

The Eastern Oyster, *Crassostrea virginica*

Range and Habitat

Range:	Eastern Canada to Florida and Gulf of Mexico
Salinity:	5 – 35 psu
Depth:	Intertidal to subtidal
Habitat:	Estuaries; require firm or hard substrate
Size:	50 to 160 mm

Commercial Importance

Natural populations of oysters have been exploited for millennia, but overfishing, mismanagement, water quality, and disease have decimated most wild fisheries. Increasingly, oyster production is being met through aquaculture, but the industry is still developing here in Florida.



Ecological Importance

Oysters settle on another and subsequently form structures in bays and estuaries called "reefs". These complex structures provide refuge for invertebrates and small fish, while larger fish and migratory wading birds use oyster reefs as feeding grounds. The hard structure of oyster reefs also protects our shorelines from erosion by attenuating wave energy. Oyster reefs also clean our water through individual oyster filtration of phytoplankton and the trapping of suspended solids within the reef matrix. The transfer of pelagic production to the sediments below by oyster filtration can result in nitrogen removal from our bays and estuaries through a process called denitrification.

Recovery & Restoration

Over 90% of oyster abundance has been lost in bays and estuaries relative to historic baselines. Efforts to restore oyster reefs using recycled oyster or fossil shell ("cultch") are becoming widespread. Successful oyster reef restoration requires careful site selection, including bottom type, salinity, water flow, and elevation. The Gulf Shellfish Institute can offer the following capabilities to any group interested in oyster restoration projects:



Oyster reef in Upper Tampa Bay, Florida

- Consultation of site selection.
- Access oyster or fossil cultch.
- Production of juvenile oyster seed in commercial hatcheries.
- Seed grown on commercial leases (state-owned submerged land) until desired size (up to 60 mm) is attained.
- Monitoring of oyster restoration projects, including environmental parameters