

Rock oyster

Phylum Mollusca
Class Bivalvia
Family Chamidae

**DESCRIPTION**

Brightly colored, heavy shelled bivalve with long, ribbed, leafy projections in radiating rows. Most commonly, yellow or orange, but some pinkish individuals may be found. Inside is white. May grow to about 10 cm in diameter. This species lives fixed to the substrate with one shell valve cemented in place. They are highly variable in form, with the lower valve conforming to the shape of the substrate and upper, exposed valve becoming very worn losing color and sculpture.



Chama living on the hull of a ship in Pearl Harbor
 (Photo R. DeFelice)

HABITAT

Individuals always live attached to hard substrate, adults can only be removed with hammer and chisel. In Hawaii, this species was found to be abundant on the hull of a floating dry-dock in Pearl Harbor, and two nearby collecting stations. So far it has not been reported outside of Pearl Harbor.

DISTRIBUTION**HAWAIIAN ISLANDS**

Known only from Pearl Harbor, Oahu

NATIVE RANGE

Caribbean

PRESENT DISTRIBUTION

Caribbean and Pearl Harbor, Oahu

MECHANISM OF INTRODUCTION

Unintentional, as fouling on ships' hull

IMPACT

A stubborn fouling species; adult bivalves are very difficult to remove from ships hulls. Ecological impact unstudied, but presumed minimal.

ECOLOGY

Feeding

Bivalves are suspension feeders. Water is moved through an incurrent siphon into the mantle cavity by cilia on the ctenidia (gills). Water passes over the ctenidia, food particles are extracted by the cilia, and water is expelled through an exhalent siphon.

Reproduction

Reproduction in this species is unstudied. Bivalves are typically gonochoristic (having separate male and female individuals), fertilization is external, and the developing larvae (veliger) settle to the bottom after a time in the plankton.

REMARKS

The variability in the form of the shell is the primary cause of the confused systematics within the Chamoidea. First reported in Hawaii as the Red Sea species, *Chama elatensis* Delsaerd, 1986, by Coles et al. (1999) in Pearl Harbor, we now tentatively apply the name *C. macerophylla* to these specimens (G. Paulay, pers. comm.). This species was previously known only from the Caribbean.

REFERENCES

- Coles, S.L., R.C. DeFelice, L.G. Eldredge and J.T. Carlton. 1999. Historical and recent introductions of nonindigenous marine species into Pearl Harbor, Oahu, Hawaiian Islands. *Marine Biology*. 135: 147-158.