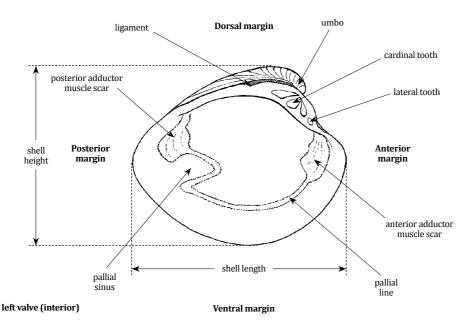
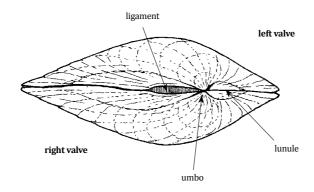
Guide to Families 29

# **BIVALVES**

Coastal species are of great interest to fisheries and have potential for exportation for eating purposes. Bivalves are caught mainly by divers and are also fished for pearls. Their flesh is of excellent quality. Since oysters remain alive out of the water for over 12 hours, they may exported to far destinations when still alive. Moreover, some species are collected for their nacreous shell and ability to develop pearls. The shell can be used in the mother of pearl industry. The "Guide to Families" and "Guide to Species" include 5 families and 10 species, respectively.

#### **TECHNICAL TERMS AND MEASUREMENTS**





**Adductor muscle:** Muscle connecting the two valves of a shell, tending to draw them together.

**Byssus:** Clump of horny threads spun by the foot, by which a Bivalve can anchor to a hard substrate.

Chomata: Small denticles and corresponding pits located on the inner margin of the valves (Ostreidae and Gryphaeidae).

Hinge: Top interlocking margin of the valves, often with shelly projections (teeth) and corresponding recesses (sockets).

**Ligament:** Horny, elastic structure joining the two valves dorsally.

Mantle: Fleshy sheet surrounding vital organs and composed of two lobes, one lining and secreting each valve.

Muscle scar: Impression marking the place of attachment of a muscle inside the shell.

Pallial line: A line near the internal margin of valve, marking the site of attachment of the mantle edge.

**Umbo:** The first formed part of a valve, usually above the hinge.

30 Bivalves

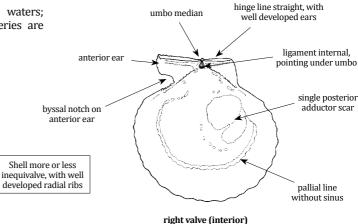
#### **GUIDE TO FAMILIES**

### **PTERIIDAE** Page 32 hinge line straight, teeth reduced to absent **Pearl oysters** To about 20 cm. Marine. Two species of interest to anterior ear fisheries are included in the Guide to Species. posterior ear interior with Shell compressed, with nacreous area scaly to lamellar surface posterior adductor scar large pallial line without sinus

PECTINIDAE Page 32

## **Scallops**

To about 11 cm. Marine and brackish waters; benthic. Two species of interest to fisheries are included in the Guide to Species.



left valve (interior)

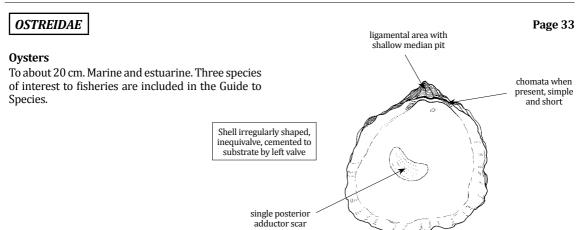
GRYPHAEIDAE Page 33

### Honeycomb oysters

To about 30 cm. Marine. One species of interest to shallow median pit single posterior adductor scar inequivalve, cemented to substrate by left valve

shell structure vesicular (most visible near internal margins)

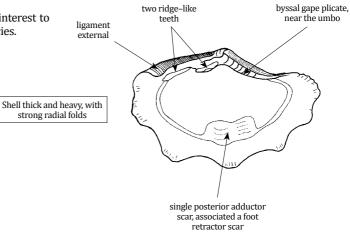
Guide to Families 31



# TRIDACNIDAE Page 34

#### **Giant clams**

To about 35 cm. Marine. Two species of interest to fisheries are included in the Guide to Species.



32 - Pteriidae - Pectinidae Bivalves

#### **PTERIIDAE**

# *Pinctada margaritifera* (Linnaeus, 1758)

**Local name(s):** N: Shaza; S: Shaza (M/K).

**Habitat:** Gregarious species often forming natural beds in littoral and sub-littoral zones, attached by byssus, at least in the young stages.

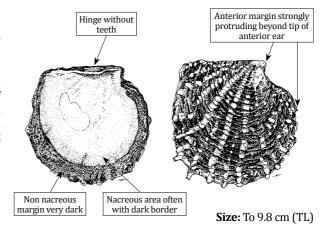
Fisheries: Hands and knife.

Distinctive Characters: Shell rather thick and large, sub-circular in outline; outer surface of valves, when not worn, with densely set, flattened, imbricating concentric scales and moderately long, parallel-sided and flattened spines with tapering or rounded ends; spines lying relatively flat on surface of valves, arranged in radial rows and often strongly projecting on shell margins.

**Colour:** Outside greyish brown or grey, with radial

stripes of white spots.

## **FAO names:** Black-lip pearl oyster (En) Pintadine á lèvre noire (Fr)



# Pinctada radiata (Leach, 1814)

**Local name(s):** N: Shaza; S: Shaza (M/K).

Habitat: Byssally attached to seagrass leaves, rocks, dead corals and various hard objects often forming natural banks from low tide levels to slightly deeper waters. Maximum depth 30 m.

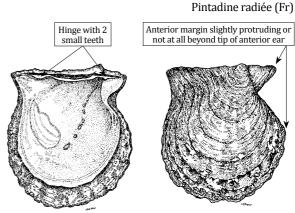
Fisheries: Hands and knife.

Distinctive Characters: Shell rather thin and small; outer surface of shell, with densely set, appressed and flattened, imbricating concentric scales and moderately small, radially projecting spines mostly preserved towards the margins.

Colour: Outside tan to brown or reddish, often with darker radial bands.

**Remarks:** Collected for its edible muscle, nacreous shell and ability to develop pearls.

**PECTINIDAE** 



Size: To 9.5 cm (SH)

# Chlamys senatoria (Gmelin, 1791)

Local name(s): N: Shaza; S: Shaza (M/K).

Habitat: Attached by byssus to hard elements, usually in sandy to muddy bottoms with gravel, coral and shell debris or rocks littoral and sublittoral zones.

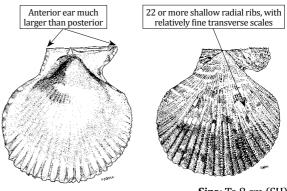
Fisheries: Hands and knife.

Distinctive Characters: Shell solid, medium sized, higher than long and rounded-ovate in outline; both valves convex and subequal, the right (lower) valve a little flatter than the left (upper) valve; interior shiny, with low, rounded radial ribs corresponding to the outer sculpture.

Colour: Yellow to reddish brown with creamy patches.

# **FAO names:** Senatorial scallop (En) Pétocle sénateur (Fr)

**FAO names:** Rayed pearl oyster (En)



Size: To 8 cm (SH)

### Gloripallium pallium (Linnaeus, 1758)

Local name(s): N: Shaza; S: Shaza (M/K).

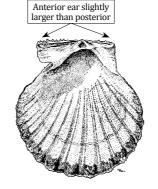
**Habitat:** Attached by byssus under coral heads and rocks in the intertidal and littoral zones, to about 30 m

Fisheries: Hands and knife.

**Distinctive Characters:** About 13 large radial ribs, with strongly projecting transverse lamellae.

**Colour:** Various shades of deep reddish purple, with roughly concentric whitish maculations.

**FAO names:** Royal cloak scallop (En) Pétoncle manteau (Fr)





Size: To 11 cm (SH)

## **GRYPHAEIDAE**

### Hyotissa hyotis (Linnaeus, 1758)

Local name(s): N: Shaza; S: Shaza (M/K).

**Habitat:** Cemented to hard substrate, mostly in coral reefs areas and in littoral to shallow sub-tidal zones.

Fisheries: Hands and knife.

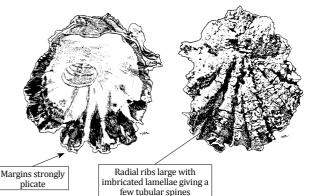
Distinctive Characters: Shell large and thick, sub-

orbicular in outline.

Colour: Interior milky-white, becoming brown to

black on periphery.

**FAO names:** Honeycomb oyster (En) Pycnodonte géante (Fr)



Size: To 30 cm (SH)

# **OSTREIDAE**

# Lopha cristagalli (Linnaeus, 1758)

Local name(s): N: Shaza; S: Shaza (M/K).

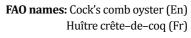
**Habitat:** Attached to rocks or corals by clasping spines of the left valve from the intertidal zone to about 30 m.

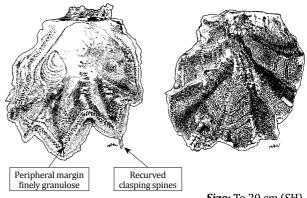
about 50 III.

Fisheries: Hands and knife.

**Distinctive Characters:** Surface roughened by many small rounded protuberances; a few sharpedged radial folds; peripheral margin finely granulose; recurred clasping spines.

**Colour:** Dull brown to deep purple.





Size: To 20 cm (SH)

34 - Ostreidae - Tridacnidae Bivalves

### Saccostrea cucullata (Born, 1778)

Local name(s): N: Shaza; S: Shaza (M/K).

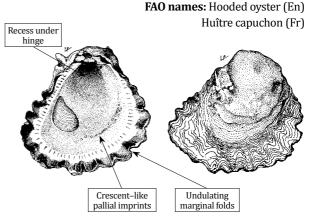
**Habitat:** Attached to various hard substrates in marine to estuarine environments in shallow waters; gregarious species often forming dense colonies.

Fisheries: Hands and knife.

**Distinctive Characters:** Shell exceedingly variable

in shape; chomata well developed.

Colour: Internal margins deep purple to black.



Size: To 20 cm (SH)

# **TRIDACNIDAE**

### Tridacna maxima (Röding, 1798)

Local name(s): N: Shaza; S: Shaza (M/K).

**Habitat:** Occurs on reefs, particularly embedded in corals, in littoral and shallow subtidal waters.

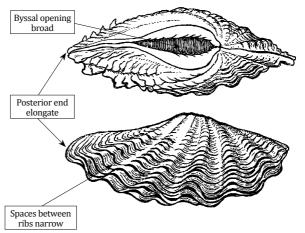
Fisheries: Caught by hands.

**Distinctive Characters:** Umbones situated anteriorly; stout scaly radial ribs.

 $\textbf{Colour:} \ \textbf{Greyish-white,} \ \textbf{often tinged with yellow} \ \textbf{or}$ 

orange.

**FAO names:** Elongate giant clam (En) Bénitier allongé (Fr)



Size: To 35 cm (SH)

#### *Tridacna squamosa* Lamarck, 1819

Local name(s): N: Shaza; S: Shaza (M/K)

Habitat: Attached by byssus to the surface of coral

reefs, in littoral and shallow waters.

Fisheries: Caught by hands.

Distinctive Characters: Umbo submedian; spaces

between ribs large; shell sub equilateral.

Colour: Greyish white, sometimes tinged with

orange.

**FAO names:** Fluted giant clam (En) Bénitier écailleux (Fr)

