

GUIDE TO MARINE INVADERS IN THE GULF OF MAINE

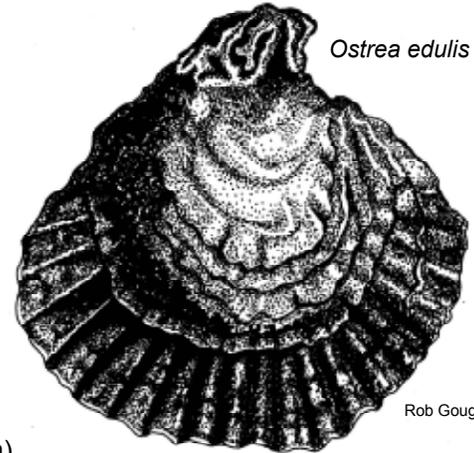
Ostrea edulis European flat oyster



PHYSICAL DESCRIPTION

- Shell slightly scalloped and usually rounder than native oyster, *Crassostrea virginica*
- Flat, grayish-white shell, typically with a white muscle scar on internal surface
- Grows up to 8 in (20 cm) in length

white
muscle scar



HABITAT PREFERENCE

- Estuarine, intertidal to subtidal
- Found on hard, stable surfaces or structures from the low water line to depths of 30 feet (9.2 m)
- Observed in muddy areas attached to debris or any available hard surface
- Does not appear to overlap with native oysters, but occasionally is found with blue mussels

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INVASION STATUS & ECOLOGICAL CONCERNS

Introduced from Europe where it occurs from Norway to Morocco and into the Mediterranean and Black seas, *Ostrea edulis* has been cultivated in the United States in the Pacific Northwest and northern New England. The European oyster was imported to Maine in the 1950s for aquaculture. It is believed to have escaped from the former Salem Harbor marine aquaculture facility in Massachusetts during the 1980s. A 1997 survey revealed dense concentrations of *O. edulis* in Salem Harbor, Danvers River, and Manchester Bay (Salem Sound), Massachusetts. Lower densities were observed north to Cape Ann and south to Boston Harbor. *O. edulis* continue to be harvested in Casco Bay, Maine, while all shellfish harvesting for human consumption is prohibited in Salem Sound. In the Northeast, *O. edulis* appears to occupy a different niche than the native oyster population, and it is yet to be determined if there are ecological impacts. There is ecological concern over *O. edulis* hosting a parasite (*Bonamia ostreae*) that infects and kills oysters. Although this parasite does not appear to affect *Crassostrea virginica*, there is concern that the parasite might eventually “jump” over to this native species.

SIMILAR SPECIES

Crassostrea virginica - NATIVE

Common, Eastern, Atlantic, or Virginia oyster;
Native commercial oyster found from
the Gulf of St. Lawrence to the West Indies,
including the northern Gulf of Mexico.

- Grayish, rough, elongated shell
- Highly variable shape and wavy margins
- Narrow at hinge, gradually widens
- Typically has a purple muscle scar
- Grows up to 10 in (25 cm) in length

Crassostrea virginica



Salem Sound Coastwatch

This identification card is one of a series produced by Salem Sound Coastwatch (www.salemsound.org) highlighting introduced species that pose a threat to the marine environments of Massachusetts and the Gulf of Maine. The original development of these cards was funded by the MA EOEPA Office of Coastal Zone Management with funding from the U.S. Fish and Wildlife Service. For additional species information or to report sightings, please visit www.mass.gov/czm/invasives/monitor/reporting.htm.

