bands. Dorsal fin margin yellow with blue line immediately below. Caudal pink, upper lobe tipped yellow. Abundant in trawl catch from the South China Sea. Common size 15-25 cm..Trawl, South China Sea, 67 m.

Indigenous name: Kerisi; 哥里 (gē lǐ)

Seasonality:
Whole year round
Product presentation:
Whole/round, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus mesoprion* (Bleeker) RD 7309024
D X 9; A III 7 Red-filament threadfin bream
BL = 12.7 cm

Body slender. Depth 3.5-3.8. Head without spines. Pelvic with an axillary scale. Upper lobe of caudal fin prolonged, filamentous. Generally pink with 2 broad pale lines on sides. A red spot just below origin of lateral line. Dorsal fin with yellow margin and a broad yellow median band. Anal pinkish with 2 yellow bands. Caudal red, middle rays on each lobe yellow, filament red. Smallest species, about 10 cm, treated as trash fish. Common. Trawl, South China Sea, 67 m.

Indigenous names: Kerisi; 哥里 (gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus nemurus* (Bleeker) RD 7308003
D X 9; A III 7 Redspine threadfin bream
BL = 17.0 cm

Body elongate, slightly compressed. Depth 3.5-3.8. Head without spines. Pelvic with an axillary scale. Upper lobe of caudal prolonged, filamentous. Body pinkish with 2 broad yellow lines on sides. Dorsal fin yellowish, a red spot on tip of membrane between 1st and 2nd spine. Anal fin white with a row of yellow spots. Caudal pink, filament yellow. Caught with trawl in deeper waters, common but not abundant. Usual size 12-18 cm, attains 25 cm.

Indigenous names: Kerisi; 哥里 (gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & Deep-fried
Market:
Southeast Asia

Fam. **Nemipteridae** *Nemipterus nematophorus* (Bleeker) RD 7309013
D X 9; A III 7 Double-whip threadfin bream
BL = 15.2 cm

Body slender, slightly compressed. Depth 3.2-3.5. Head without spines. Pelvic with axillary scale. 1st and 2nd dorsal spines prolonged into a long filament. Upper lobe of caudal filamentous. Body pinkish with 4 yellow lines on sides below lateral line. A yellow spot on origin of lateral line. Both filaments yellow. Dorsal fin rosy with yellow margin. Anal white with a yellow stripe. Caudal rosy. Medium sized, 12-18 cm. Common but not abundant in trawl catch. Trawl, South China Sea, 67 m.

Indigenous names: Kerisi; 哥里 (gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole, Ice-chilled & frozen
Usage:
Steamed & deep-fried
Market:
Southeast Asia

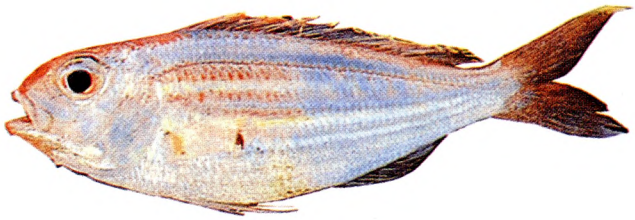
Fam. **Nemipteridae** *Nemipterus japonicus* (Bloch) RD 7310032
D X 9; A III 7 Japanese threadfin bream
BL = 17.0 cm

Body deep, slightly compressed. Depth 3-3.2. Head without spines. Pelvic with axillary scale. Upper lobe of caudal prolonged, filamentous. Body pinkish, with 7-8 yellow lines on sides. A red saddle on forehead. A large semi-circular red spot at origin of lateral line. Dorsal fin margin orange, a broad yellow band at base. Anal pale blue with 3-4 wavy yellow lines. Caudal filament yellow. Widely distributed from South China Sea to the North Andaman Sea where it is the only species caught with trawl. Large sized, 12-25 cm attains 32 cm. Very abundant in coastal waters.

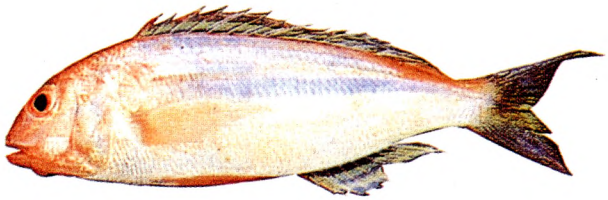
Indigenous names: Kerisi; 哥里 (gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole, Ice-chilled & frozen
Usage:
Raw material for surimi. Steamed & deep-fried
Market:
Southeast Asia

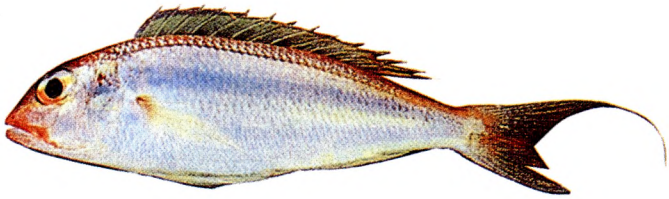
Nemipterus marginatus
(Cuvier &Valenciennes)



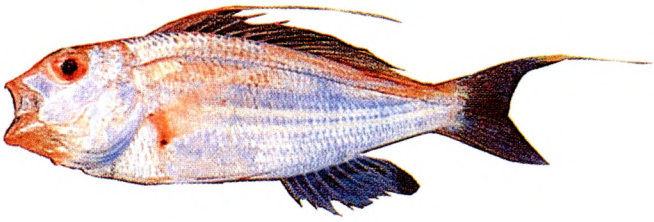
Nemipterus mesoprion
(Bleeker)



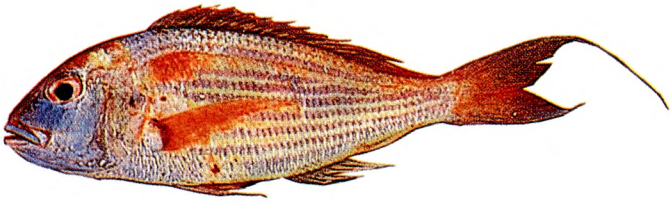
Nemipterus nemurus
(Bleeker)



Nemipterus nematophorus
(Bleeker)



Nemipterus japonicus
(Bloch)



Fam. **Sciaenidae** *Pennahia argentata* (Houttuyn) RD 7209074
D_1IX-X,D_2I, 25-28; A II 7-8 Silver pennah croaker
BL = 21.0 cm Jewfish

Body oblong, slightly compressed. Depth 3-3.3. Mouth large, terminal, slightly oblique. Large and small teeth in both jaws but no outstanding canines. Lower gill rakers 8-9. Swim bladder carrot-shaped with 25-28 pairs of appendages, the anterior ones not entering head. Caudal fin rhomboid. A dark blotch on operculum. Caught by trawl in coastal waters, occasionally by gill-nets and handlines. These small sized species are of economic importance in view of the abundance and availability. Marketed fresh or dried. Trawl, off Sarawak, South China Sea, North Andaman Sea. 30-40 m.

Indigenous names: Gelama; 乌点牛那妈 (wū diǎn niú nà mā); 赤翅 (chì chì); 老鼠画 (lǎo shǔ huà); 浅水白画 (qiǎn shuǐ bái huà)

Seasonality:
Whole year round
Product presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China and Southeast Asia

Fam. **Sciaenidae** *Pennahia macrophthalmus* (Bleeker) RD 7212048
D_1IX-X,$D_2$23-25; A II 7-8 Bigeye croaker
BL = 17.0 cm Jewfish

Body oblong, slightly compressed. Depth 3-3.2. Mouth large, terminal, oblique. Large and small teeth in both jaws, no outstanding canines. Lower gill rakers 10-12. Swim bladder carrot-shaped with 18-22 pairs of appendages, the anterior ones not entering head. A notch on dorsal fin. Caudal fin truncate. Very abundant in trawl catch from coastal muddy water, especially off Sarawak in the South China Sea and the North Andaman Sea. Usual size 13-15 cm. Maximum 17 cm. Small specimens are considered as trashfish.

Indigenous names: Gelama; 有头 (mǎo tóu); 深水白画 (shēn shuǐ bái huà)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China and Southeast Asia

Fam. **Sciaenidae** *Pennahia pawak* (Lin) RD 7310020
D_1X,$D_2$23-25; A II 7 Pawak croaker
BL = 15.7 cm Jewfish

Body oblong slightly compressed. Depth about 3.2. Mouth large, terminal oblique. Teeth in both jaws large and small, no outstanding canines. Lower gill rakers 9. Swim bladder carrot-shaped with 24-27 pairs of appendages, none entering head. Dorsal fin notched, spinous part with a dark blotch posteriorly. Caudal fin bluntly rhomboid. A dark spot on operculum. Very abundant in trawl catch from coastal muddy waters. Usual size 18-20 cm.

Indigenous names: Gelama; 乌点有头 (wū diǎn mǎo tóu)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China & Southeast Asia

Fam. **Sciaenidae** *Pennahia macrocephalus* (Tang) RD 7310025
D_1X,D_2I 27-29; A II 7 Big-head pennah croaker
BL = 13.3 cm Jewfish

Body oblong, slightly compressed. Depth about 3. Mouth large, terminal, oblique. Jaws with large and small teeth, no outstanding canines. Lower gill rakers 12-13. Swim-bladder carrot-shaped with 18 pairs of appendages none entering head. Dorsal fin with a low notch. Caudal fin bluntly rhomboid. Abundant in coastal muddy waters. Caught by trawl and handline.

Indigenous names: Gelama; 白画 (bái huà); 白月 (bái yuè)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China & Southeast Asia countries

Pennahia argentata
(Houttuyn)



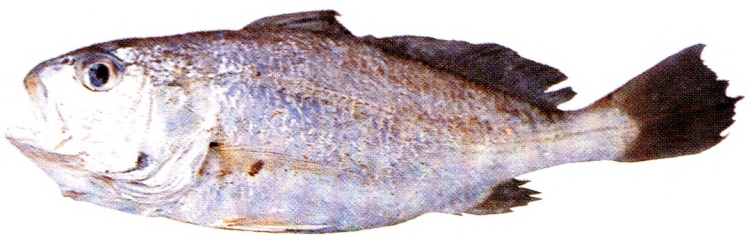
Pennahia macrophthalmus
(Bleeker)



Pennahia pawak
(Lin)



Pennahia macrocephalus
(Tang)



Fam. **Sciaenidae** *Johnius belangerii* (Cuvier) RD 7310016
D_1IX-X,D_2I, 27-31; A II 7-8 Belanger's croaker
BL = 16.8 cm

Body oblong posteriorly compressed. Depth about 3.3-3.6, equal to head. Snout rounded, mouth inferior, no barbet on chin. No canine teeth. Teeth of lower jaw sub-equal. Lower gill rakers 8-10. Swimbladder hammer. shaped with 11-13 pairs of appendages, the first entering head. Dorsal fin with a deep notch. Caudal fin rhomboid. Caught by trawls in coastal waters. Usual size 15-20 cm. Trawl, off Sarawak, South China Sea, North Andaman Sea, 30-40 m.
Indigenous names: 蜘蛛仙 (zhī zhū xiān); 老鼠画 (lǎo shǔ huà)

Seasonality:
Whole year round
Product presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China and Southeast Asia

Fam. **Sciaenidae** *Johnieops vogleri* (Bleeker) RD 7212046
D_1X, D_2I 27-30; A II 7 Sharp-toothed hammer croaker
BL = 16.4 cm

Body oblong, compressed. Depth 3.3-3.4. Snout rounded, mouth slightly inferior. No canine teeth. Inner lateral teeth of lower jaw enlarged. Lower gill rakers 9-12. Swimbladder hammer-shaped with 14-16 pairs of appendages, the first entering head. Dorsal fin deeply notched. Caudal fin rhomboid. Caught by trawls in shallow coastal areas. Usual size 15-20 cm. Trawl, North Andaman Sea, 38-39 m.
Indigenous names: 深水老鼠画 (shēn shuǐ lǎo shǔ huà)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China and Southeast Asia

Fam. **Sciaenidae** *Otolithoides biauritus* (Cantor) RD 7401018
D_1VIII-IX, D_2I 27-32; A II 7-8 Bronze croaker
BL = 49.8 cm

Body elongate, cylindrical, dorsal and ventral profile nearly horizontal. Depth 4.5-5.5. Mouth terminal, large upper jaw reaches beyong eye. No canine teeth. Lower fill rakers 11. Swimbladder carrot-shaped, with one pair of appendages originating from end of bladder and running forward into head. Dorsal fin with a low notch. Caudal fin pointed. Large, good food fish, size 100 cm. Caught by trawl in coastal and inshore waters. Trawl North Andaman Sea, 37 m.
Indigenous names: Gelama merojol; 双牙 (shuāng yá)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China & Southeast Asia

Fam. **Sciaenidae** *Pterotolithus maculatus* (Cuvier) RD 7401010
D_1IX, D_2I 31; A II 10-11 Blotched tiger-toothed croaker
BL = 43.7 cm

Body elongate, slightly compressed. Depth 4-5.5. Mouth large, oblique, terminal, lower jaw prominent. One pair of canines each in upper and lower jaws. Lower gill rakers 8-9. Swimbladder with more than 50 branches appendages. Dorsal fin deeply notched. Caudal fin rhomboid. Coastal species, caught by trawl and gill-nets. Usual size 30-40 cm. Trawl, North Andaman Sea, 35-38 m.
Indigenous names: 花点双牙 (huā diǎn shuāng yá)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Raw material for surimi, steamed & deep-fried
Market:
China & Southeast Asia

Johnius belangerii
(Cuvier)



Johnieops vogleri
(Bleeker)



Otolithoides biauritus
(Cantor)



Pterotolithus maculatus
(Cuvier)



Fam. **Gerridae** *Pentaprion longimanus* (Cantor) RD 7209066
D IX-X, 15-16; A V-VI, 12-14 Long-finned silver-biddy
BL = 9.4 cm

Body oblong, compressed. Depth 2.2-2-5. Mouth strongly protractile downwards. Pectorals long, reaching beyond ana] origin. Anal fin longer than soft dorsal. Scales easily shed. Common and abundant in trawl catch from shallow coastal areas, Treated as fish meat and duck feed. Usual size 7-12 cm. Trawl, South China Sea, 66-67 m.
Indigenous names: Kapas-kapas; 玻璃鱼 (bō lí yú)

Seasonality:
Whole year round
Product presentation:
Whole, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Gerridae** *Gerres filamentosus* Cuvier RD 7212006
D IX, 10; A III 7 Long-rayed silver biddy
BL = 17.0 cm

Body oblong, slightly compressed, rather deep. Depth 2-2.3. Mouth protractile downwards. Fine teeth in both jaws. 2nd Dorsal spine greatly elongated. Common in trawl catch from coastal waters. Also caught with traps. Good food fish, usual size 15 cm. Trawl, Andaman Sea, 46-48 m.
Indigenous names: Kapas-laut; 胶把 (jiāo bǎ);

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Sparidae** *Argyrops spinifer* (Forskal) RD 7206059
D XI-XII, 10; A III, 8-9 Red seabream
BL = 20.6 cm

Body strongly compressed, very deep. Depth 1.8-2.0. Upper profile of head almost vertical. Single dorsal fin, first two spines small 3rd spines elongated. First anal spine short, 2nd and 3rd subequal. Caudal fin emarginate. Occasionally present in trawl catch, usually 20-35 cm. Adults caught in deeper water. Trawl, vertical handline, South China Sea.
Indigenous names: 烛鱼 (zhú yú); 红菊 (hóng jū)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Theraponidae** *Therapon theraps* (Cuvier) RD 7212039
D XII, 10; A III, 8-9 Large-scaled banded grunter
BL = 16.4 cm

Body oblong, compressed. Depth 2.5-2.8. Mouth slightly oblique, villiform teeth in jaws, gill membranes free from isthmus. Vomer and palatines toothless. Dorsal deeply notched, large dark blotch on spinous dorsal. 4 dark longitudinal bands on sides. 5 dark bands on caudal. Very common coastal species, caught mainly with traps and handlines. Usual size 15-20 cm. Trawl, North Andaman Sea, 38-39 m.
Indigenous names: Mengkerong; 家隆蛆 (jiā lóng qū)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Fam. **Theraponidae** *Therapon jarbua* (Forskal) RD 7209071
D XI-XII, 10; A III, 8-9 Crescent perch
BL = 23.6 cm Jarbua therapon

Body oblong, compressed. Depth 2.6-3.0. Mouth slightly oblique. Vomer and palatines toothed. Dorsal deeply notched; large blotch on spinous part. 3 curved longitudinal bands on sides. Caudal tips dark, 3 bands on middle portion. Common but not abundant coastal species. Caught with traps and handlines. Trawl, South China Sea.
Indigenous names: Mengkerong balak; 幼鳞家隆蛆 (yòu lín jiā lóng qū)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Pentaprion longimanus
(Cantor)



Gerres filamentosus
Cuvier



Argyrops spinifer
(Forskal)



Therapon theraps
(Cuvier)



Therapon jarbua
(Forskal)



Fam. **Lethrinidae** *Lethrinus nematacanthus* Bleeker RD 7206068
D X 9; A III 8 Pigface bream
BL = 18.6 cm Longspine emperor

Seasonality:
Whole year round
Products presentation:
Whole, fillets, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Body elongate, slightly compressed. Depth about 3. Head and cheek scaleless. Mouth reaches to below posterior nostrils, 2nd dorsal spine filamentous. Inner base of pectoral fin densely scaled. A dark blotch on sides just below lateral line above pectoral fin base. Several longitudinal orange band on sides. A small-sized species (usually 15-20 cm) caught mainly with handlines and trawls in coral and coastal areas. Trawl, South China Sea, 50-59 m.
Indigenous names: Landok, Asoh-asoh; 青龙占 (qīng lóng zhàn)

Fam. **Lethrinidae** *Lethrinus miniatus* (Bloch & Schneider) RD 7206020
D X 9; A III 8 Long-nosed pigface breann
BL = 45.2 cm Longface emperor

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

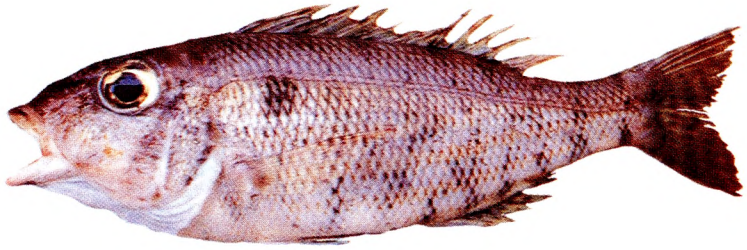
Body slender, compressed. Depth 2.8-3.2. Snout distinctively long and narrow. Head and cheeks scaleless. Lips very thick and fleshy. Lips and inside of mouth orange or scarlet. 2-3blue stripes may be present on suborbital. Inner base of pectoral fin without scales. Commonin hand line and bottom trawl catches from sandy coastal areas. Usual size 25-70 cm. Fairly good food fish. Trawl, South China Sea, 47-49 m; vertical handline, Andaman Sea.
Indigenous names: Asoh-asoh; 乌龙占 (wū lóng zhàn); 深水龙占 (shēn shuǐ lóng zhàn)

Fam. **Lethrinidae** *Lethrinus lentjan* (Lacepede) RD 7206032
D X 9; A III 8 Redspot emperor
BL = 24.0 cm

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed & deep-fried
Market:
Southeast Asia

Body fairly deep, compressed. Depth 2.5-2.8. Mouth reaches to anterior nostril. Head and cheeks scaleless. Dorsal fin not notched. Inner base of pectoral fin with few scales. Posterior teeth in jaws molariform, Posterior edge of operculum with red spot. Also on pectoral fin base. Common in handline and trawl catch from sandy coastal waters. Usual size 25-35 cm. Trawl, South China Sea, 47-49 m.
Indigenous names: Mempinang; 正龙占 (zhèng lóng zhàn)

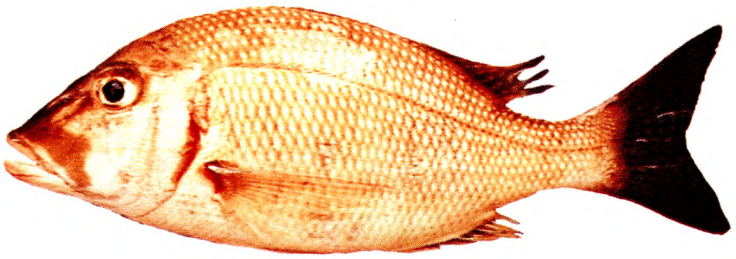
Lethrinus nematacanthus
Bleeker



Lethrinus miniatus
(Bloch & Schneider)



Lethrinus lentjan
(Lacepede)



Fam. **Lutjanidae** *Lutjanus sanguienus* (Cuvier) RD 7206025
D XI 13-15; A III 8-9 Red snapper
BL = 54.6 cm

Body deep, compressed. Depth 2.5-2.8. Head profile sloping gently, slightly concave in front of eye. Pre opercular notch shallow, interopercular knob inconspicuous. Scales above lateral line in oblique rows, below lateral line horizontal but tums obliquely upwards posteriorly. Soft dorsal and anal fins rounded. Young with black saddle preceded by white patch, on upper caudal peduncle. Very common and abundant in trawl catch from South China Sea, dominant species caught. Popular and common food fish, landed in considered quantities. Also caught with handlines and bottom longlines. Usual size about 50 cm. Trawl, South China Sea, 47-49 m.

Indigenous names: Ikan merah puchat; 深海红鸡 (shēn hǎi hóng jī)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, steak, frozen & ice-chilled
Usage:
Steamed, pan-fried, or deep-fried
Market:
USA, EU, Japan, Australia, Asia and world wide

Fam. **Lutjanidae** *Lutjanus sebae* (Cuvier) RD 7206028
D XI, 15-16; A III 10-11 Emperor red snapper
BL = 47.0 cm

Body deep, much compressed. Depth 2.2-2.5. Dorsal profile pronouncedly arched. Preopercular notch and interopercular knob distinct. Pattern of scale rows as in L. sanguineus. Soft dorsal and anal fins pointed. Young with 3 dark red bands on head and body. Common in trawl catch from South China Sea. Also caught with handlines. Attains larger size than L. sanguineus. Common size about 50 cm. Trawl, South China Sea, 47-49 m.

Indigenous names: Ikan merah boreng; 狮头红鸡 (shī tóu hóng jī)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
USA, EU, Australia, Asia and many parts of the world

Fam. **Lutjanidae** *Lutjanus altifrontalis* Chan RD 7206024
D XI, 14; A III 9 Red snapper
BL = 36.0 cm

Body oblong, compressed. Depth 2.5-2.8. Head profile gently concave. Preopercular notch shallow, inter opercular knob indistinct. Body scales arranged in oblique rows above and below lateral line. Soft dorsal and anal fins rounded. Common and abundant in trawl catch from South China Sea, occuring in large schools. Common and popular fish in market. Also caught with bottom longline. Usual size about 45 cm. Trawl, South China Sea, 4749 m.

Indigenous names: Ikan merah; 春鸡 (chūn jī)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
USA, EU, Australia, Asia and many parts of the world

Fam. **Lutjanidae** *Lutjanus malabaricus* (Bloch & Schneider) RD 7312002
D XI, 14-15; A III 8-9 Malabar red snapper
BL = 35.4 cm

Body deep, compressed. Depth 2.2-2.5. Head profile sloping gently. Preoperculum notch shallow, inter opercular knob distinct. Scales rows above and below lateral line obliquely ascending. Soft dorsal and anal fins pointed. Inner base of pectoral fin dark purple. Not common in South China Sea. Specimens caught with handline in Andaman Sea and northern part of South China Sea.

Indigenous names: Ikan merah; 浅海正红鸡 (qiǎn hǎi zhèng hóng jī); 内港红鸡 (nèi gǎng hóng jī)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pand-fried, & deep-fried
Market:
USA, EU, Australia, Asia and many parts of the world

Lutjanus sanguienus
(Cuvier)



Lutjanus sebae
(Cuvier)



Lutjanus altifrontalis
Chan



Lutjanus malabaricus
(Bloch & Schneider)



Fam. **Lutjanidae** *Lutjanus argentimaculatus* (Forskal) RD 7206026
D X 13-14; A III 8-9 Mangrove red snapper
BL = 52.0 cm

Body oblong, compressed. Depth about 2.5-3. Head profile almost straight. Preopercular notch shallow, inter-opercular knob indistinct. Scale rows above lateral line horizontal anteriorly but rise obliquely below soft dorsal. Scale rows below lateral line horizontal. Caudal truncate. Generally a coastaol species, amongst mangroves but also found in deeper waters. Occasionally caught with trawl and bottom longline. Usual size about 60 cm. Trawl, off Sarawak, South China Sea, 47-49 m.

Indigenous names: Ikan Jenehak; 粗鳞红皂 (cū lín hóng zào); 深水红皂 (shēn shuǐ hóng zào)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets & steak
Usage:
Steamed, pan-fried & deep-fried
Market:
USA, EU, Australia, Asia and many parts of the world

Fam. **Lutjanidae** *Lutjanus johni* (Bloch) RD 7206027
D X, 13-14; A III 8 Golden snapper
BL = 48.0 cm John's snapper

Body oblong, compressed. Depth 2.8-3. Head profile sloping gently. Preopercular notch shallow, inter-opercular knob small. Scale rows above and below lateral line horizontal. Caudal slightly emarginate. Very common coastal species. Popular food fish, common in market. Occasionally caught in large schools with trawl in shallow areas in North Andaman Sea and South China Sea. A black blotch between soft dorsal and lateral line present in young. Each scale with a dark spot forming longitudinal rows.

Indigenous names: Ungar; 红皂 (hóng zào)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
USA, EU, Australia & Asia

Fam. **Lutjanidae** *Lutjanus janthinuropterus* (Bleeker) RD 7209055
D X 13-14; A III 8 Yellow-streaked snapper
BL = 38.4 cm

Body oblong, compressed. Depth 2.5-2.7. Head profile concave in front of eye. Preopercular notch very shallow, no inter opercular knob. Vomerine teeth in an inverted V. Scale rows above lateral line olique, horizontal below lateral line. Numerous thin yellow lines along scale rows, fades after death. Caudal emarginate. Not common. Occasinally in trawl catch from shallow waters. Size usually around 35-40 cm. Trawl, South China Sea, 66-67 m.

Indigenous names: Ikan merah; 浅水乌色红皂 (qiǎn shuǐ wū sè hóng zào); 红皂记 (hóng zào jì)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
USA, EU, Australia, Asia

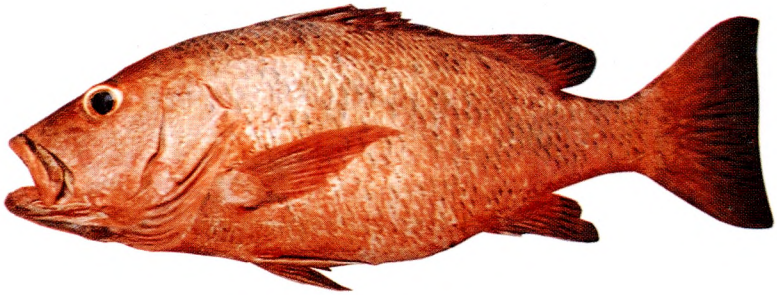
Fam. **Lutjanidae** *Lutjanus bohar* (Forskal) RD 7304008
D X 14; A III 9
BL = 36.6 cm

Body oblong, compressed. Depth 2.8-3. Head profile almost straight. Preopercular notch and interopercular knob present. Vomerine teeth in an inverted V. Scale rows oblique above lateral line, horizontal below. Caught with handlines in coral reefs and shoals. Not common. May be poisonous at certain seasons. Vertical handline, Vanguard Bank area, South China Sea, 80-120 m.

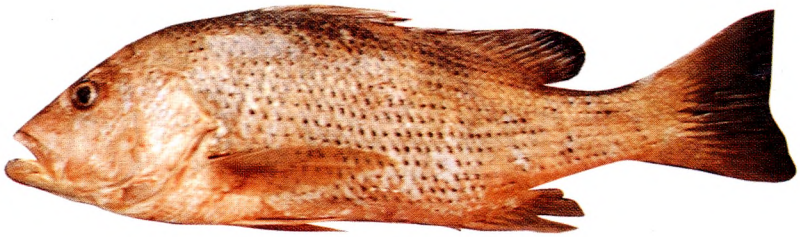
Indigenous names: 红甲 (hóng jiǎ)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
USA, EU, Australia & Asia

Lutjanus argentimaculatus
(Forskal)



Lutjanus johni
(Bloch)



Lutjanus janthinuropterus
(Bleeker)



Lutjanus bohar
(Forskal)



Fam. **Lutjanidae** *Lutjanus lineolatus* (Ruppell) RD 7509008
D XI 11-12; A III 8 Golden-striped snapper
BL = 17.8 cm

Seasonality:
Whole year round
Products presentation:
Whole, frozen and ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
EU, Asia

Body elongate, compressed. Depth about 2.8-3.2. Head profile slightly concave. No preopercular notch and interopercular knob. Vomerine teeth arrowhead-shaped. Eyes large, suborbital narrow. Scales extend into interobital. Scale rows oblique above lateral line, horizontal below. A golden band from snout through eye to caudal fin. Caudal slithyly forked. Small-sized lutjanid (usually 18 cm). Caught mainly with handlines and trawls in coastal and coral areas. Very common, often caughy in considerable quantities. Trawl, South China Sea, 56-60 m.

Indigenous names: Kunyit-kunyit, Serunai; 素莲记鱼 (sù lián jì yú)

Fam. **Lutjanidae** *Lutjanus vitta* (Quoy & Gaimard) RD 7206004
D X 13; A III 7-8 Brown-striped snapper
BL = 20.0 cm

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Southeast Asia

Body elongate, compressed. Depth 2.8-3. preopercular botch shallow. Vomerine teeth triangular. Suborbital broad. Predorsal scales begin in interobital. Scale rows oblique above lateral line, horizontal below. A brownish band from eye to caudal. Caudal emarginate. Common small-sized lutjanid caught with handlines and trawls in coastal waters. Trawl, South China Sea, 49 m.

Indigenous names: Kunyit-kunyit, Serunai; 记鱼 (jì yú)

Fam. **Lutjanidae** *Lutjanus spilurus* (Bennet) RD 7210037
D X 14; A III 8 Blue-and-yellow snapper
BL = 18.8 cm

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
Southeast Asia

Body elongate, compressed. Depth 2.5-3. Preopercular notch deep, interopercular knob well developed. Vomerine teeth in an inverted V. Predorsal scales begin in interorbital. Scale rows oblique above lateral line, horizontal below. Body colour yellow with 5 distinct blue logitudinal stripes. (A similar species L. basmira has 4 stripes) Common and popular small-sized lutjanid, caught with trawl and handline. Trawl, South China Sea, 58.60 m.

Indigenous names: Kunyit-kunyit, Serunai; 红素莲 (hóng sù lián)

Fam. **Lutjanidae** *Lutjanus lutjanus* (Bloch) RD 7209081
D X 13-14; A III 8 Rosy snapper
BL = 20.8 cm

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Southeast Asia

Body oblong, moderately compressed. Depth 2.6-3. Preopercular notch and interopercular knob slightly developed. Vomerine teeth in an arrowhead. Predorsal scales begin in interorbital. Scale rows with narrow rosy lines, oblique above lateral line, horizontal below. Common small-sized species, caughy with trawl and handlines. Trawl, South China Sea, 66-67 m.

Indigenous names: Kunyit-kunyit, Serunai; 记鱼 (jì yú)

Fam. **Lutjanidae** *Lutjanus monostigma* (Cuvier) RD 7310041
D X 13; A III 8 One-spot snapper
BL = 21.4 cm

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Southeast Asia

Body oblong, compressed. Depth 2.8-3. Preopercular notch indistinct. Vomerine teeth in an inverted V. Predorsal scales begin behind eye. Scale rows oblique above lateral line, horizontal below. A large dusky blotch below soft dorsal, bissected by lateral line. Common, medium-sized species. Caught with trawl and handlines in coastal shallow areas. Trawl, off Sarawak, South China Sea, 31-33 m.

Indigenous names: Tanda-tanda; 乌点记鱼 (wū diǎn jì yú); 红皂记 (hóng zào jì)

Lutjanus lineolatus
(Ruppell)



Lutjanus vitta
(Quoy & Gaimard)



Lutjanus spilurus
(Bennet)



Lutjanus lutjanus
(Bloch)



Lutjanus monostigma
(Cuvier)



Fam. **Lutjanidae** *Pristipomoides multidens* (Day) RD 7506033
D X 11; A III 8 White snapper
BL = 39.4 cm Sharp-toothed snapper

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
Asia

Body oblong moderately compressed. Depth 3-3.3. Pored scales on lateral line 48-52. No teeth on tongue, vomerine teeth in triangular-shaped patch. Suborbital broad. Body colour yellowish-pink, with 6 longitudinal yellow lines. 2 golden bands, edged with blue on snout and cheek. Interorbital region with transverse brownish yellow vermiculations. Caudal forked, last dorsal and anal rays elongated. Common in trawl catch from South China Sea and Andaman Sea in deep waters (around 60 m). Important species in the handline and bottom longline catch. Popular food fish. Usual size from handline catch about 50 cm. Specimens from trawl catch usually smaller.

Indigenous names: Kerisi bali; 深水红哥里 (shēn shuǐ hóng gē lǐ); 深水钓里 (shēn shuǐ diào lǐ)

Fam. **Lutjanidae** *Pristipomoides typus* Bleeker RD 7507009
D X 11; A III 8 White snapper
BL = 55.0 cm. Sharp-toothed snapper

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Asia

Body oblong, moderately compressed. Depth 3-3.3. Pored scales on lateral line 48-52. No teeth on tongue, vomerine teeth in triangular-shaped patch. Suborbital narrow. Body colour rosy, no golden bands on snout and cheeks. Interorbital region with longitudinal brownish-yellow vermiculations. Caudal forked, upper lobe elongated in small specimens. Last dorsal and anal rays elongated. Important species and popular food fish caught together with P. multidens with trawl, handline and bottom longline in South China Sea and Andaman Sea. Usual size from handline catch about 45 cm.

Indigenous names: Kerisi bali; (Ang-koh-li); 涨里 (zhàng lǐ); 大钓里 (dà diào lǐ)

Fam. **Lutjanidae** *Pristipomoides filamentosus* (Valenciennes) RD 7302015
D X 11; A III 8 White snapper
BL = 43.1 cm

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
Asia

Body oblong moderately compressed. Depth 3-3.3. Pored scales on lateral line 61-65. No teeth on tongue. Vomerine teeth in a triangular patch. Lower edge of preorbital straight. Interorbital with small dark spots. Caudal forked, last dorsal and anal rays elongated. Caught mainly with handline along the continental slopes and shoals of the South China Sea and Andaman Sea in depth of 80-120 m. Dominating species in the handline catch. Size caught range from 40-50 cm.

Indigenous names: Kerisi bali (Ang-koh-li); 红哥里 (hóng gē lǐ)

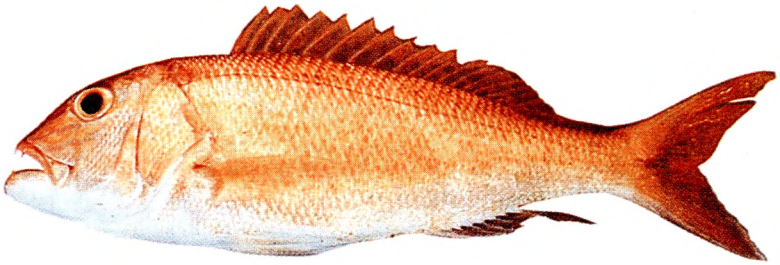
Fam. **Lutjanidae** *Pristipomoides flavipinnis* Shinohara RD 7304001
D X 11; A III 8 White snapper
BL = 34.4 cm

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Asia

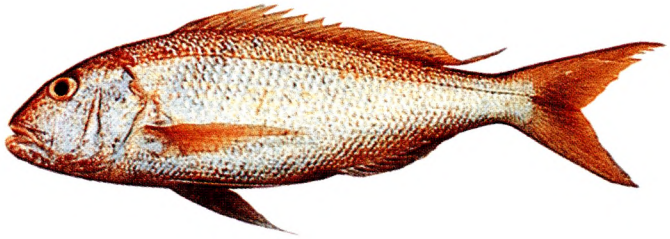
Body oblong, moderately compressed. Depth 3-3.3. Pored lateral line scales 62-67. No teeth on tongue. Vomerine teeth in a broad triangular patch. Irregular light yellow streaks on interorbital and snout. Body colour yellowish-brown. Caudal forked, last dorsal and anal rays elongated. Occasionally caught with handline along the shoals of the South China Sea only. Usual size 30-40 cm.

Indigenous names: 红哥里 (hóng gē lǐ)

Pristipomoides multidens
(Day)



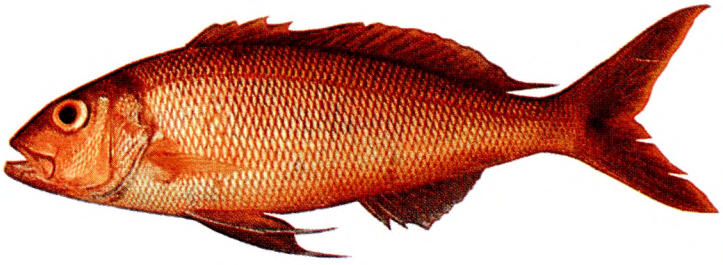
Pristipomoides typus
Bleeker



Pristipomoides filamentosus
(Valenciennes)



Pristipomoides flavipinnis
Shinohara



Fam. **Lutjanidae** *Pristipomoides sieboldii* (Bleeker) RD 7506006
D X 11; A III 8 White snapper
BL = 37.8 cm

Body oblong, subcylindrical. Depth 3-3.3. Pored lateral line scales 71-74. Tongue with oval patch of villiform teeth. Vomerine teeth in a diamond-shaped patch. Lower edge of preorbital slightly curved. Caudal forked, last dorsal and anal rays elongated but not reaching base of caudal fin. Body colour light purple, pale ventrally. Medium sized species, (about 35 cm) caught mainly from the shoals and banks in the South China Sea by handline in depths of about 80-120 m.

Indigenous names: 红哥里 (hóng gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
Asia

Fam. **Lutjanidae** *Pristipomoides auriculla* (Jordan, Evermann & Tanaka) RD 7506001
D X 11; A III 8
BL = 28.0 cm White snapper

Body oblong, subcylindricaL Depth 3-3.3. Pored lateral line scales 70-74. Tongue without teeth. Vomerine teeth in a triangular patch. Caudal forked, last dorsal and anal rays elongated. Body colour light purplish and yellow. Dorsal, pectoral and caudal yellow. Small species (about 30 cm) caught with handline from the shoals and banks in the South China Sea in depths of 80-120 m.

Indigenous name: 红哥里 (hóng gē lǐ)

Seasonality:
Whole year round
Products presentation:
Whole, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Asia

Fam. **Lutjanidae** *Paracaesio kusakarii* Abe RD 7304005
D X 10; A III 8
BL = 39.4 cm

Body deep, compressed. Depth 2.5-2.8. Pored lateral line scales 48-50. Interorbital space convex, last dorsal and rays not elongated. Small teeth on vomer and palatines. Dorsal spines strong. Caudal emarginate. Common in the handlines catch from the shoals and banks in the South China Sea, occupying about 20% of the catch. Size about 40 cm.

Seasonality:
Whole year round
Products presentation:
Whole, whole gutted, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried & deep-fried
Market:
Asia

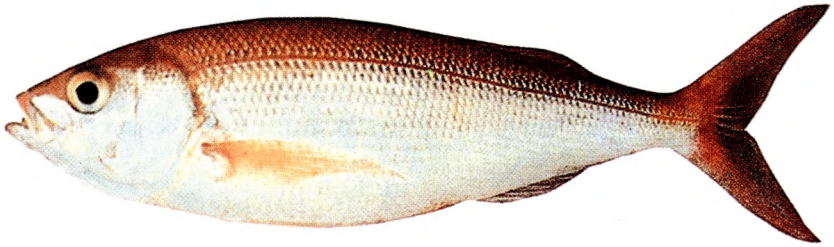
Fam. **Lutjanidae** *Paracaesio xanthurus* (Bleeker) RD 7506025
D X 10; A III 8
BL = 31.8 cm

Body oblong moderately compressed. Depth 2.8-3. Pored lateral line scales 70-72. Interorbital space convex, last dorsal and anal rays not extended. Small teeth on vomer and palatines. Dorsal spines feeble. Caudal forked. Head and body light purple, pale ventrally, back and upper surfaces yellow, fading after death. Smaller species occasionally caught with handline in the shoal and banks in the South China Sea. Usual size 30-35 cm.

Indigenous name: 蕃茨鱼姑 (fán cì yú gū); 乌姑 (wū gū)

Seasonality:
Whole year round
Products presentation:
Whole, fillets, frozen & ice-chilled
Usage:
Steamed, pan-fried, & deep-fried
Market:
Asia

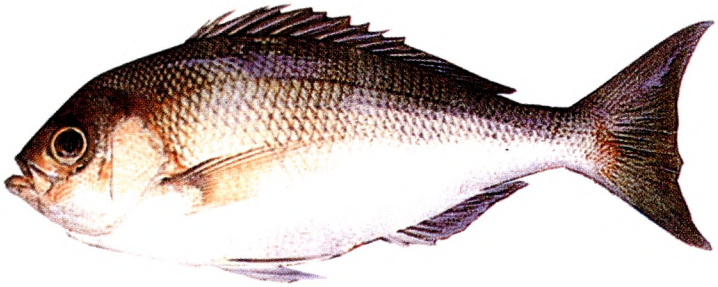
Pristipomoides sieboldii
(Bleeker)



Pristipomoides auriculla
(Jordan, Evermann & Tanaka)



Paracaesio kusakarii
Abe



Paracaesio xanthurus
(Bleeker)



Fam. **Lutjanidae** *Etelis carbunculus* Cuvier RD 7304004
D X 11; A III 8
BL = 39.0 cm

Body oblong, slightly compressed. Depth 3.3-3.5. Interorbital space flat. Small teeth on vomer and palatines. Dorsal fin deeply botched. Canine teeth in jaws fairly small. Caudal deeply forked, upper lobe much elongated. Occasionally caughy with handline along the shoals and banks in the South China Sea in depths of 80-120 m.

Seasonality:
Rare species, no seasonability
Products presentation:
Whole, whole gutted, fillets, headless
Usage:
Steamed, deep-fried, curry, breading
Market:
No demand, no definite market

Fam. **Lutjanidae** *Aphareus rutilans* Cuvier RD 7312003
D X 11; A III 8 Small-toothed jobfish
BL = 64.2 cm

Body elongaate, slightly compressed. Depth 3.3-3.7. Interorbital space flat, vomer and palatines toothless. Mouth large and oblique, lower jaw prominent, teeth in jaws minute, no canines. Last ray of dorsal and anal fins prolonged. Pectoral fins long. Caudal deeply forked. Large-sized species common in handline catches from the shoals and banks in the South China Sea and Adaman Sea.

Seasonality:
Rare species, no seasonability
Products presentation:
Whole, fillets, whole gutted, headless
Usage:
Steamed, fried, curry, breading
Market:
No demand, no definite market

Fam. **Lutjanidae** *Aprion virescens* Valenciennes RD 7506028
D X 11; A III 8 Green jobfish
BL = 45.0 cm

Body elongate, sllightly compressed. Depth 3.8-4. Interorbital space flat. Doral fin not notched. Jaws with villiform teeth with pair of enlarged canines anteeriorly and small ones laaterally. Last dorsal and anal rays elongated. Pectoral fins short. A deep groove in front of eye. Caudal deeply forked. Larged-sized species occasionally in handline catches from shoals and banks in the South China Sea.

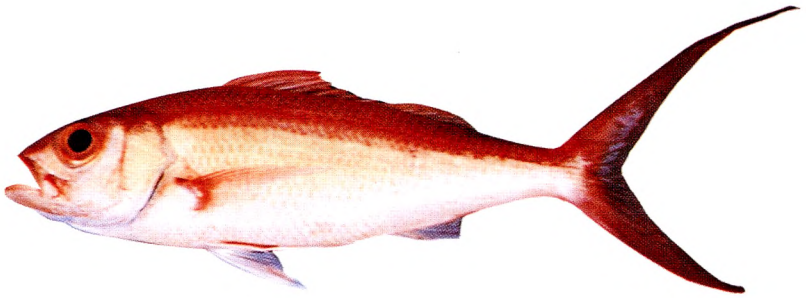
Seasonality:
Rare species, no seasonability
Products presentation:
Whole, whole gutted, fillets, headless
Usage:
Steamed, fried, curry, breading
Market:
No demand, no definite market

Fam. **Lutjanidae** *Pinjalo pinjalo* (Bleeker) RD 7309008
D XI 14; A III 10 Pinjalo snapper
BL = 18.4 cm

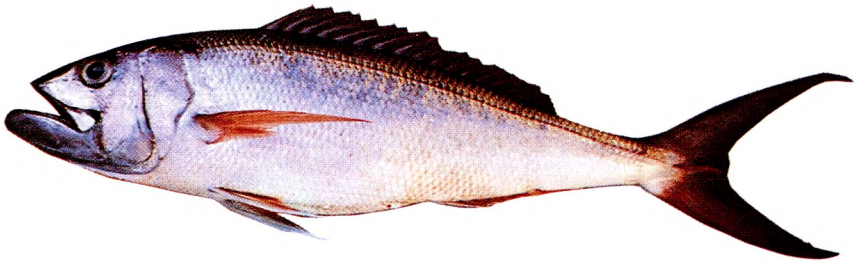
Body rather deep, compressed. Depth 2.3-3. Mouth small and oblique. Interorbital space convex. Soft parts of dorsal and anal scaled. Scale rows above and below lateral line run obliquely upwards. Eye at mid-level of head behind tip of snout. Caudal fin lunate. Coastal waters down to depths of 60 m. Not common, caught with trawls and handlines. Usual size about 50 cm.
Indigenous name: 春鸡 (chūn jī)

Seasonality:
Whole year round
Products presentation:
Whole, gutted, fillet
Usage:
Steamed, pan-fried, & BB-Q
Market:
EU, USA, Japan

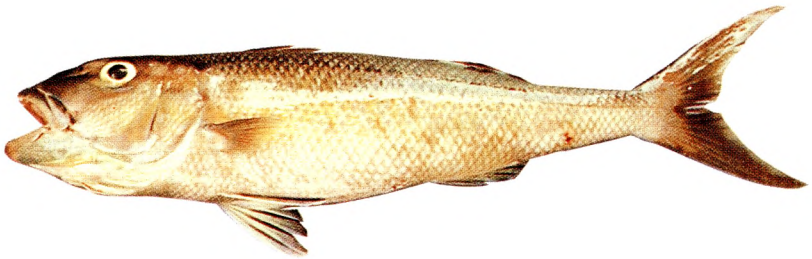
Etelis carbunculus
Cuvier



Aphareus rutilans
Cuvier



Aprion virescens
Valenciennes



Pinjalo pinjalo
(Bleeker)



Fam. **Lutjanidae** *Caesio tile* Cuvier & Valenciennes RD 7509015
DX 19-22; A III 12-13
BL =21.4 cm

Body fusiform and compressed. Depth 3.9-4.5. Mouth small oblique. Fine teeth in one series in jaws. Caudal deeply forked. Golden line extending from above eye to base of upper caudal lobe. Caught around coral and rocky reefs. Usual size 10-20 cm, maximum 25cm. Specimen collected from local fish market.

Indigenous name: 青姑 (qīng gū)

Seasonality:
Whole year round
Products presentation:
Whole, whole fillet
Usage:
Surimi, fish paste, yong tau foo, fish ball, fish cake
Market:
Southeast Asia

Fam. **Lutjanidae** *Caesio lunaris* Cuvier & Valenciennes RD 7510014
DX 13-14; A III 11 Rising moon fusilier
BL = 22.2 cm

Body compressed, head profile convex above eye. Depth 2.4-2.8. Villiform teeth in both jaws, center row enlarged, minute teeth in vomer. Caudal forked, lobes dark blue ending in blackish tips. Colour bluish with greenish tinge, pinkish ventrally spinous. Dorsal and pelvic fins pinkish. Found in schools around coral reefs. Good material for making fish cakes. Usua size 20 cm, maximum 40 cm.

Indigenous names: 蕃茨姑 (fán cì gū); 乌尾 (wū wěi)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Surimi, fish ball, fish cake, pan-fried
Market:
Southeast Asia

Fam. **Lutjanidae** *Caesio xanthonotus* Bleeker RD 7509016
DX - XI; A III 12
BL = 23.2 cm

Body compressed, depth 3.2-3.4. Single row of fine conical teeth, in jaws, rof of mouth with narrow band of minute teeth. Caudal forked, yellow with pink margin. Back and dorsal fin yellow, mid lateral with broad blue band tapering towards base of caudal ventral and paired fins pinkish. Usual size 13-23 cm, maximum 35 cm.

Indigenous names: 蕃茨鱼 (fán cì yú); 金尾 (jīn wěi)

Seasonality:
Whole year round
Products presentation:
Whole, whole fillet
Usage:
Surimi, fish ball, fish cake, pan-fried
Market:
Southeast Asia

Fam. **Lutjanidae** *Caesio caerulaureus* Lacepede RD 7509011
DX 14-15; A III 11-13 Blue-and-gold fusilier
BL = 18.9 cm

Body slender, fusiform, compressed, dorsal and ventral profiles equallly convex. Depth 3.0-3.6. Single row of conical teeth in jaws, no teeth on roof of mouth. Caudal forked each lobe with broad black band. Back and head metallic blue, silvery pink below, a broad silvery yellow band from head to caudal fin. Upper base of pelvic fin with a distinct black mark. Usual size 20-25 cm.

Indigenous names: 红条 (hóng tiáo)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Surimi, fish paste, yong tau fu, fish ball, fish cake
Market:
Southeast Asia

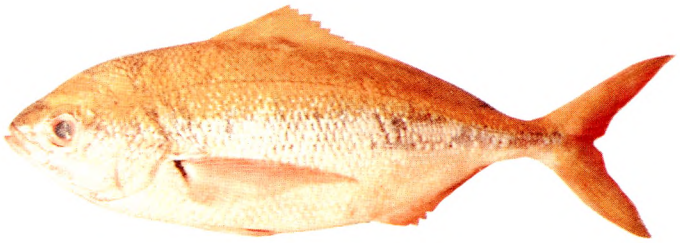
Caesio tile
Cuvier & Valenciennes



Caesio lunaris
Cuvier & Valenciennes



Caesio xanthonotus
Bleeker



Caesio caerulaureus
Lacepede



Fam. **Lutjanidae** *Caesio erythrogaster* Cuvier
D X 15; A III 11
BL = 37.5 cm

RD 7509013
Yellow tail fusilier

Seasonality:
Whole year round
Products presentation:
Whole & fillet
Usage:
Fish ball, fish cake, fish paste
Market:
Singapore, Malaysia

Body moderately deep, oval, compressed. Depth 2.3-2.5. Mouth small, oblique. Head profile slightly concave in front of eye. Fine teeth on vomer and palatines. Caudal deeply forked, lobes pointed. Common in coastal waters especially around coral and rocky reefs. Sometimes landed in fairly large numbers. Used mostly for making fish cakes. Caught with gill nets and traps. Usual size 30-40 cm. Trawl, South China Sea, 66-67 m.
Indigenous name: Delah; 正黄尾 (zhèng huáng wěi); 蕃茨鱼 (fán cì yú)

Fam. **Lutjanidae** *Caesio chrysozona* Cuvier
D X1 14-15; A III 11-12
BL = 21.8 cm

RD 7509017
Goldband fusilier

Seasonality:
Whole year round
Products presentation:
Whole & fillet
Usage:
Fish ball, fish cake, fish paste
Market:
Singapore & Malaysia

Body elongate, slightly compressed. Depth 3.4-3.7. Dorsal and ventrall profile gently curved. No teeth on vomer and palatines. Caudal deeply forked, lobes with black tips. A golden longitudinal band along lateral line. Common but not important market fish due to small size. Used for making fish cakes. Usual size 15 cm. Inhabits shallow coral and rocky areas. Trawl, South China Sea, 47-49 m.
Indigenous names: Delah jantan; 白条 (bái tiáo)

Fam. **Lutjanidae** *Caesio diagramma* Bleeker
D X 14-15; A III 12
BL = 18.8 cm

RD 7509009
Dark-banded fusilier

Seasonality:
Whole year round
Products presentation:
Whole & fillet
Usage:
Fish ball, fish cake, fish paste
Market:
Singapore & Malaysia

Body elongate, slightly compressed. Deph 3.3-3.7. Dorsal and ventral profile gently curved. No teeth on vomer and palate. Caudal deeply forked, with black-tipped lobes. Two narrow brown longitudinal bands. Not common, usual size about 15 cm. Found around shalow coral and rocky areas.
Indigenous names: 红条 (hóng tiáo)

Fam. **Pomadasyidae** *Plectorhynchus pictus* (Thunberg)
D IX-X, 23-26; A III 6-8
BL = 14.8 cm

RD 7210028
Painted sweetlip

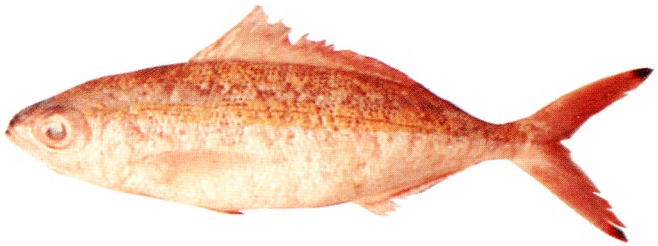
Seasonality:
Whole year round but rare species
Products presentation:
Whole, fillet
Usage:
Pan fried, portion cut, sliced for sweet & sour fish
Market:
Taiwan, Southeast Asia

Body oblong, compressed. Depth 2.3-2.8. Dorsal profile steep. Chin with 6 pores. Mouth small, lips thick. No canine teeth, palate without teeth. Head and sides with longitudinal black bands in juveniles, becoming spotted in adults. Adults bllue grey and yellowish spots. Caudal and dorsal fins with black spots. Common and popular market fish. Caught with trawl and handlines in coastal waters down to 80m.Trawll, South China Sea, 61-64 m.
Indigenous names: Kachi; 胶结仔 (jiāo jié zǎi)

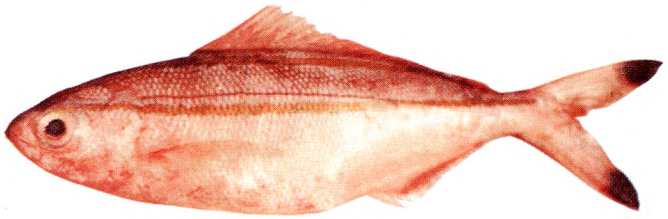
Caesio eythrogaster
Cuvier



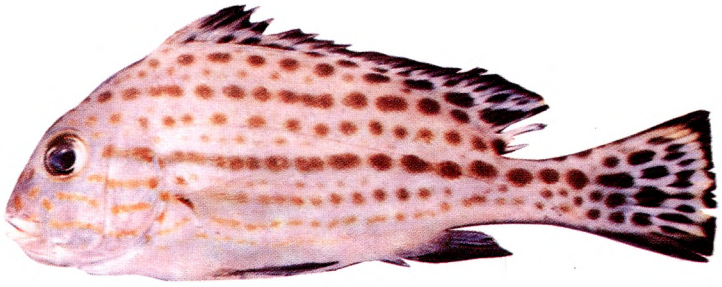
Caesio chrysozona
Cuvier



Caesio diagramma
Bleeker



Plectorhynchus pictus
(Thunberg)



Fam. **Pentapodidae** *Gymnocranius griseus* (Schlegel) RD 7206022
D X 10; A III 9 Naked-headed sea bream
BL = 31.4 cm Grey large-eye bream

Body oblong, compressed. Depth 2.3-2.8. Surface of maxilla smooth, without denticulations. Each jaw with 6 canines anteriorly, others conical. Hind margin of preoperculum scaleless. Scales on head begin behind level of eyes. Caudal fin forked. Common in trawl catch from coastal waters up to 80 m occupying 2.5-4% of the catch from the South China Sea.

Indigenous name: 大白菊鱼 (dà bái jú yú)

Seasonality:
Whole year round
Products presentation:
Whole & fillet
Usage:
Breading, deep-fried, soup, pan fried
Market:
Australia, Middle east, Japan, Taiwan & Southeast Asia

Fam. **Pentapodidae** *Gymnocranius elongatus* Senta RD7206053
D X 10; A III 10 Elongated large-eye bream
BL = 16.0 cm

Body oblony compressed. Depth about 2.4. Surface of maxilla smooth. Eyes large, pear-like. Mouth moderate, slightly oblique. Suborbital width narrow Pelvic fins reaching to 1st anal spine. Caudal fin deeply forked, median rays shorter than eye diameter, with red hind margin. Occasionally caught with trawl in the Souh China Sea (especially off Sarawak) and Andaman Sea in depths of 40-70 m.

Incdigenous name: 乌白菊 (wū bái jú)

Seasonality:
Whole year round
Products presentation:
Whole & fillet
Usage:
Deep fried, pan fried, breading
Market:
Australia, Japan, Taiwan, Middle East, Southeast Asia

Fam. **Pentapodidae** *Gnathodentex mossambicus* Smith RD 7302011
D X 10; A III 10-11 Mozambique large-eye bream
BL =27.3 cm

Body deep, rhomboid, compressed. Depth 1.9-2.2. Maxilla with a strongly denticulated ridge. Jaws with canine teeth anteriorly, outer lateral series of concial teeth and inner series of villiform teeth. Caudal fin slightly forked, lobes rounded. Common in handline catch along continental slopes of Andaman Sea and along shoals and banks in the South China Sea, occupying about 10-20% of the catch.

Seasonality:
Rare species, no seasonability
Products presentation:
Whole & fillet
Usage:
Pan-fried
Market:
China, Middle East, Saudi

Fam. **Pentapodidae** *Pentapodus setosus* (Valenciennes) RD 7510002
D X 9; A III 7 Threadfin bream
BL = 13.1 cm

Body elongate, slightly compressed. Depth 3.4-3.6. A blunt suborbital spine below eye. Preoperculum without serrations, its corner rounded. Caudal fin forked, upper lobe produced into a long filament. Common coastal species, sometimes landed in fair numbers but of little importance.

Indigenous names: Anjang-anjang, Seninching; 唐丝 (táng sī)

Seasonality:
Rare species, no seasonability
Products presentation:
Fillet
Usage:
Fish paste, surimi, fish ball, fish cake & Yong Tau Fu
Market:
Southeast Asia, Korea & Japan

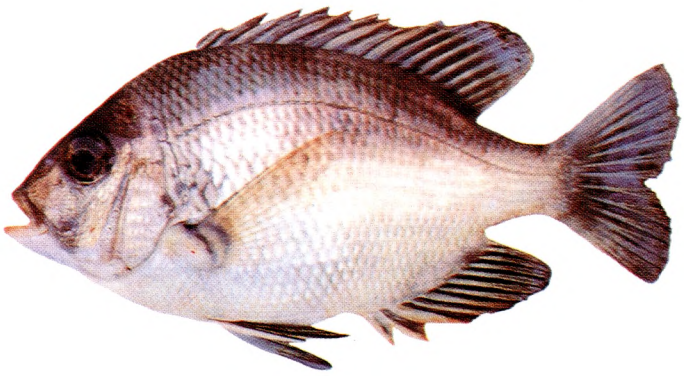
Gymnocranius griseus
(Schlegel)



Gymnocranius elongatus
Senta



Gnathodentex mossambicus
Smith



Pentapodus setosus
(Valenciennes)



Fam. **Scolopisdae** *Scolopsis vosmeri* (Bloch) RD 7310040
D X 9-10; A III 7-8 White-cheek monocle bream
BL = 17.9 cm

Body oval, strongly compressed. Depth 2-2.3. Dorsal profile convex. Eyes large, with a strong spine below it. Pale reddish-brown with a crescentic white vertical band on operculum. Sometimes a white band below lateral line. Occasionally seen in market but of little value. Caught with trawls in shallow coastal waters. Usual size around 15 cm.
Indigenous names: Puyu laut; 白头库 (bāi tóu kù)

Seasonality:
Whole year round (rare species)
Product presentation:
Whole
Usage:
Material fish for surimi
Market:
No specific market

Fam. **Scolopsidae** *Scolopsis taeniopterus* (Valenciennes) RD 7209036
D X 9; A III 7 Lattice monocle bream
BL =17.0 cm

Body elongate, moderately compressed. Depth 3. Head blunt, dorsal profile slightly rounded. A conspicous backward-directed spine below eye. Body greyish yellow, with a distinct blue band between eye and a blue line on suborbital. Sides with faint blue and yellow vertical lines. A bright red spot on upper pectoral base. Common small-sized fish, often landed with trawl catch. Of little commercial value. Usual size about 15 cm.
Indigenous names: Mempasir; 白头库 (bāi tóu kù)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Material fish for surimi
Market:
No specific market

Fam. **Parapercidae** *Parapercis pulchella* (Temminck & Schlegel) RD 7210015
D V1 21-22; A I 16-17
BL = 12.6 cm

Body elongate, cylindrical, with small scales. Depth about 5. Mouth fairly-large, jaws and palate with small teeth. Caudal rounded. Small-sized species living in shallow and deep coastal waters. Usually considered as trash fish from trawl catch.
Indigenous names: 九母仔 (jiǔ mǔ zǎi)

Seasonality:
Whole year round (rare species)
Products presentation:
Whole
Usage:
Material for surimi
Market:
No specific market

Fam. **Parapercidae** *Parapercis xanthozona* (Bleeker) RD 7310013
D V1 21; A 18
BL = 13.2 cm

Body elongate, cylindrical. Depth about 6. Mouth slightly oblique, lower jaw projecting. Villiform teeth on jaws, no teeth on palatines. Caudal slightly rounded. Body colour brownish with a light longitudinal band from pectoral base to caudal. 9 indistinct cross bars on sides. White longitudinal band in middle of caudal fin. Small-sized, occasionally caught with trawl in coastal waters. Considered as trash fish.
Indigenous names: 九母仔 (jiǔ mǔ zǎi)

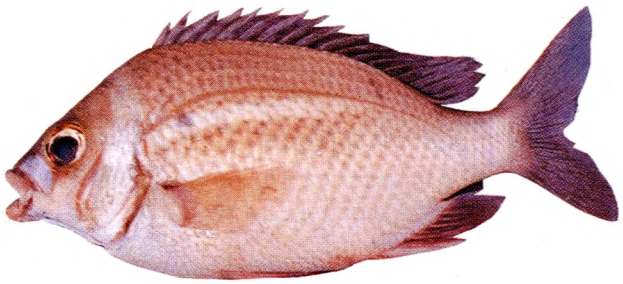
Seasonality:
Whole year round (rare species)
Products presentation:
Whole
Usage:
Material for surimi
Market:
No specific market

Fam. **Parapercidae** *Parapercis filamentosa* (Steindachner) RD 7310062
D V1 21-22; A 17-18
BL = 13.4 cm

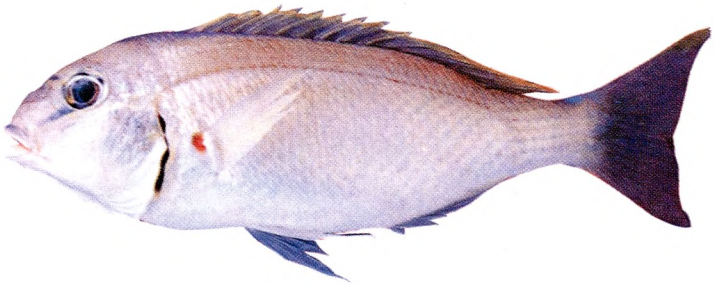
Body elongate, cylindrical. Depth 5.5-6. Mouth slightly oblique, lower jaw projecting slightly. No teeth on palatines. Caudal slightly rounded. The first 5-6 dorsal rays filamentous. Most common species. Usually found in trash fish from trawl catch. Little commercial value.
Indigenous names: 九母仔 (jiǔ mǔ zǎi)

Seasonality:
Whole year round (rare species)
Products presentation:
Whole
Usage:
Material fish for surimi
Market:
No specific market

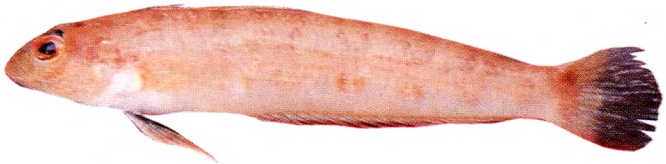
Scolopsis vosmeri
(Bloch)



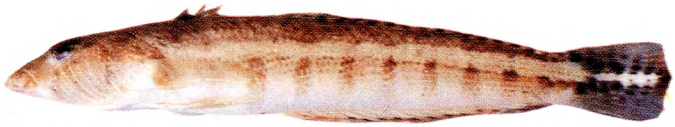
Scolopsis taeniopterus
(Valenciennes)



Parapercis pulchella
(Temminck & Schlegel)



Parapercis xanthozona
(Bleeker)



Parapercis filamentosa
(Steindachner)



Fam. **Callionymidae** *Dactylopus dactylopus* (Cuvier) RD 7210041
D_1IV,D_2 8; A 7 Dragonet
BL = 12.5 cm

Body elongate, subcylindrical. Depth 5.3-5.6. Head and anterior part of body somewhat depressed. No scales. Mouth small, protractile, slightly oblique. Gill opening reduced to a small slit. Spines of 1st dorsal long and filamentous. Spine and first ray of pelvic fin separated from the rest of fin. Small fishes common in trawl catch but of no commercial value. Considered as trash fish.

Indigenous name: 海鸟 (hǎi niǎo)

Seasonality:
Whole year round (rare species)
Product presentation:
Whole
Usage:
Material fish for surimi
Market:
No actual market

Fam. **Pomacentridae** *Daya jerdoni* (Day) RD 7310015
D XIII 12-13; A II 14 Damsel-fish
BL = 7.8 cm

Body oblong, compressed. Depth 2.8. Mouth oblique, lips thick. Opercle and subopercle edge finely serrated. No scaly sheath at base of dorsal and anal fins. Scales on sides with a dark blue basal spot. Dark spot on upper pectoral base. Caudal deeply forked, lobes pointed. Small fishes attaining 12 cm, occasionally occuring in trash fish from trawl catch.

Indigenous names: Gombing

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Material fish for surimi
Market:
No actual market

Fam. **Labridae** *Choerodon schoenleini* (Valenciennes) RD 7206019
D XIII 7-8; A III 9-10 Tusk fish
BL = 52.0 cm

Body oblong, compressed. Depth 2.4-2.6. Mouth slightly oblique, upper lip strongly plated. Teeth in jaws coalesced into serrated ridge, 4 curved anterior canines in each jaw. Dorsal and anal with scaly sheath. Pelvic fins not reaching to anal fin. Caudal truncate. A large light patch between soft dorsal and lateral line. Blue ring around eye when fresh. Occasionally landed but not popular food fish as the flesh is said to be poisonous at certain seasons.

Indigenous names: Tokak, bechok; 青英哥 (qīng yīng gē)

Seasonality:
Whole year round
Products presentation:
Whole gutted, fillet
Usage:
Delicacy & delicious as steamed fish, fish porridge & deep fried
Market:
HongKong, Thailand, Taiwan & Singapore

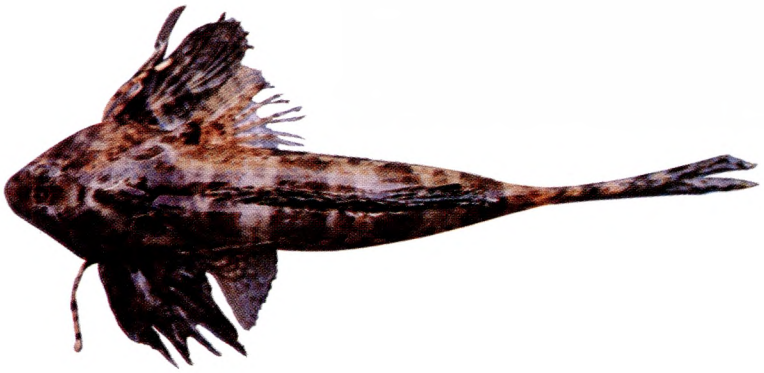
Fam. **Labridae** *Xiphocheilus typus* Bleeker RD 7210024
D XII 7-8; A III 10 Sword-lipped wrasse
BL = 10.4 cm

Body oblong, slightly compressed. Depth 3.2-3.4. Mouth large, upper lip thin, sword-like covered by preorbital when mouth is closed. Teeth in both jaws coalesced into ridges. 4 anterior canines in each jaw. Dorsal and anal fin without scaly sheath. Scales on body large, small scales on cheeks. Caudal truncate, head with light bands radiating from eye to snout. Small, common in trash fish of trawl catch. No commercial value.

Indigenous names: Jampong; 英哥仔 (yīng gē zǎi)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Material fish for surimi
Market:
No actual market

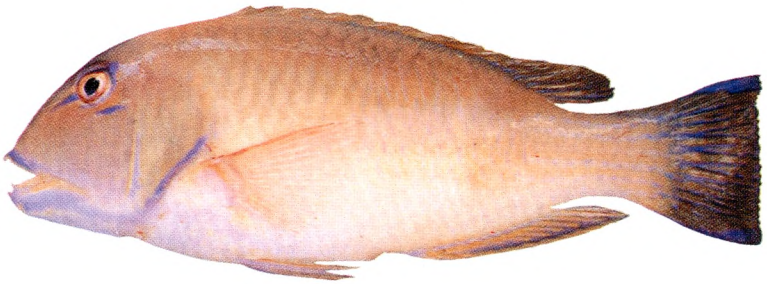
Dactylopus dactylopus
(Cuvier)



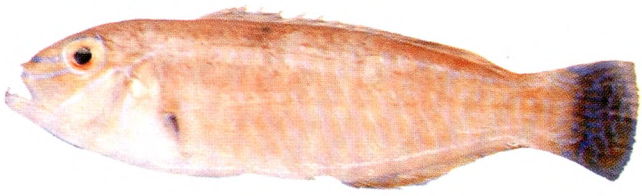
Daya jerdoni
(Day)



Choerodon schoenleini
(Valenciennes)



Xiphocheilus typus
Bleeker



Fam. **Ephippidae** *Ephippus orbis* (Bloch) RD 7212056
D IX 19-20; A III 15-16 Spadefish
BL = 16.2 cm

Body oval, deep, strongly compressed. Head higher than long. Mouth very small, on palate. 1st dorsal spine small, directed not protractile. No teeth om palate. 1st dorsal spine small, direct forward, embedded in older specimens, 4th-6th spines longest. Pectorals very short, rounded. Occurs occasionally in the trawl catch from shallow coastal water of about 30 40 m. depth. Common but not abundant in market.

Indigenous names: Kereping; 荷包鲳 (hè bāo chāng); 油甘鱼 (yóu gān yú)

Seasonality:
No seasonality
Products presentation:
Whole, headless
Usage:
Deep fried, salted
Market:
No actual market

Fam. **Drepanidae** *Drepane punctata* (Linnaeus) RD 7209033
D VIII-IX 19-22; A III 17-19 Spotted sicklefish
BL = 12.0 cm

Body rhombic, deep, strongly compressed. Head short, with elevated profile. Mout protractile downwards. No teeth on palate. 1st dorsal spine small, directed forward, embedded in older individuals. Other dorsal spines shorter than median dorsal rays. Pectoral fins sickle-shaped and long, reaching to base of caudal peduncle. Adults often with a protuberance between the eyes. Upper half of sides with-several vertical rows of small black spots. Some individuals with vertical stripes have been described as D. longimana (Bloch). Fairly common though not abundant in the trawl catch from coastal waters up to 70 m. Frequently seen in market but not very popular.

Indigenous names: Berbaharu; 白草扇 (bái cǎo shàn)

Seasonality:
No seasonality
Products presentation:
Whole, headless
Usage:
Deep fried, salted
Market:
No actual market

Fam. **Platacidae** *Platax batavianus* Cuvier RD 7206051
D VII, 29-32; A III 22-23 RD 7210032
BL = 36.0 cm & 10.7 cm Batfish

Body rhomboid in young, rounded in adults. Dorsal profile angular in young but less so with age. Head very high and short. Mouth small, not protractile. Teeth with three cusps, middle one longest. Vomer and palatine with teeth. Dorsal spines short, hidden in scaly sheath, continuous with soft rays. Dorsal and anal rays greatly prolonged in young becoming shorter in adults. Pectoral fins short. Common reefs and rocky areas, occasionally caught with trawl. Not valued as food, but young are popular aquarium fishes.

Indigenous names: Tudong periok; 乌草扇 (wū cǎo shàn); 草扇仔 (cǎo shàn zǎi)

Seasonality:
No seasonality
Products presentation:
Whole, headless, gutted
Usage:
Deep fried, steamed, salted
Market:
No actual market

Ephippus orbis
(Bloch)



Drepane punctata
(Linnaeus)



Platax batavianus
Cuvier



(Adult)



(Young)

Fam. **Siganidae** *Siganus canaliculatus* (Park) RD 7210013
(=S. oramin) Rabbitfish
D XIII 10; A VII 9 White spotted spinefoot
BL = 17.8 cm

Body oval, compressed. Depth 2.4-2.8. Mouth small, with close-set teeth in jaws. Scales on body small, embedded, body smooth. A small forward directed spine in front of spinuous dorsal. Spines with poison glands. Pelvic fins with two spines. First and last dorsal spines subequal in length. A dark blotch behind upper part of gill cover (below lateral line). Common and abundant species, occurring in large schools in shallow and coastal waters. Caught by trawl and traps. Schools of young feeds by nibbling at algae and seaweeds along the shore. Generally little demand in the market but fetches a very high price when ripe during the Chinese New Year period (January - February). Usual size 10-15 cm.

Indigenous name: Dengkis (Peh-tor); 白肚 (bāi dǔ)

Seasonality:
Whole year but large quantities in Dec.-Feb.
Product presentation:
Whole
Usage:
Steamed
Market:
Hong Kong, China, Taiwan, Malaysia & Singapore (high prices during Chinese New Year)

Fam. **Siganidae** *Siganus javus* (Linnaeus) RD 7310037
D XIII 10; A VII 9 Rabbitfish
BL = 19.7 cm Streaked spinefoot

Body oval, strongly compressed. Depth 1.8-2.3. Mouth small, jaws with close-set teeth. Scales small, minute. A small forward-directed spine in front of spinous dorsal. Pelvic fins with two spines. First dorsal spine shorter than the last. Spots on lower part of sides elongated and wavy. Common but not very popular species. Attains larger size than S. canaliculatus usually about 20 cm.

Indigenous names: Gelibas; 知县 (zhī xiàn); 老爹鱼 (lǎo diē yú)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Deep fried with soya sauce
Market:
Hong Kong, Malaysia & Singapore

Fam. **Psettodidae** *Psettodes erumei* (Schneider) RD 7206031
D 50-56; A 36-43 Indian halibut
BL = 25.4 cm

Body elongate-oval, strongly compressed. Depth 2.3-2.6. Both eyes on same side, either left or right. Mouth large, with 2-3 rows of large pointed canines. Vomer and palatine with fine teeth. Dorsal fin originates well behind eyes, first few rays spinous. Dorsal and anal fins not connected to caudal. Caudal fin truncate. Colour uniform brown, pale on blind side. Young may have about 4 transverse bars. Common but not abundant. Caught occasionally with trawl from muddy and sandy areas. Usual size 20-40 cm and may attain 60 cm.

Indigenous names: Sabelah; 左口午 (zuǒ kǒu wǔ); 咀午 (jǔ wǔ)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Fish & chips
Market:
USA, Europe, Asia & Southeast Asia (widely accepted in most countries)

Fam. **Bothidae** *Grammatobothus polyopthalmus* (Bleeker) RD 7206008
D 80-86; A 61-68 Three-spot flounder
BL = 12.5 cm

Body oval, flat. Depth 1.5-1.7. Both eyes on left sides, separately by a narrow space only. Mouth small, upper jaw ending below lower eye. Base of pelvic fin longer on eyed side. Lateral line distinct on both sides, forked in region above eye. Colour brown with three dark blotches ringed with black. Dorsal, anal and caudal fins with dark blotches. Common in trawl catch from shallow muddy or sandy names: Little commercial value.

Indigenous names: Sabelah; 剃补 (tì bǔ)

Seasonality:
Whole year round
Products presentation:
Whole, fillet
Usage:
Pan-fried
Market:
USA, Europe, Australia & New Zealand

Siganus canaliculatus
(Park)



Siganus javus
(Linnaeus)



Psettodes erumei
(Schneider)



Grammatobothus polyopthalmus
(Bleeker)



Fam. **Balistidae** *Abalistes stellaris* (Bloch & Schneider) RD 7206002
D III 26-27; A 23-26 Starry triggerfish
BL = 26.0 cm

Body oval, deeply compressed. Depth 2.3. Body covered with moderately large bony scales in regular rows. A longitudinal groove before each eye. 1st dorsal spine can be locked in erect position by 2nd spine. Dorsal and anal rays branched. Caudal peduncle almost round sometimes depressed, being wider than deep. Most common member of family sometimes caught in large numbers with trawl. Flesh is reputed to resemble chicken, but not very popular in market. Usual size around 30 cm.
Indigenous names: Jebong, Ayam laut; 仙公狄 (xiān gōng dí); 皮狄 (pí dí)

Seasonality:
Whole year round
Product presentation:
Fillet, minced
Usage:
Deep fried
Market:
No specific market

Fam. **Balistidae** *Alutera monceros* (Linnaeus) RD 7209059
D_1II; $D_2$48-50; A 50-51 Unicom filefish
BL = 36.2 cm

Body elongate, strongly compressed. Depth about 2.6. Body smooth, with minute scales. Mouth small, pointed. Gill opening an oblique slit. 1st dorsal spine erectile, above center of eye. 2nd spine small, hidden below skin. Soft rays of dorsal and anal not branched. Pelvic hidden below the skin, without spine. Caudal fin rounded to truncate. Fairly common in market, sold without skin. Caught with trawl in coastal waters up to 65 m.
Indigenous names: Barat-barat; 石狄 (shí dí)

Seasonality:
Jan to April and Aug to Nov.
Products presentation:
Fillet and headless gutted-skinless
Usage:
Fish & chips, sweet and sour fish, porridge
Market:
China, Hongkong, Australia, Malaysia, Thailand, Singapore and Japan

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Fam. **Balistidae** *Monacanthus curtorhynchus* Bleeker RD 7304018
Subfam. D_1II; D_2 27; A 26 Triggerfish, Filefish
Monacanthinae BL = 9.3 cm

Body oblong, compressed. Depth about 3. Body with small rough scales, not in regular rows. Mouth terminal, snout not produced. 1st dorsal spine erectile, locked by 2nd rudimentary spine. Soft rays of dorsal and anal not branched. Pelvic shield present with slender, movable spine. First dorsal originates behind middle of eye. Caudal rounded, with upper and lower rays produced into a yellow filament. Small sized species, of little commercial value, usually regarded as trash fish.
Indigenous names: Barat-barat

Seasonality:
Rare species
Products presentation:
Fillet and headless gutted-skiffless
Usage:
Fish & chips, sweet & sour fish, fish porridge
Market:
China, Hongkong, Australia, Malaysia, Thailand, Singapore & Japan

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Fam. **Belistidae** *Monacanthus macrurus* Bleeker RD 721005
Subfam. D_1II, D_2 29-30; A 27-30
Monacanthinae BL = 14.6 cm

Body oblong, compressed. Depth 2.5-2.8. Body with small rough scales not in regular rows. Mouth small, terminal, snout not produced. Gill opening before middle of eye. Dorsal spin over middle of eye, not in groove when depressed. Soft dorsal and anal rays unbranched. Pelvic spine not movable. Caudal rounded. Medium-sized species occasionally caught with trawl in coastal waters.
Indigenous names: Barat-barat; 狄仔 (dí zǎi)

Seasonality:
Rare species
Products presentation:
Headless, gutted-skinless
Usage:
Stir fried, soya-sauce fried
Market:
Thailand, Malaysia & Singapore

Fam. **Balistidae** *Monacanthus chinensis* (Bleeker) RD 7509005
Subfam. D_1II, D_2 28-30; A 27-30
Monacanthinae BL = 16.6 cm

Body oblong compressed. Depth 1.7-2. Dorsal profile ascending from snout to origin of second dorsal. Mouth small, terminal, snout not produced. Chin slightly prominent. Gill opening oblique below posterior part of eye. Dorsal spine above middle of eye, 2nd spine minute. Soft dorsal and anal rays unbranched. Pelvic spine movable.Caudal rounded, peduncle with 4-6 backward-directed spines. Very common species, frequently seen in market, quite popular.
Indigenous names: Barat-barat; 正撕皮狄 (zhèng sī pí dí)

Seasonality:
Rare species
Products presentation:
Headless, gutted-skinless
Usage:
Stir fried, soya-sauce fried
Market:
Thailand, Malaysia & Singapore

Abalistes stellaris
(Bloch & Schneider)



Alutera monceros
(Linnaeus)



Monacanthus curtorhynchus
Bleeker



Monacanthus macrurus
Bleeker



Monacanthus chinensis
(Bleeker)



Class Crustacea
Sub-Class Malacostraca
Order Decapoda

Fam. **Penaeidae** *Penaèus japonicus* Bate — Kuruma prawn

Smooth carapace. Horizontal rostrum with 8-10 teeth on top, 1-2 teeth under rostrum. Movable lateral spines on telson. Maximum length and body weight is 225 mm and 80 grams, respectively. Distributed in South Africa, Southeast Asia, Northern Australia, Korea and Japan. Lives on sandy mud and sand bottoms. A very important commercial species in Japan. Similar to P. Canaliculatus.

Indigenous names: Udang harimau; 老虎虾 (lǎo hǔ xiā)

Seasonality:
Whole year round
Products presentation:
Whole, and Headless-shell on
Usage:
Barbecue, and Japanese cuisines like Teppan-yaki
Market:
USA, Japan, E.U. and Southeast Asia

Fam. **Penaeidae** *Penaeus monodon* Fabricius — Giant tiger prawn

7-8 teeth on top of rostrum, 3-4 teeth under rostrum. Pereiopods may be red, never white. Grooved telson on lateral spines. Maximum length and body weight is 330 mm and 250 grams, respectively. Found in Indo-West Pacific, East and Southeast Africa, Arabian Gulf, Indian Subcontinent, Southeast Asia, Northern Australia and Japan. Lives on mud or sand bottoms. An important aquaculture species in Asia. The meat is firm with good flavor.

Indigenous names: Udang harimau; 老虎虾 (lǎo hǔ xiā); 九节虾 (jiǔ jié xiā)

Seasonality:
Whole year round
Products presentation:
Whole, Headless-shell on, peeled - tail-on, and peeled (P&D, and PUD)
Usage:
Steam/boiled, barbecued, sashimi, sushi, & teppan-yaki.
Market:
USA, Japan, China, Taiwan, Southeast Asia and E.U.

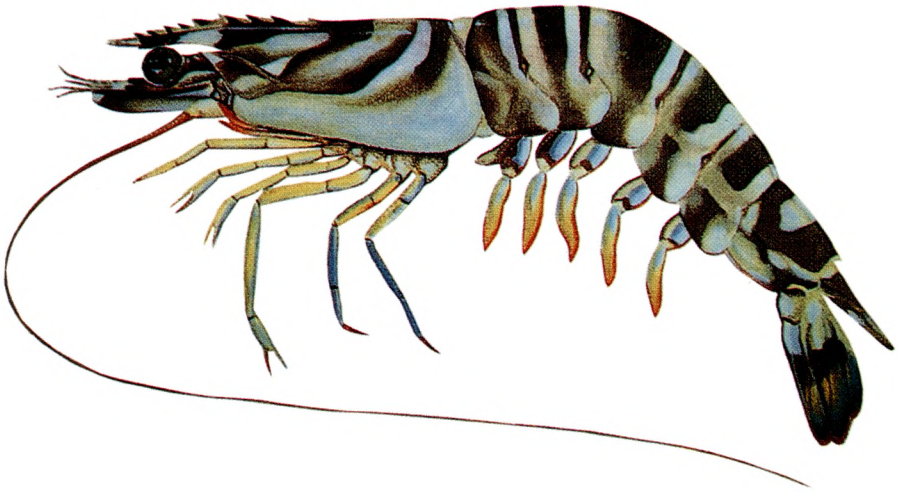
Fam. **Penaeidae** *Penaeus semisulcatus* de Haan — Green tiger prawn

Long groove in carapace. Teeth behind rostrum, 7-8 teeth on top of rostrum, 3 below. Bands on abdomen. Pereiopods are white. Maximum length and body weight is about 228 mm and 130 grams respectively. Found in Indo-West Pacific region, Southeast Africa, Indian Subcontinent, Malay Archipelago, Japan and Northern Australia. A very important commercial species. Known as flower shrimp in Taiwan and other Asian countries. In northern Australia, it is mixed with P. esculentus in catches or in marketing. It looks similar to P monodon. An aquaculture species in Thailand and Taiwan. The meat is firm and fairly mild.

Indigenous names: Udang harimau; 细脚 (xì jiǎo)

Seasonality:
Whole year round
Products presentation:
Whole, Headless - shell-on and peeled - tail-n
Usage:
Barbecued, teppan-yaki
Market:
USA, EU and Southeast Asia

Penaeus japonicus
Bate



Penaeus monodon
Fabricius



Penaeus semisulcatus
de Haan



Fam. **Penaeidae** *Penaeus indicus* H. Milne Edwards Indian white prawn

Crest mostly brown, low rostral crest. Well developed ridge. 7-8 teeth on top of rostrum, 5-6 below. Speckles on the segment. Legs often reddish. Maximum length and body weight is 228 mm and 35 grams, respectively. Found in Indo-West Pacific, Southeast Asia, South China and Northern Australia. Lives on mud or sandy mud bottoms. Most important commercial species in India and East Afiica. Similar to P. merguiensis and P penicillatus. A popular imported shrimp in Japan. Good quality and flavored shrimp.
Indigenous names: Udang putih; 白刺 (bái cì)

Seasonality:
Whole year round
Products presentation:
Whole, and Headless-shell on, & peeled (P&D and PUD)
Usage:
Steamed/boiled, deep-fried, & pan-fried
Market:
USA, Japan, E.U., China, Australia and Southeast Asia

Fam. **Penaeidae** *Penaeus latisulcatus* Kishinouye Western king prawn

10-12 teeth on top of rostrum, 1 tooth below. No cross bands on carapace or abdomen. Crest extends along most of carapace. There is groove on carapace. Short, black-brown bars on the body. Maximum length and body weight is 200 mm and 60 grams, respectively. Distributed in Indo-West Pacific region, Southeast Africa, Arabian Gulf, India, Southeast Asia, Japan, Korea and South Australia. Lives on sand bottoms and sandy mud. Popular in Japan and is a commercially important species in South Australia.
Indigenous names: Udang susu; 沙马 (shā mǎ)

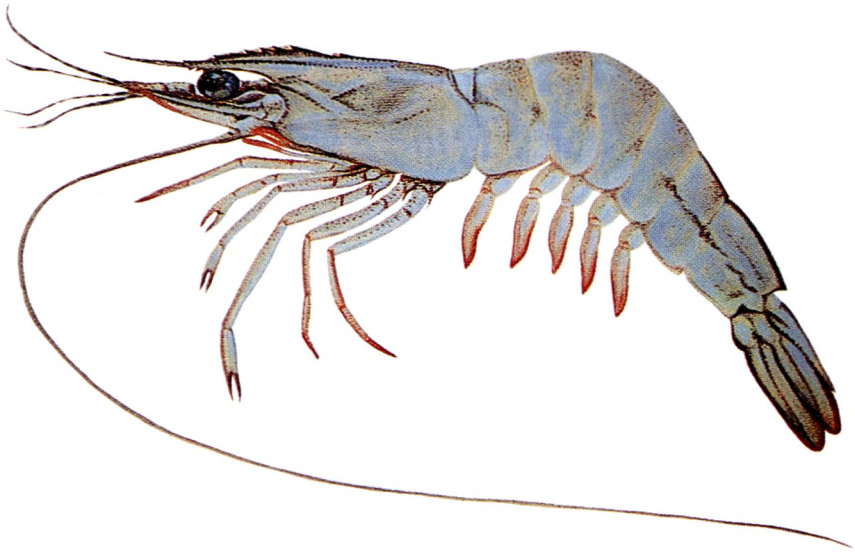
Seasonality:
Whole year round
Products presentation:
Wholed
Usage:
Steamed/boiled, pan-fried
Market:
China, Southeast Asia

Fam. **Penaeidae** *Penaeus merguiensis* de Mann Banana prawn

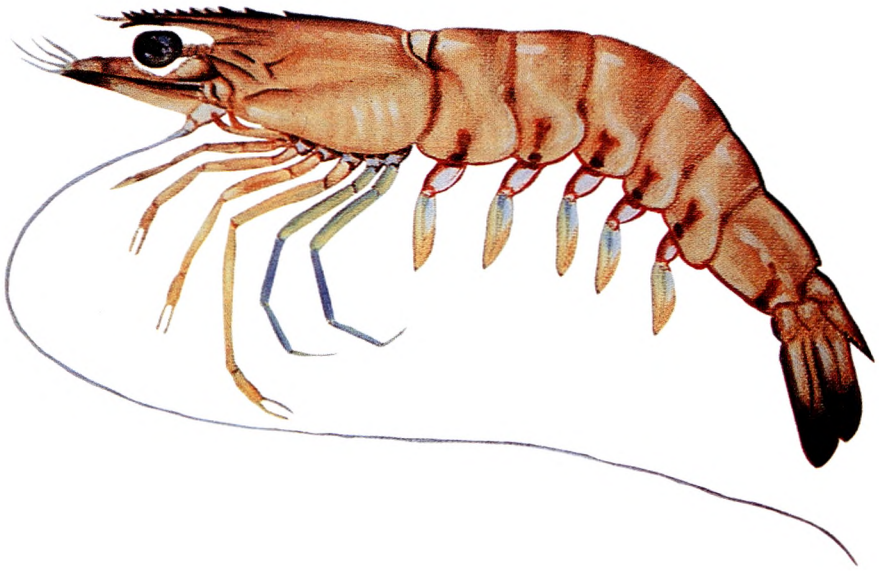
Smooth carapace, almost no ridges. Rostrum high and triangular 7-8 teeth on top, up to 6 below rostrum. Maximum length and body weight is 240 mm and 50 grams, respectively. Lives on muddy bottoms. Found in Arabian Gulf, Pakistan, Malay Archipelago, South China Sea and Australia. It is one of the commercially important species. Similar to P. indicus and is sometimes called white shrimp. The meat is firm and with a fine flavor.
Indigenous names: Udang putih; 白刺红脚 (bái cì hóng jiǎo)

Seasonality:
Whole year round
Products presentation:
Whole
Usage:
Steamed/boiled, pan-fried
Market:
Australia, Japan, USA., EU & Southeast Asia

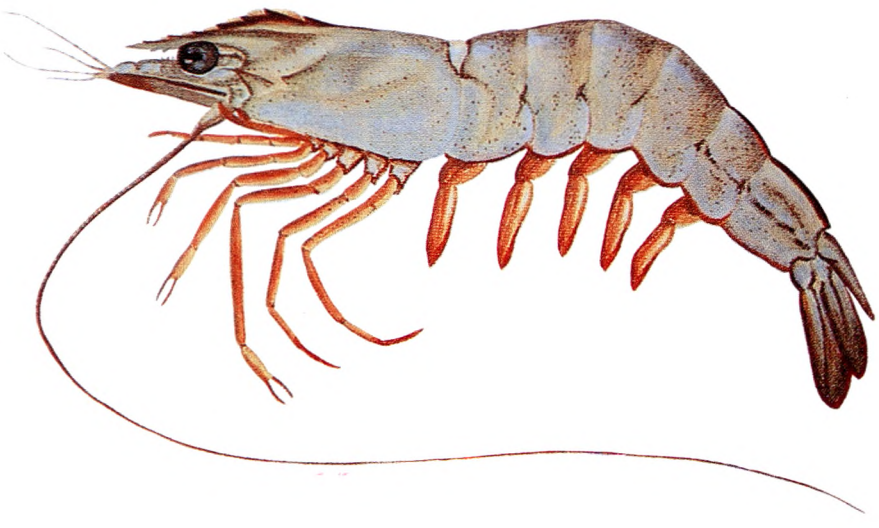
Penaeus indicus
H. Milne Edwards



Penaeus latisulcatus
Kishinouye



Penaeus merguiensis
de Mann



Fam. **Penaeidae** *Metapenaeus affinis* H. Milne Edwards Pink shrimp

Rostrum narrow with 7-8 teeth on crest. Wide, deep groove on telson. Colour of segments grey-green to grey-blue. Maximum length is 170 mm. Distributed in Indian Ocean, Arabian Sea, Southeast Asia, Hong Kong and Taiwan. Lives on muddy bottoms. Known as Indian brown shrimp. An important commercial species in Pakistan, India and Southeast Asia. Similar to M. moybei and M. ensis. In Chinese it is called middle prawn. A ponds cultured shrimp in Malaysia. The meat is firm and good tasting.
Indigenous names: Udang merah ros; 沙卢 (shā lú)

Seasonality:
Whole year round
Products presentation:
Whole, headless-shell on, & peeled
Usage:
Steamed/boiled, pan-fried & cooked
Market:
USA, Japan, E.U., China, and Southeast Asia

Fam. **Penaeidae** *Metapenaeus brevicornis* (H. Milne Edwards) Yellow shrimp

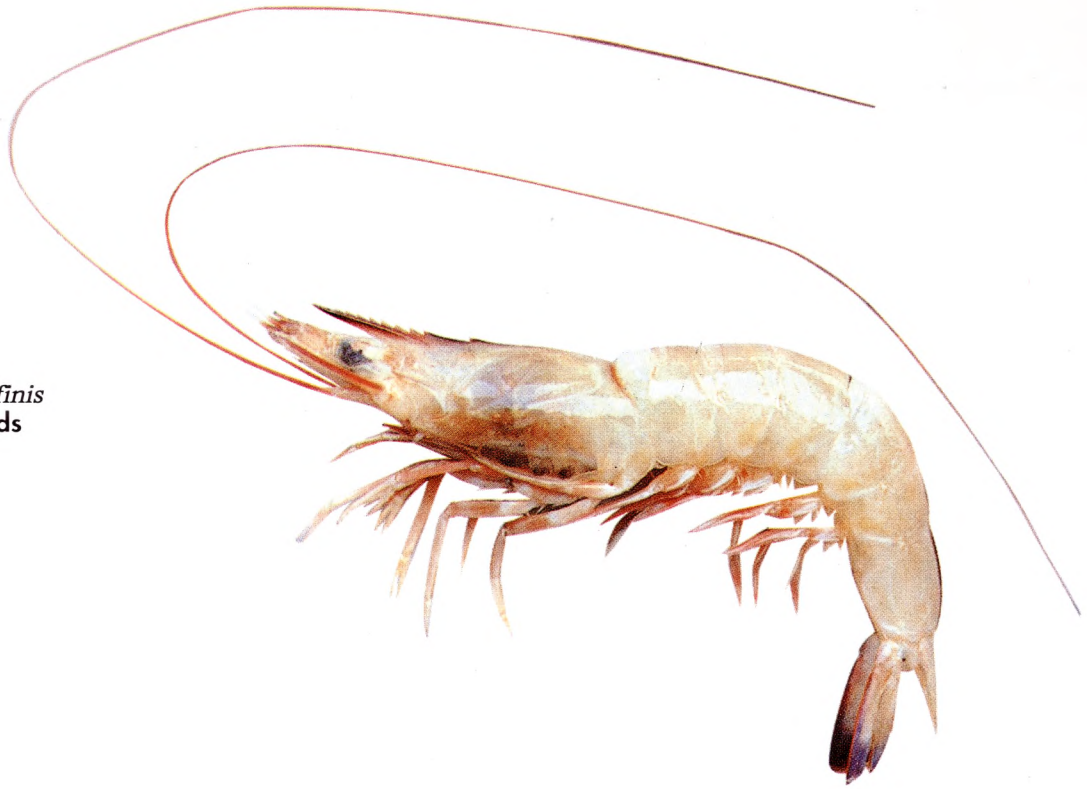
Groove on carapace. Rostrum with high crest. No teeth on short rostrum. 5-7 teeth on crest. Body hairless. Maximum length is 150 mm. Found in Indo-West Pacific region, Southeast Asia. A fast growing prawn, reaches its full size within four months time. An important commercial species in Pakistan and India.
Indigenous names: Udang kuning; 黄枝米 (huáng zhī mǐ); 花成 (huā chéng)

Seasonality:
Whole year round
Products presentation:
Whole & peeled
Usage:
Steamed/boiled, pan-fried & cooked
Market:
Southeast Asia, E.U.

Fam. **Penaeidae** *Metapenaeus ensis* de Haan Greasyback shrimp

Narrow rostrum with 8-10 teeth on crest. Red antennae. Broad groove telson. Maximum length and body weight is 160 mm and 18 grams, respectively. Distributed in Indo-West Pacific region, Southeast Asia, Southeast China, Japan and Western, Northern and Eastern Australia. Lives on mud or sandy mud bottoms. An important commercial species in this region. In Southeast Asia, it is traditionally cultured in ponds. It is called sand shrimp in Taiwan. In Australia, it is regarded as M. monoceros. A high quality and high valued prawn.
Indigenous names: Udang merah ros; 青尾沙卢 (qīng wěi shā lú)

Seasonality:
Whole year round
Products presentation:
Whole, headless - shell-on & peeled
Usage:
Steamed/boiled, pan-fried & cooked
Market:
Japan, USA., EU, China & Southeast Asia



Metapenaeus affinis
H. Milne Edwards



Metapenaeus brevicornis
(H. Milne Edwards)



Metapenaeus ensis
de Haan

Fam. **Penaeidae** *Metapenaeopsis barbata* (de Haan) Sand velvet shrimp

Long, horizontal rostrum with 7-8 teeth on crest. 3 pairs of movable spines on telson plus 1 pair of fixed spines. Shell is hard. Maximum length is 108 mm. Found in Southeast Asia, China, Taiwan and Japan. Lives on muddy bottoms. An important commercial species in Japan. Taiwan and Southeast Asia. A good flavored prawn.
Indigenous names: Udang pasir; 泰哥虾 (tài gē xiā); 鸡母虾 (jī mǔ xiā)

Seasonality:
Whole year round
Products presentation:
Whole, and peeled
Usage:
Pan-fried and cooked
Market:
Southeast Asia and E.U.

Fam. **Penaeidae** *Parapenaeopsis hardwickii* (Miers) Spear shrimp

Rostrum tilted upwards. No teeth in front of carapace. 8-10 teeth on top of rostrum. A small epigastric tooth behind the 10th rostral tooth. 3-5 pairs of movable spines on telson. Maximum length is 135 mm. Found in Indo-West Pacific region, Pakistan, India, Southeast Asia, Taiwan and China.
Indigenous names: Udang minyak; 剑虾 (jiàn xiā)

Seasonality:
Whole year round
Products presentation:
Whole, Headless-shell on and peeled
Usage:
Steam/boiled, pan-fried and cooked
Market:
Southeast Asia including Singapore, Malaysia and Thailand

Fam. **Penaeidae** *Parapenaeopsis sculptilis* (Heller) Rainbow shrimp

Carapace smooth. Rostrum curved. 7-9 teeth on top of the rostrum. 3-4 pairs of laterally movable spines on telson. The four whitishbands on the shell are a distinguishing feature, separating pink and brown bands. Maximum length is 170 mm. Found in Indo-West Pacific region, Pakistan, India, Southeast Asia, Hong Kong, New Guinea and Northern Australia. Lives on coarse sand and fine mud bottoms. Not popular because of its large body and relatively small tail, resulting in poor yield.
Indigenous names: Udang kulit keras; 乌花虾 (wū huā xiā)

Seasonality:
Whole year round
Products presentation:
Whole, headless-shell on and peeled (PUD), Frozen raw or cooked
Usage:
Multiple usages, eg fried-rice, salad and so on.
Market:
EU and Southeast Asia
Note:
Also widely known as cat-tiger shrimp

Metapenaeopsis barbata
(de Haan)



Parapenaeopsis hardwickii
(Miers)



Parapenaeopsis sculptilis
(Heller)



Fam. **Portunidae** *Portunus pelagicus* Linnaeus

Swimming crab
Flower crab

Carapace usually wider than long, width ending with prominent large spine on both sides of antero-lateral margin. Carapace usually dark blue in male with distinct white mottling on the carapace and cheliped (claw). The female is dark green usually with less white mottling on carapace. The female has a broad abdomeno-thorax especially when mature. This species is an active swimmer with a pair of modified swimming legs and is common in the Indo-Pacific region in areas of sandy or muddy bottoms of 10- 30m depths, especially at. river mouths and estuaries. Caught with drift nets by coastal fishermen.

Indigenous names: Ketam renjong; 花蟹 (huā xiè)

Seasonality:
All year round
Products Presentation:
Whole, live, chilled or frozen
Usage:
Steamed or stir-fried
Market:
Southeast Asia, eg Singapore, Malaysia, Thailand, Myanmar and Vietnam

Fam. **Portunidae** *Scylla serrata* Forskal

Mangrove crab
Mud crab

Carapace shining green and smooth except for curved transversed ridge across center of carapace. Large powerful pair of front cheliped (claw) used for burrowing, capture of prey and defence. Nine anterior-lateral teeth on each side of carapace of equal size. Females also distinguished by broad abdomeno-thorax. Last pair of legs flattened and modified for swimming. This is a large edible crab marketed live. Can survive out of water for several days. Commonly found in burrows in the mangrove swamps of Sri Lanka, Malaysia, Indonesia, Thailand, and Burma.

Indigenous names: Ketam bangkang; 蟹 (xiè); 螃蟹 (páng xiè)

Seasonality:
Whole year round
Products Presentation:
Whole and live
Usage:
Steamed or stir-fried
Market:
Southeast Asia, eg Singapore, Malaysia, Thailand, Myanmar, Vietnam & Indonesia.

Portunus pelagicus
Linnaeus



Scylla serrata
Forskal



Fam. **Palinuridae** *Palinurus polyphagus* (Herbst) Spiny lobster

Body long and cylindrical with distinct jointed abdomen and carapace sections. Carapace cylindrical and covered with tubercles of variable size but smooth for most part in large specimens. Antennae long, cylindrical and jointed, usually extending to more than twice the body length. Abdomen and tail-fan large. This species is the most abundant of the spiny lobsters found in the Indo-Pacific region, constituting at least 90% of the total commercial lobster landings in this area. It shows a specific preference for muddy-bottomed habitat although it also occurs commonly in coral reef areas. It is caught predominantly by bottom trawling and shows a wide range of depth distribution. It is a highly valued species, and has recently been cultured in floating cage-nets primarily for the live seafood market.
Indigenous names: Udang kara; 龙虾 (lóng xiā)

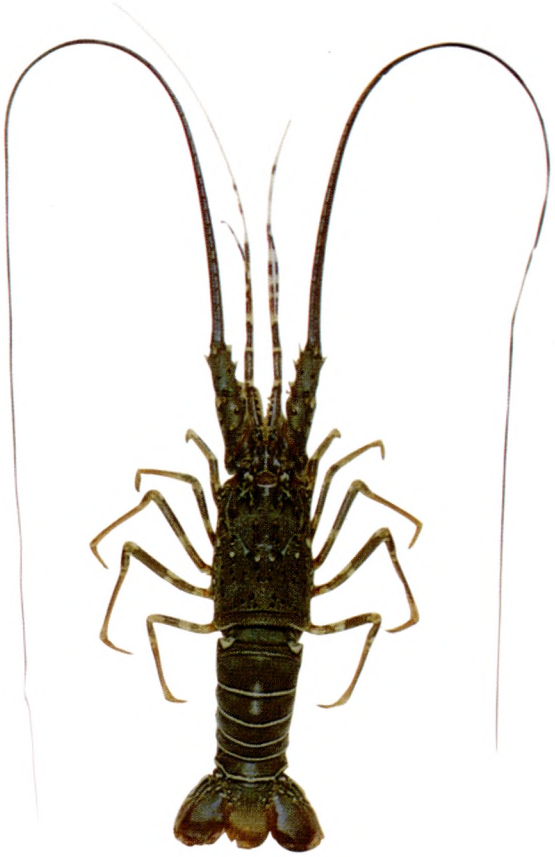
Seasonality:
Whole year round
Products Presentation:
Whole, tail, & meat, chilledd and frozen
Usage:
Grilled & stir-fried
Market:
USA & Asia (eg, Singapore, Malaysia, Thailand, Myanmar, Vietnam, Indonesia & Philippines.

Fam. **Scyllaridae** *Thenus orientalis* (Lund) Shovel-nosed lobster
Slipper lobster

Cephalothorax dorso-venerally depressed with prominent median ridge on dorsal. Antennae reduced to flat scales with eyes placed at the antero-lateral edge of the cephalothorax. Colour of exoskeleton light brown and is usually caught by bottom trawl in muddy areas. Strong demand by processors, usually frozen as lobster tails for export.
Indigenous names: Udang kipas; 虾婆 (xiā pó)

Seasonality:
Whole year round
Products Presentation:
Whole, tail, live, chilled or frozen
Usage:
Steamed, grilled
Market:
USA, EU, Japan, Australia, Asia and many parts of the world.

Palinurus polyphagus
(Herbst)



Thenus orientalis
(Lund)



Tuna and Billfishes

Fam. **Scombridae** *Thunnus alalunga* (Bonnaterre) Albacore
common size : 60-100 cm, up to 120 cm
common size : 6-25 kgs, up to 40 kgs

Robust, spindle-shaped and round body with metallic blue on the back and silvery white belly; distinguished by very long pectoral fins and a thin, white margin on the tail fin;

Worldwide in offshore to oceanic waters; occurs in school; valued as premium white-meat tuna with low oil contentj; normally caughy by long line fishing method with sanma, saba or squid baits; also caughy by pole & line.

Seasonality :
whole year
Product presentation:
whole, loin, steak or canned
Usage :
sashime, smoked, salad, sandwich, barbecue
Market :
USA, E.U. Japan, Thailand, Malaysia

Fam. **Scombridae** *Thunnus albacares* (Bonnaterre) Yellowfin tuna
common size : 60-150 cm, up to 200 cm
common weight : 6-80 kgs, up to 180 kgs

Robust, spindle-shaped body with metallic blue on the back and silvery white belly; bright yellow over-extended second dorsal and anal fins that becone elongayed with increased age:easily confused with big Eye Tuna or Blue fin;distinguished by hte longer pectoral,smaller eyes and slimmer body shape.

Worldwide in offshore to oceanic waters but absent from the mediterranean;occurs in school; found commonly swimming with Dolphin;normally caught by long line fishing method with saba, squid or milk fish baits; also caught by purse seine or pole & line.

Seasonality :
whole year
Product presentation:
whole, GG, DWT loin, steak or canning as chunk lingt meat tuna
Usage:
sashimi, smoked, salad, samdwich or barbecue
Market:
USA, E.U., middle east, Japan,Thailand

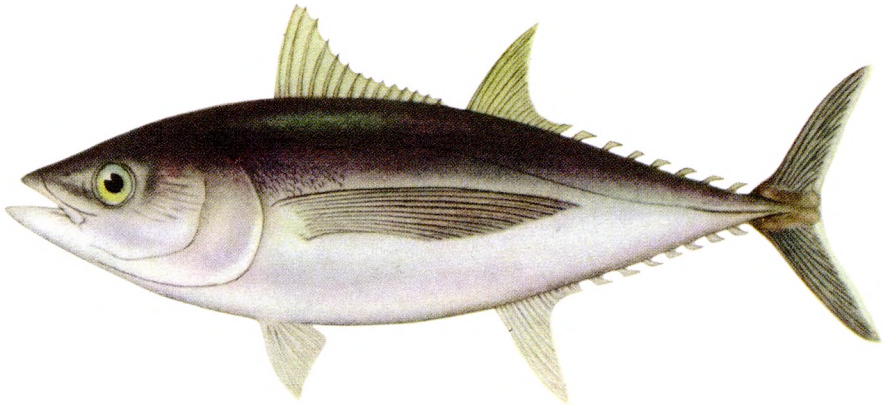
Fam. **Scombridae** *Thunnus obesus* (Lowe) Bigeye tuna
common size: 62-145 cm, up to 200cm
common weight: 10-85 kgs, up to 195 kgs

Robust, fusiform body; its back is metallic blue; silvery white belly;can be mistaken for yellowfin; distinguished by shorter pectoral fin, larger eye; lacks clongated dorsal and anal rays.

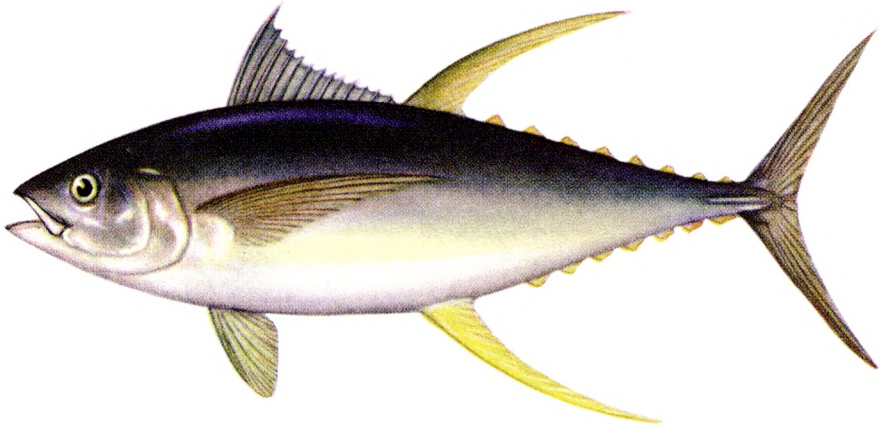
Worldwide offshore to oceanic waters but absent from the Mediterranean; prefers very deep waters; occurs in schools; higher oil content and red meat than other tunas except bluefin; normally caught by long line fishing method with saba or sqid baits; also fish by pole & line.

Seasonality:
whole year
Product presentation:
GG,SWT, loin or canned
Usage:
sashimi, sandwich, barbecue
Market:
Japan and E.U.

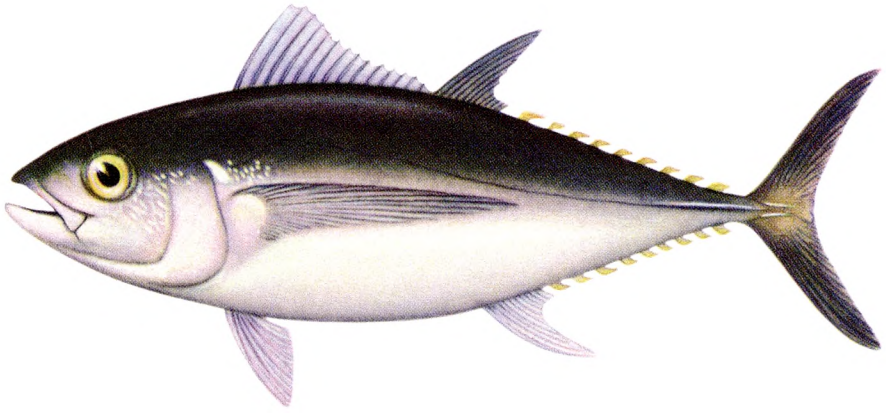
Thunnus alalunga
(Bonnaterre)



Thunnus albacares
(Bonnaterre)



Thunnus obesus
(Lowe)



Fam. **Scombridae** *Thunnus thynnus* (Linnaeus) Bluefin tuna
common size: 90-190 cm, up to 300 cm
common weight: 16-140 kgs, up to 700 kgs

Robust body shape with small eye and relatively short pectoral fins; Dark bluish green back & silvery; side with light bars.

Inshore to offshore waters; high oil content and extreme red meat tuna fish; live in Southern oceans south of 30 degrees latirude, south of Australia in Tasman sea, eastern Indian Ocean, Gulf of Mexico through the North Atlantic Southern California; caught by longline fishing method with saba and squid baits; also fishing by pole & line.

Seasonality:
Whole year
Product prescntation:
whole,GG
Usage:
sashimu
Market:
Japan, Korea

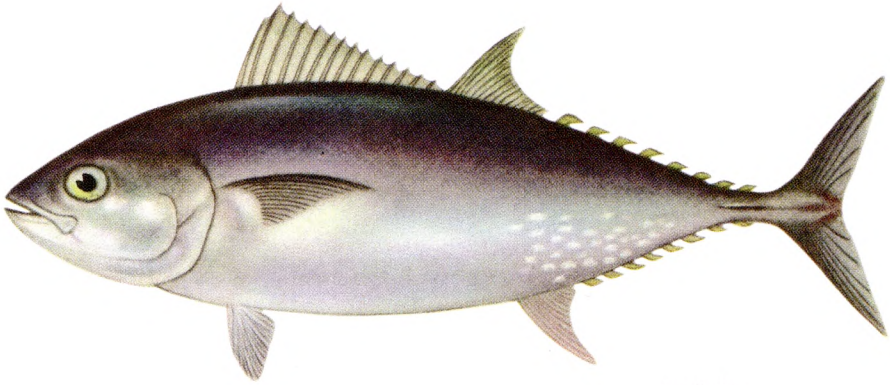
Fam. **Scombridae** *Katsuwonus pelamis* (Linnaeus) Skipjack tuna
common size: 36-60cm up to 90 cm
common weight: 1-6 kgs, up to 25 kgs

Body Torpedo shape round; back dark bluish violet; silvery white belly covered with the unique stripes; meat colour dark but relatively soft.

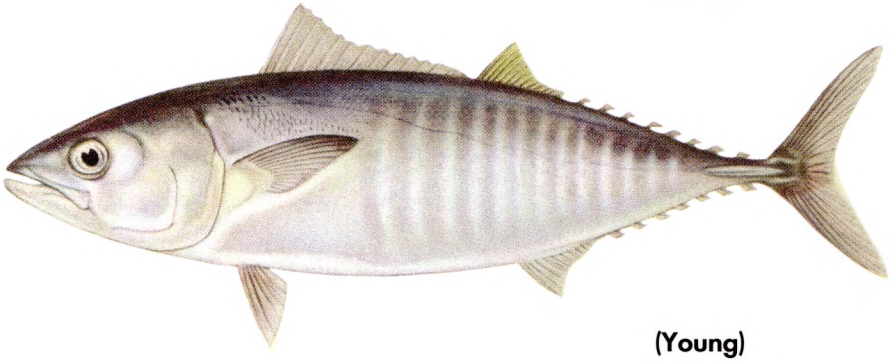
Worldwide inshore to oceanic shallow waters but absent from Black sea; generally well offshore; occurs in huge schools; normally caught by purse seine and pole & line.

Seasonality:
whole year
Product presentation:
canned, smokde, smoked and dride for Katsuobushi production
Usage:
sashimi, Japanese soup, salad, sandwich
Market:
USA, E.U., Japan, Middle East, Thailand, Malaysia

Thunnus thynnus
(Linnaeus)

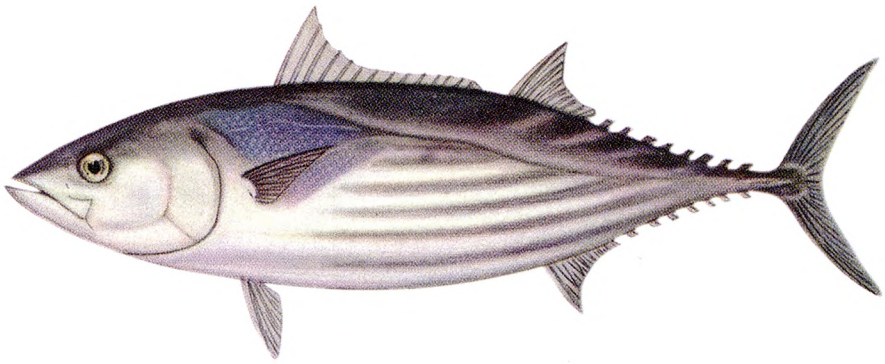


(Adult)



(Young)

Katsuwonus pelamis
(Linnaeus)



Fam. **Xiphiidae** *Xiphias gladius* Linnaeus SWORDFISH
common size: 60-200cm up to 480 cm (Broadbill)
common weight: 10-220 kg, up to 550 kgs

Long Body and round; dark brown coloru back; brownish white belly; distinguished by high and sickled-shaped dorsal fin with long flattened sword on head; lacks pelvic fins; high oil content; creamy white meat colour.

worldwide offshore to oceanic waters; abundant in cooler waters off Peru, Chile and Southern Indian Ocean; caught by longline fishing method with saba and squid baits.

Seasonality:
whole year
Product presemtatopm:
whole, loin, fillet, steak, DWT
Usage:
sashimi, smoked, salad, sandwich, bakde, broiled, breaded fried, BBQ
Market:
USA, E.U., Japan, Korea

Fam. **Istiophoridae** *Istiophorus platypterus* (Shaw & Nodder) Sailfish
common size: 90-180 cm up to 300 cm
common weight: 15-50 kgs, up to 80 kgs

Long and streamlined body with a long, spear-like snout; it has metallic blue body and cobalt-blue sail dottde with black markings; body is covered with tough and hide-like skin and the pointed scalds are well embedded; it is well distinguished by the huge sail-like dorsal fin.

Worldwide inshore to offshore; lives in shallow waters; caught by longline fishing method with saba and squid baits.

Seasonality:
whole year
Product presentation:
DWT, fillet, loin
Usage:
sashimi, deep fried,BBQ, fish floss, broiled
Market:
Japan, Taiwan, Korea

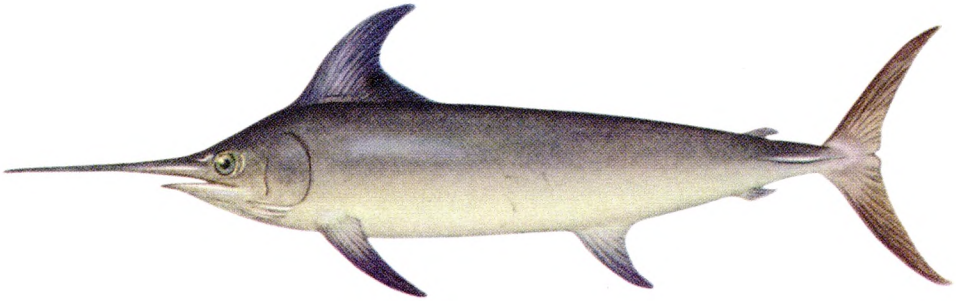
Fam. **Istiophoridae** *Tetraplurus audax* Phillipi STRIPED MARLIN
common size: 160-220cm up to 380 cm
common weight: 20-90 kgs, up to 200 kgs

Long, streamlined body with a short, spear-like snout, colour is cobalt-blue and black with definite; lighter vertical stripes; sides are more compressed; the body is densely covered with pointed scales which well embedded in the tough skin, meat pinkish colour.

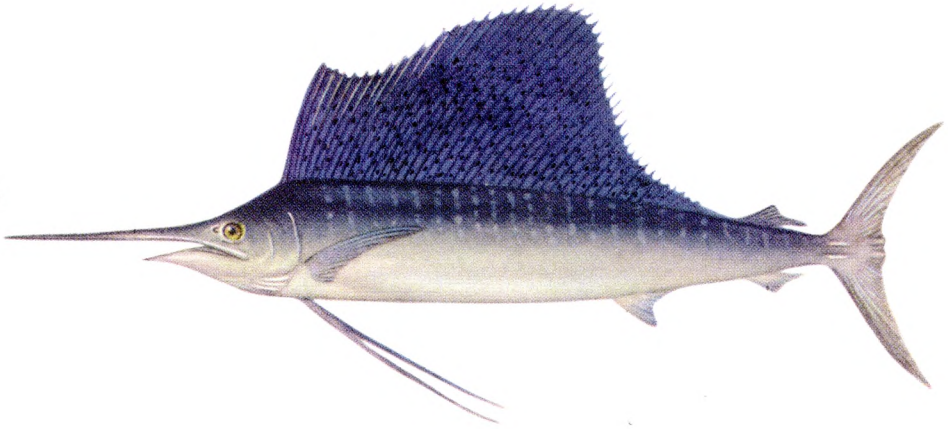
Worldwide offshore to oceanic waters; lives in shallow water; caught by longline fishing method with saba or squid baits.

Seasonality:
whole year
Product presentation:
DWT, fillet, loin, steak
Usage:
sashimi, deep fride, BBQ, broiled, smoked
Market:
Japan, Taiwan, E.U.

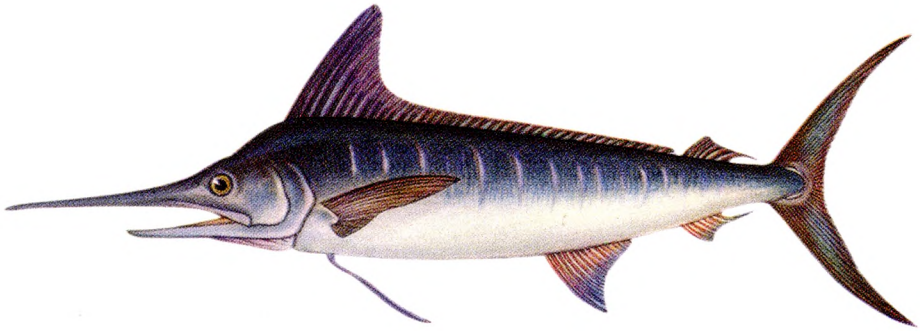
Xiphias gladius
(Linnaeus)



Istiophorus platypterus
(Shaw & Nodder)



Tetraplurus audax
(Phillipi)



Fam. **Istiophoridae** *Makaira indica* (Cuvier) Black marlin

common size: 180-330 cm up to 460 cm

common weight: 30-200 kgs, up to 700 kgs

Robust, long and well streamlined fish with a steep forehead and a long, sharp, spear-like snout; coloru is metallic blue-black and white belly, fish rapidly changes to an overall deep black once landed; thin, thorn-like scales cover the body which embedded in the tough skin.

Worldwide oceanic waters; lives in shallow waters; caught by longline fishing method with saba or squid baits.

Scasonality:
whole year
Product presentation:
DWT, fillet, loin, steak
Usage:
sashimi, deep fried, BBQ, broiled, smoked
Market:
Japan, Taiwan, E.U. Korea

Fam. **Istiophoridae** *Makaira nigricans* (Lacepede) Blue marlin

common size: 150-320 cm up to 440 cm

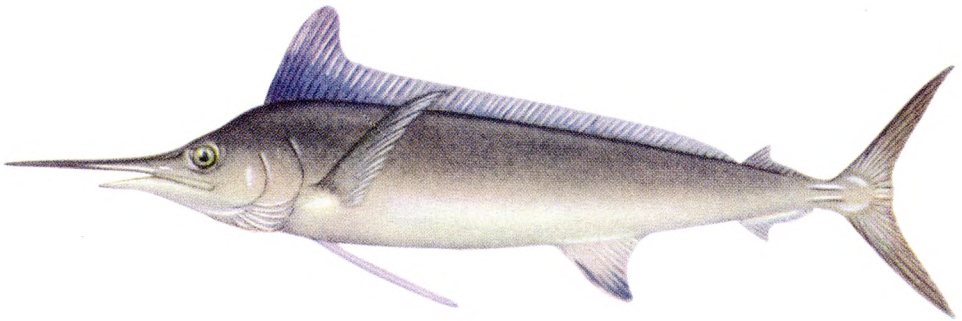
common weight: 20-190 kgs, up to 650 kgs

Robust, long and srreamined fish; the bill is sharp and stout; body coloru of live specimens is cobalt-blue above; white belly, faint vertical bars on the flanks; death body turn to slate grey; body covered with tough skin, embedded in which are long, thin, thornlike scales.

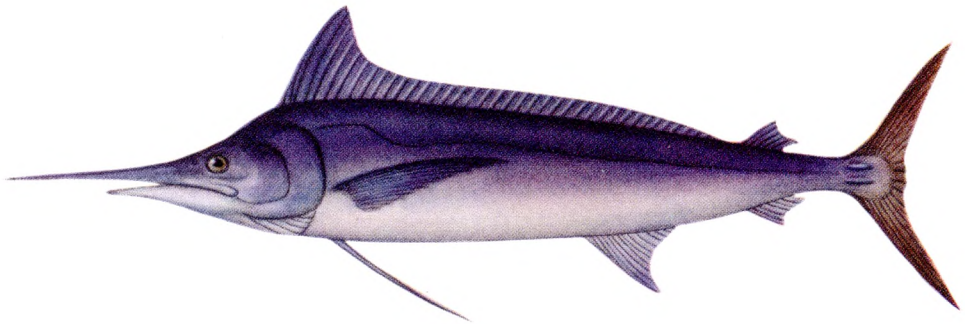
Offshore to oceanic waters;lives; lives in shallow water; caught by longline fishing method with saba or squid baits.

Seasonality:
whole year
Product presentation:
DWT,fillet, loin, steak
Usage:
sashimi, deep fried, barbecue, broiled, smoked
Markct:
Japan, Taiwan, E.U. Korea

Makaira indica
(Cuvier)



Makaira nigricans
(Lacepede)



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