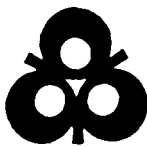
The background of the cover features several spotted red snappers swimming in clear, greenish water. The fish are arranged in a loose, overlapping pattern, with some in the foreground and others further back, creating a sense of depth. The lighting is bright, highlighting the texture of the fish's scales and the dark spots on their bodies.

**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

SEAFOOD INDUSTRIES ASSOCIATION

SINGAPORE

PUBLISHERS:

Primary Production Department,
Ministry of National Development,
National Development Building,
Maxwell Road, Singapore, 0106,
REPUBLIC OF SINGAPORE.

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 Siau 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

PRINTER:

PCL Printers Pte Ltd

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publishers.

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.

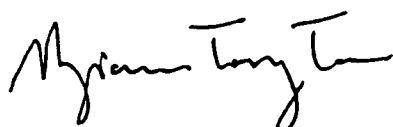
In parallel with the dynamic growth of the fishing industry, there has also been an increase in international trade in fish and fisheries products from the ASEAN region and also intra-regional trade amongst the ASEAN countries.

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:—

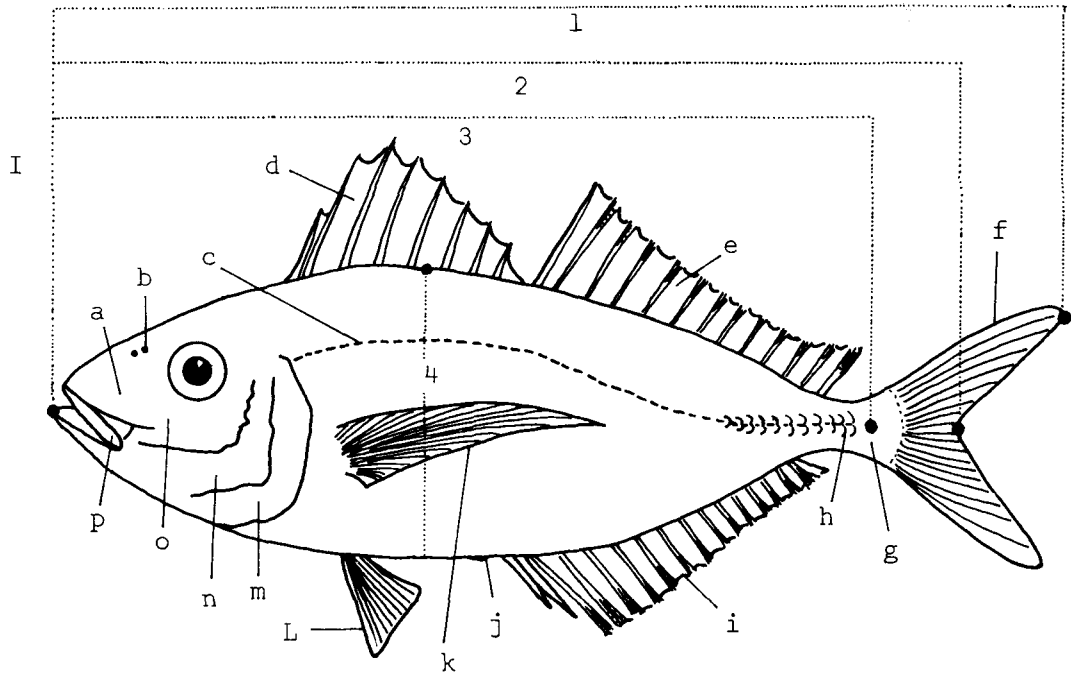
- D = dorsal fin
D₁ = first dorsal fin
D₂¹ = 2nd dorsal fin
e.g. D₁ II, 8-9 = First dorsal fin with two spines and 8 to 9 soft rays.
- A = anal fin
e.g. A II, I, 17-18 = Anal fin with two detached spines followed by one spine and 17 to 18 soft rays.
- P = pectoral fin
e.g. P₁, 17-18 = Pectoral fin with 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:—

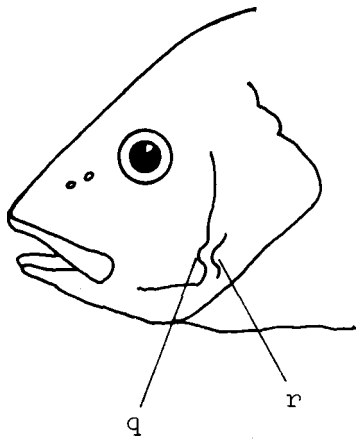
- Adipose fin = fleshy fin with no rays, usually between the dorsal and caudal fins.
Adipose tissue = fatty tissue, sometimes partially covering the eye.
Axillary scale = modified scale found in the axil of fins (usually pelvic fin).
Barbel = an elongate fleshy tentacle-like projection, usually on chin.
Caudal pit = a small depression on dorsal or ventral part of caudal peduncle.
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

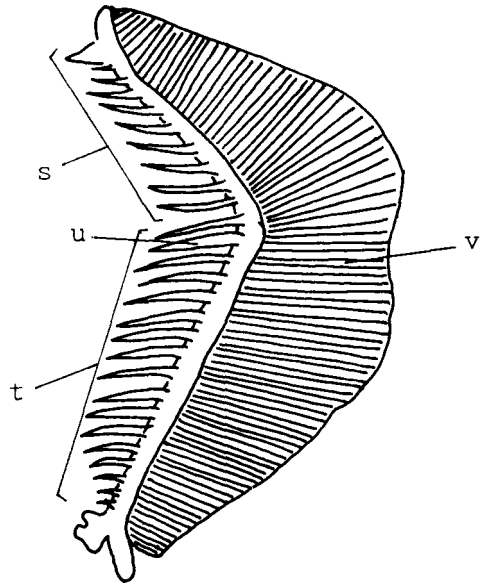
- I. External features of fish.
- II. Position of preopercular notch and interopercular knob
- III. Parts of a gill
- IV. Upper jaw showing palate (roof of mouth)
 - 1. Total length
 - 2. Fork length
 - 3. Body length
 - 4. Depth of body
 - a. preorbital
 - b. nostril
 - c. lateral line
 - d. 1st dorsal 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



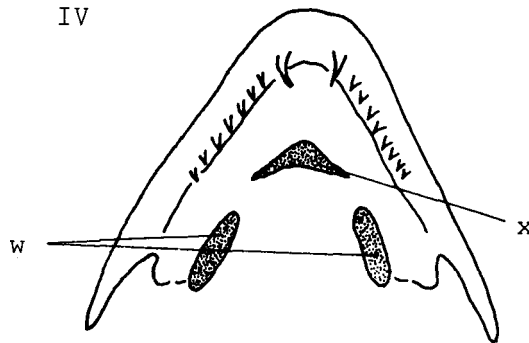
II



III



IV



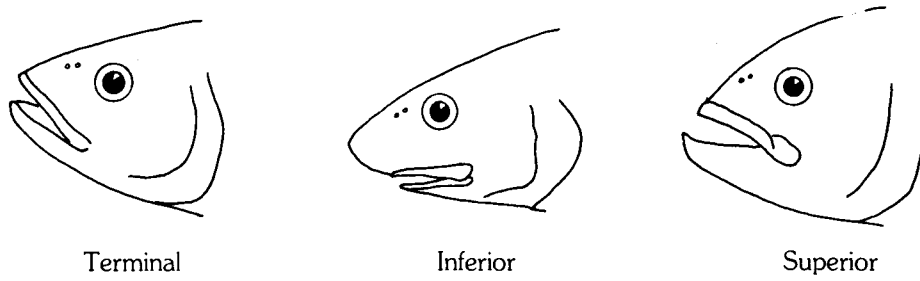


Fig. 2 Terminology for description of position of mouth

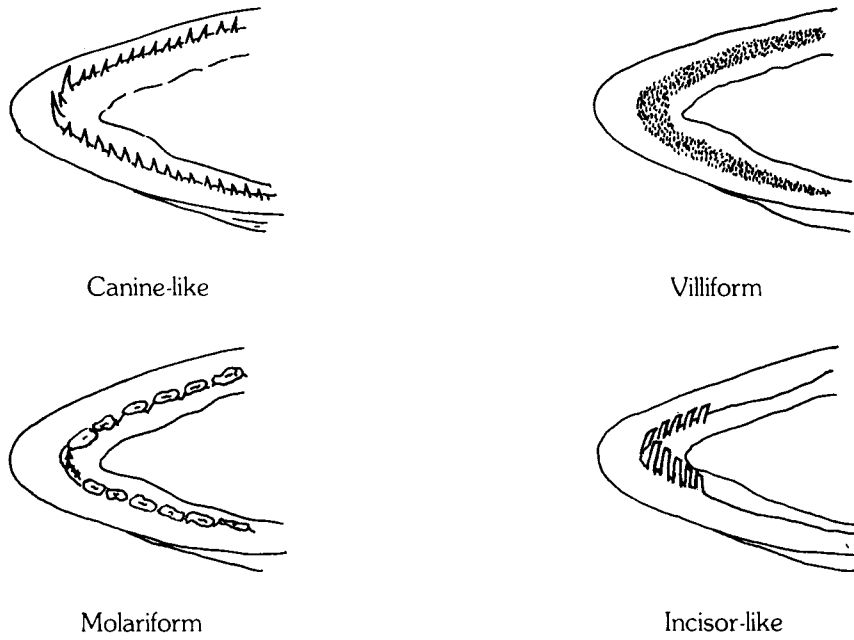


Fig. 3 Terminology to describe that types of mouth

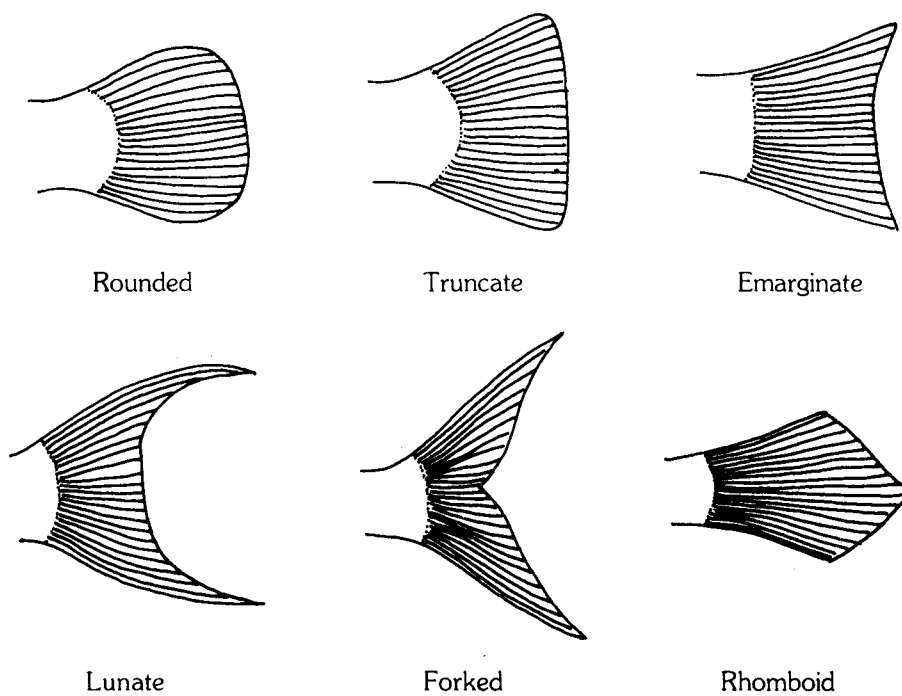


Fig. 4 Terminology to describe the shapes of caudal fin

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* (Forsk.)

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

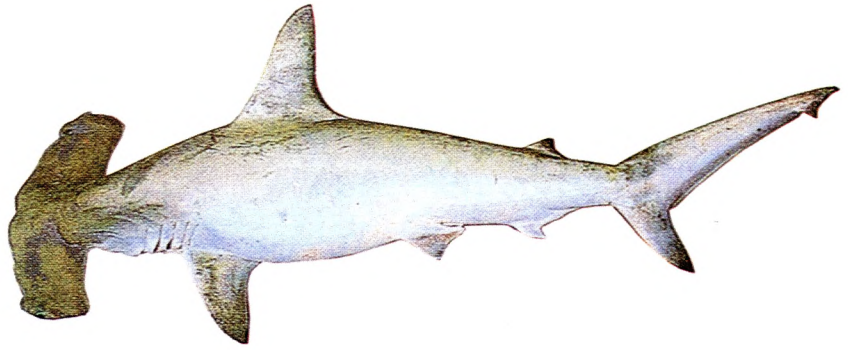
Usage:

Skin can be used for making handbag, wallet & other leather products. BBQ, curry soup, fried with chilli

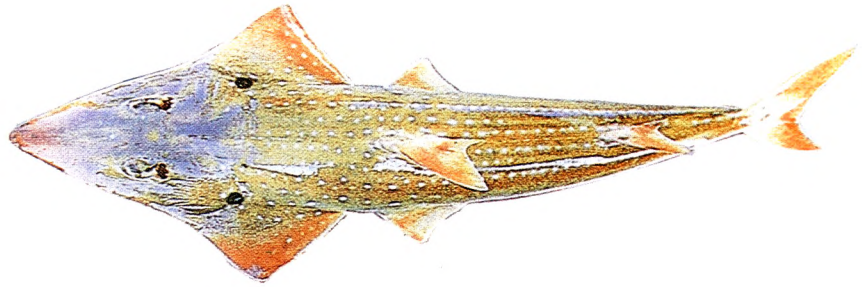
Market:

USA, Thailand, Malaysia, Indonesia, Brunei & Singapore

Sphyrna lewini
(Griffith)



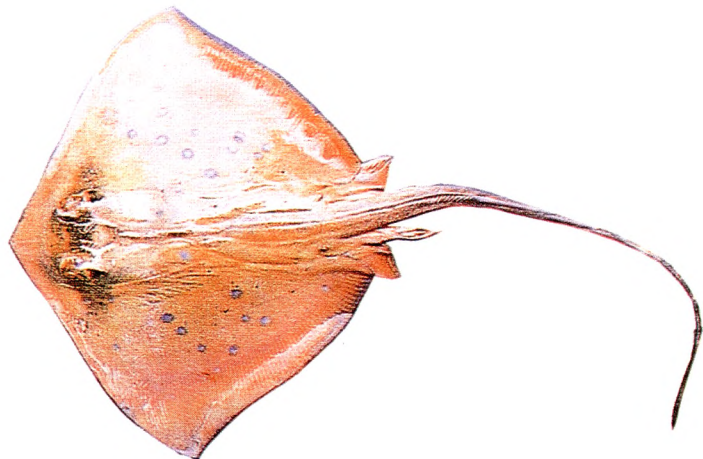
Rhynchobatus djiddensis
(Forsk.)



Gymnura poecilura
Shaw



Dasyatis kuhlii
(Muller & Henle)



Class Osteichthyes

Sub-Class Teleostomi

(Bony fishes)

Fam. **Megalopidae** *Megalops cyprinoides* (Broussonet)

D 17-20, A 23-28,

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)

RD 7209025

Tarpon, Ox-eye

Seasonality:

Rare species

Product presentation:

Whole

Usage:

Soup, curry, asam

Market:

Thailand, Malaysia, Indonesia & Singapore (mainly consumed by Malays)

Fam. **Clupeidae** *Dussumieria hasseltii* Bleeker

D 18-19, A 16

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 with 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; 暹冬 (xiān dōng)

RD 7210072

Sprat, round herring

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,

BL = 13.3 cm

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)

RD 7209011

Gizzard shad

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* (Forsk.)

D 16-18, A 32-36

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)

RD 7209006

Wolf-herring, dorab

Seasonality:

February - October

Products presentation:

Whole, Fish paste or headless or cutlet

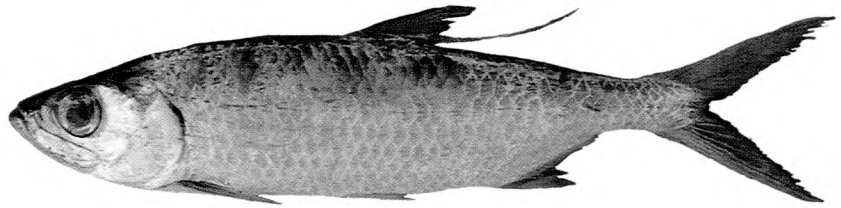
Usage:

Deep-fried, making of fish ball, otak-otak, fillet for raw eating

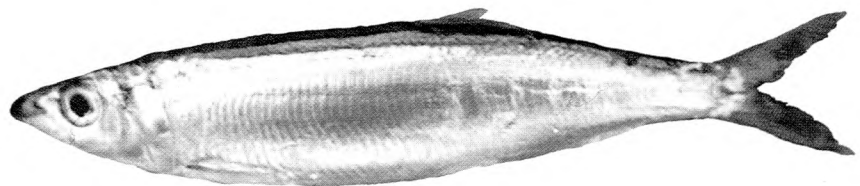
Market:

HongKong, Thailand, Malaysia, Indonesia, Singapore & Brunei

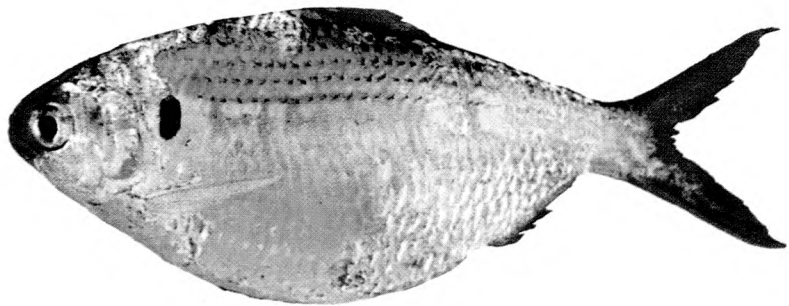
Megalops cyprinoides
(Broussonet)



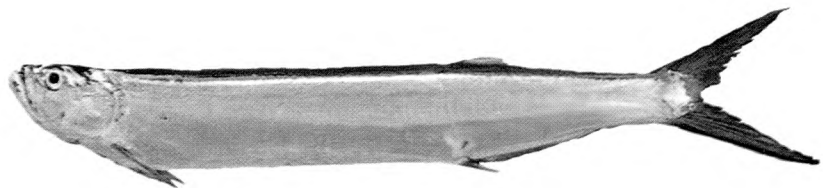
Dussumieria hasseltii
Bleeker



Anodontosoma chacunda
(Hamilton-Buchanan)



Chirocentrus dorab
(Forsk.)



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

Seasonality:
 Rare species

Product presentation:
 Fish paste, pet food

Usage:
 Making of fish ball, otak-otak, animal feed

Market:
 Thailand, Malaysia, Indonesia & Singapore

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; 隔目 (kuò mù)

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

Seasonality:
 Rare species

Products presentation:
 Fish paste, pet food

Usage:
 Making of fish ball, otak-otak, animal feed

Market:
 Thailand, Malaysia, Indonesia & Singapore

Body compressed but elongate. Depth 3 1/2-4, 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)

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

Seasonality:
 Rare species

Products presentation:
 Fish paste, pet food

Usage:
 Making of fish ball, otak-otak, animal feed

Market:
 Thailand, Malaysia, Indonesia & Singapore

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)

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

Seasonality:
 Whole year round

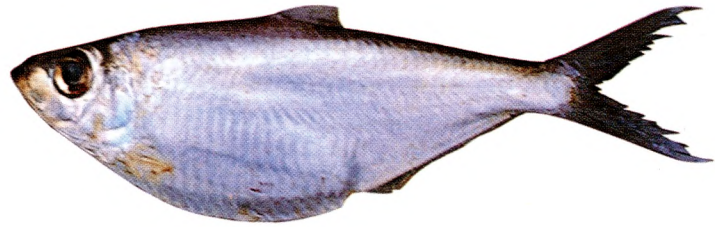
Products presentation:
 Whole, whole dried or dried fillet boneless

Usage:
 Soup, deep-fried with salt or sugar raw eating

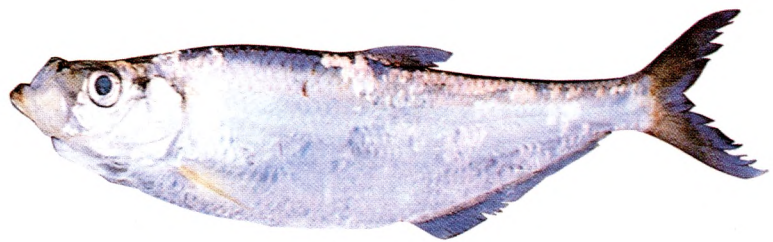
Market:
 China, Japan, Thailand, Taiwan, Vietnam, Indonesia, Malaysia, Singapore, Korea, HongKong

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)

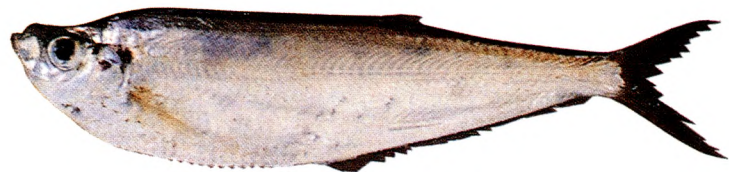
Pellona ditchela
(Valenciennes)



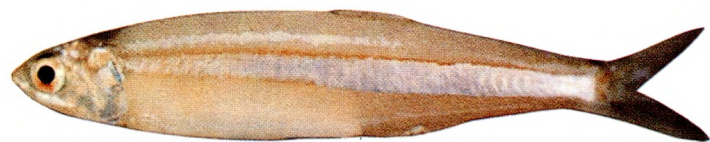
Ilisha elongata
(Bennet)



Opisthopterus tardoore
(Cuvier)

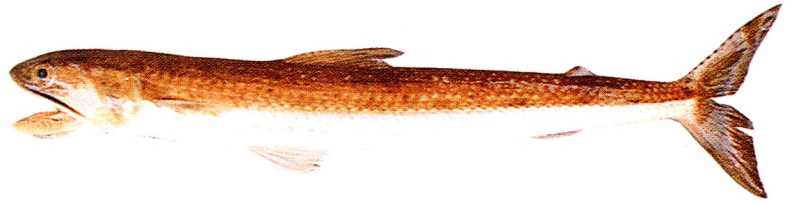


Stolephorus indicus
(Van Hasselt)



<p>Fam. Synodontidae <i>Saurida undosquamis</i> (Richardson) D 11-12; A 10-12; P 14-15 BL = 22.0 cm</p>	<p>RD 7209068 Lizardfish</p>	<p>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</p>
.....		
<p>Fam. Synodontidae <i>Saurida tumbil</i> (Bloch) D 11-13; A 10-11; P 14-15 BL = 26.5 cm</p>	<p>RD 7206007 Lizardfish</p>	<p>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</p>
.....		
<p>Fam. Synodontidae <i>Synodus hoshinonis</i> Tanaka D 12-13; A 8-10; P 12-13 BL = 12.4 cm</p>	<p>RD 7209047 Lizardfish</p>	<p>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</p>
.....		
<p>Fam. Synodontidae <i>Trachinocephalus myops</i> (Bloch & Schneider) D 11-13; A 15-16; P 12-13 BL = 17.6 cm .</p>	<p>RD 7206042 Bluntnose lizardfish</p>	<p>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</p>

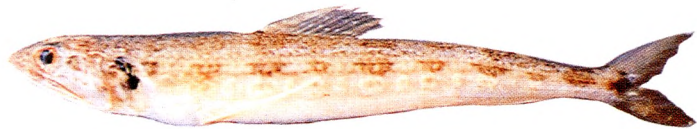
Saurida undosquamis
(Richardson)



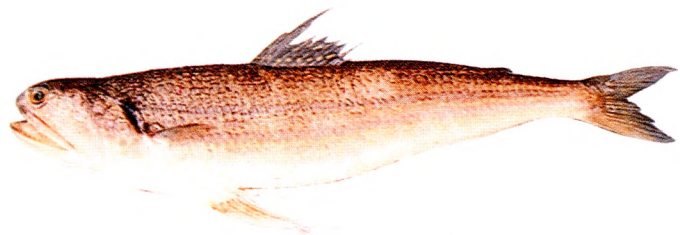
Saurida tumbil
(Bloch)



Synodus hoshinonis
Tanaka



Trachinocephalus myops
(Bloch & Schneider)



<p>Fam. Ariidae <i>Arius argyroleuron</i> (Valenciennes) D 17, A 19-20 BL = 29.1 cm</p> <p>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.</p> <p>Indigenous names: Duri; 乌皮成 (wū pí chéng)</p>	<p>RD 7401012 Catfish</p>	<p>Seasonality: Whole year round</p> <p>Product presentation: Whole, headless, or fillet</p> <p>Usage: Salted fish, soup, fish burger, breaded products</p> <p>Market: Saudi Arabia, Middleast, India, Blangadesh, Pakistan, Thailand, Malaysia, Brunei & Singapore</p>
---	--------------------------------	---

<p>Fam. Ariidae <i>Arius thalassinus</i> (Ruppell) D 17, A 15-18 BL = 34.0 cm</p> <p>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.</p> <p>Indigenous names: Jahan, Goh, Duri; 占茨成 (zhān cǐ chéng); 白成 (bái chéng)</p>	<p>RD 7209028 Giant catfish</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, headless, or fillet</p> <p>Usage: Salted fish, soup, fish burger, breaded products</p> <p>Market: Saudi Arabia, Middleast, India, Blangadesh, Pakistan, Thailand, Malaysia, Brunei & Singapore</p>
---	--------------------------------------	--

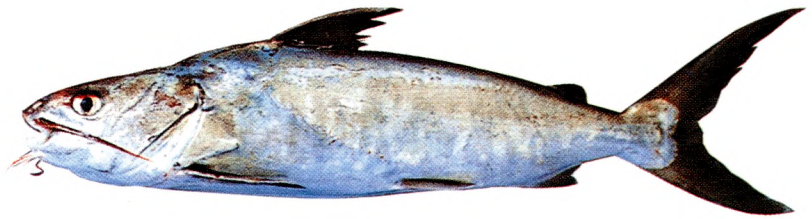
<p>Fam. Ariidae <i>Osteogeneiosus militaris</i> (Linnaeus) D 17, A 19-21, P 19-10 BL = 32.7 cm</p> <p>Body elongate, head strongly depressed, with projecting upper jaw. Depth 5.5-6, head about 3.5 times in length. One pair of stiff, bony maxillary barbels, extending to the base of the pectorals. Base 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.</p> <p>Indigenous names: Duri monchong; 黄枝成 (huāng zhī chéng)</p>	<p>RD 7401014 Soldier catfish</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, headless, or fillet</p> <p>Usage: Salted fish, soup, fish burger, breaded products</p> <p>Market: Saudi Arabia, Middleast, India, Blangadesh, Pakistan, Thailand, Malaysia, Brunei & Singapore</p>
---	--	--

<p>Fam. Plotosidae <i>Plotosus anquillaris</i> (Bloch) D 1 14-5, D 2 80-100, A 70-77 TL = 14.2 cm</p> <p>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.</p> <p>Indigenous names: Usat; 沙麻 (shā má)</p>	<p>RD 7210042 Striped catfish eel</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, headless, or live fish</p> <p>Usage: Soup, fried with chilli</p> <p>Market: Southeast Asia</p>
--	--	--

Arius argyropleuron
(Valenciennes)



Arius thalassinus
(Ruppell)



Osteogeneiosus militaris
(Linnaeus)



Plotosus anquillaris
(Bloch)



<p>Fam. Muraenesocidae <i>Congresox talabonoides</i> (Bleeker) TL = 96.2</p>	<p>RD 7209085 Pike-conger eel</p>	<p>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</p>
<p>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 occurring 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, bottom-long-line, South China Sea, 74-92 m. Indigenous names: Malong; 麻鱼 (mā yú)</p>		
<p>Fam. Sphyraenidae <i>Sphyraena langsar</i> Bleeker D₁ V D₂ I, 8-9; A II, 8-9 BL = 20.0 cm</p>	<p>RD 7209034 Barracuda</p>	<p>Seasonality: April to September Products presentation: Whole, headless, or butterfly cut Usage: Surimi, tempura, fish ball & fish based products Market: Japan, HongKong, Malaysia, Singapore</p>
<p>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)</p>		
<p>Fam. Sphyraenidae <i>Sphyraena jello</i> (Cuvier) D₁ V, D₂ I, 8-9; A II 8 BL=98.0 cm</p>	<p>RD 7209024 Barracuda Banded barracuda</p>	<p>Seasonality: Whole year round Products presentation: Whole, fillet or cutlet Usage: Soup, fish & chips Market: Japan, Taiwan, Thailand, Malaysia, India Indonesia & Singapore</p>
<p>Body elongate, slightly compressed, Depth 6.5-9, head about 3-3.5 times in length of body. Snout pointed with lower jaw projecting beyond 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)</p>		
<p>Fam. Sphyraenidae <i>Sphyraena obtusata</i> Cuvier D₁ V, D₂ I, 9; A II-III, 8-9 BL = 21.5 cm</p>	<p>RD 7212051 Obtuse barracuda</p>	<p>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</p>
<p>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)</p>		

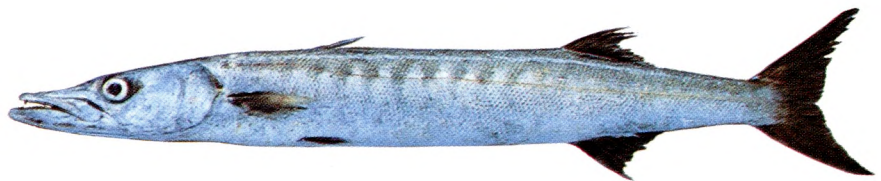
Congresox talabonoides
(Bleeker)



Sphyraena langsar
Bleeker



Sphyraena jello
(Cuvier)

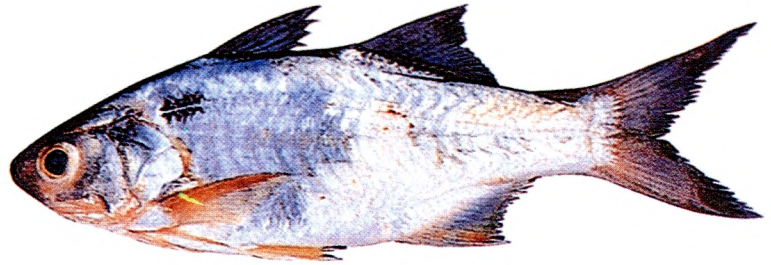


Sphyraena obtusata
Cuvier

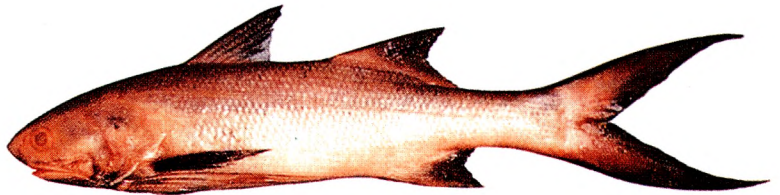


<p>Fam. Polynemidae <i>Polynemus sextarius</i> Bloch D₁ VIII, D₂ I, 12-14; A II-III, 12-13 BL = 14.6 cm</p> <p>Body oblong, compressed. Depth 3-3.2 Snout prominent, projecting well beyond the mouth. Mouth moderately large, upper lip feebly developed, lower lip well developed. Eyes large 3.0-3.8 in head, 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.</p> <p>Indigenous names: Senangin; 午荀 (wǔ xūn)</p>	<p>RD 7212043 Blackspot threadfin</p>	<p>Seasonality: Rare species</p> <p>Product presentation: Whole</p> <p>Usage: Steamed fish</p> <p>Market: HongKong</p>
<p>Fam. Polynemidae <i>Polynemus indicus</i> Shaw D₁ VIII, D₂ I, 13-14; AII-III 11-12 BL = 51.0 cm</p> <p>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.</p> <p>Indigenous names: Kurau, Senangin; 顺风午 (shùn fēng wǔ); 钓午 (diào wǔ)</p>	<p>RD 7509001 Threadfin</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, headless, fillet, maw, head & tail</p> <p>Usage: Fish & chips, curry fish head, steamed tail, maw for soup</p> <p>Market: HongKong, Taiwan, Malaysia, Singapore</p>
<p>Fam. Scombridae <i>Rastrelliger kanagurta</i> (Cuvier) D₁ VIII-XI, D₂ 11-12; A11-12 BL = 17.8</p> <p>Body slightly compressed, tapering. Depth 3.54. Head longer than body depth Mouth 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.</p> <p>Indigenous names: Kembong; 甘望 (gān wàng)</p>	<p>RD 7209010 Indian mackerel</p>	<p>Seasonality: March to September</p> <p>Products presentation: Whole, or gilled & gutted</p> <p>Usage: Cooked, steamed, deep-fried, curry & asam</p> <p>Market: Thailand, Malaysia, Singapore, Saudi & Middle East countries & Brunei</p>
<p>Fam. Scombridae <i>Rastrelliger brachysoma</i> (Bleeker) D₁ VIII-XI, D₂ 10-13; A 9-12 BL = 203 cm</p> <p>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.</p> <p>Indigenous names: Kembong; 巴株 (bā zhū); 巴都 (bā dōu)</p>	<p>RD 7212035 Short-bodied mackerel</p>	<p>Seasonality: March to September</p> <p>Products presentation: Whole, or gilled & gutted</p> <p>Usage: Cooked, steamed, deep-fried & asam</p> <p>Market: Middle East countries, Thailand, Malaysia, Brunei & Singapore</p>

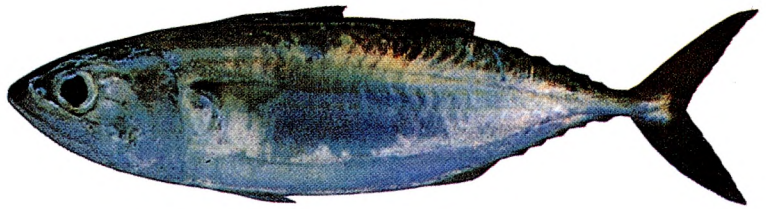
Polynemus sextarius
Bloch



Polynemus indicus
Shaw



Rastrelliger kanagurta
(Cuvier)



Rastrelliger brachysoma
(Bleeker)



<p>Fam. Scombridae <i>Scomberomorus guttatus</i> (Bloch & Schneider) D₁XV-XVI, D₂IV, 14-16; A 14-18 BL = 28.0 cm</p> <p>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.</p> <p>Indigenous names: Tenggiri papan; 马鲛 (mǎ jiāo)</p>	<p>RD 7209007 Spotted spanish mackerel Indo-Pacific spanish mackerel</p>	<p>Seasonality: February to October</p> <p>Product presentation: Whole, headless, or fillet</p> <p>Usage: Deep-fried, fish ball, fish paste for "Yong tau foo" & otak-otak</p> <p>Market: HongKong, China, Japan, Malaysia, Singapore & Taiwan</p>
---	--	--

<p>Fam. Scombridae <i>Scomberomorus commerson</i> (Lacepede) D₁ XV-XVII, D₂ 14-17; A 14-17 BL = 62.5 cm</p> <p>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).</p> <p>Indigenous names: Tenggiri batang; 峇冬 (bā dōng)</p>	<p>RD 7301002 Barred spanish mackerel</p>	<p>Seasonality: February to October</p> <p>Products presentation: Whole, headless, fillet, or cutlet</p> <p>Usage: Deep-fried, fish paste for otak otak, & curry</p> <p>Market: China, HongKong, Taiwan, USA, Japan, Thailand, Malaysia, Singapore</p>
--	--	--

<p>Fam. Trichiuridae <i>Trichiurus lepturus</i> Linnaeus D 127-133; A75-80 TL = 78.5 cm</p> <p>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.</p> <p>Indigenous names: Timah, Selayur, Langai; 黄鳍白带 (huáng qī bái dài)</p>	<p>RD 7210007 Hairtail, Ribbonfish</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole or cutlet</p> <p>Usage: Surimi, deep-fried</p> <p>Market: China, Hongkong, Taiwan, Japan, Korea</p>
--	--	--

<p>Fam. Trichiuridae <i>Tentoriceps cristatus</i> (Klunzinger) D V, 126-144; A I 82-91</p> <p>Body ribbon-like, elongated. Depth 17-24. Upper profile of head convex, a steep continuous 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.</p> <p>Indigenous names: 白带仔 (bái dài zǐ)</p>	<p>RD 7210006 Crested hairtail</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole</p> <p>Usage: Surimi</p> <p>Market: China, Korea, Japan</p>
--	---	--

Scomberomorus guttatus
(Bloch & Schneider)



Scomberomorus commerson
(Lacepede)



Trichiurus lepturus
Linnaeus



Tentoriceps cristatus
(Klunzinger)



<p>Fam. Carangidae <i>Decapterus russelli</i> (Ruppell) D₁VIII, D₂I 30-31; A II, I 24-27 BL = 18.2 cm</p>	<p>RD 7209044 Round scad</p>	<p>Seasonality: Whole year round Product presentation: Whole or headless Usage: Canning, fish bait Market: Thailand, China, Philippine, Middle East Countries</p>
.....		
<p>Fam. Carangidae <i>Decapterus macrosoma</i> Bleeker D₁I, VIII, D₂I, 31-34; A II, I 27-30 BL = 17.8 cm</p>	<p>RD 7209045 Round scad</p>	<p>Seasonality: Whole year round Products presentation: Whole or headless Usage: Canning, fish bait Market: China, Thailand, Philippine & Middle East</p>
.....		
<p>Fam. Carangidae <i>Megalaspis cordyla</i> (Linnaeus) D₁I, VIII, D₂I, 10-11; A II, I, 8-10 BL = 24.0 cm</p>	<p>RD 7212033 Torpedo, Hard-tail</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Salted fish, BBQ Market: Thailand, Malaysia, Middle East Countries</p>
.....		
<p>Fam. Carangidae <i>Selar crumenophthalmus</i> (Bloch) D₁I, VIII, D₂I, 23-26; A II, I 20-23 BL = 20.0 cm</p>	<p>RD 7209042 Big eye scad</p>	<p>Seasonality: Whole year round Products presentation: Whole, gutted, or butterfly cut Usage: Cooked, deep-fried Market: Japan, Thailand, Malaysia, Singapore & Middle East countries</p>

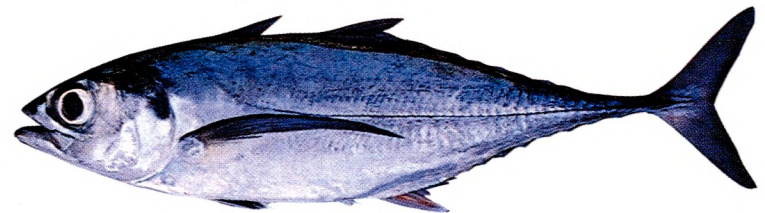
Decapterus russelli
(Ruppell)



Decapterus macrosoma
Bleeker



Megalaspis cordyla
(Linnaeus)



Selar crumenophthalmus
(Bloch)



Fam. **Carangidae** *Alepes* (= Selar) *kalla* (Cuvier) RD 7209012
 D11,VIII,D21 23-34; A II, 18-20 Scad, crevalle
 BL = 12.2 cm

Seasonality:
 Rare species

Product presentation:
 Whole

Usage:
 Deep fried, salted fish

Market:
 Thailand, Malaysia & Middle East Countries

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 occasional 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)

Fam. **Carangidae** *Alepes* (=Selar malam) *melanoptera* Swainson RD 7209008
 D11,VIII,D21 23-34; AII, I 20-21 Blackfin crevalle, scad
 BL = 19.2 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, gutted

Usage:
 Fried or asam

Market:
 Taiwan, Malaysia, Singapore

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)

Fam. **Carangidae** *Atule* (=Selar) *mate* (Cuvier) RD 7209043
 D11, VIII, I-22-24; A II, I 19-21 One-finlet scad
 BL = 19.0 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, gutted

Usage:
 Fried

Market:
 Thailand, China, Taiwan, Malaysia, Singapore, Middle East

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 (wū lǎo sè là)

Fam. **Carangidae** *Selaroides leptolepis* Valenciennes RD 7209013
 D11,VIII,D21, 24-25; A II, I, 20-21 Yellow-banded scad
 BL = 12.9 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, Butterfly cut

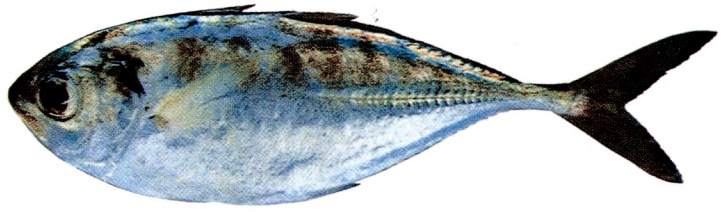
Usage:
 Tempura, Nasi Lemak, Fried Satay Fish

Market:
 Japan, Malaysia, Korea, Singapore, Korea

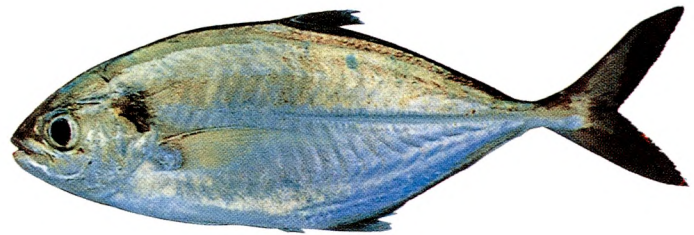
Body oblong compressed, depth 3.2-3.5 Eyes large 3.2-3.5 in head. Lateral line scarcely arched, straight portion one-third of lateral line, with 25-34 weak scutes. Breast with small, but conspicuous scales. No teeth in upper jaw. Characteristic golden lateral band on sides. One of most abundant and popular 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)

Alepes (= Selar) kalla
(Cuvier)



Alepes (=Selar malam) melanopectera
Swainson



Atule (=Selar) mate
(Cuvier)



Selaroides leptolepis
Valenciennes



Fam. **Carangidae** *Alectis indicus* (Ruppell) RD 7209016
 D₁,VI,D₂I,19;A II, I, 16 Threadfin trevally
 BL = 7.6 cm (juvenile)

Seasonality:
 Whole year round

Product presentation:
 Whole, fillet, steak

Usage:
 Steamed, fried, soup, curry

Market:
 Asian countries

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 size 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 jǐng yú)

Fam. **Carangidae** *Aletis ciliaris* (Bloch) RD 7210059
 D₁VI,D₂I 19-22; A II, I, 15-17 Threadfin trevally
 BL = 10.2 cm (juvenile)

Seasonality:
 Whole year round

Products presentation:
 Whole, fillet, steak

Usage:
 Steamed, fried, soup, curry

Market:
 Asian countries

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)

Fam. **Carangidae** *Atropus atropus* (Bloch) RD 7206054
 D₁I, VIII, D₂I 21-222; A II, I, 17-18 Kuweh trevally
 BL = 12.3 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, fillet, steak

Usage:
 Steamed, fried, soup, curry

Market:
 Asian countries

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)

Fam. **Carangidae** *Uraspis carangoides* Bleeker RD 7210058
 D₁I,VIII,D₂I 28; A II, I, 21 White tongue crevalle
 BL = 13.3 cm

Seasonality:
 Whole year round

Products presentation:
 Whole

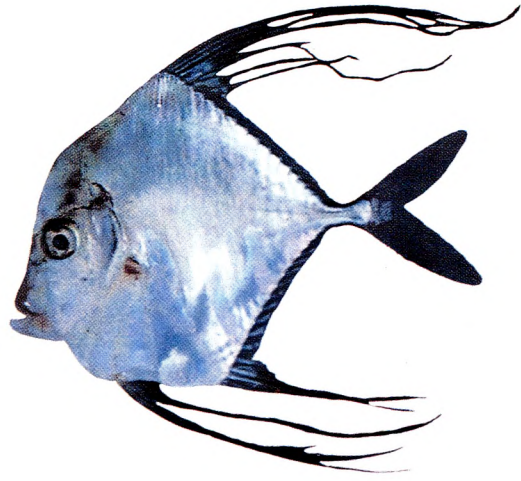
Usage:
 Fried, curry

Market:
 Asian countries

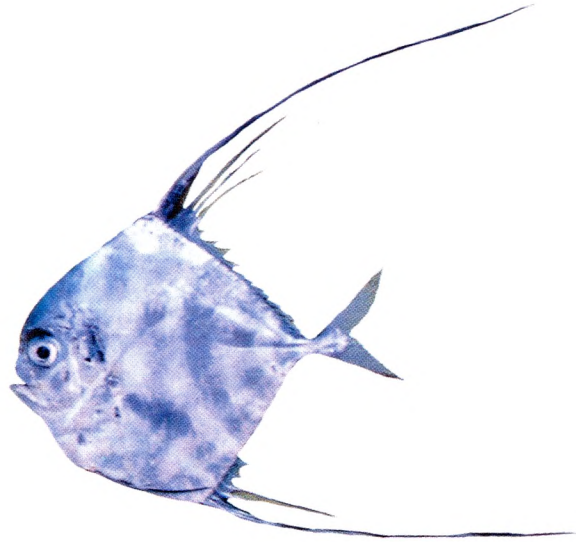
Body oblong, compressed. Depth about 2.5, scales minute, breast without scales. Characterised by the distinctive colour pattern of close set dusky black bands and black fins. Tongue milky white, sharply contrasting with the surrounding black membrane. Caught by trawls, not common. Trawl off Pulau Tioman, South China Sea, 66-70 m.

Indigenous names: 针姑 (zhēn gū); 乌水晶 (wū shuǐ jīng)

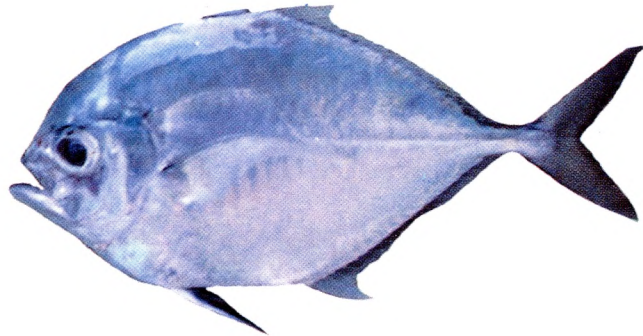
Alectis indicus
(Ruppell)



Aletis ciliaris
(Bloch)



Atropus atropus
(Bloch)



Uraspis carangoides
Bleeker



Fam. **Carangidae** *Carangoides malabaricus* (Bloch & Schneider) RD 72060370
 D₁I, VIII, D₂I, 21-22; A II, I, 18-19 Malabar cavalla,
 BL = 18.4 cm Malabar trevally

Seasonality:
 Whole year round

Product presentation:
 Whole, steak

Usage:
 Steamed, fried, soup, curry

Market:
 Asian countries

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)

Fam. **Carangidae** *Carangoides armatus* (Forsk.) RD 7212004
 D₁I, VIII, D₂I, 20-22; A II, I, 16-18 Long-finned trevally
 BL = 18.4 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, steak

Usage:
 Steamed, fried, soup, curry

Market:
 Asian countries

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 filaments. 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)

Fam. **Carangidae** *Carangoides chrysophrys* Valenciennes RD 7209075
 D₁I, VIII, D₂I, 18-21; A II, I, 15-17 Longnose cavalla,
 BL = 47.0 cm Longnose trevally

Seasonality:
 Whole year round

Products presentation:
 Whole, headed-gutted, fillet, steak

Usage:
 Fried, soup, curry

Market:
 Asian countries

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 with 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. Bottom long-line, off Sarawak, South China Sea, 68-70 m, vertical handline, Adaman Sea and South China Sea. Indigenous names: Sagai; 乌脚靴 (wū jiǎo xuē); 白肉青针 (bái ròu qīng zhēn)

Fam. **Carangidae** *Carangoides gymnostethoides* Bleeker RD 7206070
 D₁I, VII-VIII, D₂I, 28-31; A II, I, 24-26 Bludger trevally
 BL = 61.0 cm

Seasonality:
 Whole year round

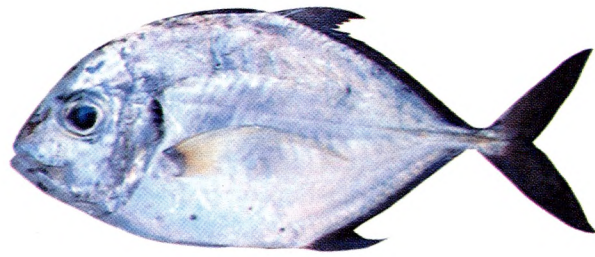
Products presentation:
 Whole, steak

Usage:
 Steamed, fried, soup, curry

Market:
 Asian countries

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)

Carangoides malabaricus
(Bloch & Schneider)



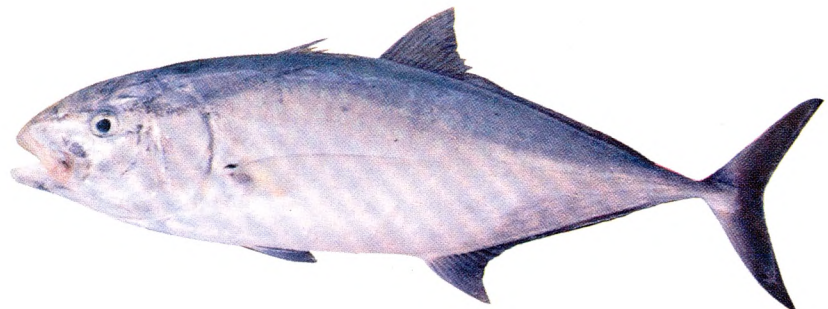
Carangoides armatus
(Forsk.)



Carangoides chrysophrys
Valenciennes



Carangoides gymnostethoides
Bleeker



Fam. **Carangidae** *Scomberoides* (=Chorinemus) *toi* Cuvier RD 7210075
 D₁I, VII, D₂I, 19-21; A II, I, 18-20 Queenfish
 BL = 18.4 cm 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 second 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 religious 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 (pí dāo)

Fam. **Carangidae** *Scomberoides* (=Chorinemus) *commersonianus* RD 7212030
 Lacepede Talang queenfish
 D₁I, VII, D₂I, 19-20; A II, I, 18 Spotted leatherskin
 BL = 45.5 cm

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) RD 7206072
 D₁I, V-VII, D₂I, 31-35; A II, I, 15-17 Black-banded trevally,
 BL = 22.0 cm 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, caught 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) RD 7304003
 D₁VI, D₂I, 24-27; A II, I, 15-17 Rainbow runner
 BL = 48.6 cm

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Not commonly used

Market:
 Limited

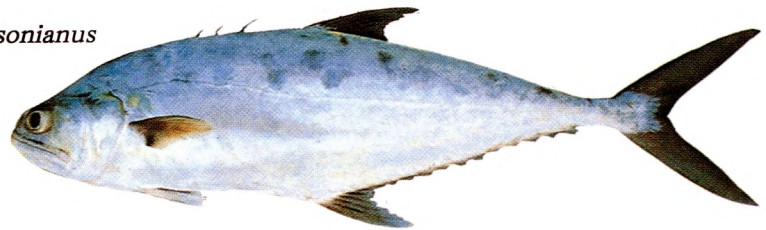
Body long and slender, subcylindrical, abdomen rounded. Depth 3-5. Head long and pointed, mouth small, upper jaw not reaching to below eye. Jaws with small villiform teeth. Gill rakers 25-26. Lateral line slightly curved anteriorly, no scutes present. One 2-rayed finlet behind dorsal and anal fins. Pectorals short. Characteristic 2 narrow blue bands on sides with a broad yellow band between. Large pelagic fishes, preferring open tropical oceans, especially around coral and rocky reefs. Mostly caught 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)

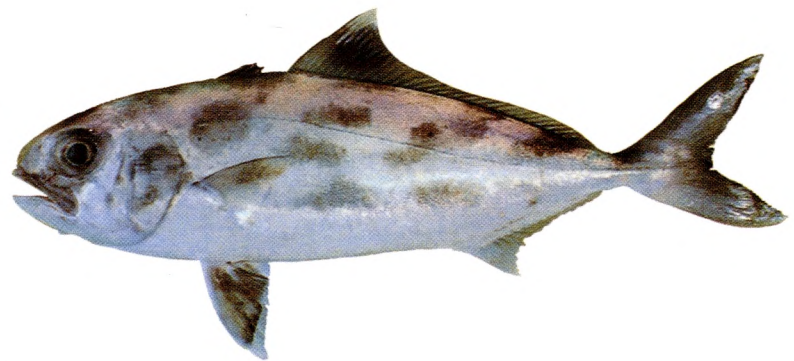
Scomberoides (=Chorinemus) tol
Cuvier



Scomberoides (=Chorinemus) commersonianus
Lacepede



Seriolina (=Zonichthys) nigrofasciata
(Ruppell)



Elagatis bipinnulatus
(Quoy & Gaimard)

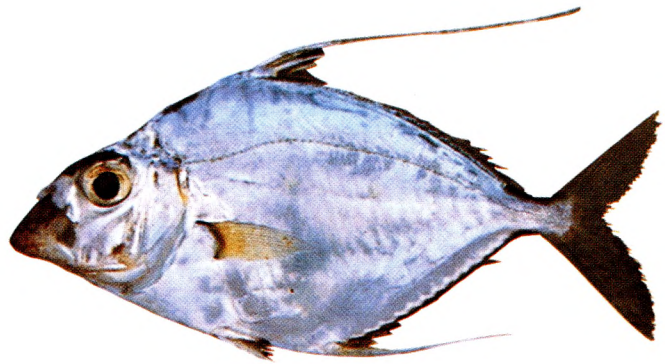


<p>Fam. Leiognathidae <i>Leiognathus elongatus</i> (Gunther) D VIII, 15-16' A II 14 BL = 9.3 cm</p>	<p>RD 7509005 Slender ponyfish</p>	<p>Seasonality: Whole year round Product presentation: Whole Usage: Fish meal and trash fish Market: Limited</p>
<p>Body elongate, slender, slightly compressed. Depth 3. A backward directing spine (nuchal spine) on forehead (characteristic of genus). Head naked, small scales on cheek and breast. Mouth protractile, directed downwards. No canine 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.</p>		
<p>Indigenous names: Kekek; 青花莲 (qīng huā lián)</p>		
<p>Fam. Leiognathidae <i>Leiognathus smithursti</i> (Ramsay & Ogilby) D VIII, 15-16; A III 14 BL = 12.7 cm</p>	<p>RD 7212013 Smithursti's ponyfish</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Steamed, curry asam Market: Asian countries</p>
<p>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 shallow 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.</p>		
<p>Indigenous names: Kekek; 格格 (gé gé)</p>		
<p>Fam. Leiognathidae <i>Leiognathus bindus</i> (Valenciennes) D VIII, 16-17; A III 14 BL = 7.9 cm</p>	<p>RD 7209067 Orangefin ponyfish</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Fish meal Market: Limited</p>
<p>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. Fins 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.</p>		
<p>Indigenous names: Kekek; 金钱花 (jīn qián huā)</p>		
<p>Fam. Leiognathidae <i>Leiognathus leuciscus</i> (Gunther) D VIII, 15-16; A III 14 BL = 20.0 cm</p>	<p>RD 7212011 Whipfin ponyfish</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Fish meal Market: Limited</p>
<p>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.</p>		
<p>Indigenous names: Kekek; 白花莲 (bái huā lián)</p>		
<p>Fam. Leiognathidae <i>Leiognathus equulus</i> (Forsk.) D VIII, 16; A III 14 BL = 15.5 cm</p>	<p>RD 7212012 Common ponyfish</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Steamed, curry asam Market: ASEAN countries</p>
<p>Body ovate, moderately compressed. Depth 1.7-1.8. Head naked, nuchal spine present. Mouth protractile, directed downwards. Common in coastal and brackish waters. Caught by trawls. Largest of the leiognathids. Common food fish. Usual size 12-16 cm, maximum 22 cm. Trawl, Andaman Sea, 46-48 m.</p>		
<p>Indigenous names: Kekek; 深水格格 (shēn shuǐ gé gé)</p>		

Leiognathus elongatus
(**Gunther**)



Leiognathus smithursti
(**Ramsay & Ogilby**)



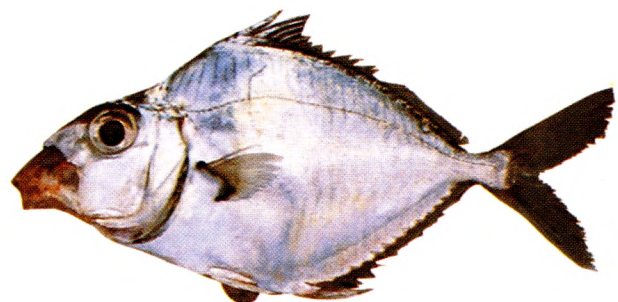
Leiognathus bindus
(**Valenciennes**)



Leiognathus leuciscus
(**Gunther**)



Leiognathus equulus
(**Forsk.**)



Fam. **Rachycentridae** *Rachycentron canadus* (Linnaeus) RD 7209077
 D₁VII-IX, D₂III-IV, 30-33; A II-III, 23-25 Black Kingfish, Cobia
 BL = 66.8 cm

Seasonality:
 Whole year round

Product presentation:
 Whole, steak, fillet

Usage:
 Not commonly used

Market:
 Limited

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; 海鲷 (hǎi lèi)

Fam. **Lactaridae** *Lactarius lactarius* (Bloch) RD 7212037
 D₁VII-VIII, D₂I, 20-22; A III, 25-28 Whitefish,
 BL = 14.7 cm False trevally

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Not commonly used

Market:
 Limited

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. Ana] 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 yú)

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

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Not commonly used

Market:
 Limited

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; 阔荆刀 (kuò jīng dāo)

Fam. **Nomeidae** *Ariomma* (= *Psenes*) *indica* (Day) RD 7209032
 D₁X,D₂I 14-16; A III,13-15 Butterfish
 BL = 12.0 cm

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Pan fried

Market:
 Limited

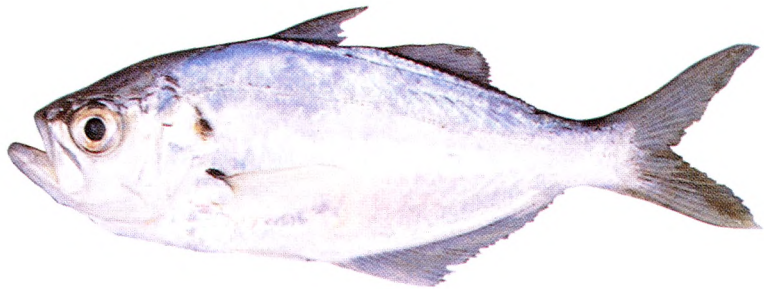
Body elongate oval, compressed. Depth 2.3-2.5. Mouth small, oblique, not protractile. Dorsal fin deeply notched, almost separated into two fins. Caudal forked. Caught by trawl, sometimes in large numbers, usually in deep tropical waters. Of minor commercial importance. Attains 23 cm. Trawl, off Pulau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

Indigenous names: Memtimah; 肉鱼 (ròu yú)

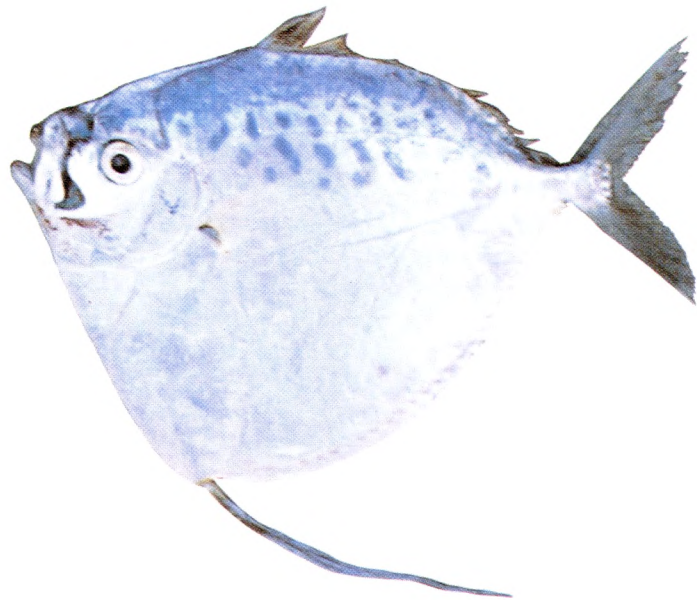
Rachycentron canadus
(Linnaeus)



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

Seasonality:
 Whole year round

Product presentation:
 Whole

Usage:
 Pan fried

Market:
 Asian market

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)

Fam. **Formionidae** *Formio niger* (Bloch) RD 7509012
 D₁IV,D₂I,41-46; AII 35-40 Black pomfret
 BL = 16.5 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen

Usage:
 Pan fried

Market:
 Asian market

Body fairly deep and compressed. Depth 1.8-2.2. Gill openings extend to underside of head. Dorsal and anal fins about equal. Pectoral fin long, sickle-shaped. Pelvics well developed in juveniles, absent in adults. Caudal deeply forked. Caudal rounded 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; 乌鲷 (wū chāng)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, fillet, frozen

Usage:
 Steamed, fish soup, fish porridge

Market:
 Asian market

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; 长鳍鲷 (cháng qí chāng); 白鲷 (bái chāng)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, fillet, frozen

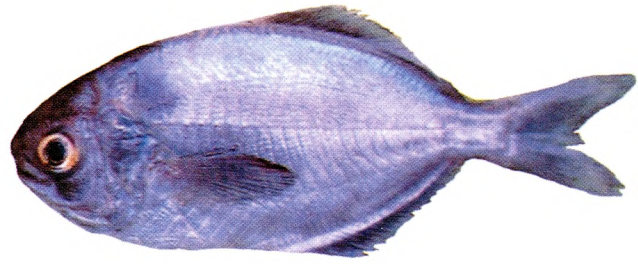
Usage:
 Steamed, fish soup, fish porridge

Market:
 Asian market

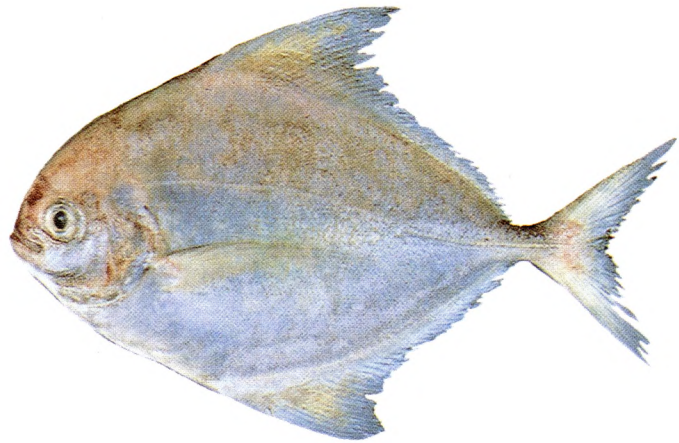
Body very deep and compressed. Depth 1-1.3. Gill opening restricted to a vertical slit in front of pectoral fin base. No embedded spines in front of dorsal and anal fins. Anterior part of dorsal and anal moderately falcate, the posterior part with rays decreasing in length gradually. Caudal fin emarginate 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 common 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; 斗鲷 (dòu chāng); 斗底 (dòu dī)

Psenopsis anomala
(Temminck & Schlegel)



Formio niger
(Bloch)



Pampus argenteus
(Euphrasen)

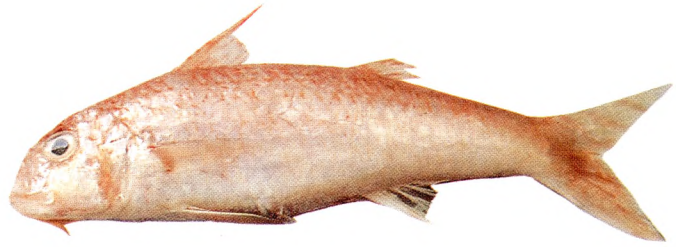


Pampus chinensis
(Euphrasen)



Fam. Mullidae	<i>Upeneus</i> (Pennon) <i>bensasi</i> Temminck & Schlegel D ₁ VIII, D ₂ I, 8; A I, 6 BL = 9.8 cm	RD 7209019 Red mullet, Goatfish	Seasonality: Whole year round Product presentation: Whole Usage: Fish meal and trash fish Market: Limited
<p>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 (hōng yú)</p>			
Fam. Mullidae	<i>Upeneus</i> (Pennon) <i>tragula</i> Richardson D ₁ VIII, D ₂ I, 8; A I, 6-7 BL = 15.0 cm	RD 7210003 Red mullet, Goatfish	Seasonality: Whole year round Products presentation: Whole Usage: Fish meal, little commercial value Market: Limited
<p>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 <i>Upeneus bensasi</i>. 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 hōng yú); 正红鱼 (zhèng hōng yú)</p>			
Fam. Mullidae	<i>Upeneus</i> <i>moluccensis</i> Bleeker D ₁ VIII, D ₂ I, 8; A I, 6 BL = 16.0 cm	RD 7209062 Gold-banded Goatfish	Seasonality: Whole year round Products presentation: Whole Usage: Fish meal, satay fish Market: Limited
<p>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 (hōng yú)</p>			
Fam. Mullidae	<i>Upeneus</i> <i>sulphureus</i> Cuvier D ₁ VIII, D ₂ I, 8; A I, 6 BL = 13.0 cm	RD 7209063 Yellow goatfish	Seasonality: Whole year round Products presentation: Whole Usage: Fish meal, satay fish Market: No actual market
<p>Body elongate, slender. Depth 3.2-3.8. One pair of white barbel on chin. Teeth, scales as in <i>Upeneus Moluccensis</i>. 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 (hōng yú)</p>			
Fam. Mullidae	<i>Parupeneus</i> <i>heptacanthus</i> Lacepede D ₁ VIII, D ₂ I, 8-9; A I, 6-7 BL = 17.0 cm	RD 7209029 Red mullet, Goatfish	Seasonality: Whole year round Products presentation: Whole, frozen Usage: Steamed, pan-fried Market: England, Spain, Italy
<p>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 hōng yú); 木头红鱼 (mù tóu hōng yú); 红鱼 (hōng yú)</p>			

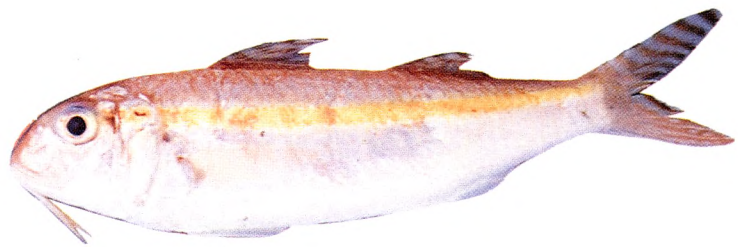
Upeneus (Pennon) bensasi
Temminck & Schlegel



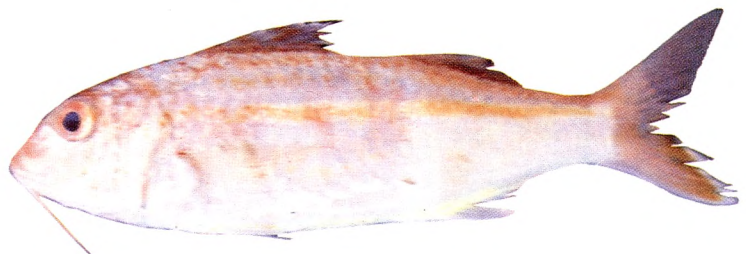
Upeneus (Pennon) tragula
Richardson



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

Seasonality:
 Whole year round

Product presentation:
 Whole

Usage:
 Not commonly used

Market:
 Limited

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 tiē pō)

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

Seasonality:
 Not seasonal

Products presentation:
 Whole

Usage:
 Not commonly used

Market:
 Limited

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; 旧鹧 (jiù gē); 油甘 (yóu gān)

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

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Surimi

Market:
 Asian market

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, occurring 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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole

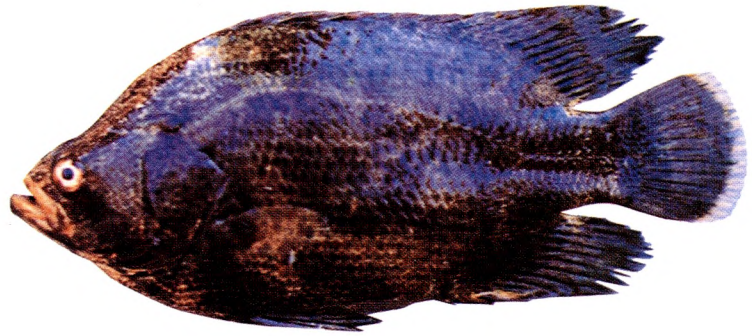
Usage:
 Surimi

Market:
 Asian market

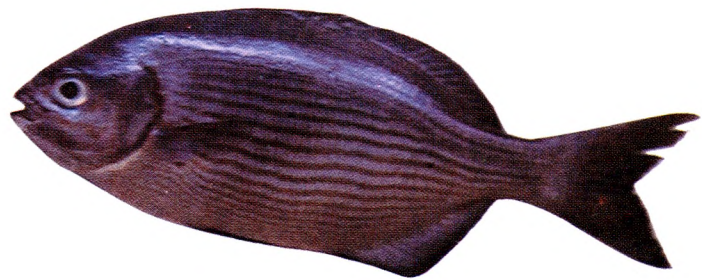
Body oblong and compressed. Depth about 3. Eyes very large. Scales rough and firmly attached. Pelvics attached to body by a membrane. Pelvic, dorsal and anal fins with yellow-orange spots. Caudal truncate or slightly emarginate. Soft dorsal and anal fins rounded. Deeper coastal waters, common in trawl 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)

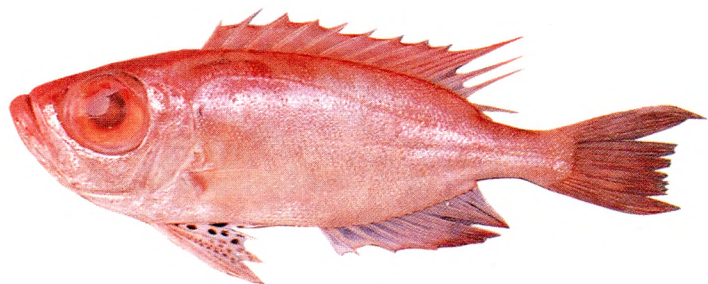
Lobotes surinamensis
(Bloch)



Kyphosus lembus
(Cuvier)



Priacanthus tayenus
Richardson



Priacanthus maracanthus
Cuvier



Fam. **Apogonidae** *Apogon quadrifasciatus* Cuvier RD 7209053
 D₁ VII, D₂ 1. 9; A 11 8 Four-band cardinal fish
 BL = 5.7 cm
 Body oblong, moderately compressed. Depth 2.5-3. Head large, mouth wide. 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)

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

Fam. **Apogonidae** *Apogon frenatus* Valenciennes RD 7210009
 D₁ VII, D₂ 8-9; A II, 8 Cardinal fish
 BL = 6.9 cm
 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)

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

Fam. **Apogonidae** *Apogonichthys ellioti* (Day) RD 7210008
 D₁ VII, D₂ I, 9; A II 8 Cardinal fish
 BL = 10.2 cm
 Body elongate, compressed. Depth 3-3.2. Mouth very oblique. Villiform teeth on jaws, vomer and palatines. Caudal rounded or sub-truncate, 4-5 faint cross bars on sides. Upper edge of dorsal fins and caudal black. 2nd dorsal and anal with a black medium band. Small fish in coastal and brackish waters. Trawls, off Pulau Tioman, South China Sea 54-64 m.
 Indigenous name: Sebekah; 白册 (bái cè)

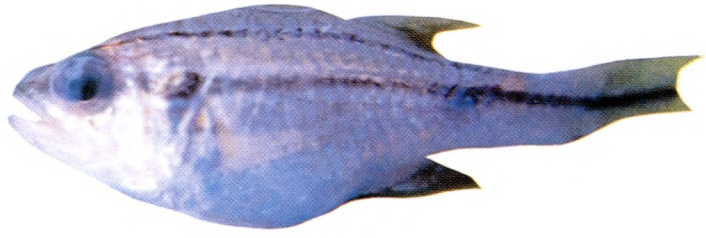
Seasonality: Whole year round
Products presentation: Whole
Usage: Not commonly used
Market: Limited

Fam. **Apogonidae** *Apogonichthys poecilopterus* (Cuvier) RD7212053
 D₁ VII, D₂ I 8-9; A II 8 Cardinal fish
 BL = 8.8 cm
 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)

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

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, slightly 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, estuaries 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 quadrfasciatus
Cuvier



Apogon frenatus
Valenciennes



Apogonichthys ellioti
(Day)



Apogonichthys poecilopterus
(Cuvier)



Lates calcarifer
(Bloch)



<p>Fam. Serranidae <i>Diploprion bifasciatum</i> Kulh & van Hasselt D VIII, 12-15; A II 12-13 BL = 12.2 cm</p>	<p>RD 7210034 Two-banded seaperch</p>	<p>Seasonality: Whole year round Product presentation: Whole Usage: Not commonly used Market: Limited</p>
<p>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)</p>		
<p>Fam. Serranidae <i>Anyperodon leucogrammicus</i> (Valenciennes) D XI, 14-15; A III 9 BL = 27.0 cm</p>	<p>RD 7303001 White-lined rock-cod</p>	<p>Seasonality: Whole year round Products presentation: Whole, fillet Usage: Steamed, cooked, pan-fried Market: Asian market</p>
<p>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)</p>		
<p>Fam. Serranidae <i>Cromileptes altivelis</i> (Valenciennes) D X, 18-19; A III 10 BL = 17.1 cm</p>	<p>RD 7407001 Humpback seabass Polka-dot grouper</p>	<p>Seasonality: Whole year round Products presentation: Whole, live Usage: Delicacy & delicious meal for steam cooking Market: HongKong, Malaysia, Singapore</p>
<p>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 30-40 cm, maximum 70 cm. Esteemed food fish. Indigenous name: Kerapu tikus; 老鼠猴 (lǎo shǔ hóu), 糯米猴 (nuò mǐ hóu)</p>		
<p>Fam. Serranidae <i>Plectropomus maculatus</i> (Bloch) D VII-VIII, 10-12; A III 7-8 BL = 48.0 cm</p>	<p>RD 7206029 Spotted coral-trout</p>	<p>Seasonality: Whole year round Products presentation: Whole, fillet Usage: Steam cooked, pan-fried, fish & chips Market: Asian countries, Australia, USA & European countries</p>
<p>Body elongate, compressed. Depth 3.3-4. Scales very small, 83-86 on lateral line. Mouth large with canines in jaws. Caudal weakly 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)</p>		
<p>Fam. Serranidae <i>Plectropomus leopardus</i> (Lacepede) D VIII, 10-12; A III, 7-8 BL = 54.2 cm</p>	<p>RD 7209054 Blue-spotted seabass Leopard coral trout</p>	<p>Seasonality: Whole year round Products presentation: Whole, fillet Usage: Steam cooked, pan-fried, fish & chips Market: Asian countries, Australia</p>
<p>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 <i>Plectropomus maculatus</i>. 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)</p>		

Diploprion bifasciatum
Kulh & van Hasselt



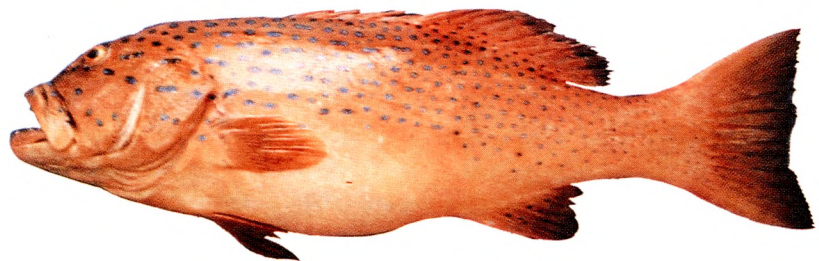
Anyperodon leucogrammicus
(Valenciennes)



Cromileptes altivelis
(Valenciennes)



Plectropomus maculatus
(Bloch)

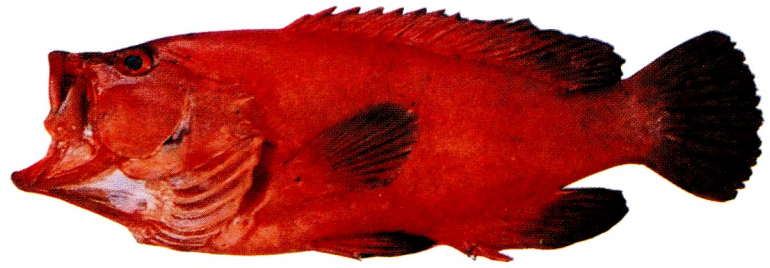


Plectropomus leopardus
(Lacepede)



<p>Fam. Serranidae <i>Cephalopholis sonnerati</i> (Valenciennes) D IX, 14-15; A III 8-9 BL = 25.0 cm</p>	<p>RD 7302035 Red grouper Red coral trout</p>	<p>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</p>
.....		
<p>Fam. Serranidae <i>Cephalopholis miniatus</i> (Forsk.) D IX 15-16; A III 9 BL = 24.5 cm</p>	<p>RD 7303004 Vermilion seabass (grouper)</p>	<p>Seasonality: Whole year round Products presentation: Whole/round, whole/gilled, gutted, live fish, ice-chilled & frozen Usage: Steamed Market: Southeast Asia</p>
.....		
<p>Fam. Serranidae <i>Cephalopholis argus</i> (Bloch & Schneider) D IX 16; A III 8 BL = 27.5 cm</p>	<p>RD 7303002 Blue-spotted seabass (grouper)</p>	<p>Seasonality: Whole year round Products presentation: Whole/round Usage: Steamed & deep-fried Market: Southeast Asia</p>
.....		
<p>Fam. Serranidae <i>Cephalopholis boenak</i> (Bloch) D IX 15-17; A III 8 BL = 19.8 cm</p>	<p>RD 7209082 Brown-banded seabass (grouper)</p>	<p>Seasonality: Whole year round Products presentation: Whole/round, whole/gilled/gutted, ice-chilled & frozen Usage: Steamed & deep-fried Market: Southeast Asia</p>
.....		
<p>Fam. Serranidae <i>Variola louti</i> (Forsk.) S IX 13-14; A III 8 BL = 14.6 cm</p>	<p>RD 7506015 Moontail seabass</p>	<p>Seasonality: Whole year round Products presentation: Whole/round Usage: Deep-fried Market: Southeast Asia</p>

Cephalopholis sonnerati
(Valenciennes)



Cephalopholis miniatus
(Forsk.)



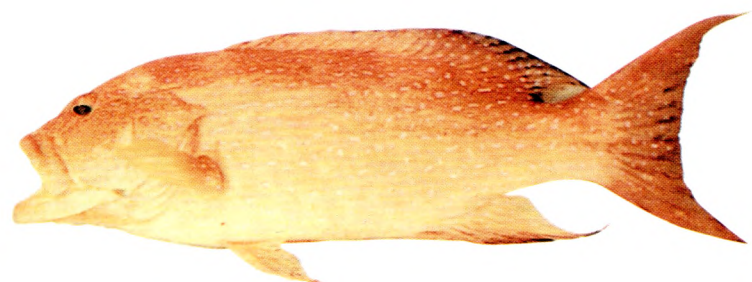
Cephalopholis argus
(Bloch & Schneider)



Cephalopholis boenak
(Bloch)



Variola louti
(Forsk.)



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

RD 7206030
Greasy grouper

Body elongate, robust. Depth 3.3-3.7, varying 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 grayish 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
BL = 97.4 cm

Malabar grouper

Body moderately elongate, robust. Depth 3.0-3.6 in SL. Gill rakers 8-11 + 15-18. Eye relatively small. Pyloric caeca 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. coioides*. Occurs on protected reefs and adjacent habitats and readily penetrates estuarine areas. Larger individuals caught 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* (Forsk.)
D XI, 15-16; A III 8
BL = 20.0 cm

RD 7206074
Areolated grouper

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)
D XI, 14-15; A III 8
BL = 18.5 cm

RD 7505001
Six-banded grouper

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 long 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
D XI, 15; A III 8
BL = 10.7 cm

RD 7210060
Banded-cheek grouper

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

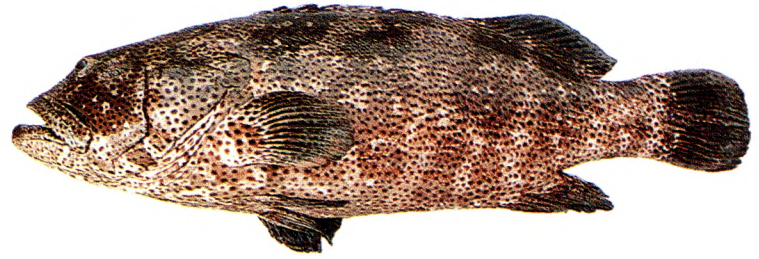
Market:

Southeast Asia

Epinephelus coioides
(Hamilton)



Epinephelus malabaricus
(Bloch & Schneider)



Epinephelus areolatus
(Forsk.)



Epinephelus sexfasciatus
(Valenciennes)



Epinephelus heniochus
Fowler

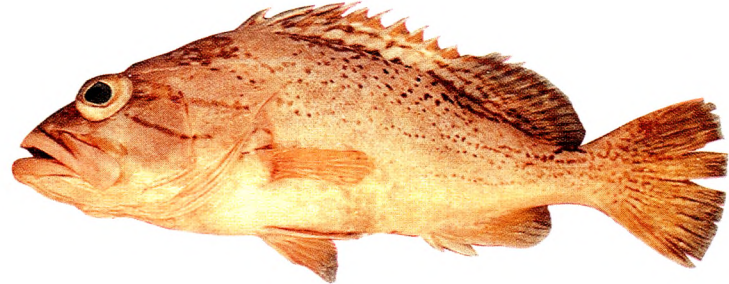


<p>Fam. Serranidae <i>Epinephelus morrhua</i> (Valenciennes) D XI, 14-15; A III, 8 BL = 33.0 cm</p> <p>Body oblong, robust. Depth 3-3.3. Dorsal with 11 spines. Caudal fin rounded. Three subspecies are recognised by some scientists, based on differences in colour patterns. The specimen shown is the darker variety with curved brown bands running from head to caudal peduncle. Common, caught in deeper waters, especially coral areas by handline and longline. Occasionally caught by trawl. Usual size 30-40 cm. Vertical handline, Andaman Sea and Vanguard Bank area, South China Sea, 80-120 m.</p> <p>Indigenous name: Kerapu; 鲁古猴 (lǔ gǔ hóu)</p>	<p>RD 7302013 Curve-banded grouper</p>	<p>Seasonality: Whole year round</p> <p>Product presentation: Whole/round, Ice-chilled & frozen</p> <p>Usage: Steamed, deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Serranidae <i>Epinephelus poecilonotus</i> (Temminck & Schlegel) D XI, 14-15; A III, 8 BL = 32.2 cm.</p> <p>Body depth 2.6-3.1 in SL, gill rakers 8-10 + 15-18. Differ from <i>E. morrhua</i> based on colour pattern. <i>E. poecilonotus</i> 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.</p> <p>Indigenous name: Kerapu; 鲁古猴 (lǔ gǔ hóu)</p>	<p>RD 7507013 Dot-dash grouper</p>	
<p>Fam. Serranidae <i>Epinephelus chlorostigma</i> Valenciennes D XI, 16-17; A III 8 BL = 40.3 cm</p> <p>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.</p> <p>Indigenous name: Kerapu minyak; 鲁古猴 (lǔ gǔ hóu)</p>	<p>RD 7302012 Brown-spotted grouper</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole/round, whole/gilled/gutted. Ice-chilled & frozen</p> <p>Usage: Steamed & deep-fried & fillets</p> <p>Market: Southeast Asia</p>
<p>Fam. Serranidae <i>Epinephelus bleekeri</i> (Vaillant & Bocourt) D XI, 16; A III, 8 BL = 18.0 cm</p> <p>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.</p> <p>Indigenous name: Kerapu; 胶支猴 (jiāo zhī hóu); 赤猴 (chì hóu); 花猴 (huā hóu)</p>	<p>RD 7310011 Bleeker's grouper</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole/round, Ice-chilled & frozen</p> <p>Usage: Steamed & deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Serranidae <i>Epinephelus amblycephalus</i> (Bleeker) D XI, 16; A III, 8 BL = 40.5 cm</p> <p>Body oblong, Round 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.</p> <p>Indigenous name: Anak keretang; 鲁古猴 (lǔ gǔ hóu)</p>	<p>RD 7302032 Banded grouper</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole/round, whole/gilled/gutted. Ice-chilled & frozen</p> <p>Usage: Steamed & deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Serranidae <i>Epinephelus fasciatus</i> (Forsk.) D XI, 16; A III, 8 BL = 24.2 cm</p> <p>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.</p> <p>Indigenous names: Kerapu bara; 鲁古猴 (lǔ gǔ hóu)</p>	<p>RD 7506024 Red-banded grouper</p>	<p>Seasonality: Whole year round</p> <p>Products presentation: Whole/round, Ice-chilled & frozen</p> <p>Usage: Steamed & deep-fried</p> <p>Market: Southeast Asia</p>

Epinephelus morrhua
(Valenciennes)



Epinephelus poecilonotus
(Temminck & Schlegel)



Epinephelus chlorostigma
Valenciennes



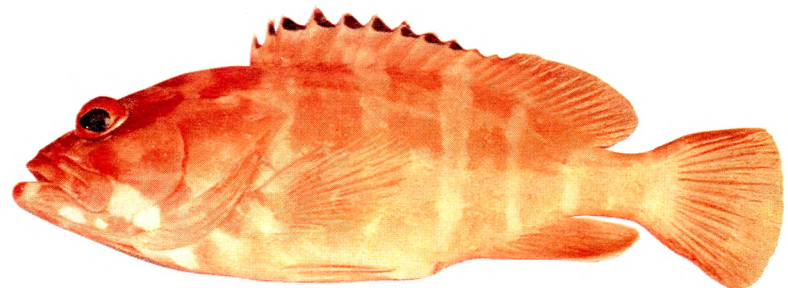
Epinephelus bleekeri
(Vaillant & Bocourt)



Epinephelus amblycephalus
(Bleeker)



Epinephelus fasciatus
(Forsk.)



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

Seasonality:
 Whole year round

Product presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Steamed, deep-fried

Market:
 Southeast Asia

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. Occasionally 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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Deep-fried

Market:
 Southeast Asia

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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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)

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

Seasonality:
 Whole year round

Product presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Raw material for surimi. Steamed & deep-fried

Market:
 Southeast Asia

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 lì)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Raw material for surimi. Steamed & deep-fried

Market:
 Southeast Asia

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 deeply 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; 钩里 (diào lì); 哥里 (gē lì)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Raw material for surimi. Steamed & Deep-fried

Market:
 Southeast Asia

Body elongate, slightly compressed. Depth 3.4-3.7. Head without spines. Pelvic fin with axillary scale. No filaments in fins. Ground 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 lì); 钩里 (diào lì)

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

Seasonality:
 Whole year round

Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

Body elongate, slightly compressed. Depth 3.1-3.3. Head without spines. Pelvic fins with axillary scale. No filaments in fins. Caudal large, with sharply pointed lobes. Ground colour rosy, with 2 broad pale yellowish longitudinal lines. Belly with a yellow line on each side, running 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 lì)

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

Seasonality:
 Whole year round

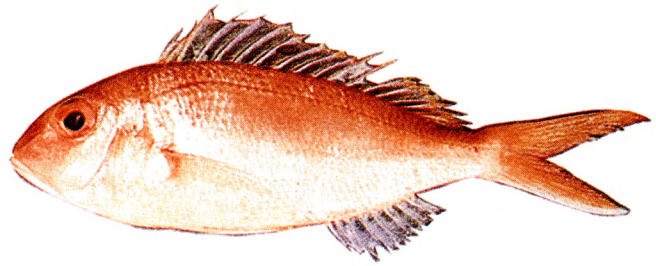
Products presentation:
 Whole/round, Ice-chilled & frozen

Usage:
 Raw material for surimi. Steamed & deep-fried

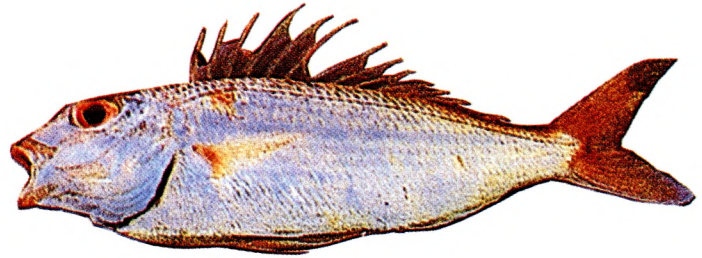
Market:
 Southeast Asia

Body slender, slightly 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. Pelvic fins long reaching to anal origin. Not common, caught 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 lì); 红哥里 (hōng gē lì)

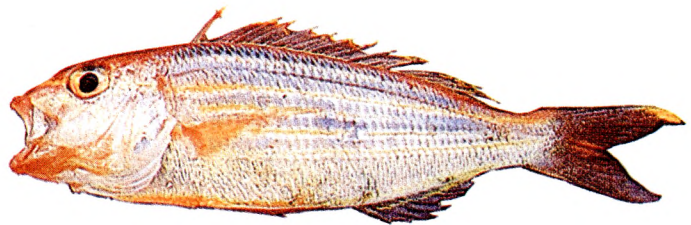
Nemipterus peronii
(Valenciennes)



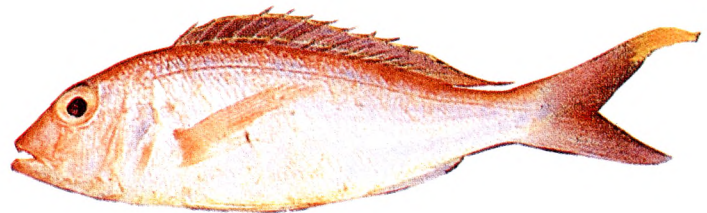
Nemipterus tolu
(Valenciennes)



Nemipterus tambuloides
(Bleeker)



Nemipterus bleekeri
(Day)

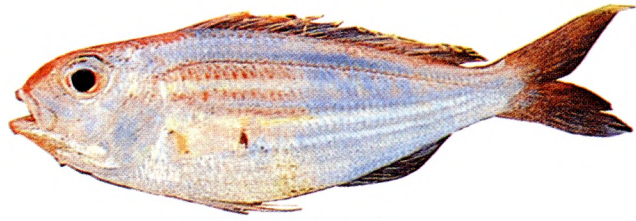


Nemipterus delagoae
Smith

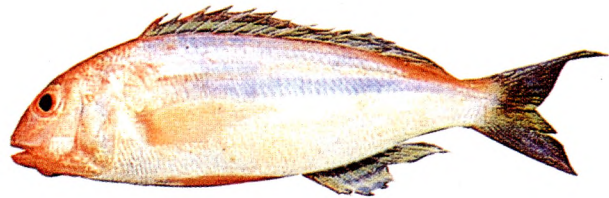


<p>Fam. Nemipteridae <i>Nemipterus marginatus</i> (Cuvier & Valenciennes) RD 7309020 D X 9; A III 7 Pate-finned threadfin bream BL = 18.2 cm</p> <p>Body slender, slightly compressed. Depth 3.2-3.3. Head without spines. Pelvic with an axillary scale. No filaments in fins. Ground colour rosy with two main 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.</p> <p>Indigenous name: Kerisi; 哥里 (gē lì)</p>		<p>Seasonality: Whole year round</p> <p>Product presentation: Whole/round, Ice-chilled & frozen</p> <p>Usage: Raw material for surimi. Steamed & deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Nemipteridae <i>Nemipterus mesoprion</i> (Bleeker) RD 7309024 D X 9; A III 7 Red-filament threadfin bream BL = 12.7 cm</p> <p>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.</p> <p>Indigenous names: Kerisi; 哥里 (gē lì)</p>		<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, Ice-chilled & frozen</p> <p>Usage: Raw material for surimi. Steamed & deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Nemipteridae <i>Nemipterus nemurus</i> (Bleeker) RD 7308003 D X 9; A III 7 Redspine threadfin bream BL = 17.0 cm</p> <p>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.</p> <p>Indigenous names: Kerisi; 哥里 (gē lì)</p>		<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, Ice-chilled & frozen</p> <p>Usage: Raw material for surimi. Steamed & Deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Nemipteridae <i>Nemipterus nematophorus</i> (Bleeker) RD 7309013 D X 9; A III 7 Double-whip threadfin bream BL = 15.2 cm</p> <p>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.</p> <p>Indigenous names: Kerisi; 哥里 (gē lì)</p>		<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, Ice-chilled & frozen</p> <p>Usage: Steamed & deep-fried</p> <p>Market: Southeast Asia</p>
<p>Fam. Nemipteridae <i>Nemipterus japonicus</i> (Bloch) RD 7310032 D X 9; A III 7 Japanese threadfin bream BL = 17.0 cm</p> <p>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.</p> <p>Indigenous names: Kerisi; 哥里 (gē lì)</p>		<p>Seasonality: Whole year round</p> <p>Products presentation: Whole, Ice-chilled & frozen</p> <p>Usage: Raw material for surimi. Steamed & deep-fried</p> <p>Market: Southeast Asia</p>

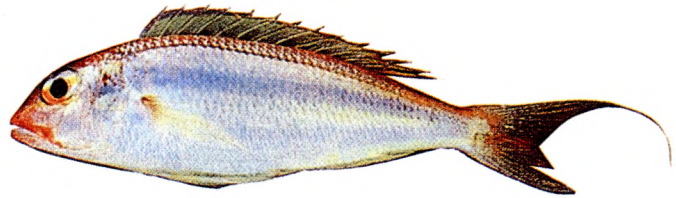
Nemipterus marginatus
(Cuvier & Valenciennes)



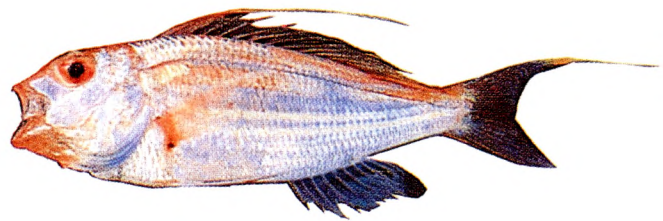
Nemipterus mesoprion
(Bleeker)



Nemipterus nemurus
(Bleeker)



Nemipterus nematophorus
(Bleeker)



Nemipterus japonicus
(Bloch)



Fam. **Sciaenidae** *Pennahia argentata* (Houttuyn) RD 7209074
 D₁X-X, D₂l, 25-28; A II 7-8 Silver pennah croaker
 BL = 21.0 cm Jewfish

Seasonality:
 Whole year round

Product presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China and Southeast Asia

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)

Fam. **Sciaenidae** *Pennahia macrophthalmus* (Bleeker) RD 7212048
 D₁X-X, D₂23-25; A II 7-8 Bigeye croaker
 BL = 17.0 cm Jewfish

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China and Southeast Asia

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; 冇头 (mǎo tóu); 深水白画 (shēn shuǐ bái huà)

Fam. **Sciaenidae** *Pennahia pawak* (Lin) RD 7310020
 D₁X, D₂23-25; A II 7 Pawak croaker
 BL = 15.7 cm Jewfish

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China & Southeast Asia

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; 乌点冇头 (wū diǎn mǎo tóu)

Fam. **Sciaenidae** *Pennahia macrocephalus* (Tang) RD 7310025
 D₁X, D₂l 27-29; A II 7 Big-head pennah croaker
 BL = 13.3 cm Jewfish

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China & Southeast Asia countries

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)

Pennahia argentata
(Houttuyn)



Pennahia macrophthalmus
(Bleeker)



Pennahia pawak
(Lin)



Pennahia macrocephalus
(Tang)



Fam. **Sciaenidae** *Johnius belangerii* (Cuvier) RD 7310016
 D₁IX-X, D₂I, 27-31; A II 7-8 Belanger's croaker
 BL = 16.8 cm

Seasonality:
 Whole year round

Product presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China and Southeast Asia

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)

Fam. **Sciaenidae** *Johnieops vogleri* (Bleeker) RD 7212046
 D₁X, D₂I 27-30; A II 7 Sharp-toothed hammer croaker
 BL = 16.4 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China and Southeast Asia

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)

Fam. **Sciaenidae** *Otolithoides biauritus* (Cantor) RD 7401018
 D₁VIII-IX, D₂I 27-32; A II 7-8 Bronze croaker
 BL = 49.8 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China & Southeast Asia

Body elongate, cylindrical, dorsal and ventral profile nearly horizontal. Depth 4.5-5.5. Mouth terminal, large upper jaw reaches beyond eye. No canine teeth. Lower gill 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)

Fam. **Sciaenidae** *Pterolithus maculatus* (Cuvier) RD 7401010
 D₁IX, D₂I 31; A II 10-11 Blotched tiger-toothed croaker
 BL = 43.7 cm

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Raw material for surimi, steamed & deep-fried

Market:
 China & Southeast Asia

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)

Johnius belangerii
(Cuvier)



Johnieops vogleri
(Bleeker)



Otolithoides biauritus
(Cantor)



Pterolithus 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

Seasonality:
 Whole year round

Product presentation:
 Whole, frozen & ice-chilled

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

Body oblong, compressed. Depth 2.2-2.5. Mouth strongly protractile downwards. Pectorals long, reaching beyond anal 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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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);

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

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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 jú)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, frozen & ice-chilled

Usage:
 Steamed & deep-fried

Market:
 Southeast Asia

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)

Pentaprion longimanus
(Cantor)



Gerres filamentosus
Cuvier



Argyrops spinifer
(Forsk.)



Therapon theraps
(Cuvier)



Therapon jarbua
(Forsk.)



Fam. **Lethrinidae** *Lethrinus nematacanthus* Bleeker
D X 9; A III 8
BL = 18.6 cm

RD 7206068
Pigface bream
Longspine emperor

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)

Seasonality:

Whole year round

Products presentation:

Whole, fillets, frozen & ice-chilled

Usage:

Steamed & deep-fried

Market:

Southeast Asia

Fam. **Lethrinidae** *Lethrinus miniatus* (Bloch & Schneider)
D X 9; A III 8
BL = 45.2 cm

RD 7206020
Long-nosed pigface bream
Longface emperor

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. 2-3 blue stripes may be present on suborbital. Inner base of pectoral fin without scales. Common in 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)

Seasonality:

Whole year round

Products presentation:

Whole, whole gutted, fillets, frozen & ice-chilled

Usage:

Steamed & deep-fried

Market:

Southeast Asia

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

RD 7206032
Redspot emperor

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)

Seasonality:

Whole year round

Products presentation:

Whole, whole gutted, fillets, frozen & ice-chilled

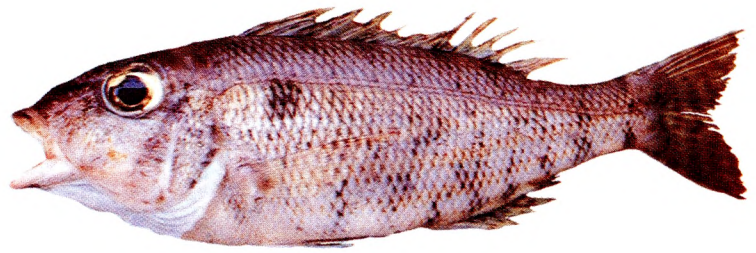
Usage:

Steamed & deep-fried

Market:

Southeast Asia

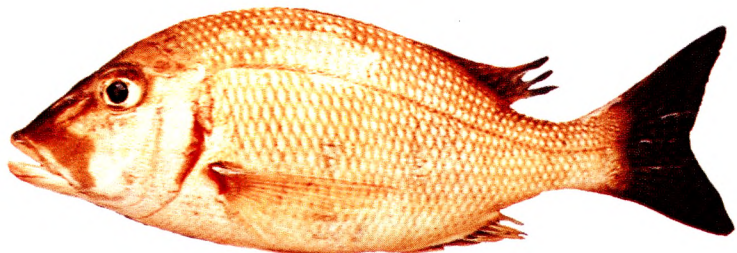
Lethrinus nematacanthus
Bleeker



Lethrinus miniatus
(Bloch & Schneider)



Lethrinus lentjan
(Lacepede)



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

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

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 turns 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 hōng jī)

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

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

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 hōng jī)

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

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

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, occurring in large schools. Common and popular fish in market. Also caught with bottom longline. Usual size about 45 cm. Trawl, South China Sea, 47-49 m.

Indigenous names: Ikan merah; 春鸡 (chūn jī)

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

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

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 hōng jī); 内港红鸡 (nèi gǎng hōng jī)

Lutjanus sanguienus
(Cuvier)



Lutjanus sebae
(Cuvier)



Lutjanus altifrontalis
Chan



Lutjanus malabaricus
(Bloch & Schneider)



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

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

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 coastal 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 hōng zào); 深水红皂 (shēn shuǐ hōng zào)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, whole gutted, fillets, frozen & ice-chilled

Usage:
 Steamed, pan-fried, & deep-fried

Market:
 USA, EU, Australia & Asia

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 (hōng zào)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, whole gutted, fillets frozen & ice-chilled

Usage:
 Steamed, pan-fried & deep-fried

Market:
 USA, EU, Australia, Asia

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 oblique, horizontal below lateral line. Numerous thin yellow lines along scale rows, fades after death. Caudal emarginate. Not common. Occasionally 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 hōng zào); 红皂记 (hōng zào jì)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, whole gutted, fillets, frozen & ice-chilled

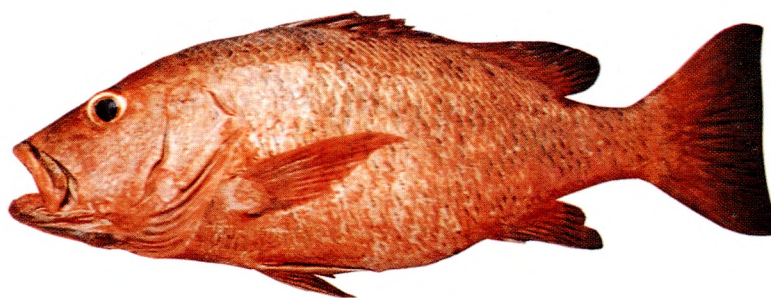
Usage:
 Steamed, pan-fried, & deep-fried

Market:
 USA, EU, Australia & Asia

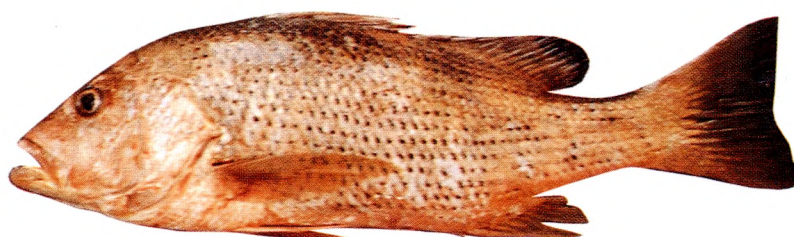
Body oblong, compressed. Depth 2.8-3. Head profile almost straight. Preopercular notch and interopercular knob present. Vomerine teeth in an inverted V. Scale rows oblique above lateral line, horizontal below. Caught with handlines in coral reefs and shoals. Not common. May be poisonous at certain seasons.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

Indigenous names: 红甲 (hōng jiǎ)

Lutjanus argentimaculatus
(Forsk.)



Lutjanus johni
(Bloch)



Lutjanus janthinuropterus
(Bleeker)



Lutjanus bohar
(Forsk.)



<p>Fam. Lutjanidae <i>Lutjanus lineolatus</i> (Ruppell) D XI 11-12; A III 8 BL = 17.8 cm</p>	<p>RD 7509008 Golden-striped snapper</p>	<p>Seasonality: Whole year round Products presentation: Whole, frozen and ice-chilled Usage: Steamed, pan-fried & deep-fried Market: EU, Asia</p>
<p>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 interorbital. Scale rows oblique above lateral line, horizontal below. A golden band from snout through eye to caudal fin. Caudal slightly forked. Small-sized lutjanid (usually 18 cm). Caught mainly with handlines and trawls in coastal and coral areas. Very common, often caught in considerable quantities. Trawl, South China Sea, 56-60 m. Indigenous names: Kunyit-kunyit, Serunai; 素莲记鱼 (sù lián jì yú)</p>		
<p>Fam. Lutjanidae <i>Lutjanus vitta</i> (Quoy & Gaimard) D X 13; A III 7-8 BL = 20.0 cm</p>	<p>RD 7206004 Brown-striped snapper</p>	<p>Seasonality: Whole year round Products presentation: Whole, frozen & ice-chilled Usage: Steamed, pan-fried, & deep-fried Market: Southeast Asia</p>
<p>Body elongate, compressed. Depth 2.8-3. preopercular notch shallow. Vomerine teeth triangular. Suborbital broad. Predorsal scales begin in interorbital. 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)</p>		
<p>Fam. Lutjanidae <i>Lutjanus spilurus</i> (Bennet) D X 14; A III 8 BL = 18.8 cm</p>	<p>RD 7210037 Blue-and-yellow snapper</p>	<p>Seasonality: Whole year round Products presentation: Whole, frozen & ice-chilled Usage: Steamed, pan-fried & deep-fried Market: Southeast Asia</p>
<p>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 longitudinal stripes. (A similar species <i>L. basmira</i> 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)</p>		
<p>Fam. Lutjanidae <i>Lutjanus lutjanus</i> (Bloch) D X 13-14; A III 8 BL = 20.8 cm</p>	<p>RD 7209081 Rosy snapper</p>	<p>Seasonality: Whole year round Products presentation: Whole, frozen & ice-chilled Usage: Steamed, pan-fried, & deep-fried Market: Southeast Asia</p>
<p>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, caught with trawl and handlines. Trawl, South China Sea, 66-67 m. Indigenous names: Kunyit-kunyit, Serunai; 记鱼 (jì yú)</p>		
<p>Fam. Lutjanidae <i>Lutjanus monostigma</i> (Cuvier) D X 13; A III 8 BL = 21.4 cm</p>	<p>RD 7310041 One-spot snapper</p>	<p>Seasonality: Whole year round Products presentation: Whole, frozen & ice-chilled Usage: Steamed, pan-fried, & deep-fried Market: Southeast Asia</p>
<p>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, bisected 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)</p>		

Lutjanus lineolatus
(Ruppell)



Lutjanus vitta
(Quoy & Gaimard)



Lutjanus spilurus
(Bennet)



Lutjanus lutjanus
(Bloch)



Lutjanus monostigma
(Cuvier)



Fam. **Lutjanidae** *Pristipomoides multidentis* (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); 深水钩里 (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. multidentis* 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); 祿里 (zhàng lǐ); 大钩里 (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

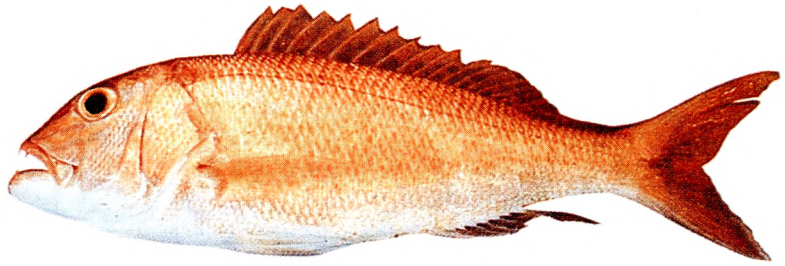
Usage:
 Steamed, pan-fried, & deep-fried

Market:
 Asia

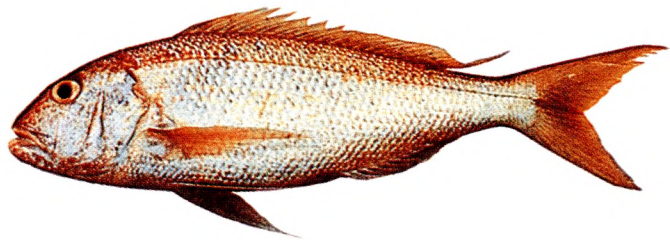
Body oblong, moderately compressed. Depth 3-3.3. Pored lateral line scales 62-67. No teeth on tongue. Vomerine teeth in a broad triangular patch. Irregular light yellow streaks on interorbital and snout. Body colour yellowish-brown. Caudal forked, last dorsal and anal rays elongated. Occasionally caught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

Indigenous names: 红哥里 (hóng gē lǐ)

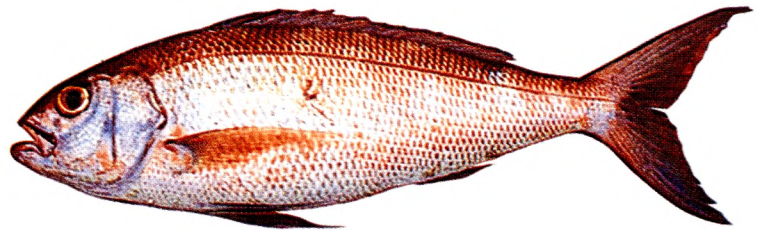
Pristipomoides multidens
(Day)



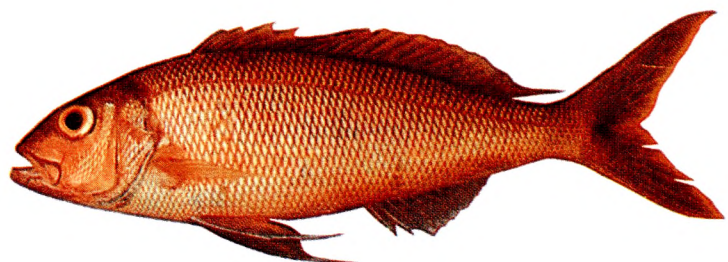
Pristipomoides typus
Bleeker



Pristipomoides filamentosus
(Valenciennes)



Pristipomoides flavipinnis
Shinohara



Fam. **Lutjanidae** *Pristipomoides sieboldii* (Bleeker)

D X 11; A III 8

BL = 37.8 cm

RD 7506006

White snapper

Seasonality:

Whole year round

Products presentation:

Whole, whole gutted, fillets, frozen & ice-chilled

Usage:

Steamed, pan-fried & deep-fried

Market:

Asia

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 (hōng gē lì)

Fam. **Lutjanidae** *Pristipomoides auriculla* (Jordan, Evermann & Tanaka) RD 7506001

D X 11; A III 8

BL = 28.0 cm

White snapper

Seasonality:

Whole year round

Products presentation:

Whole, frozen & ice-chilled

Usage:

Steamed, pan-fried, & deep-fried

Market:

Asia

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 (hōng gē lì)

Fam. **Lutjanidae** *Paracaesio kusakarii* Abe

D X 10; A III 8

BL = 39.4 cm

RD 7304005

Seasonality:

Whole year round

Products presentation:

Whole, whole gutted, fillets, frozen & ice-chilled

Usage:

Steamed, pan-fried & deep-fried

Market:

Asia

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.

Fam. **Lutjanidae** *Paracaesio xanthurus* (Bleeker)

D X 10; A III 8

BL = 31.8 cm

RD 7506025

Seasonality:

Whole year round

Products presentation:

Whole, fillets, frozen & ice-chilled

Usage:

Steamed, pan-fried, & deep-fried

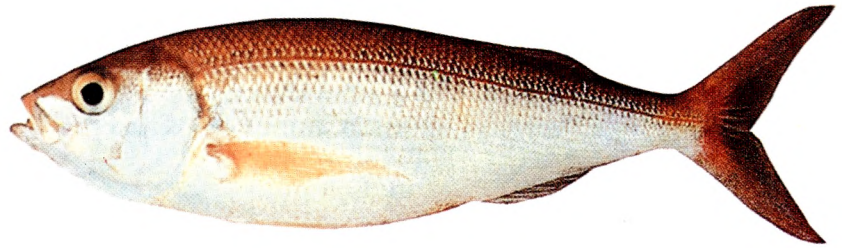
Market:

Asia

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)

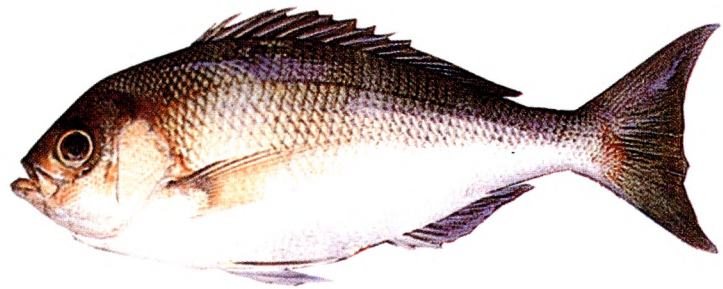
Pristipomoides sieboldii
(Bleeker)



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 caught 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, breeding

Market:

No demand, no definite market

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

Small-toothed jobfish

Body elongate, 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, breeding

Market:

No demand, no definite market

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

Green jobfish

Body elongate, slightly compressed. Depth 3.8-4. Interorbital space flat. Dorsal fin not notched. Jaws with villiform teeth with pair of enlarged canines anteriorly and small ones laterally. Last dorsal and anal rays elongated. Pectoral fins short. A deep groove in front of eye. Caudal deeply forked. Large-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, breeding

Market:

No demand, no definite market

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

Pinjalo snapper

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

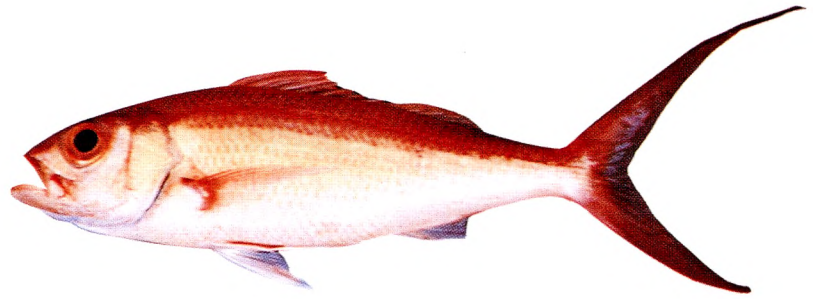
Usage:

Steamed, pan-fried, & BB-Q

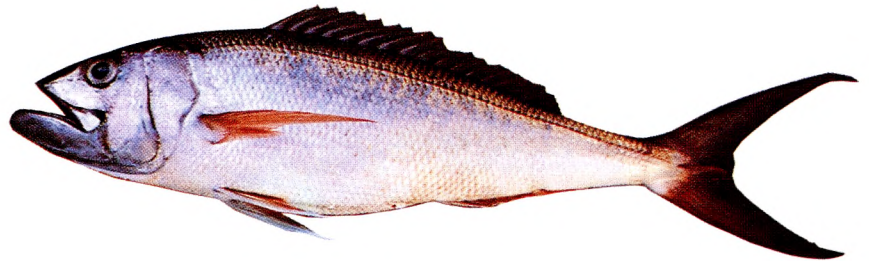
Market:

EU, USA, Japan

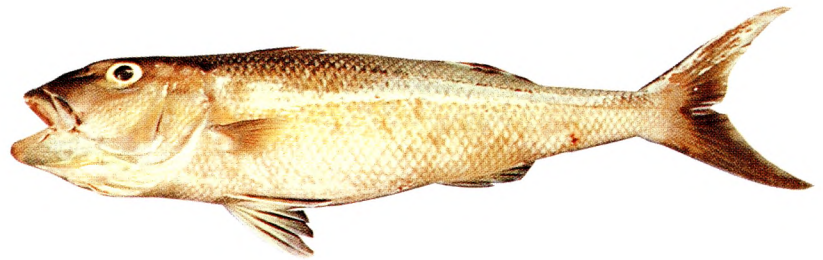
Etelis carbunculus
Cuvier



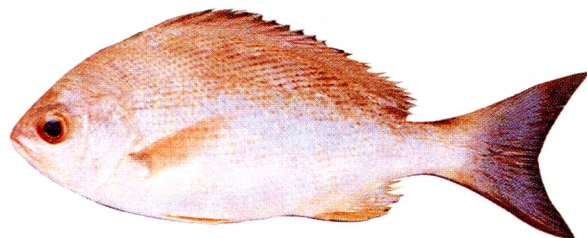
Aphareus rutilans
Cuvier



Aprion virescens
Valenciennes



Pinjalo pinjalo
(Bleeker)



Fam. Lutjanidae	<i>Caesio tile</i> Cuvier & Valenciennes DX 19-22; A III 12-13 BL = 21.4 cm	RD 7509015	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	<i>Caesio lunaris</i> Cuvier & Valenciennes DX 13-14; A III 11 BL = 22.2 cm	RD 7510014 Rising moon fusilier	Seasonality: Whole year round Products presentation: Whole, fillet Usage: Surimi, fish ball, fish cake, pan-fried Market: Southeast Asia
.....			
Fam. Lutjanidae	<i>Caesio xanthonotus</i> Bleeker DX - XI; A III 12 BL = 23.2 cm	RD 7509016	Seasonality: Whole year round Products presentation: Whole, whole fillet Usage: Surimi, fish ball, fish cake, pan-fried Market: Southeast Asia
.....			
Fam. Lutjanidae	<i>Caesio caeruleus</i> Lacepede DX 14-15; A III 11-13 BL = 18.9 cm	RD 7509011 Blue-and-gold fusilier	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 caeruleus
Lacepede



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

RD 7509013
Yellow tail fusilier

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 (fān cǐ yú)

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

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

RD 7509017
Goldband fusilier

Body elongate, slightly compressed. Depth 3.4-3.7. Dorsal and ventral 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 tiāo)

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

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

RD 7509009
Dark-banded fusilier

Body elongate, slightly compressed. Depth 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 shallow coral and rocky areas.
Indigenous names: 红条 (hóng tiāo)

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

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

RD 7210028
Painted sweetlip

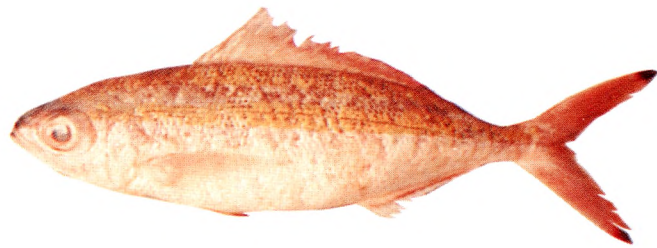
Body oblong, compressed. Depth 2.3-2.8. Dorsal profile steep. Chin with 6 pores. Mouth small, lips thick. No canine teeth, palate without teeth. Head and sides with longitudinal black bands in juveniles, becoming spotted in adults. Adults blue grey and yellowish spots. Caudal and dorsal fins with black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

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

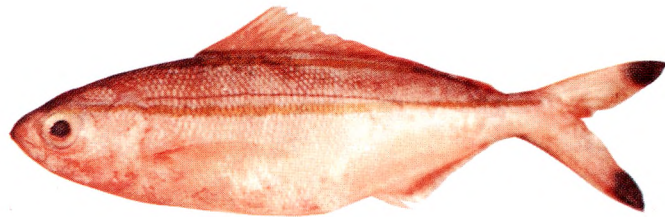
Caesio eythrogaster
Cuvier



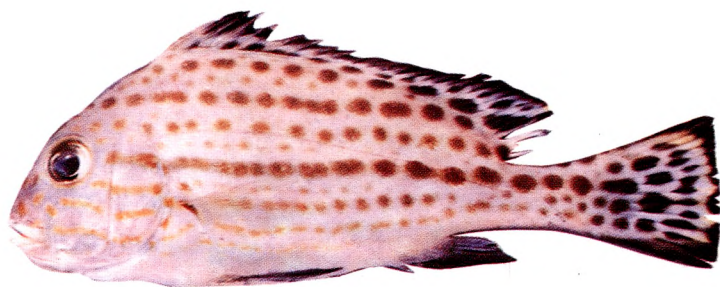
Caesio chrysozona
Cuvier



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

Seasonality:
 Whole year round

Products presentation:
 Whole & fillet

Usage:
 Breeding, deep-fried, soup, pan fried

Market:
 Australia, Middle east, Japan, Taiwan & Southeast Asia

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 jū yú)

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

Seasonality:
 Whole year round

Products presentation:
 Whole & fillet

Usage:
 Deep fried, pan fried, breeding

Market:
 Australia, Japan, Taiwan, Middle East, Southeast Asia

Body oblong 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 South China Sea (especially off Sarawak) and Andaman Sea in depths of 40-70 m.

Indigenous name: 乌白菊 (wū bái jū)

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

Seasonality:
 Rare species, no seasonability

Products presentation:
 Whole & fillet

Usage:
 Pan-fried

Market:
 China, Middle East, Saudi

Body deep, rhomboid, compressed. Depth 1.9-2.2. Maxilla with a strongly denticulated ridge. Jaws with canine teeth anteriorly, outer lateral series of conical 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.

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

Seasonality:
 Rare species, no seasonability

Products presentation:
 Fillet

Usage:
 Fish paste, surimi, fish ball, fish cake & Yong Tau Fu

Market:
 Southeast Asia, Korea & Japan

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)

Gymnocranius griseus
(Schlegel)



Gymnocranius elongatus
Senta



Gnathodentex mossambicus
Smith



Pentapodus setosus
(Valenciennes)



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

Seasonality:
 Whole year round (rare species)

Product presentation:
 Whole

Usage:
 Material fish for surimi

Market:
 No specific market

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; 白头庠 (bái tóu kù)

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

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Material fish for surimi

Market:
 No specific market

Body elongate, moderately compressed. Depth 3. Head blunt, dorsal profile slightly rounded. A conspicuous 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; 白头庠 (bái tóu kù)

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

Seasonality:
 Whole year round (rare species)

Products presentation:
 Whole

Usage:
 Material for surimi

Market:
 No specific market

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)

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

Seasonality:
 Whole year round (rare species)

Products presentation:
 Whole

Usage:
 Material for surimi

Market:
 No specific market

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)

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

Seasonality:
 Whole year round (rare species)

Products presentation:
 Whole

Usage:
 Material fish for surimi

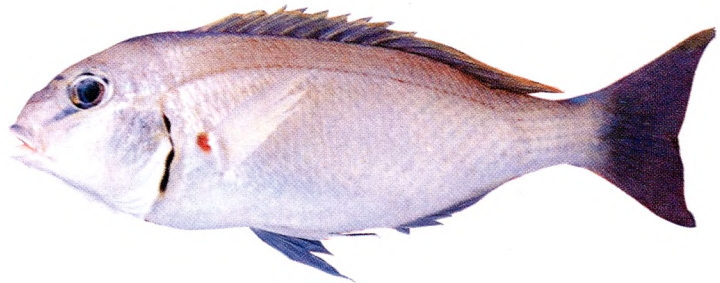
Market:
 No specific market

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)

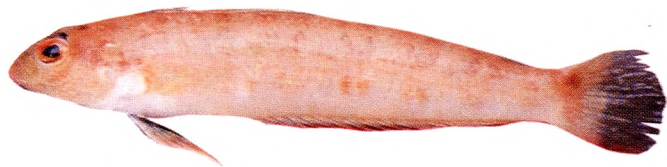
Scolopsis vosmeri
(Bloch)



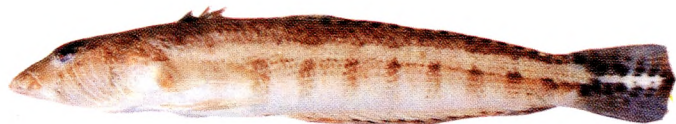
Scolopsis taeniopterus
(Valenciennes)



Parapercis pulchella
(Temminck & Schlegel)



Parapercis xanthozona
(Bleeker)



Parapercis filamentosa
(Steindachner)



<p>Fam. Callionymidae <i>Dactylopus dactylopus</i> (Cuvier) D₁IV, D₂ 8; A 7 BL = 12.5 cm</p>	<p>RD 7210041 Dragonet</p>	<p>Seasonality: Whole year round (rare species) Product presentation: Whole Usage: Material fish for surimi Market: No actual market</p>
.....		
<p>Fam. Pomacentridae <i>Daya jerdoni</i> (Day) D XIII 12-13; A II 14 BL = 7.8 cm</p>	<p>RD 7310015 Damsel-fish</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Material fish for surimi Market: No actual market</p>
.....		
<p>Fam. Labridae <i>Choerodon schoenleini</i> (Valenciennes) D XIII 7-8; A III 9-10 BL = 52.0 cm</p>	<p>RD 7206019 Tusk fish</p>	<p>Seasonality: Whole year round Products presentation: Whole gutted, fillet Usage: Delicacy & delicious as steamed fish, fish porridge & deep fried Market: HongKong, Thailand, Taiwan & Singapore</p>
.....		
<p>Fam. Labridae <i>Xiphocheilus typus</i> Bleeker D XII 7-8; A III 10 BL = 10.4 cm</p>	<p>RD 7210024 Sword-lipped wrasse</p>	<p>Seasonality: Whole year round Products presentation: Whole Usage: Material fish for surimi Market: No actual market</p>

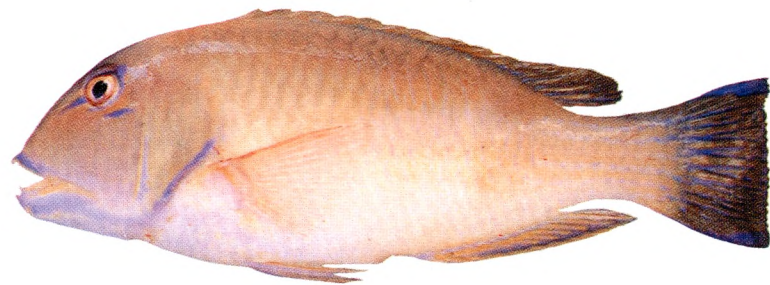
Dactylopus dactylopus
(Cuvier)



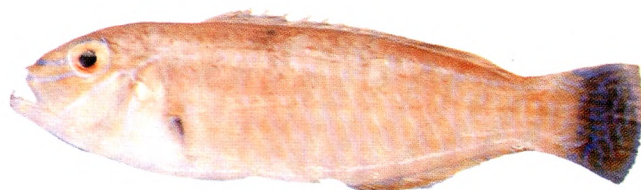
Daya jerdoni
(Day)



Choerodon schoenleini
(Valenciennes)



Xiphocheilus typus
Bleeker



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

RD 7212056
Spadefish

Seasonality:

No seasonality

Products presentation:

Whole, headless

Usage:

Deep fried, salted

Market:

No actual market

Body oval, deep, strongly compressed. Head higher than long. Mouth very small, on palate. 1st dorsal spine small, directed not protractile. No teeth on 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)

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

RD 7209033
Spotted sicklefish

Seasonality:

No seasonality

Products presentation:

Whole, headless

Usage:

Deep fried, salted

Market:

No actual market

Body rhombic, deep, strongly compressed. Head short, with elevated profile. Mouth 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)

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

RD 7206051
RD 7210032
Batfish

Seasonality:

No seasonality

Products presentation:

Whole, headless, gutted

Usage:

Deep fried, steamed, salted

Market:

No actual market

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)

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

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)

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 (bái dǔ)

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

Seasonality:
 Whole year round

Products presentation:
 Whole

Usage:
 Deep fried with soya sauce

Market:
 Hong Kong, Malaysia & Singapore

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 spinuous 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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, fillet

Usage:
 Fish & chips

Market:
 USA, Europe, Asia & Southeast Asia (widely accepted in most countries)

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 spinuous. 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)

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

Seasonality:
 Whole year round

Products presentation:
 Whole, fillet

Usage:
 Pan-fried

Market:
 USA, Europe, Australia & New Zealand

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; 刺补 (tì bǔ)

Siganus canaliculatus
(Park)



Siganus javus
(Linnaeus)



Psettodes erumei
(Schneider)



Grammatobothus polyopthalmus
(Bleeker)



Fam. Balistidae	<i>Abalistes stellaris</i> (Bloch & Schneider)	RD 7206002	Seasonality:
	D III 26-27; A 23-26	Starry triggerfish	Whole year round
	BL = 26.0 cm		Product presentation:
	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.		Fillet, minced
	Indigenous names: Jebong, Ayam laut; 仙公狄 (xiān gōng dī); 皮狄 (pí dī)		Usage:
			Deep fried
			Market:
			No specific market
.....			
Fam. Balistidae	<i>Alutera monceros</i> (Linnaeus)	RD 7209059	Seasonality:
	D ₁ II; D ₂ 48-50; A 50-51	Unicom filefish	Jan to April and Aug to Nov.
	BL = 36.2 cm		Products presentation:
	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.		Fillet and headless gutted-skinless
	Indigenous names: Barat-barat; 石狄 (shí dī)		Usage:
			Fish & chips, sweet and sour fish, porridge
			Market:
			China, Hongkong, Australia, Malaysia, Thailand, Singapore and Japan
.....			
Fam. Balistidae	<i>Monacanthus curtorthynchus</i> Bleeker	RD 7304018	Seasonality:
Subfam.	D ₁ II; D ₂ 27; A 26	Triggerfish, Filefish	Rare species
Monacanthinae	BL = 9.3 cm		Products presentation:
	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.		Fillet and headless gutted-skiffless
	Indigenous names: Barat-barat		Usage:
			Fish & chips, sweet & sour fish, fish porridge
			Market:
			China, Hongkong, Australia, Malaysia, Thailand, Singapore & Japan
.....			
Fam. Belistidae	<i>Monacanthus macrurus</i> Bleeker	RD 721005	Seasonality:
Subfam.	D ₁ II, D ₂ 29-30; A 27-30		Rare species
Monacanthinae	BL = 14.6 cm		Products presentation:
	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.		Headless, gutted-skinless
	Indigenous names: Barat-barat; 狄仔 (dī zǎi)		Usage:
			Stir fried, soya-sauce fried
			Market:
			Thailand, Malaysia & Singapore
.....			
Fam. Balistidae	<i>Monacanthus chinensis</i> (Bleeker)	RD 7509005	Seasonality:
Subfam.	D ₁ II, D ₂ 28-30; A 27-30		Rare species
Monacanthinae	BL = 16.6 cm		Products presentation:
	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.		Headless, gutted-skinless
	Indigenous names: Barat-barat; 正撕皮狄 (zhèng sī pí dī)		Usage:
			Stir fried, soya-sauce fried
			Market:
			Thailand, Malaysia & Singapore

Abalistes stellaris
(Bloch & Schneider)



Alutera monceros
(Linnaeus)



Monacanthus curtiorhynchus
Bleeker



Monacanthus macrurus
Bleeker



Monacanthus chinensis
(Bleeker)



Class Crustacea

Sub-Class Malacostraca

Order Decapoda

Fam. **Penaeidae** *Penaeus 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 jiē 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

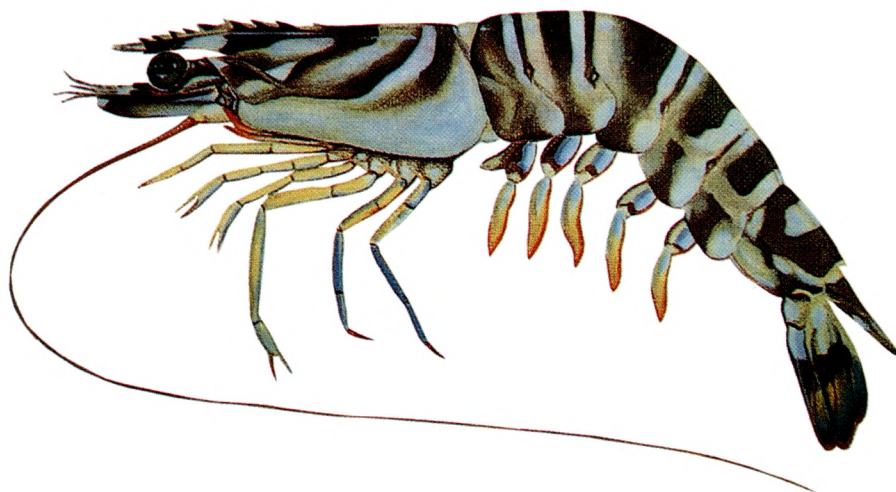
Usage:

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 Africa. Similar to *P. merguensis* 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 merguensis* 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

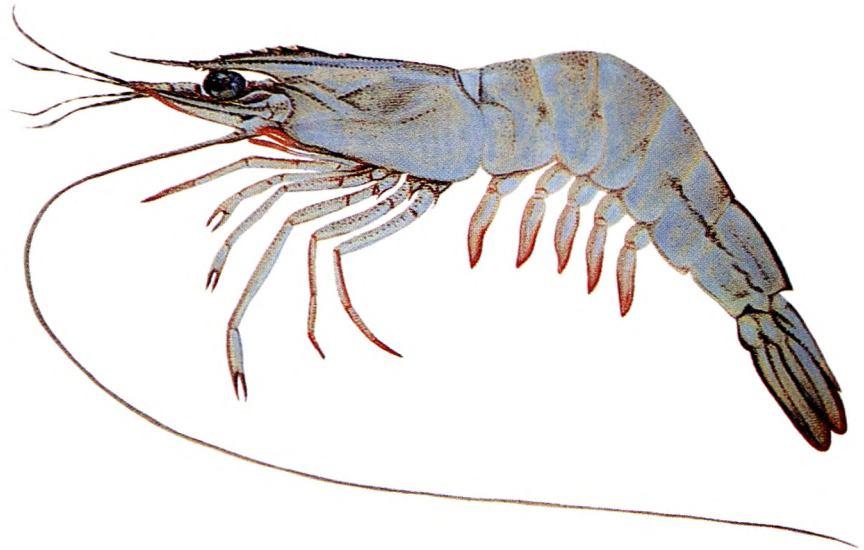
Usage:

Steamed/boiled, pan-fried

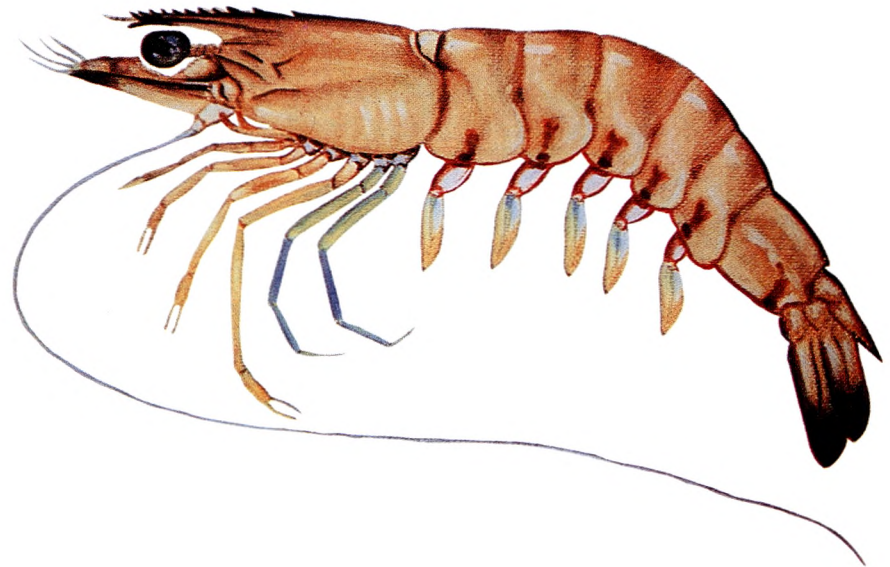
Market:

Australia, Japan, USA., EU & Southeast Asia

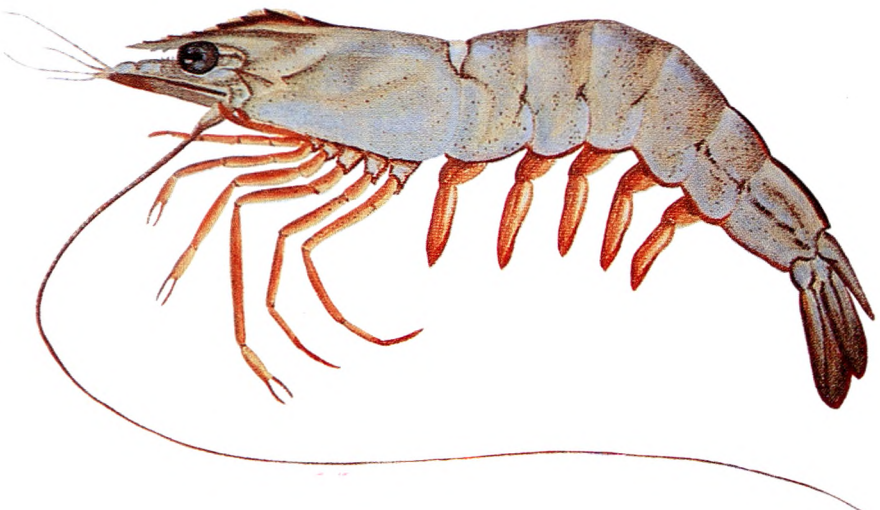
Penaeus indicus
H. Milne Edwards



Penaeus latisulcatus
Kishinouye



Penaeus merguensis
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

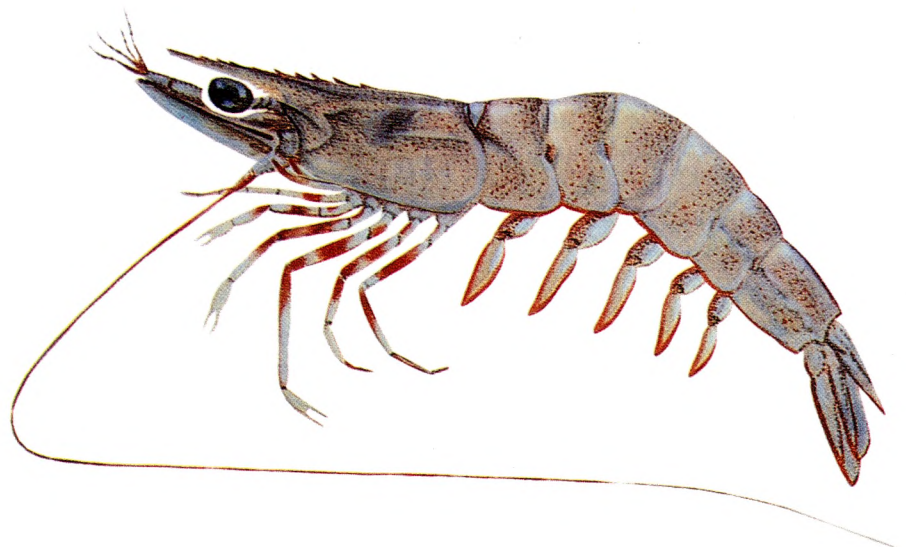
Metapenaeus affinis
H. Milne Edwards



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 titted 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 whitish bands 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

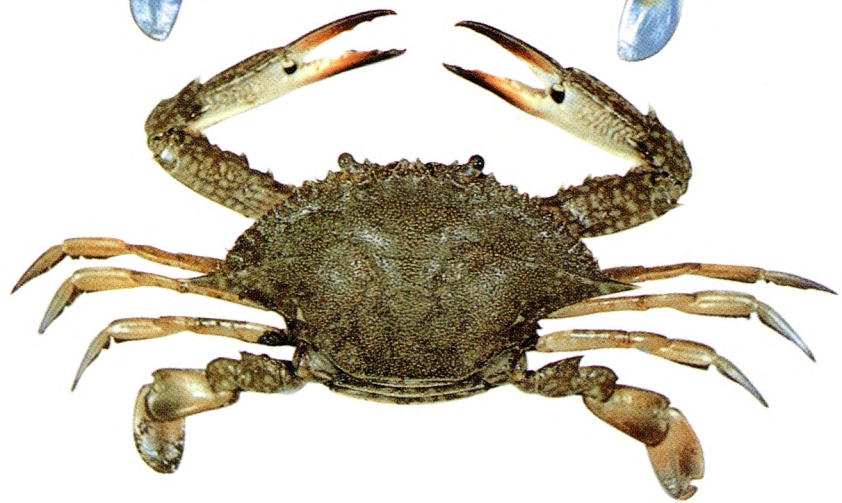
Usage:

Steamed or stir-fried

Market:

Southeast Asia, eg Singapore, Malaysia, Thailand, Myanmar, Vietnam & Indonesia.

Portunus pelagicus
Linnaeus



Scylla serrata
Forsk.



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, chilled 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-ventrally 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 pō)

Seasonality:

Whole year round

Products Presentation:

Whole, tail, live, chilled or frozen

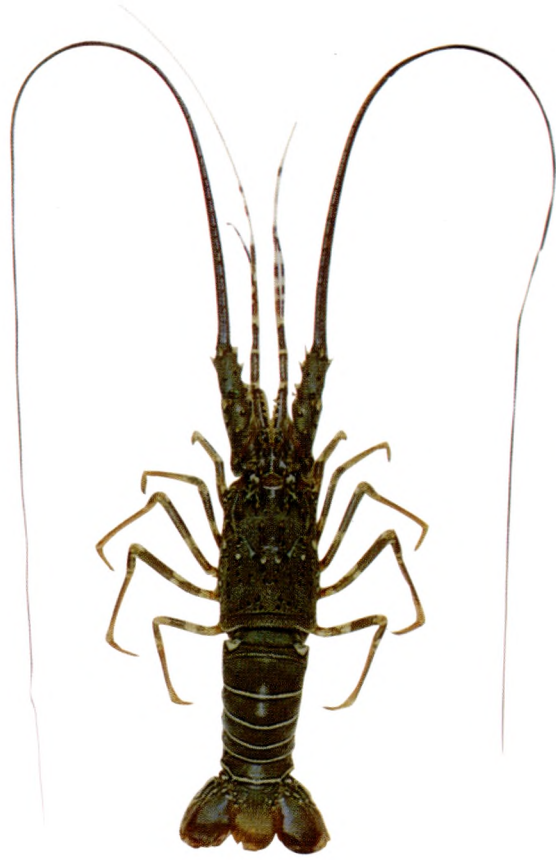
Usage:

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 content; normally caught by long line fishing method with saba, saba or squid baits; also caught 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 become elongated with increased age; easily confused with big Eye Tuna or Blue fin; distinguished by the 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 long meat tuna

Usage:

sashimi, smoked, salad, sandwich 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 elongated 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 squid baits; also fish by pole & line.

Seasonality:

whole year

Product presentation:

GG, SWT, loin or canned

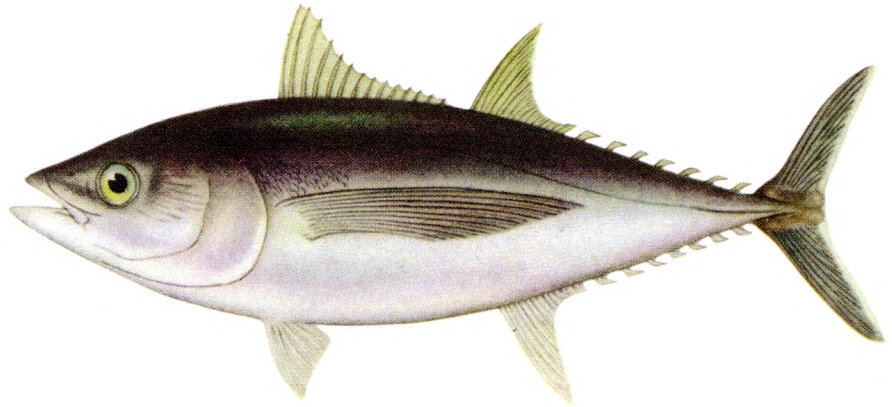
Usage:

sashimi, sandwich, barbecue

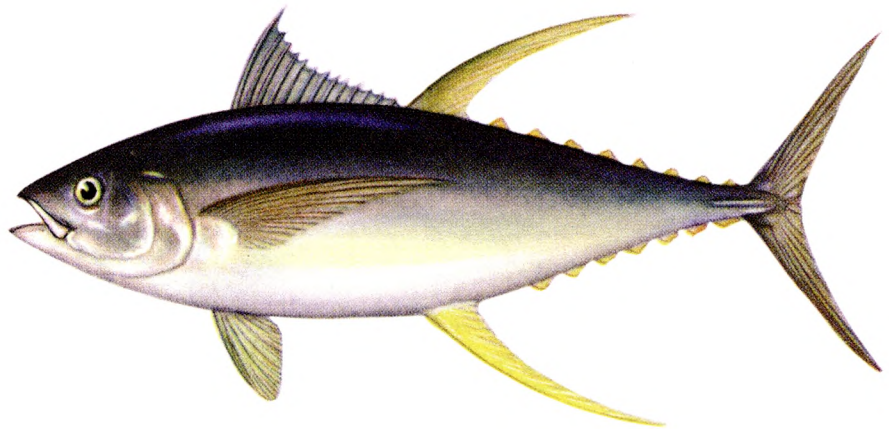
Market:

Japan and E.U.

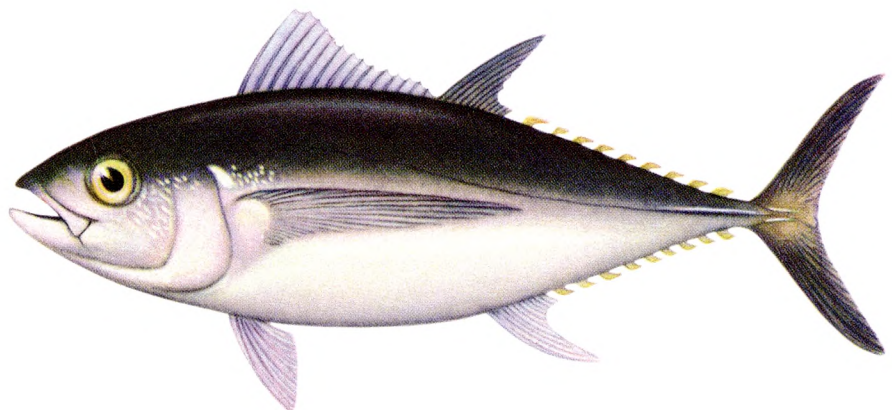
Thunnus alalunga
(Bonnaterre)



Thunnus albacares
(Bonnaterre)



Thunnus obesus
(Lowe)



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

Bluefin tuna

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 latitude, 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 presentation:

whole,GG

Usage:

sashimu

Market:

Japan, Korea

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

Skipjack tuna

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, smoked, smoked and dried for Katsubushi production

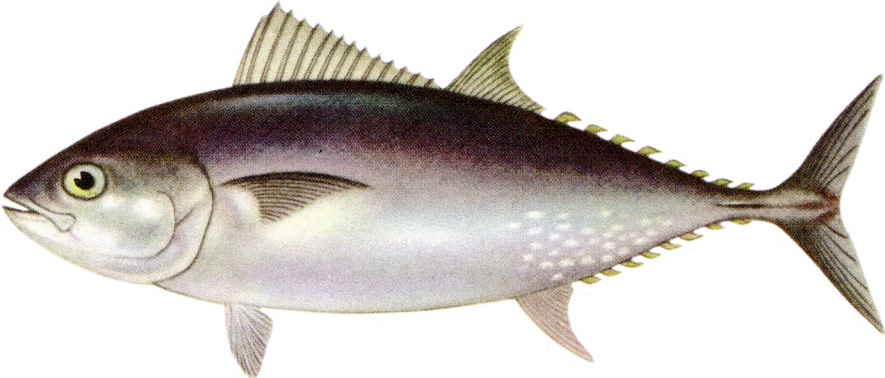
Usage:

sashimi, Japanese soup, salad, sandwich

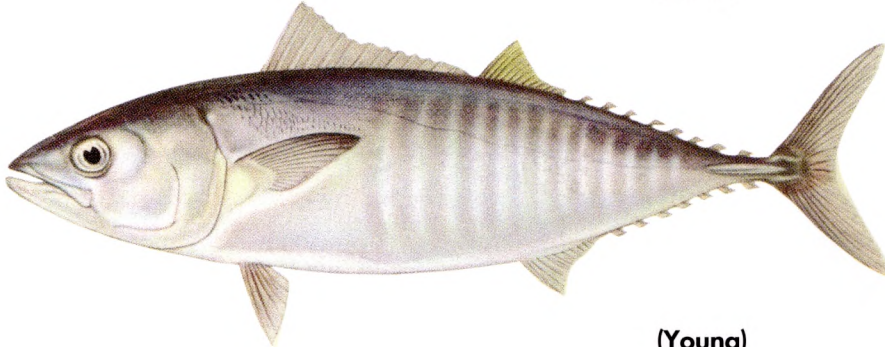
Market:

USA, E.U., Japan, Middle East, Thailand, Malaysia

Thunnus thynnus
(Linnaeus)

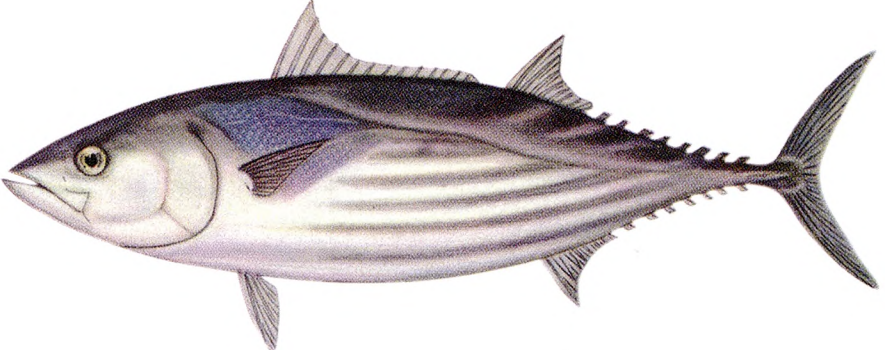


(Adult)



(Young)

Katsuwonus pelamis
(Linnaeus)



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

SWORDFISH
(Broadbill)

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 presentatopm:

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

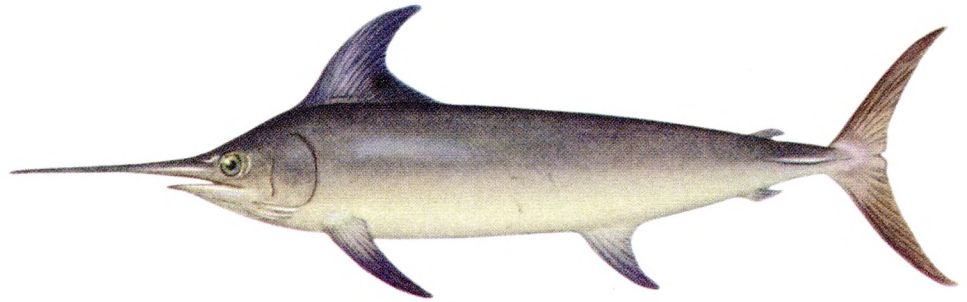
Usage:

sashimi, deep fride, BBQ, broiled, smoked

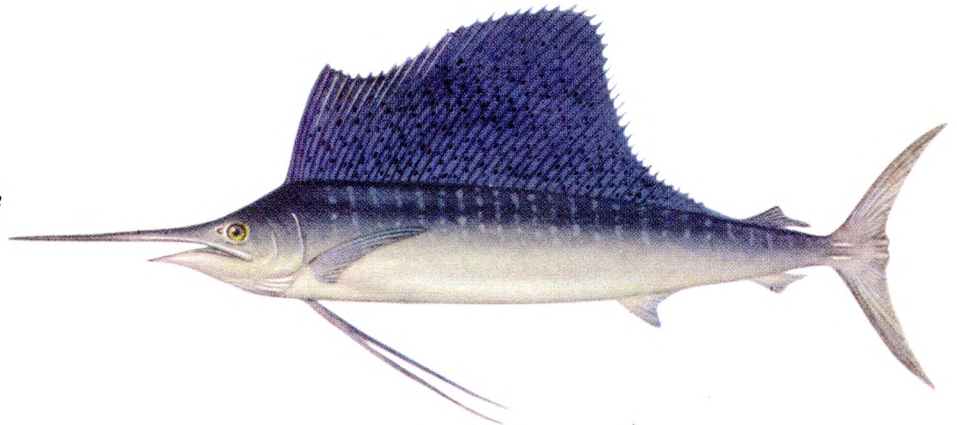
Market:

Japan, Taiwan, E.U.

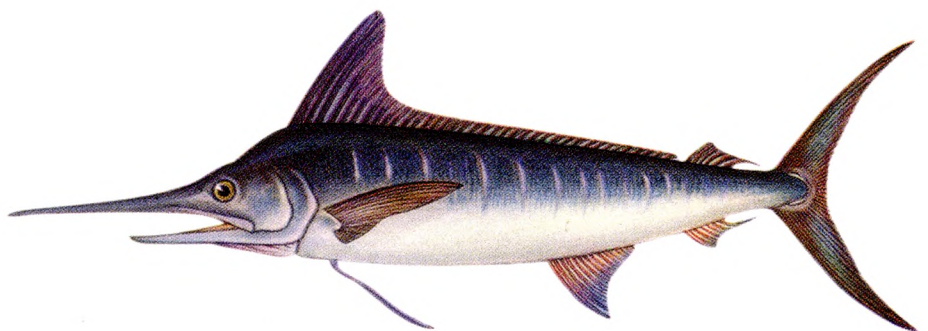
Xiphias gladius
(Linnaeus)



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.

Seasonality:

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

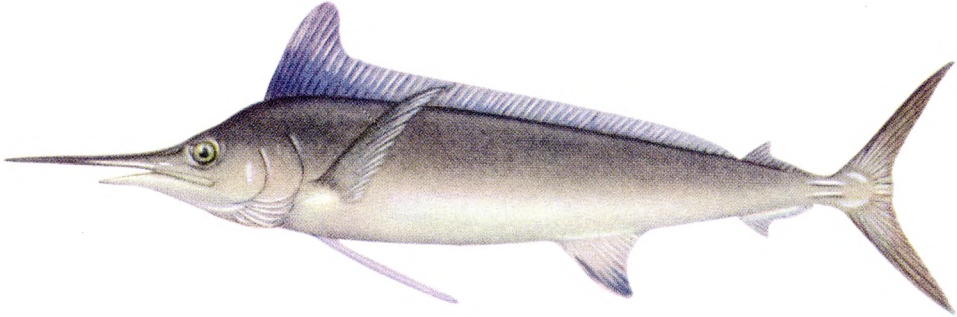
Usage:

sashimi, deep fried, barbecue, broiled, smoked

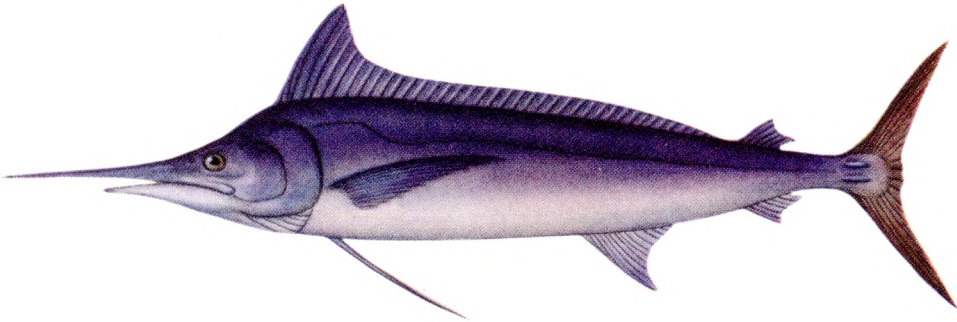
Market:

Japan, Taiwan, E.U. Korea

Makaira indica
(Cuvier)



Makaira nigricans
(Lacepede)



References

- Abu Talib, A. & Mahyam, MI. (1986) - Panduan mengenal-pasti jenis-jenis udang laut dagangan di Malaysia. Jabatan Perikanan. Kementerian Pertanian Malaysia.
- Bhatia, U. (1974) - Distribution of spiny lobsters along the west coast of Thailand with observations on their fishing grounds. Phuket Marine Biological Center, Thailand.
- Bleeker, M. P. (1862) - Atlas ichthyologique des Indes orientales Neerlandaises. Amsterdam, Federic Muller, (9 Vol).
- Chan, W. L. (1968) - Marine fishes of Hong Kong, part I. Hong Kong, Govt. Press.
- Day, F (1878) The fishes of India, being a natural history of the fishes known to inhabit the seas and freshwaters of India, Burma and Ceylon. New Delhi, Today and Tomorrow's Book Agency, 1971. (2 Vol.).
- Dore, I. & C. Frimodt (1987) - An illustrated guide to shrimp of the world. Osprey Books & Scandinavian Fishing Year Book.
- Fisher, W. & Whitehead, P.J.P. (1974) - FAO species identification sheets for fishing purposes. East Indian Ocean (Fishing area 57) and Western Central Pacific (Fishing area 71). Compiled by the Fishery Resources and Environment Division, FAO. Rome, FAO (4 Vol.).
- Katayama, M. (1960) - Fauna Japonica: Serranidae (Pisces), Tokyo News Service.
- Marshall, T.C. (1964) - Fishes of the Great Barrier Reef and coastal waters of Queensland. Sydney, Angus and Robertson.
- Mohammed Shaari, S.A.L. (1971) - A guide to trawl species in Penang waters. Malaysia, Ministry of Agriculture and Lands.
- Munro, I. S. R. (1955) - The marine and freshwater fishes of Ceylon. Canberra, Dept. of External Affairs.
- Munro, I.S.R. (1967) - The fishes of New Guinea. Port Moresby, Dept. of Agriculture, Stock and Fisheries.
- Rau, N. & A. Rau (1980) - Commercial marine fishes of the Central Philippines (Bony Fishes) Eschborn, German Agency for Technical Cooperation.
- Scott, J.S. (1959) - An introduction to the sea fishes of Malaya. Kuala Lumpur Government Printer.
- Smith, J.L.B. (1949) - The Sea Fishes of Southern Africa. Central News Agency, South Africa (2nd impression 1950).
- Weber, M. & L.F. de Beaufort (1911-1962) - The fishes of the Indo-Australian Archipelago. Vols. I-XI. E.J. Brill, Leden.

Index to Scientific Name

A			
Abalistes stellaris	44	Caesio lunaris	37
affinis, Metapenaeus	47	Caesio tile	37
Alectis ciliaris	11	Caesio xanthonotus	37
Alectis indicus	11	Callionymidae	41
Alepes (= Selar) kalla	10	canadus, Rachycentron	15
Alepes (= Selar malam) melanoptera	10	canaliculatus, Siganus	43
altifrontalis, Lutjanus	31	Carangidae	9-13
altivelis, Cromileptis	20	Carangoides armatus	12
Alutera monoceros	44	Carangoides chrysophrys	12
amblycephalus, Epinephelus	23	Carangoides gymnostethoides	12
anguillaaris, Plotosus	5	Carangoides malabaricus	2
Anodontosoma chacunda	2	carangoides, Uraspis	11
anomala, Psenopsis	16	carbunculus, Etelis	36
Anyperodon leucogrammicus	20	Centropomidae	19
Aphareus rutilans	36	Cephalopholis argus	21
Apogon frenatus	19	Cephalopholis boenak	21
Apogon quadrifasciatus	19	Cephalopholis miniatus	21
Apogonichthys ellioti	19	Cephalopholis sonnerati	21
Apogonichthys poecilopterus	19	chacunda, Anodontosoma	2
Apogonidae	19	chinensis, Monacanthus	44
Aprion virescens	36	chinensis, Pampus	16
areolatus, Epinephelus	22	Chirocentridae	2
argentata, Pennahia	27	Chirocentrus dorab	2
argenteus, Pampus	16	chlorostigma, Epinephelus	23
argentimaculatus, Lutjanus	32	Choerodon schoenleini	41
argus, Cephalopholis	21	chrysophrys, Carangoides	12
argyropleuron, Arius	5	chrysozona, Caesio	38
Argyrops spinifer	29	ciliaris, Alectis	11
Ariidae	5	Clupeidae	2, 3
Ariomma (= Psenes) indica	15	coiodes, Epinephelus	22
Arius argyropleuron	5	commerson, Scomberomorus	8
Arius thalassinus	5	commersoniahus Scomberoides	13
armatus, Carangoides	12	Congresox talabonoides	6
Atropus atropus	11	cordyla, Megalapis	9
Atule (= Selar) mate	10	cristatus, Tentoriceps	8
auriculla, Pristipomoides	35	Cromileptes altivelis	20
		crumenophthalmus, Selar	9
		curtorhynchus, Mohacanthus	44
		cyanostigma, Cephalopholis	21
		cyprinoides, Megalops	2
B		D	
Balistidae	44	Dactylopus dactylopus	41
barbata, Metapenaeopsis	48	Dasyatidae	1
batavianus, Platax	42	Dasyatis kuhlii	1
belangerii, Johnius	28	Daya jerdoni	41
bensasi, Upeneus	17	Decapterus macrosoma	9
biauritus, Otolithoides	28	Decapterus russelle	9
bifasciatum, Diploprion	20	delagoae, Nemipterus	25
bindus, Leiognathus	14	diagramma, Caesio	38
bipinnulatus, Elagatis	13	Diploprion bifasciatum	20
bleekeri, Epinephelus	23	ditchela, Pelona	3
bleekeri, Nemipterus	25	djiddensis, Rhynchobatus	1
boenak, Cephalopholis	21	dorab, Chirocentrus	2
bohar, Lutjanus	32	Drepane punctata	42
Bothidae	43	Drepanidae	42
brachysoma, Rastrelliger	7	Dussumieria hasseltii	2
brevicornis, Metapenaeus	47		
C		E	
cairulaureus, Caesio	37	Elagatis bipinnulatus	13
Caesio caerulaureus	37	ellioti, Apogonichthys	19
Caesio chrysozona	38		
Caesio diagramma	38		
Caesio erythrogaster	38		

elongata, Ilisha	3
elongatus, Gymnocranius	39
elongatus, Leiognathus	14
Engraulidae	3
ensis, Metapenaeus	47
Ephippidae	42
Ephippus orbis	42
Epinephelus amblycephalus	23
Epinephelus areolatus	22
Epinephelus bleekeri	23
Epinephelus chlorostigma	23
Epinephelus coioides	22
Epinephelus erythrurus	24
Epinephelus fasciatomaculatus	24
Epinephelus fasciatus	23
Epinephelus grammicus	24
Epinephelus heniochus	22
Epinephelus latifasciatus	24
Epinephelus malabaricus	22
Epinephelus moara	24
Epinephelus morrhua	23
Epinephelus poecilonotus	23
Epinephelus sexfasciatus	22
Epinephelus undulosus	24
equulus, Leiognathus	14
erumei, Psettodes	43
erythrogaster, Caesio	38
erythrurus, Epinephelus	24
Etelis carbunculus	36

F

fasciitolaculatus, Epinephelus	24
fasciatus, Epinephelus	23
filamentosa, Parapercis	40
filamentosus, Gerres	29
filamentosus, Pristipomodes	34
flavipinnis, Pristipomoides	34
Formio niger	16
Formionidae	16
frenatus, Apogon	19

G

Gerres filamentosus	29
Gerridae	29
Gnathodentex mossambicus	39
Grammatobothus polyopthalmus	43
grammicus, Epinephelus	24
griseus, Gymnocranius	39
guttatus, Scomberomorus	8
Gymnocranius elongatus	39
Gymnocranius griseus	39
gymnostethoides, Carangoides	12
Gymnura poecilura 11	1

H

hardwickii, Parapenaeopsis	48
hasseltii, Dussumieria	2
heniochus, Epinephelus	22
heptacanthus, Parupeneus	17
hoshinonis, Synodus	4

I

Ilisha elongata	3
indica, Ariomma	15
indicus, Alectis	11
indicus, Penaeus	46
indicus, Polynemus	7

indicus, Stolephorus	3
----------------------------	---

J

janthinuropterus, Lutjanus	32
japonicus, Nemipterus	26
japonicus, Penaeus	45
jarbua, Therapon	29
javus, Siganus	43
jello, Sphyræna	6
jerdoni, Daya	41
johni, Lutjanus	32
Johnieops volgleri	28
Johnius belangerii	28

K

kalla, Alepes	10
kanagurta, Rastrelliger	7
kuhlii, Dasyatis	1
kusaarii, Paracaesio	35
Kyphosidae	18
Kyhosus lembus	18

L

Labridae	41
Lactaridae	15
Lactarius lactarius	15
langsar, Sphyræna	6
Lates calcarifer	19
latifasciatus, Epinephelus	24
latisulcatus, Penaeus	46
Leiognathidae	14
Leiognathus bindus	14
Leiognathus elongatus	14
Leiognathus equulus	14
Leiognathus leuciscus	14
Leiognathus smithursti	14
lembus, Kyphosus	18
lentjan, Lethrinus	30
leopardus, Plectropomus	20
leptolepsis, Selaroides	10
lepturus, Trichiurus	8
Lethrinidae	30
Lethrinus lentian	30
Lethrinus miniatus	30
Lethrinus nematocanthus	30
leuciscus, Leiognathus	14
leucogrammicus, Anypærodon	20
lewini, Sphyrna	1
lineolatus, Lutjanus	33
Lobotes surinamensis	18
Lobotidae	18
longrimanus, Pentaprion	29
louti, Variola	21
lunaris, Caesio	37
Lutjanidae	31-38
Lutjanus altifrontalis	31
Lutjanus argentimaculatus	32
Lutjanus bohar	32
Lutjanus janthinuropterus	32
Lutjanus johnii	32
Lutjanus lineolatus	33
Lutjanus lutjanus	33
Lutjanus malabaricus	31
Lutjanus monostigma	33
Lutjanus sanguineus	31
Lutjanus sebae	31
Lutjanus spilurus	33

Lutjanus vitta 33

M

malabaricus, Epinephelus 22
maracanthus, Priacanthus 18
macrocephalus, Pennahia 27
macrophthalmus, Pennahia 27
macrosoma, Decapterus 9
macrurus, Monacanthus 15
maculata, Mene 15
maculatus, Plectropomus 20
maculatus, Pterotolithus 28
malabaricus, Carangoides 12
malabaricus, Lutjanus 31
marginatus, Nemipterus 26
mate, Alute 10
Megalaspis cordyla 9
Megalopidae 2
Megalops cyprinoides 2
melanoptera, Alepes 10
Mene maculata 15
Menidae 15
merguiensis, Penaeus 46
mesoprion, Nemipterus 26
Metapenaeus affinis 47
Metapenaeus brevicornis 47
Metapenaeus ensis 47
Metapenaeus barbata 48
militaris, Osteogeneiosus 5
miniatus, Cephalopholis 21
miniatus, Lethrinus 30
moara, Epinephelus 24
moluccensis, Upeneus 17
Monacanthinae 44
Monacanthus chinensis 44
Monacanthus curtiorhynchus 44
Monacanthus macrurus 44
monocerus, Alutera 44
monodon, Penaeus 45
monostigma, Lutjanus 33
morrhua, Epinephelus 23
mossambicus, Gnathodentex 39
Mullidae 17
multidens, Pristipomoides 34
Muraenesocidae 6
myops, Trachinocephalus 4

N

nematocanthus, Lethrinus 30
nematophorus, Nemipterus 26
Nemipteridae 25, 26
Nemipterus bleekeri 25
Nemipterus delagoae 25
Nemipterus japonicus 26
Nemipterus marginatus 26
Nemipterus mesoprion 26
Nemipterus nematophorus 26
Nemipterus nemurus 26
Nemipterus peronii 25
Nemipterus tolu 25
nemurus, Nemipterus 26
niger, Formio 16
Nigrofasciata, Seriolina 13

Nomeidae 15

O

obtusata, Sphyaena 6
Opisthopterus tardoore 3
orbis, Ehippus 42
orientalis, Thenus 50
Osteogeneiosus militaris 5
Otolithoides biauritus 28

P

Palinuridae 50
Palinurus polyphagus 50
Pampus argenteus 16
Pampus chinensis 16
Paracaesio kusakarii 35
Paracaesio xanthurus 35
Parapenaeopsis hardwickii 48
Parapenaeopsis sculptilis 48
Parapercidae 40
Parapercis filamentosa 40
Parapercis pulchella 40
Parapercis xanthozona 40
Parupeneus heptacanthus 17
pawak, Pennahia 27
pelagicus, Portunus 49
Pellona ditchela 3
Penaeidae 45, 46, 47, 48
Penaeus indicus 46
Penaeus japonicus 45
Penaeus latisulcatus 46
Penaeus merguiensis 46
Penaeus monodon 45
Penaeus semisulcatus 45
Pennahia argentata 27
Pennahia macrocephalus 27
Pennahia macrophthalmus 27
Pennahia pawak 27
Pentapodidae 39
Pentapodus setosus 39
Pentaprion longimanus 29
peronii, Nemipterus 25
pictus, Plectorhynchus 38
Pinjalo pinjalo 36
Platacidae 42
Platax batavianus 42
Plectorhynchus pictus 38
Plectropomus leopardus 20
Plectropomus maculatus 20
Plotosidae 5
Plotosus anguillaris 5
poecilnotus, Epinephelus 23
poecilopterus, Apogonichthys 19
poecilura, Gymnura 1
Polynemidae 7
Polynemus indicus 7
Polynemus sextarius 7
polyphthalmus, Grammatobothus 43
polyphagus, Palinurus 50
Pomacentridae 41
Pomadasyidae 38
Portunidae 49
Portunus pelagicus 49

Priacanthidae	18
Priacanthus macracanthus	18
Priacanthus tayenus	18
Pristipomoides auriculla	35
Pristipomoides filamentosus	34
Pristipomoides flavipinnis	34
Pristipomoides multidentis	34
Pristipomoides sieboldii	35
Pristipomoides typus	34
Psenopsis anomala	16
Psettodes erumei	43
Psettodidae	43
Pterolithus maculatus	28
pulchella, Parapercis	40
punctata, Drepane	42

Q

quadrifasciatus, Apogon	19
-------------------------------	----

R

Rachycentridae	15
Rachycentron canadus	15
Rastrelliger brachysoma	7
Rastrelliger kanagurta	7
Rhinobatidae	1
Rynchobatus djiddensis	1
russelli, Decapterus	9
rutilans, Aphareus	36

S

sanguineus, Lutjanus	31
Saurida tumbil	4
Saurida undosquaminus	4
Sciaenidae	27, 28
schoenleini, Choerodon	41
Scolopsidae	40
Scolopsis taeniopterus	40
Scolopsis vosmeri	40
Scombridae	7, 8
Scomberoides (= Chorinemus)	
commersonianus	13
Scomberoides (= Chorinemus) tol	13
Scomberomorus commerson	8
Scomberomorus guttatus	8
sculptilis, Parapenaeopsis	48
Scylla serrata	49
Scyllaridae	50
sebae, Lutjanus	31
Selar crumenophthalmus	9
Selaroides leptolepis	10
semisulcatus, Penaeus	45
Seriolina (= Zonichthys) nigrofasciata	13
Serranidae	20-24
serrata, Scylla	49
setosus, Pentapodus	39
sexfasciatus, Epinephelus	22
sextarius, Polynemus	7
sieboldii, Pristipomoides	35
Siganidae	43
Siganus canaliculatus	43
Siganus javus	43
smithursti, Leiognathus	14
sonnerati, Cephalopholis	21

Sparidae	29
Sphyræna langsar	6
Sphyræna jello	6
Sphyræna obtusata	6
Sphyrænidae	6
Sphyrna lewini	1
Sphyrnidae	1
spilurus, Lutjanus	33
spinifer, Argyrops	29
stellaris, Abalistes	44
Stolephorus indicus	3
Stromateidae	16
sulphureus, Upeneus	17
surinamensis, Lobotes	18
Synodontidae	4
Synodus hoshinonis	4

T

taeniopterus, Scolopsis	40
talabonoides, Congresox	6
tambuloides, Nemipterus	25
tardoore, Opisthopterus	3
tauuina, Epinephelus	22
tayenus, Priacanthus	18
Tentoriceps cristatus	8
thalassinus, Arius	5
Thenus orientalis	50
Therapon jarbua	29
Therapon theraps	29
Theraponidae	29
theraps, Therapon	29
tile, Caesio	37
tol, Scomberoides	13
tolu, Nemipterus	25
Trachinocephalus myops	4
tragula, Upeneus	17
Trichiuridae	8
Trichiurus lepturus	8
tumbil, Saurida	4
typus, Pristipomoides	34
typus, Xiphocheilus	41

U

undosquamis, Saurida	4
undulosus, Epinephelus	24
Upeneus (= Pennon) bensasi	17
Upeneus moluccensis	17
Upeneus sulphureus	17
Upeneus (= Pennon) tragula	17
Uraspis carangoides	11

V

Variola louti	21
virescens, Aprion	36
vitta, Lutjanus	33
vogleri, Johnieops	28
vosmeri, Scolopsis	40

X

xanthonotus, Caesio	37
xanthozona, Parapercis	40
xanthurus, Paracaesio	35
Xiphocheilus typus	41

Index to Common Names

A			
anchovy	3	elongated large-eye bream	39
areolated grouper	22	emperor red snapper	31
B		F	
banded barracuda	6	false trevally	15
banded-cheek grouper	22	filefish	44
banded grouper	23	five-lined threadfin bream	25
banana prawn	46	flounder	43
barracuda	6	flower crab	49
barramundi	19	four-band cardinal fish	19
barred spanish mackerel	8	fusilier	38
batfish	42	G	
Belanger's croaker	28	giant catfish	5
bigeye croaker	27	giant tiger prawn	45
bigeye scad	9	gizzard shad	2
bigeye snapper	18	goatfish	17
big-head pennah croaker	27	gold-band fusilier	17
black-banded trevally	13	gold-banded goatfish	17
black-fin crevalle scad	10	golden snapper	32
black kingfish	15	golden-striped snapper	33
black pomfret	16	greasyback shrimp	47
blackspot threadfin	7	greasy grouper	22
Bleeker's grouper	23	green jobfish	36
blotched tiger-toothed croaker	28	green tiger prawn	45
bludger trevally	10	grey large-eye bream	39
blue-and-gold fusilier	37	grouper	20-24
blue-and-yellow snapper	33	grunter	29
blue-spotted seabass	20, 21	H	
bluntnose lizardfish	4	hair-tail	8
bronze croaker	28	halibut	43
brown-banded seabass	21	hammer-head shark	1
brown-lined grouper	24	hard-tail	9
brown-spotted grouper	23	herring	2, 3
brown-striped snapper	33	humpback seabass	20
butterfish	15, 16	I	
C		indian anchovy	3
catfish	5	indian halibut	43
cardinal fish	19	indian mackerel	7
cavalla	12	indian pellona	3
Chinese pomfret	16	indian white prawn	46
cobia	15	indo-Pacific spanish mackerel	8
cock-up	19	J	
common ponyfish	14	Japanese butterfish	16
coral trout	20, 21	Japanese threadfin bream	26
crescent perch	29	Jarua tharapon	29
crested hairtail	8	jewfish	27
crevalle	10, 11	jobfish	36
croaker	27, 28	John's snapper	32
curve-banded grouper	23	K	
D		kingfish	13
damsel fish	41	kuruma prawn	45
dark-banded fusilier	38	kuweh trevally	11
delagoa threadfin bream	25	L	
dorab	2	large-scaled banded grunter	29
dot-dash grouper	23	laterally-banded grouper	24
double-whip threadfin bream	26	lattice monocle bream	40
dragonet	41	leopard coral trout	20
drummer	18	lined grouper	24
dusky perch	18	lizardfish	4
E		longface emperor	30
elongate ilisha	3		

long-finned herring	2
long-finned silver-biddy	29
long-finned trevally	12
long-nose cavalla	12
long-nose trevally	12
long-nosed pigface bream	30
long-rayed silver biddy	29
long-spine emperor	30
long-tailed butterfly ray	1

M

mackerel	7
malabar cavalla	12
malabar grouper	22
malabar red snapper	31
malabar trevally	12
mangrove crab	49
mangrove red snapper	31
moonfish	15
moontail seabass	21
Mozambique large-eye bream	39
mud crab	49

N

naked-headed seabream	39
notched threadfin bream	25

O

obtuse barracuda	6
one-finlet scad	10
one-spot snapper	33
orange-fin ponyfish	14
ox-eye	2

P

painted sweetlip	38
pale-finned threadfin bream	26
pawak croaker	27
pigface bream	30
pike conger eel	6
pinjalo snapper	36
pink shrimp	47
polka-dot grouper	20
pomfret	16
ponyfish	14

Q

queenfish	13
-----------------	----

R

rabbitfish	43
rainbow runner	13
rainbow shrimp	48
ray	1
red-banded grouper	23
red coral trout	21
red-filament threadfin bream	26
red grouper	21
red mullet	17
red seabream	29
red snapper	31, 32
red-spine threadfin bream	26
red-spot emperor	30
ribbonfish	8
rising-moon fusilier	37
rock-cod	20
rock grouper	24

rosy snapper	33
rosy threadfin bream	25
round herring	2
round scad	9

S

sand velvet shrimp	48
scad	9, 10
seabass	19, 20, 21
seabream	29, 39
seaperch	20
shad	2, 3
shark	1
sharp-toothed hammer croaker	28
sharp-toothed snapper	34
short-bodied mackerel	7
shovel-nose ray	1
shovel-nosed lobster	50
sicklefish	42
silver biddy	29
silver pennah croaker	27
silver pomfret	16
six-banded grouper	22
slender leatherskin	13
slender ponyfish	14
slender shad	3
slipper lobster	50
small-toothed jobfish	36
Smithursti's ponyfish	14
snapper	18, 31, 32, 33, 34, 36
soldier catfish	5
spadefish	42
spanish mackerel	8
spear shrimp	48
spiny lobster	50
spotted coral trout	20
spotted leatherskin	13
spotted sicklefish	42
spotted spanish mackerel	8
spotted stingray	1
sprat	2
starry triggerfish	44
streaked spinefoot	43
striped catfish eel	5
swimming crab	49
sword-lipped wrasse	41

T

talang queenfish	13
tardoore	3
tarpon	2
threadfin	7
threadfin bream	25, 26, 39
threadfin trevally	11
three-spot flounder	43
torpedo	9
trevally	11, 12, 13, 15
triggerfish	44
triple-tail	18
tusk fish	41
two-banded seaperch	20

U

unicorn filefish	44
------------------------	----

V

vermilion seabass (grouper)	21
-----------------------------------	----

western king prawn	33
whipfin ponyfish	14
white-cheek ,monocle bream	40
whitefish	15
white-lined rock cod	20
white pomfret	16
white snapper	34,35
white spotted spinefoot	43
white-tongue crevalle	11

wolf-herring	2
wrasse	41

Y

yellow-banded scad	10
yellow goatfish	17
yellow shrimp	47
yellow-streaked snapper	32
yellow-tail fusilier	38

Index to Tuna and Billfishes

A

alalunga, Thunnus	51
albacares, Thunnus	51
albacore	51
audax, Tetraplurus	53

B

bigeye tuna	51
black marlin	54
blue marlin	54
bluefin tuna	52

G

gladius, Xiphias	53
------------------------	----

I

indica, Makaria	54
Istiophorus platypterus	53

K

Katsuwonus pelamis	52
--------------------------	----

M

Makaira indica	54
Makaira nigricans	54

N

nigricans, Makaira	54
--------------------------	----

P

pelamis, Katsuwonus	52
platypterus, Istiophorus	53

S

sailfish	53
skipjack tuna	52
striped marlin	53
swordfish	53

T

Tetraplurus audax	53
Thunnus alalunga	51
Thunnus albacares	51
thunnus obesus	51
Thunnus thynnus	52

Y

yellowfin tuna	51
----------------------	----



ISBN 981-00-8324-6

Price: S\$35.00