

Pinctada radiata



Taxon	Family / Order / Class / Phylum
<i>Pinctada radiata</i> (Leach, 1814)	Pteriidae / Pterioida / Bivalvia / Mollusca

COMMON NAMES (English only)

Gulf pearl oyster

SYNONYMS

Avicula radiata Leach, 1814

Meleagrina conomenosi Monterosato, 1884

Meleagrina savignyi Monterosato, 1884

Avicula albina var. *vaillanti* Vassel, 1897

SHORT DESCRIPTION

A large bivalve, length commonly 50-65 mm, up to 106 mm. The shell is compressed, inequivalve with the outline almost quadrate. The shell is brownish with shades of red, inner surface pearly. The dorsal margin is longer than the body of shell and the posterior margin slightly concave. The beaks are pointing anteriorly. It has a sculpture of concentric lamellae often with rows of appressed spines, a hinge line straight and spiny margins.



Pinctada radiata

Photo: Menachem Goren

BIOLOGY/ECOLOGY

Dispersal mechanisms

Pelagic larvae are dispersed by water currents.

Reproduction

Protandric hermaphrodite species with sex inversion occurring in shells 32-57 mm. Gonad maturity is controlled by temperature. In the Mediterranean, gonad activity is nearly year-round, spawning occurs mainly in summer and early autumn.

Known predators

Unknown.

Resistant stages (seeds, spores etc.)

Heavy shell may provide some protection.

HABITAT

Native (EUNIS code)

A1: Littoral rock and other hard substrata, A3: Sublittoral rock and other hard substrata. Littoral zone, subtidal.

Habitat occupied in invaded range (EUNIS code)

A1: Littoral rock and other hard substrata, A3: Sublittoral rock and other hard substrata. Littoral zone on hard bottoms, may occur to 0.5-150m. Known to foul artificial surfaces.

Habitat requirements

Tolerant of a wide temperature range (13-30 C).

DISTRIBUTION

Native Range

Indo Pacific.

Known Introduced Range

Mediterranean first record in 1874 (as *Meleagrina* sp.) from Egypt; subsequently from Tunisia; Cyprus, Israel; Malta; Greece: Saronikos, Karpathos, W. Peloponnese; Lebanon; Libya; France: Toulon; Sicily; Turkey; Syria; Adriatic Sea: Trieste.





Trend

Stable in the southern Mediterranean, increasing northwards.

MAP (European distribution)



Legend

	Known in country		Known in CGRS square		Known in sea
	Infrequent distribution				

INTRODUCTION PATHWAY

It entered the Mediterranean through the Suez Canal. The populations in France and N Adriatic Sea are due to ship transport. It was intentionally introduced to Greece for mariculture. It was recorded as an epibiont on a loggerhead turtle off Lampedusa Island, Italy.

IMPACT

Ecosystem Impact

It is considered a habitat-modifying, gregarious bivalve capable of impacting native fauna by forming oyster banks.

Health and Social Impact

Unknown.

Economic Impact

It fouls mussel lines and commercial shellfish collectors.

MANAGEMENT

Prevention

Erect a salinity barrier in the Suez Canal in order to reduce the number of Red Sea aliens arriving in the Mediterranean.

Mechanical

Unknown.

Chemical

Unknown.

Biological

Unknown.

REFERENCES

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- Oliverio M, Gerosa G, Cocco M (1992) First record of *Pinctada radiata* (Bivalvia, Pteriidae Epibiont) on the loggerhead sea turtle *Caretta caretta* (Chelonia, cheloniidae). Bollettino Malacologico 28:149-152

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