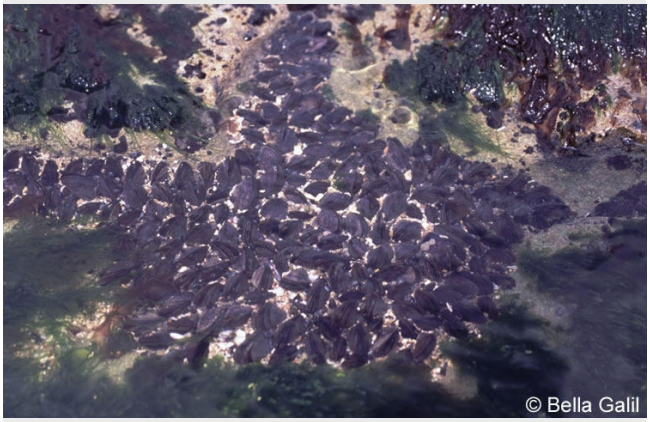
Brachidontes pharaonis

Taxon	Family / Order / Class / Phylum
Brachidontes pharaonis (Fischer P., 1870)	Mytilidae / Mytiloida / Bivalvia / Mollusca

COMMON NAMES (English only)

SYNONYMS
Brachidontes semistriatus (Krauss, 1848)
Brachidontes variabilis (Krauss, 1848)
Mytilus pharaonis (Fischer P., 1870)
Mytilus variabilis Krauss, 1848
Mytilus arabicus Jousseaume ms. in Lamy, 1919



Brachidontes pharaonis

Photo: Bella Galil

SHORT DESCRIPTION
A small gregarious intertidal bivalve with a 40 mm shell, externally dark brown-black and internally tinged violet-black. Equivalve, inequilateral, attached to substrate by stout byssus. Outline mussel-like with terminal umbones but variable in shape and in its height/length ratio; sometimes greatly expanded posteriorly, sometimes arcuate; occassionally subcylindrical with beaks not quite terminal. ?Sculpture? of numerous fine radial bifurcating ribs, coarser posteriorly and margin crenulate. The hinge has dysodont teeth.

BIOLOGY/ECOLOGY

Dispersal mechanisms
Planktonic larvae

Reproduction
Year-round

Known predators/herbivores
The native whelk, *Stramonita haemastoma* was found to preferentially prey on *Brachidontes.*

Resistant stages (seeds, spores etc.)
None.

HABITAT

Native (EUNIS code)
A1: Littoral rock and other hard substrata. Marine intertidal hard.

Habitat occupied in invaded range (EUNIS code)
A1: Littoral rock and other hard substrata. Marine midlittoral on rocky platforms and man-made structures.

Habitat requirements
In the Mediterranean adult snails show large temperature tolerances (9°C-31°C), and occurs at salinities from 35 to 53 PSU. However, lower winter temperatures limit their physiological activity.

DISTRIBUTION

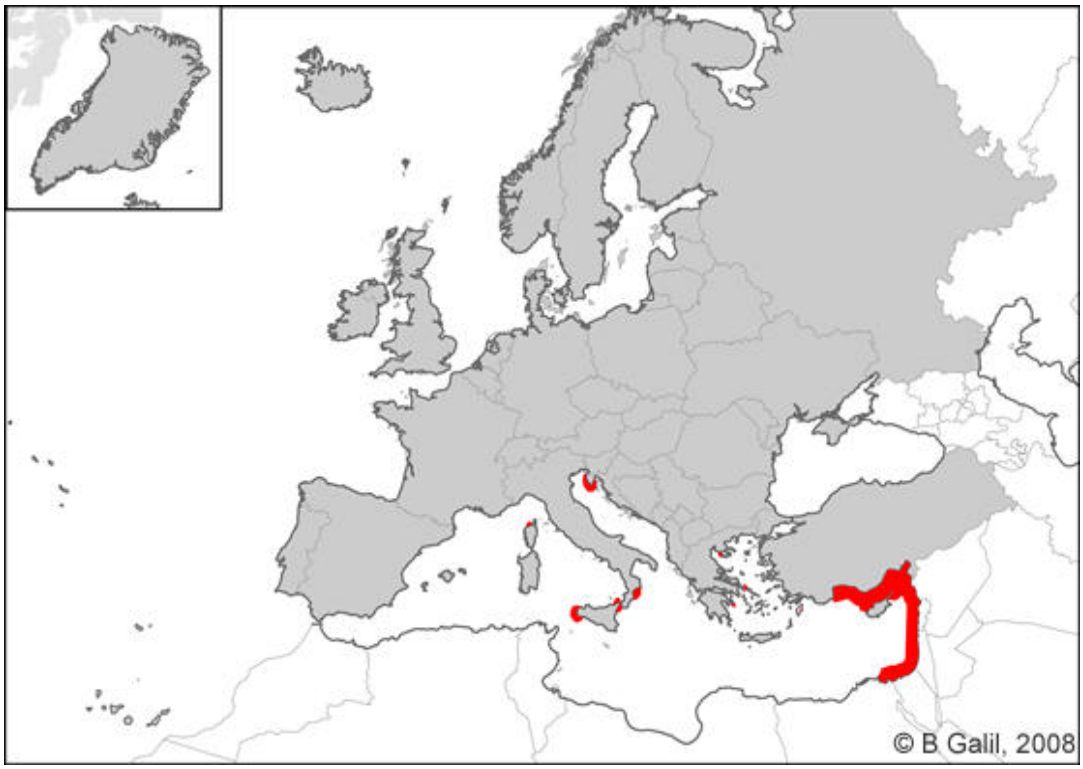
Native range
Indian Ocean, Red Sea.

Known Introduced Range
Mediterranean: Levantine Sea, Sicily, and sporadic records in the Aegean Sea.

Trend

First collected in the Mediterranean in 1876 from Port Said, Egypt. Successively it has been found in Lebanon, Israel, Sicily, Italy, Chalkida, Evvoikos, Rhodes, Greece; Syria, southern Turkey, northern Cyprus and Croatia. Constitutes large, stable populations in the Levant Sea.

MAP (European distribution)



Legend

	Known in country		Known in CGRS square		Known in sea

INTRODUCTION PATHWAY

The Levant Sea populations originated from propagules that entered the Mediterranean through the Suez Canal. Records in the central Mediterranean are likely to be due to ship transport.

IMPACT

Ecosystem Impact

It locally displaces the native mytilid, *Mytilaster minimus*. In the early 1970s it was much rarer than the native *Mytilaster*, that formed dense '*Mytilaster* beds' on intertidal rocky ledges along the Israeli coastline, with up to 26 specimens per cm² . By the end of the 1980s, following a series of experiments, it was determined that *Brachidontes* interferes with recruitment of *Mytilaster*, and detrimentally affects its survival and growth. A survey conducted in some of the same sites in the late 1990s have shown a rapid shift in dominance, with some *Brachidontes* populations up to 300 specimens per 100 cm², while *M. minimus* is only rarely encountered.

Health and Social Impact

Unknown.

Economic Impact

It is a fouling organism.

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.

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