The background image shows a dense forest with tall, thin trees against a clear blue sky. The trees have intricate, branching patterns of bark and branches. The lighting suggests a bright day with some shadows from the surrounding canopy.

# THE FIELD GUIDE TO PIRE TARGET SPECIES

# Resources

**Australian Institute of Marine Science**

<http://www.aims.gov.au/>

**Corals of the World**, by J. E. N. Veron

**FishBase**

<http://www.fishbase.org/home.htm>

**Reef Fish Identification Tropical Pacific**, by Gerald Allen, Roger Steene,  
Paul Humann, and Ned DeLoach

## Guide to languages:

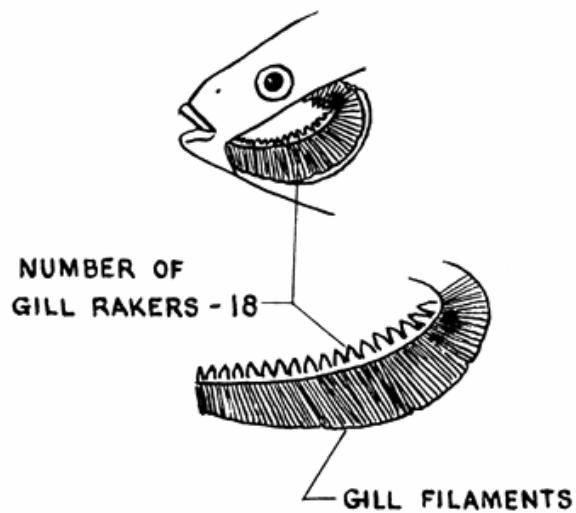
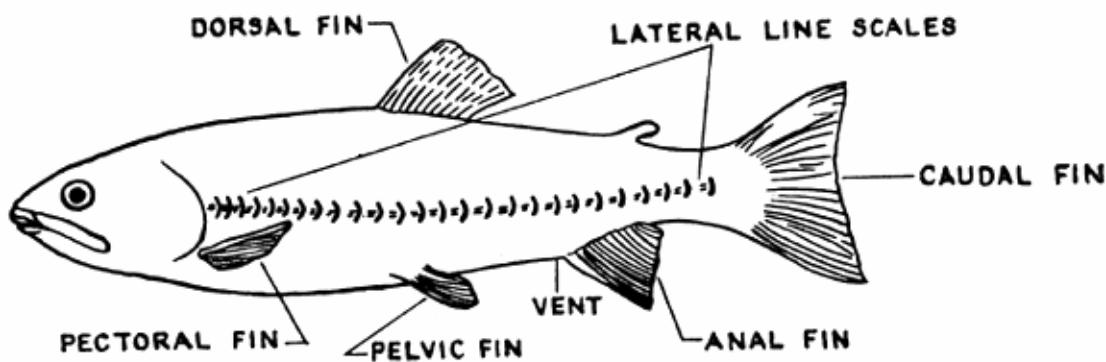
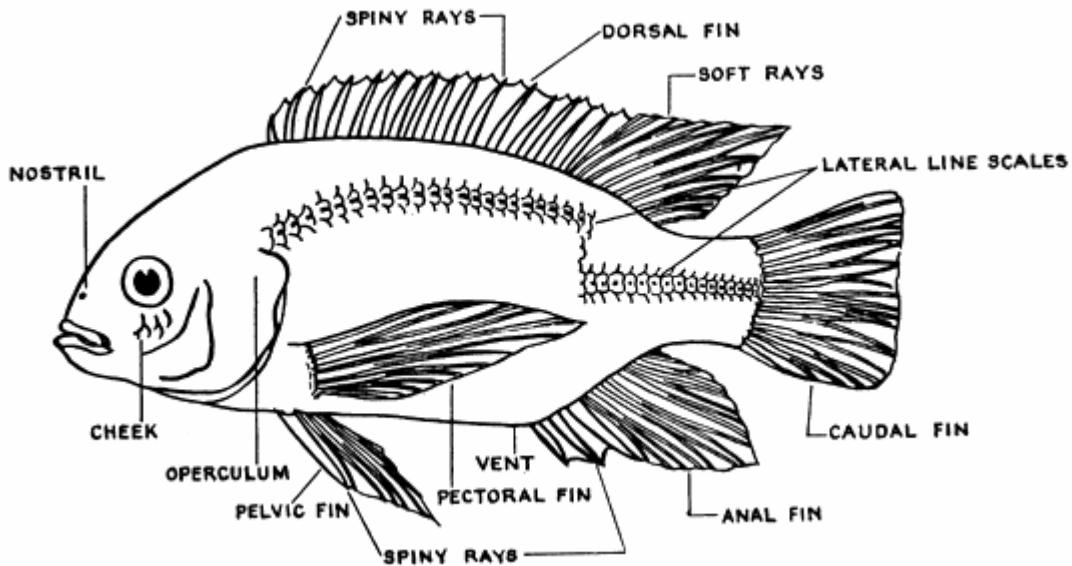
Tac: Tagbanwa Calamian

Ta: Tagalog

Vi: Visayan

Ma: Malay

# Key to Fish Anatomy



# Ember Parrotfish

*Scarus rubroviolaceus*

**Local Name:** Ta: Isdang loro, Loro, Mulmol, Yapot

**Size:** 70 cm

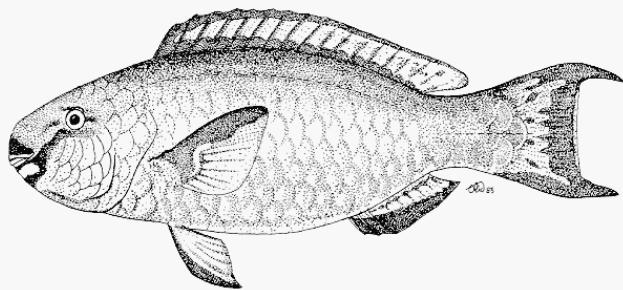
**ID:** Dorsal spines (total): 9 - 9; Dorsal soft rays (total): 10 - 10; Anal spines: 3; Anal soft rays: 9. Some geographical variations. Indonesian adults usually have darker front half that is defined into a broad pale band at night. Males develop a gibbus forehead.

**Biology:** Occurs in seaward reefs. Usually over rocky or coral substrates, at boulder-strewn slopes at the base of high-island cliffs where it may occur in large schools. Large adult usually on upper parts of deep slopes, but seen to about 35 m depth. Enyobenthic. Feeds on benthic algae. A protogynous hermaphrodite. An uncommon species.

**Collection Information:** Sling Spear, Fin clip

**Similar Species:** *Scarus xanthopleura*

[Appendix A 1-A](#)



# Checkerboard Wrasse

*Halichoeres hortulanus*

**Local Name:** Ta: Labayan, Mameng, Payuk

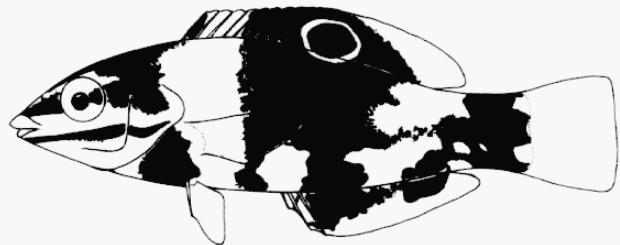
**Size:** 27 cm

**ID:** Dorsal spines (total): 9 - 9; Dorsal soft rays (total): 11 - 11; Anal spines: 3; Anal soft rays: 11. Some geographical variations between Indian and Pacific Ocean and Red Sea. Adults with one or two yellow saddles over the back and sometimes with small black spot on upper peduncle. Small juveniles black and white, gradually changing with growth to adult pattern.

**Biology:** Inhabits sand patches of lagoon and seaward reefs to at least 30 m; also on slopes to moderate depths along drop-offs. Juveniles common at the bottom of surge channels. Feeds mainly on hard-shelled prey, including mollusks, crustaceans and sea urchins.

**Collection Information:** Microspear, Fin clip

**Similar Species:** *Halichoeres ornatus*: Dorsal soft rays (total): 12 - 12; Anal soft rays: 12 (Gerald, 219) [Appendix A 1-B](#)



Juv.



# Indian Mackerel

*Rastrelliger kanagurta*

**Local Name:** Ta: Alumahan, Kabayas, Lumahan

**Size:** 35 cm

**ID:** Dorsal spines (total): 8 - 11; Dorsal soft rays (total): 12 - 12; Anal spines: 0; Anal soft rays: 12. Head longer than body depth. Maxilla partly concealed, covered by lachrymal bone but extending to about hind margin of eye. Bristles on longest gill raker 105 on one side in specimens of 12.7 cm, 140 in 16 cm, and 160 in 19 cm fork length specimens. A black spot on body near lower margin of pectoral fin. Interpelvic process small and single. Swim bladder present. Anal spine rudimentary.



**Biology:** Adults occur in coastal bays, harbors and deep lagoons, usually in some turbid plankton-rich waters. Form schools. Feed on phytoplankton (diatoms) and small zooplankton (cladocerans, ostracods, larval polychaetes, etc.). Small groups were seen eating eggs of *Cheilio inermis* straight after spawning. Adult individuals feed on macroplankton such as larval shrimps and fish. Eggs and larvae are pelagic. Generally marketed fresh, frozen, canned, dried-salted, and smoked; also made into fish sauce.

**Collection Information:** Fish market, Fin clip

**Similar Species:** *Rastrelliger faughni*: 30 to 55 gill rakers on one side Appendix A 1-C

# Narrow-barred Spanish Mackerel

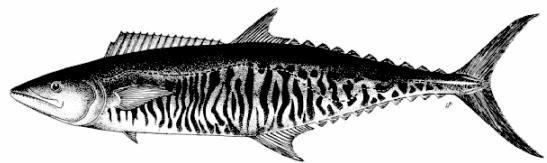
*Scomberomorus commerson*

**Local Name:** Ta: Dilis, Maladyong, Tangigi, Tangigue

**Size:** 240 cm

**ID:** Dorsal spines (total): 15 - 18; Dorsal soft rays (total): 15 - 20; Anal spines: 0; Anal soft rays: 16 - 21; Vertebrae: 42 - 46. Interpelvic process small and bifid. Swim bladder absent. Lateral line abruptly bent downward below end of second dorsal fin. Intestine

with 2 folds and 3 limbs. Vertical bars on trunk sometimes break up into spots ventrally which number 40-50 in adults, and less than 20 in juveniles. Juveniles with large oval dark spots on body; middle third of first dorsal fin white, rest of fin black.



0 17 cm



**Biology:** Distributed from near edge of continental shelf to shallow coastal waters, often of low salinity and high turbidity. Also found in drop-offs, and shallow or gently sloping reef and lagoon waters. Solitary hunter; Often found swimming in shallow water along coastal slopes.

**Collection Information:** Fish market, Fin clip

**Similar Species:** *Acanthocybium solandri*: Dorsal spines (total): 23 - 27 (Gerald, 131) Appendix A 2-D

# Threespot Dascyllus

*Dascyllus trimaculatus*

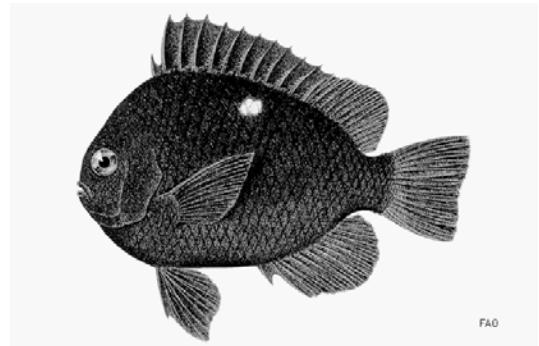
**Local Name:** Vi: Palata

**Size:** 11 cm

**ID:** Dorsal spines (total): 12 - 12; Dorsal soft rays (total): 14 - 16; Anal spines: 2; Anal soft rays: 14 – 15. Juveniles overall black with scale centers bluish; white blotch on forehead and upper sides; all fins black except the transparent pectoral and outer portion of soft dorsal rays. Geographic and behavioral color of adults variable; no spot on forehead; spot on upper sides very reduced; head and fins normally black; scales with black margins. Margins of preorbital, suborbital and preoperculum finely serrated.

**Biology:** Inhabits coral and rocky reefs, juveniles often commensal with large sea anemones, sea urchins, or small coral heads. Occurs in small to large aggregations. Stomach contents include algae, copepods, and other planktonic crustaceans.

**Collection Information:** Fish market, Aquarium net, Fin clip



FAO



Juv.

# Black-and-Gold Chromis

*Neoglyphidodon nigroris*

**Local Name:** Tac: Palata, Kikiringan

**Size:** 13 cm

**ID:** Dorsal spines (total): 13 - 13; Dorsal soft rays (total): 14 - 16; Anal spines: 2; Anal soft rays: 13 – 15. Long-tailed and black as adults; juveniles distinctively yellow with two black stripes.

**Biology:** Occur in coral-rich areas of lagoon and seaward reefs. Usually solitary. Feed on algae, crustaceans, and pelagic tunicates and salps.

**Collection Information:** Fish market, Microspear, Fin clip

**Similar Species:** *Neoglyphidodon thoracotaeniatus*: Dorsal soft rays (total): 12 - 14 (Gerald, 70) Appendix A 2-E



Juv.

# Mottled Spinefoot

*Siganus fuscescens*

**Local Name:** Ta: Balawis, Alama, Indongan, Samalar  
Ma: Debam, Dengkis, Madar, Samadar

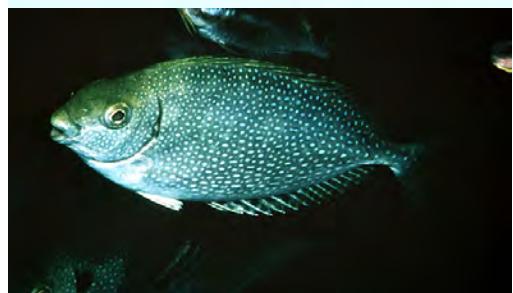
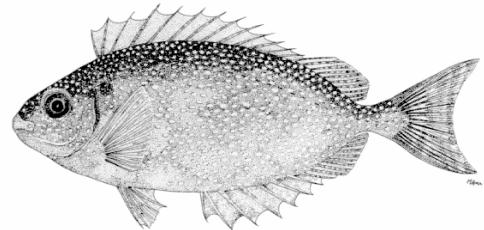
**Size:** 40 cm

**ID:** Dorsal spines (total): 13 - 13; Dorsal soft rays (total): 10 - 10; Anal spines: 7; Anal soft rays: 9; Vertebrae: 13. Body olive green or brown above, silvery below; fish frequently with a dark patch below origin of lateral line. Adults become mottled when frightened. Slender, pungent, venomous spines. Preopercular angle 89°-95°. Lower half to 2/3 of cheeks commonly covered with weak, scattered scales. Midline of thorax between pelvic ridges. Differs from *S. argenteus* in details of coloration and less deeply forked tail.

**Biology:** Inhabits algal and seagrass flats and shallow lagoon and coastal reefs. Forms schools. Mainly diurnal. Juveniles feed on filamentous algae, adults feed on leafy algae and seagrasses. Commercially cultured in Japan. Commonly found in large estuaries. Anterolateral glandular groove with venom gland.

**Collection Information:** Fish market, Sling Spear, Fin clip

**Similar Species:** *Siganus argenteus* (Gerald, 58) [Appendix A 2-F](#)



# Redbelly Yellowtail Fussilier

*Caesio cuning*

**Local Name:** Ta: Bilason, Dalagang bukid, Lapad  
Ma: Pisang, Pisang-Pisang, Sulit, Delah, Ekor Kuning

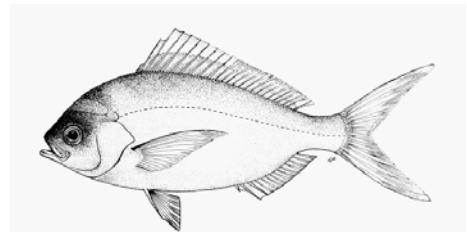
**Size:** 60 cm

**ID:** Dorsal spines (total): 10 - 10; Dorsal soft rays (total): 14 - 16; Anal spines: 3; Anal soft rays: 10 – 12. Deep-bodied. Scales center lighter than margins; lower 1/3 white, sometimes suffused by pink; prominent black markings on caudal fin absent. 4-5 scales on cheek; predorsal scales 20-26; scaled dorsal and anal fins. Upper peduncular scale rows 9-11; lower peduncular scale rows usually 12-14. Distinguished from *C. teres* in having a continuous supra-temporal band of scales across the dorsal midline. Basioccipital process for attachment of Baudelot's ligament absent. Post maxillary process single; posterior end of maxilla blunt. Color: Upper body if not yellow, grayish blue; lower sides and belly white or pinkish. Pectoral, pelvic and anal fins white to pink. Large yellow tail. Dorsal fin yellow posteriorly and grayish blue anteriorly. Length usually at 35 cm.

**Biology:** Inhabits coastal areas, usually over rocky and coral reefs. Forms schools in midwater and feeds on zooplankton. Oviparous, with numerous, small pelagic eggs. Taken primarily by handline in Sri Lanka; caught mostly by fish traps in western Thailand and Malaysia; caught in trawls in the Gulf of Thailand; caught by a variety of methods including drive-in nets, fish traps and gill nets in Indonesia, the Philippines and Papua New Guinea. The most ancestral living caesionid species.

**Collection Information:** Fish market, Sling Spear, Fin clip

**Similar Species:** *Caesio teres*: Anal soft rays: 12 – 13 (Gerald, 141), *Caesio xanthonota* (Gerald, 141)  
[Appendix A 3-G](#)



# Clown Anemonefish

*Amphiprion ocellaris*

**Local Name:** Ma: Bombin, Gombing, Inggu

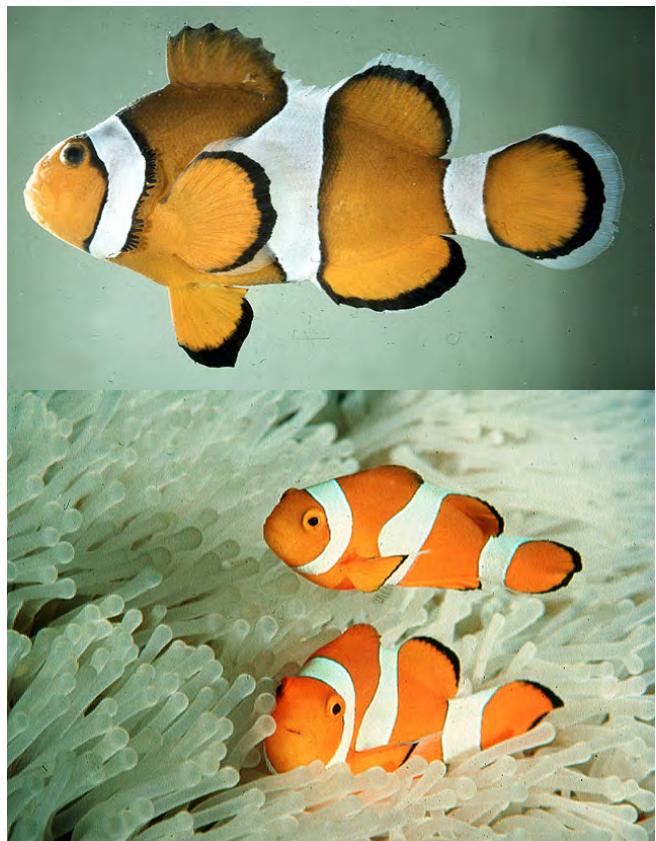
**Size:** 11 cm

**ID:** Dorsal spines (total): 10 - 11; Dorsal soft rays (total): 13 - 17; Anal spines: 2; Anal soft rays: 11 – 13. Easily identified by the orange color and three white bands, the middle one widening forward to the head centrally. Caudal fin rounded.

**Biology:** Inhabits shallow and calm lagoons. Are protandrous hermaphrodites. Distinct pair is monogamous. One of the most popular marine aquarium fishes. Bred artificially in Florida for the aquarium trade. Associated with the anemones: *Heteractis magnifica*, *Stichodactyla gigantea*, and *Stichodactyla mertensii*. Has been reared in captivity. Has reached an age of 12 years in captivity.

**Collection Information:** Fish market, Aquarium net, Fin clip

**Similar Species:** *Amphiprion percula*: Dorsal spines (total): 9 - 10 (Gerald, 67), *Premnas biaculeatus*: Dorsal soft rays (total): 17 - 18 (Gerald, 67) Appendix A 3-H



# Orange-spotted Grouper

*Epinephelus coioides*

**Local Name:** Ma: Balong, Kerapu macan

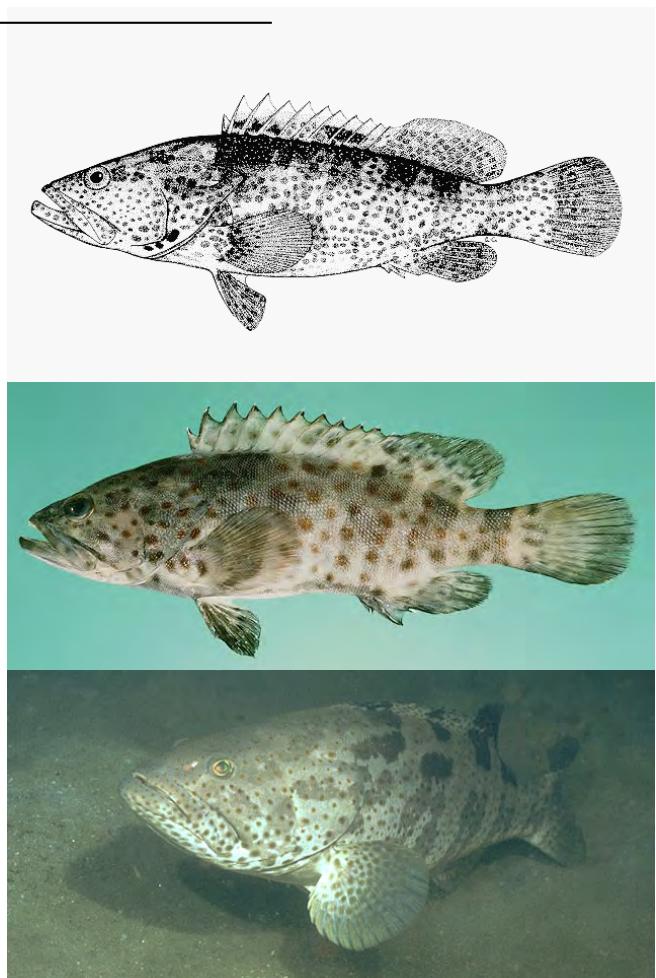
**Size:** 120 cm

**ID:** Dorsal spines (total): 11 - 11; Dorsal soft rays (total): 13 - 16; Anal spines: 3; Anal soft rays: 8. Small individuals closely resemble *E. tauvina* and *E. malabaricus*, but have orange spots and lack hexagonal spots on the fins.

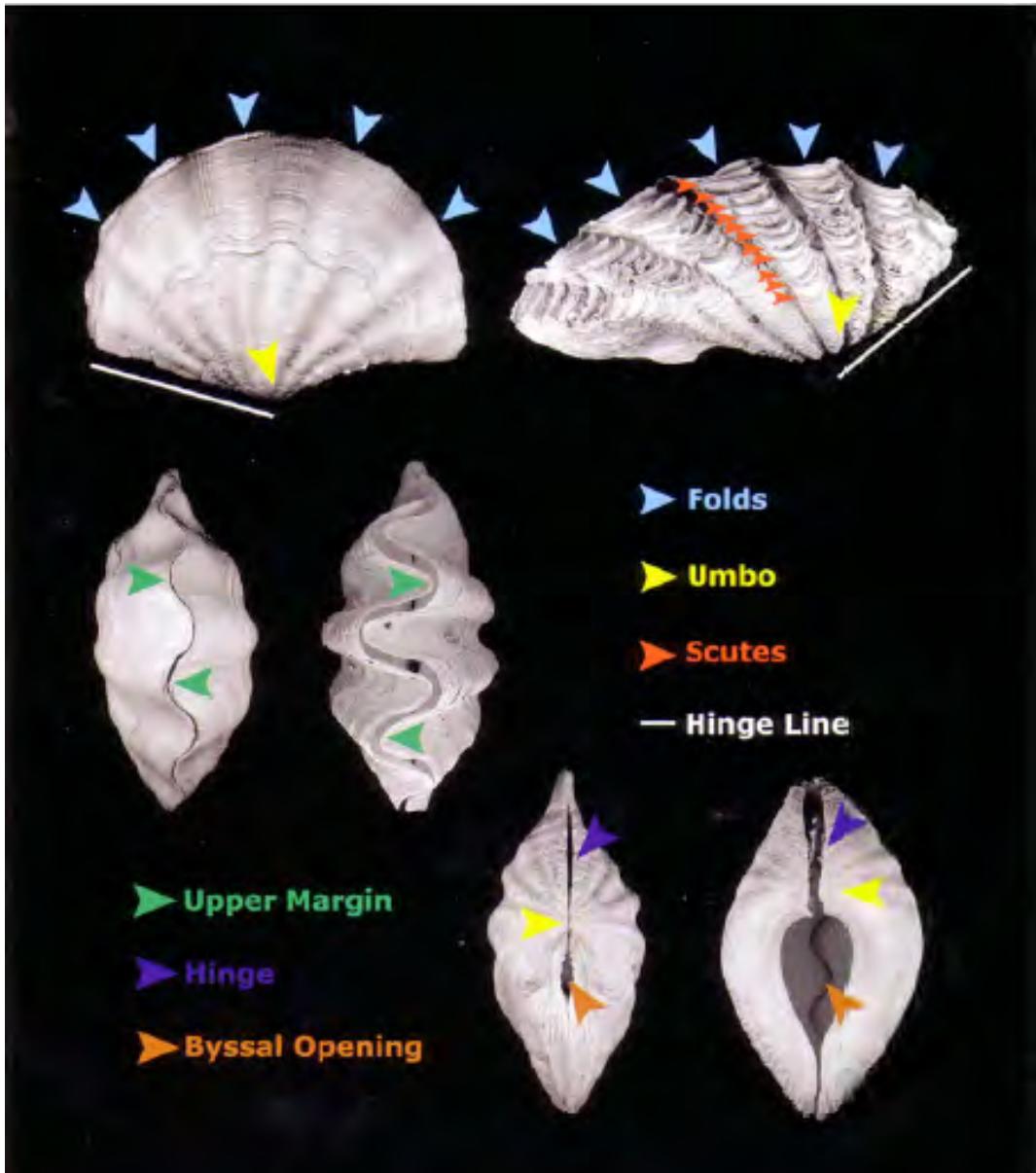
**Biology:** Inhabit turbid coastal reefs and are often found in brackish water over mud and rubble. Juveniles are common in shallow waters of estuaries over sand, mud and gravel and among mangroves. Feed on small fishes, shrimps, and crabs. Probably spawn during restricted periods and form aggregations when doing so. Eggs and early larvae are probably pelagic. Has been tested in several countries as a potential species for mariculture.

**Collection Information:** Fish market, Sling spear, Fin clip

**Similar Species:** *Epinephelus tauvina*, *Epinephelus malabaricus* Appendix A 4-I



# Key to Clam Anatomy



# Maxima Clam

*Tridacna maxima*

**Size:** 35-40 cm

**ID:** Shell is almost always strongly elongated with hinge only 1/3 total shell length, inflation is variable. Valves have from 6-12 folds with 6-7 strongly developed and convex. Maximas typically have lots of tightly-spaced thin scutes on larger folds. Upper margin typically has 4-5 smoothly curved/interdigitating projections that are symmetrical. Maximas typically extend their mantles well beyond the upper margin of the shell. The inhalant siphon is ringed with numerous small, simple tentacles. Many different colors and patterns.

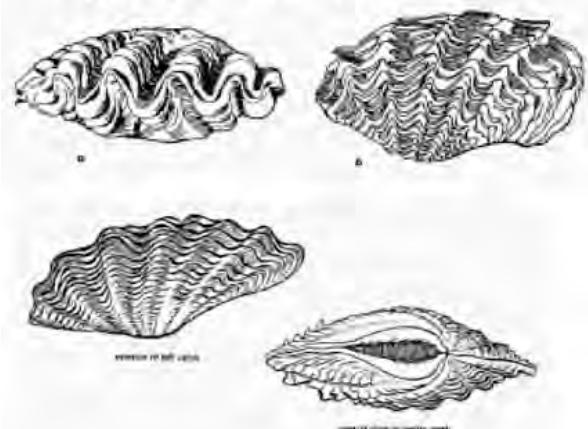
**Biology:** Commonly found in shallow, very clear waters, typically less than 7m, but can be found down to 15m. Typically found on limestone substrates or on coral rubble, occasionally on sandy bottoms or on top of living corals. On hard bottoms they typically create a shallow indentation when they settle and bury the bottoms of their shells, however they aren't typically encapsulated in the substrate as croceas are.

**Collection Information:** Mantle clip

**Similar Species:** [Appendix A 4-J](#)

## *T. maxima*

-typically strongly elongated  
-tightly spaced, thin scutes



*T. maxima*

fine, simple tentacles

# Crocea Clam

*Tridacna crocea*

**Size:** 15-17 cm

**ID:** shell slightly to moderately elongate with hinge being about 1/2 –1/3 length of shell; shell is typically strongly inflated (fat). Typically 6-10 relatively flat folds on valves; lack appreciable scutes but can have thin scales near the upper part of the shell. Upper margins are symmetrical to each other; usually with 4-5 smoothly curving, inter-digitating projections. Croceas typically extend their mantles well beyond the upper margin of the shell, often has a row of eyes on the edge. **Inhalant siphon ringed with numerous very small tentacles.** Croceas can have a wide variety of colors, mixtures of blues and greens are very common; mantle patterns may include stripes, rings, spots.

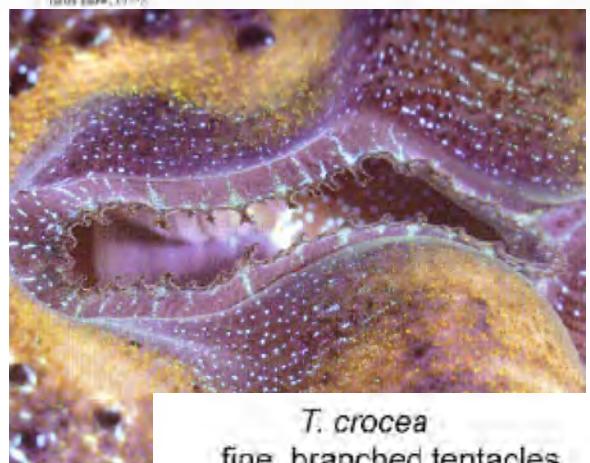
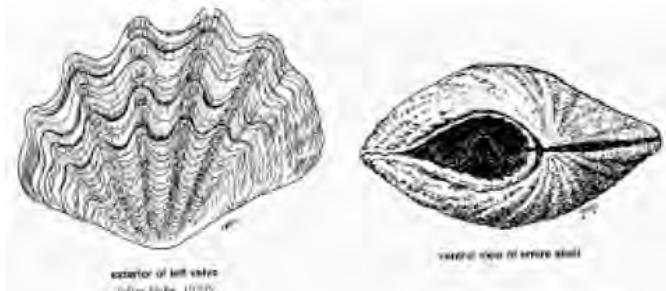
**Biology:** Often in very shallow water, even exposed at low tide, can be found to depths of 7m. **Typically enclosed in live or dead coral heads** with shell margin approximately even with the burrow surface.

**Collection Information:** Mantle clip

**Similar Species:** [Appendix A 4-J](#)

## *T. crocea*

-slightly to moderately elongated  
-inflated (fat)  
-relatively flat folds



*T. crocea*

fine, branched tentacles

# Squamosa Clam

*Tridacna squamosa*

**Size:** 41 cm

**ID:** Shell is not elongated, but fan-shaped with umbo right in middle of valves. Large specimens are **strongly inflated**. Shell becomes increasingly bottom-heavy as it grows. Valves have 4-12 folds, but most will have only 5-6 that are strong and well-developed. **Ribs tend to be**

**relatively straight**, originating from the umbo. **Scutes are particularly prominent** and typically large. Upper margin of each valve has 4-6 bluntly rounded-pointed projections that are symmetrical to the other valve. Mantle extends past the upper margins. **Inhalant siphon almost always ringed with numerous relatively large tentacles with prominent branches.**

**Biology:** Occur in a variety of habitats including back-reef lagoons, reef flats, patch reefs, coral drop-offs, and fringing reefs. Live amongst or adjacent to live corals. Typically found <15m deep.

**Collection Information:** Mantle clip

**Similar Species:** Appendix A 4-J

## *T. squamosa*

-not elongated, but fan shaped  
-scutes prominent



*T. squamosa*

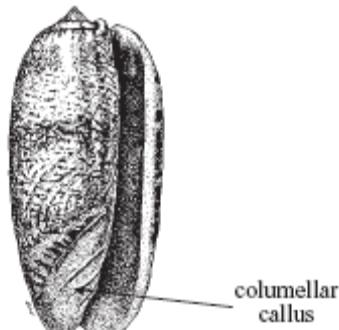
branched/club-like tentacles

# Olive Snail

*Oliva reticulata*

**Size:** 3.5 cm

**ID:** Fairly low spire; deep, narrow suture, callous near its end. A little inflated; columellar callus weak posteriorly obsoletely ridged centrally. Cream white background, heavily covered with a network of dark gray-brown, two darker brown bands; aperture white; columella, plaits, and extreme edge of outer lip, red.



**Fig. 4** *Oliva reticulata*  
(ventral view)



# Blue Sea Star

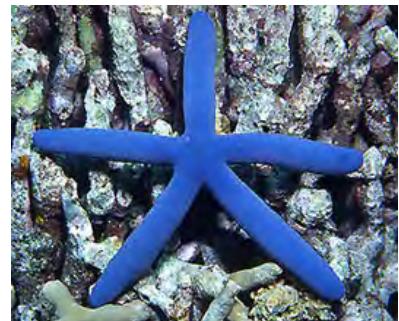
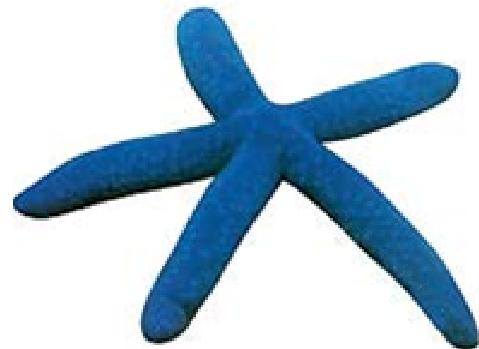
*Linckia laevigata*

**Size:** 30.48 cm

**ID:** The Blue Sea Star is characterized by radial symmetry and five arms. They have long, thin rays with parallel sides, and they are blue and orange. Each arm contains an identical set of certain internal organs. The mouth is on the center of the oral side and the anus is on the aboral side. They move very slowly using a vascular system which allows the suckers to expand and contract. Animals less than 5 cm wide are blue-green with dark spots. As they mature they acquire a bright blue color. Juveniles have pale yellow tube feet, and adults dark yellow.

**Biology:** The Blue Starfish, also known as the Comet Sea Star, Blue Sea Star, or Blue Linckia Sea Star, is found in the sunny areas of the reef and reef fringe, constantly foraging for food. It has a bright blue body, sometimes with red or purplish spots. This species is relatively common and found in sparse density around its range.

**Collection Information:** 1 cm arm clipping



# Thyca Crystallina

*Thyca crystallina*

**ID:** Cap shaped shell with numerous raised ridges. Color varies from tan to blue. Their color does not always match that of their host.

**Biology:** A specialist parasite that lives on sea stars in the genus *Linckia*. Generally found in female/male pairs, they cut holes through the body wall and suck the star's internal fluids. The snail is member of a large group of snails called the Eulimidae, most of which parasitize echinoderms such as sea cucumbers, sea urchins, or sea stars. Other, more benign, ectoparasitic crustaceans may be found on some stars. Linckia sea star can be found in coral gravel in direct sunlight, in sand, and under rocks.

**Collection Information:**  
From host sea star



# Crown of Thorns

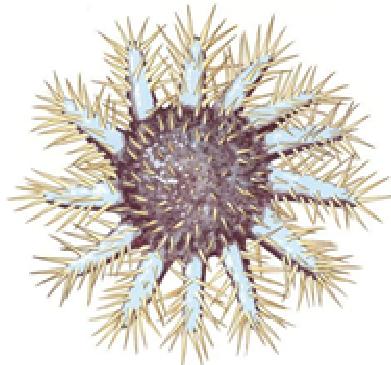
*Acanthaster planci*

**Size:** 40 cm

**ID:** Red colored echinoderms protected by thorn-like spines. They grow to a diameter up to 40 cm across. They have 12-19 arms extending from their center. These animals do not have a head, and are pentamerically symmetrical about the axis of the mouth. *Acanthaster planci* have tubed feet, or branched tentacles arranged along each arm that function in gas exchange and food gathering. The long spines of *Acanthaster planci* are capable of pricking and stinging humans, inflicting great pain that can last up to hours. Glandular cells located on the epithelium covering each spine release toxic chemicals into the skin when it stings. There is temporary paralysis at the sight of stinging accompanied by nausea.

**Biology:** *Acanthaster planci* are sedentary dwellers in seabeds and reefs. Their tube feet enable them to slowly roam the waters in search of food.

**Collection Information:** 1 cm arm clip



# Chocolate Chip Star

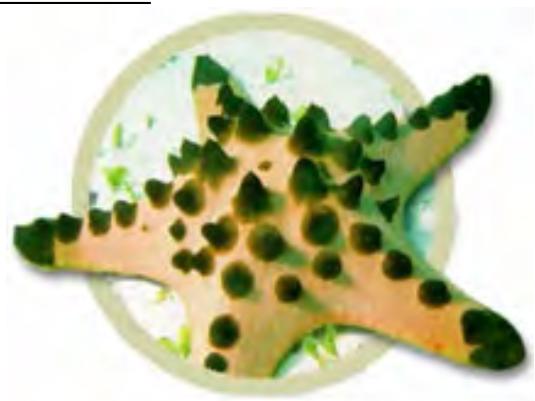
*Protoreaster nodosus*

**Size:** 40 cm

**ID:** This sea star has dark brown pointy tubercles or horns shaped like chocolate chips all over the top of it for protection. The chocolate chip sea star has five arms and can be found in a variety of shades ranging from light brown or cream to a brilliant deep orange. The 'chocolate chips' are variable in size, color and pattern between individuals. There aren't two chocolate chip sea stars exactly alike.

**Biology:** Found all over seagrass beds and sandy areas, these sea stars live in shallow water areas. They can also be found on coral reefs to depths of 100 feet (33 m).

**Collection Information:** 1 cm arm clip



# Starfish Shrimp

*Periclimenes soror*

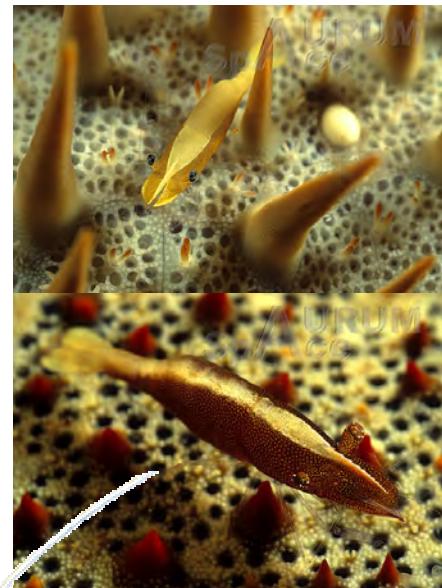
**Size:** 1.5 cm

**ID:** A small shrimp with long, spiny, rostrum, flattened antennal scales shaped like a duck bill. It lives in association with many starfish species, matching the color of the host, with color variations ranging from purple-blue to orange-red, to brown, to white. A lighter band may run along the back.

**Biology:** Common as pairs under various sea stars.

**Collection Information:** Collected from host

**Similar Species:** [Appendix A 5-K](#)



# Pacific Clown Anemone Shrimp

*Periclimenes brevicarpalis*

**Size:** 2.54 cm

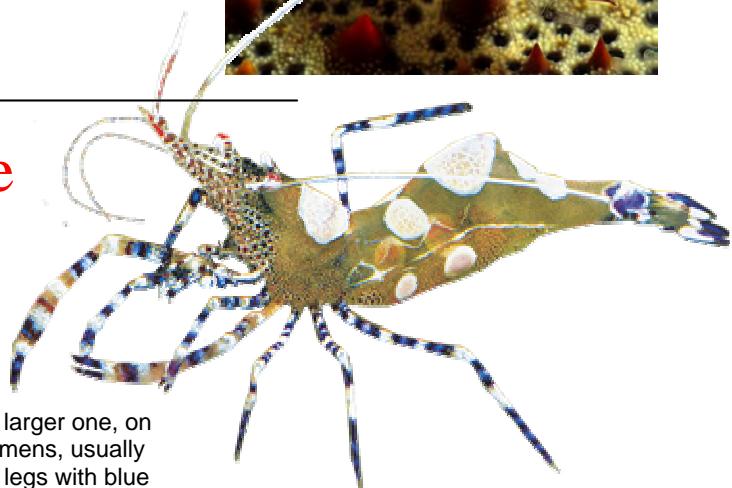
**ID:** Transparent shrimp, with large round white spots. The larger one, on carapace, can have a reticulated pattern. The larger specimens, usually females, have more spots along the abdomen. Claws and legs with blue joints. The tail ends with 5 eyespots, black with orange center. 4 cm. Other transparent shrimps can be found in the same environment, like *Periclimenes venustus* and *Periclimenes magnificus*. The white spots, and especially the tail's black and orange eyespots, are distinctive.

**Biology:** Always in association with sea anemones, more commonly with *Cryptodendrum adhaesivum*.

**Collection Information:** Collected from host anemone

**Similar Species:** *Periclimenes venustus*, *Periclimenes magnificus*

[Appendix A 5-L](#)



# Guide to Collecting Corals

## Where to find them:

The target coral species may be found anywhere on the reef, in lagoons, sandy bottoms, rocky shores, back bays, and even in mangrove habitats. The fine scale distribution of corals is poorly documented in SE Asia, so our target species may be anywhere.

## Tools you will need:

- Heavy hammer
- Chisel or 1/2" hollow punch (see picture below)
- Cable Cutters for branching corals
- 95-100% ethanol
- Plastic bags on a string
- Cloth work gloves (recommended)
- Nalgene bottles, assorted sizes

## How to sample them:

Collecting corals may require scuba however some species are found on shallow reefs and may be collected by snorkel or by walking the reef at low tide. It is always a good idea, although not critical, to take an underwater picture of each specimen as it is found on the reef, or at least a few representative photographs of each species from each locality. **If you take a picture of the specimens you collect you would want to be able to cross-reference the sample with the picture once you get home. An easy way to do this is described on the next page.** The most useful tool for sampling corals is the hollow punch. This can be used for branching species (Pocilloporidae and Acropora) by putting the hollow punch over the branch and snapping it off. For species with a massive growth form (*Porites*) use the hollow punch and a heavy hammer. Use one or two heavy blows to take a core of the coral. A greater number of weak blows is not as effective as a few heavy blows.

## How to preserve them:

*Seriatopora hystrix* is the only coral which requires individuals be separated before being preserved. This is a delicate branching species and fragmentation in storage is very common. Use either individual plastic bags then put these into a Nalgene bottle, or store each sample in its own collection vial. Place all corals from one locality into a Nalgene bottle, each species of coral should be placed in its own separate bag with ethanol inside the Nalgene bottle.

## Export:

Never export samples without the proper collection and export permits from the country of origin and import permits for the United States. Each host country is different so you must do your homework. The United States only requires that you declare all biological specimens and fill out a USFW form. You also need to present a CITES form for import of *scleractinian* corals into the US. The CITES form must be filled out by the country of origin. Not all countries have signed the CITES treaty. In that case you need a certified statement. This form MUST be presented upon arrival to a customs officer in the airport in the United States and is available here:

[www.fws.gov/le/pdf/3-177-1.pdf](http://www.fws.gov/le/pdf/3-177-1.pdf)

## A hollow punch:

These are available in most hardware stores around the world. They are typically used in leatherwork. They are very common in tropical countries.



# Photographing Corals Example

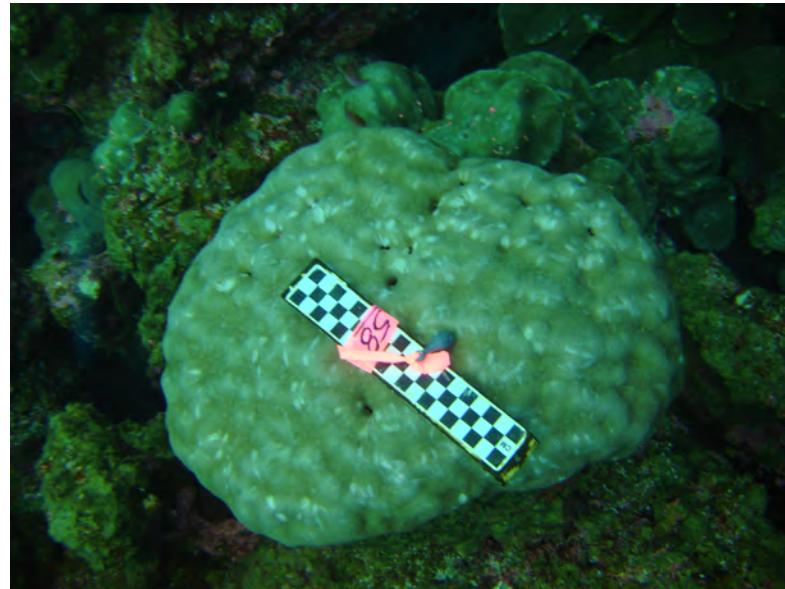


Fig 1 P. lobata with flag and scale.

Date:

28

Mar  
07

Divers: IB,  
NP

Region:  
Fiji

Site:  
3

#	Species	Flag #	Height (cm)	Width (cm)	Length (cm)	Comments	depth (ft)	Dive
1	Pocillopora damicornis	65					12	Dive 1
2	Pocillopora damicornis	54	50	60	60		15	Dive 1
3	Pocillopora damicornis	70	50	60	90		20	Dive 1

## Underwater Sampling sheet

Vial	Species	Atoll	Site	Date	Collector	Site/field comment	Box #	Flag
G105	Pocillopora damicornis	MR	Pt. Espejo	3-Mar-07	Iba	Site 1	G1	52
G110	Pocillopora damicornis	MR	Pt. Espejo	3-Mar-07	Iba	Site 1	G1	54

## Sample Inventory

# *Pocillopora damicornis*

**ID:** Colonies are compact clumps reaching several meters across. There is no clear distinction between verrucae and branches as these intergrade with each other. Branches are highly compact and sturdy in habitats exposed to strong wave action and are thin and open in deep or protected habitats.

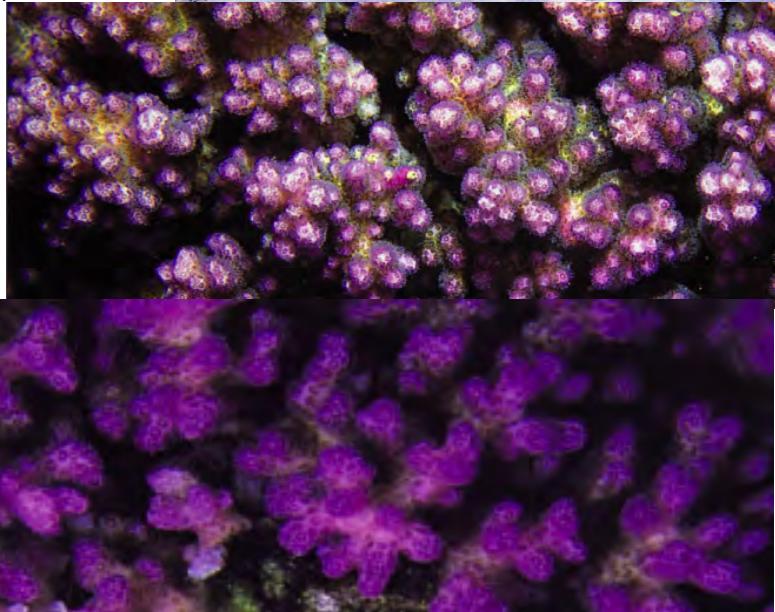
**Color:** Usually pale brown, greenish or pink

**Biology:** Occurs in all shallow water habitats from exposed reef fronts to mangrove swamps and wharf piles.

**Collection Information:** Removal of 1 cm branching.

**Similar Species:** *Pocillopora danae*: Thicker branches and does not have intergrading verrucae and branches

Appendix A 6-M



# *Acropora millepora*

**ID:** Colonies are corymbose cushions, with short uniform branches. Axial corallites are distinctive; they are tubular in shape. Radial corallites are closely compacted and all the same size. They have prominent lower lips giving a scale like appearance.

**Color:** Commonly green with orange tips, also a distinctive bright salmon pink, pale green or blue (which may photograph purple).

**Biology:** Shallow water, usually reef flats, but also lagoons and upper reef slopes.

**Collection Information:** Removal of 1 cm branching.

**Similar Species:** *Acropora convexa*, *Acropora prostrata*, *Acropora aspera*; Similar radial corallites but of two mixed sizes  
Appendix A 7-O



# *Seriatopora hystrix*

**ID:** Colonies may form extensive stands. Branches are thin and tapered to a point, hence they have a needle like appearance. These may be either widely spaced or compact, up to 150 mm long, and usually fuse in an irregular manner. Colonies with short thick branches are normally found in habitats exposed to wave action. Corallites are arranged in neat rows along branches. Polyps are not extended during the day.

**Color:** Pink, less commonly cream, blue or green

**Biology:** Shallow reef environments especially intertidal reef flats

**Collection Information:** Removal of 1 cm branching, Individuals must be separated before preserved (See Guide to Collecting Corals)

**Similar Species:** *Seriatopora caliendrum*: Thicker branches which do not taper  
Appendix A 6-N



# *Stylophora pistillata*

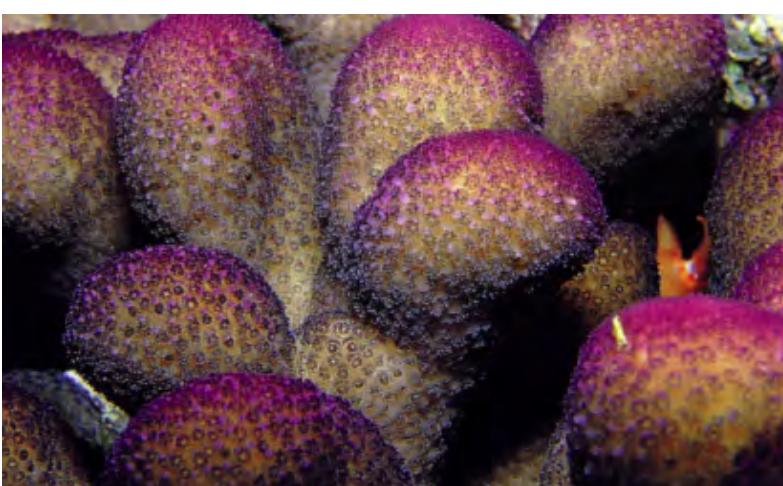
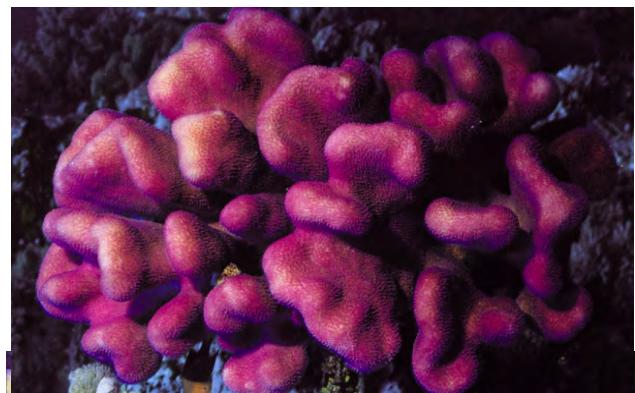
**ID:** Colonies are branching with blunt-ended branches becoming thick and submassive. Corallites are immersed, conical or hooded. They have a solid style-like columella, six primary septa which may be short or fused with the columella, and sometimes six short secondary septa. The cenosteme is covered by fine spinules.

**Color:** Uniform cream, pink, blue (which may photograph pink) or green.

**Biology:** Primarily in shallow water reef environments exposed to strong wave action.

**Collection Information:** Removal of 1 cm branching

**Similar Species:** *Stylophora danae*, *Stylophora subseriata*  
Appendix A 8-Q



# Appendix of Similar Species

A-1

A



*Scarus rubroviolaceus*



*Scarus xanthopleura*

B

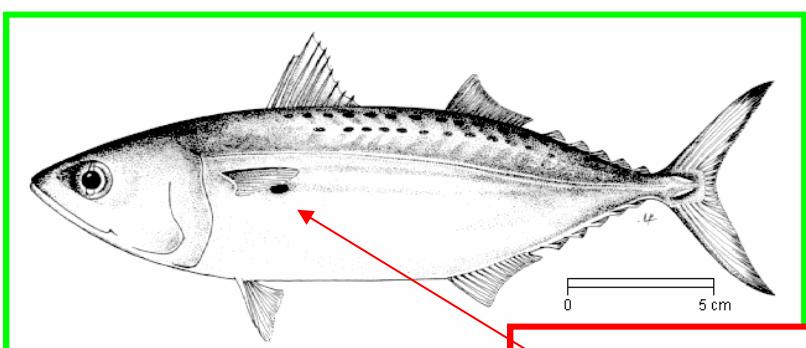


*Halichoeres hortulanus*



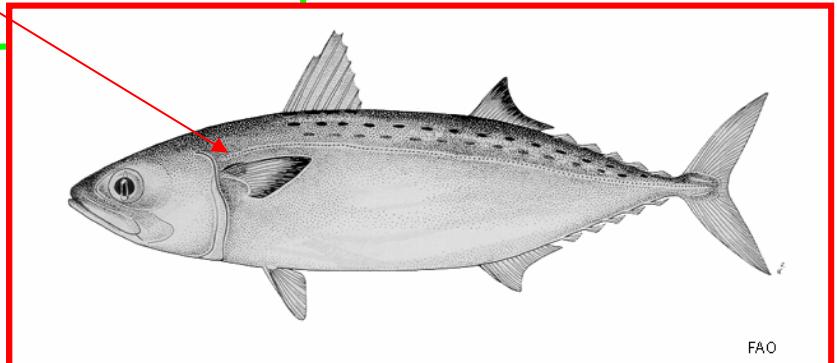
*Halichoeres ornatissimum*

C



*Rastrelliger faughni*

*Rastrelliger kanagurta*



FAO

A-2

D



*Scomberomorus commerson*



*Acanthocybium solandri*

E



*Neoglyphidodon nigroris*



*Neoglyphidodon thoracotaeniatus*

F



*Siganus fuscescens*



*Siganus argenteus*

A-3

*Caesio teres*

G



*Caesio cuning*



H



*Amphiprion ocellaris*



*Premnas biaculeatus*



*Amphiprion percula*

# A-4

*Epinephelus malabaricus*



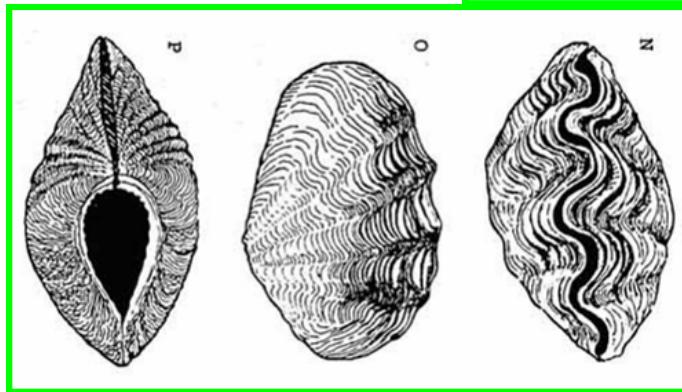
*Epinephelus coioides*



*Epinephelus tauvina*

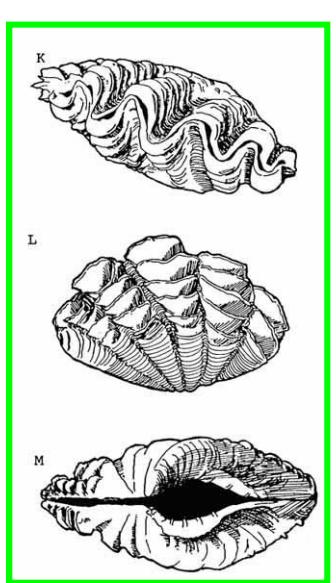


I

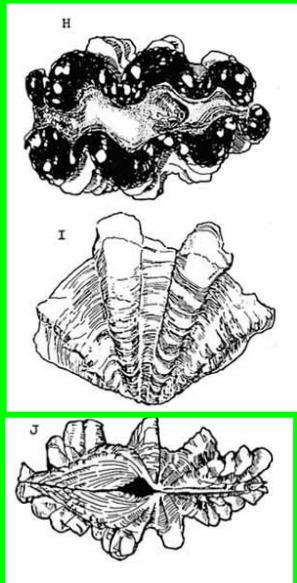


*Tridacna crocea*

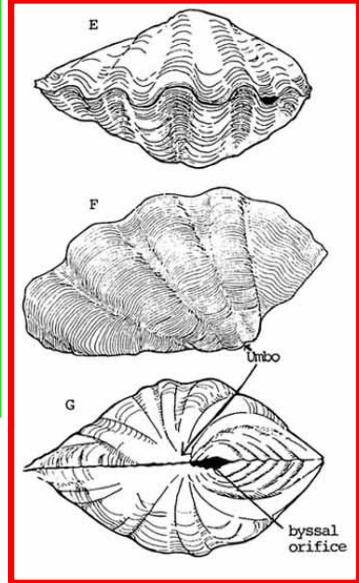
J



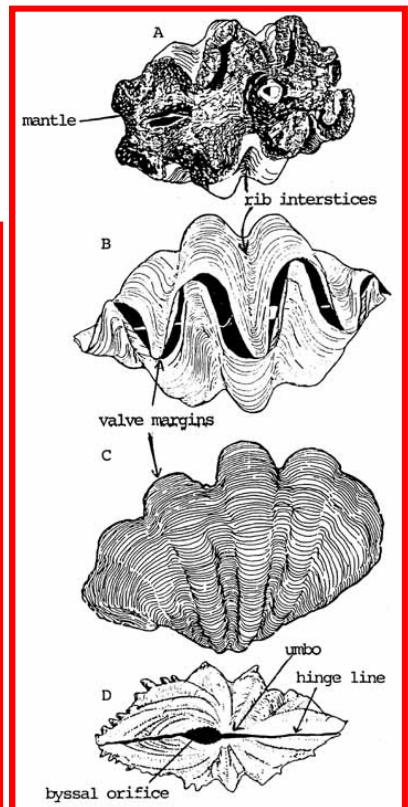
*Tridacna maxima*



*Tridacna squamosa*



*Tridacna derasa*



*Tridacna gigas*

# A-5

K



*Periclimenes soror*



*Periclimenes imperator*



*Periclimenes imperator*

L



*Periclimenes brevicarpalis*



*Periclimenes venustus*



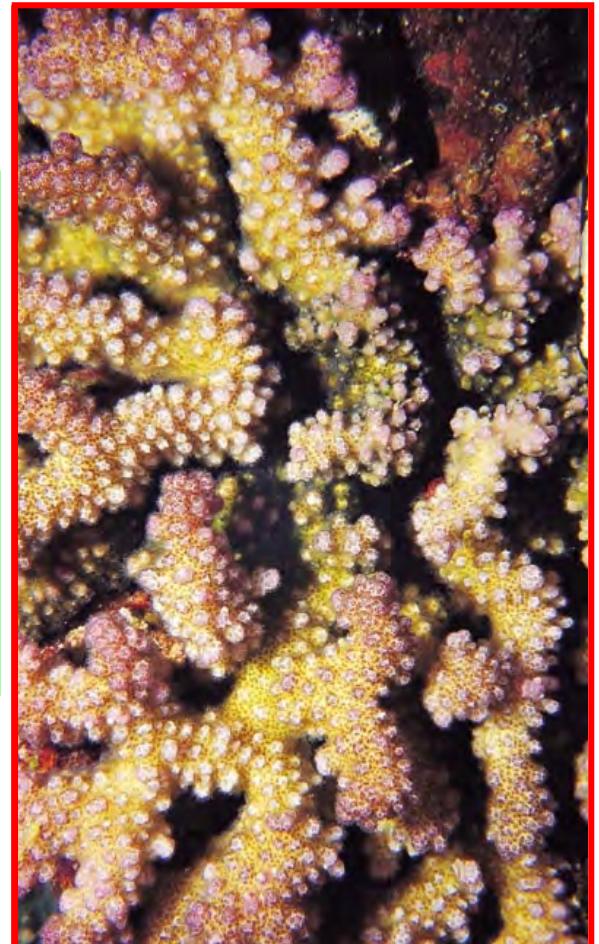
*Periclimenes magnificus*

A-6

M



*Pocillopora damicornis*



*Pocillopora danae*

N



*Seriatopora hystrix*



*Seriatopora caliendrum*

A-7

O



*Acropora millepora*



*Acropora convexa*



*Acropora prostrata*



*Acropora aspera*



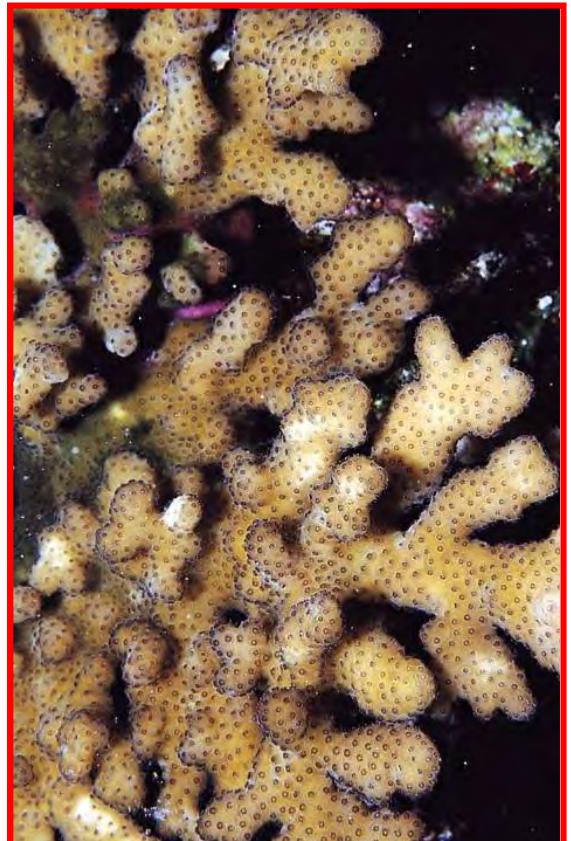
*Acropora pulchra*

A-8

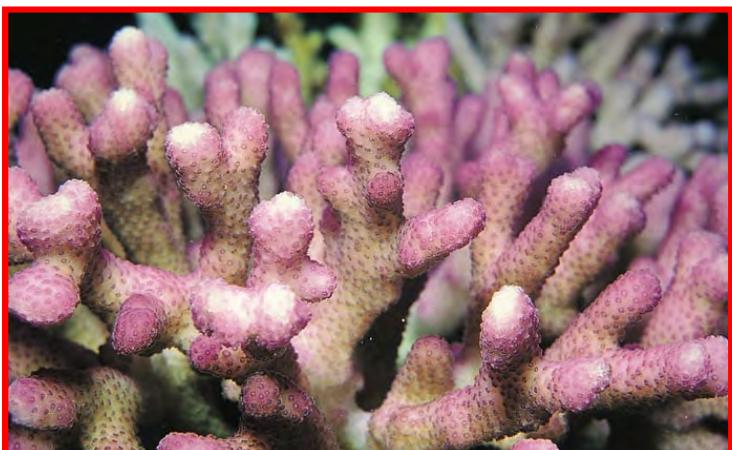
Q



*Stylophora pistillata*



*Stylophora danae*



*Stylophora subseriata*