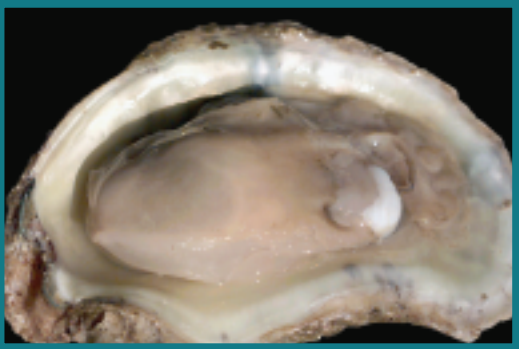
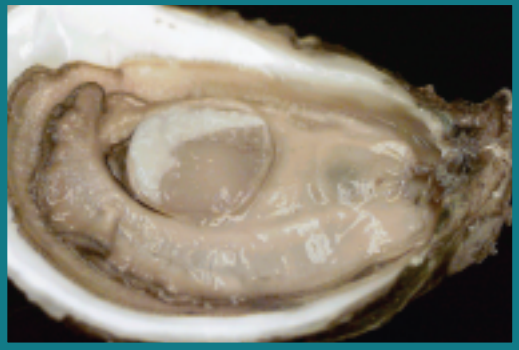


Conditions of oysters

Diseases of oysters often affect their condition, which also varies seasonally. Sustained poor, watery oysters may indicate a disease is present and warrant professional testing.

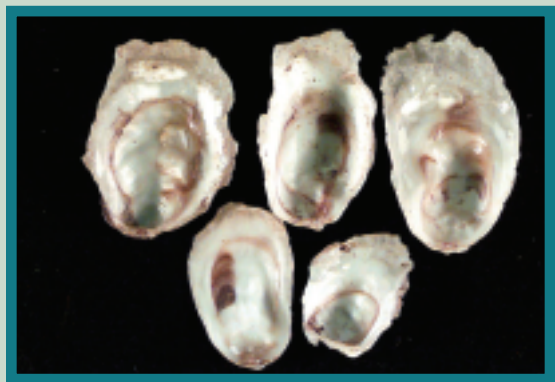


Diseases of oysters

These images are for illustration only; diseases should be diagnosed by a certified professional.

Juvenile oyster disease

Current Range: Maine to New York
Appearance: Cupping of left valve with brownish deposits on the inner shell
Promoting Conditions: High salinities
Time of Year: Typically July to September
Notes: Typically affects smaller oysters (< 25 mm)



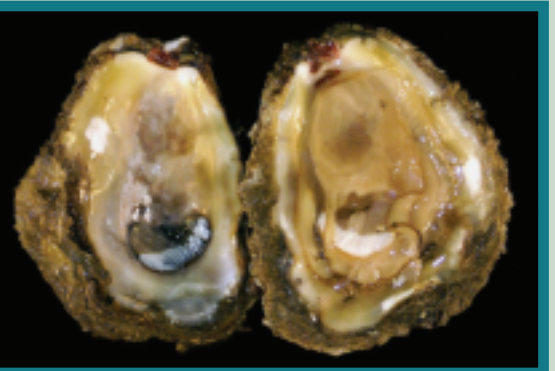
Dermo, Perkinsus marinus

Current Range: North American east coast
Appearance: Poor, watery condition of adult oysters
Promoting Conditions: Warm temperatures and brackish to saltier waters
Time of Year: September or October
Notes: Typically affects second year oysters



MSX or Multinucleated Sphere Unknown, Haplosporidian nelsoni

Current Range: North American east coast
Appearance: Poor, watery condition of adult oysters
Promoting Conditions: Warm temperatures and brackish to saltier waters
Time of Year: July to September
Notes: Often affects first or second year oysters



SSO or Seaside Organism, Haplosporidian costale

Current Range: Southern New England to Virginia
Appearance: Poor, watery condition of adult oysters
Promoting Conditions: High salinity areas
Time of Year: Spring to early summer



Like many other diseases, SSO is not typically detected by eye until a significant mortality event occurs. Even healthy appearing seed (shown above) should be tested if SSO is common in the growing area.



DISEASES of Concern to New England Shellfish Growers



Sea Grant Woods Hole
 Woods Hole Sea Grant
 Woods Hole Oceanographic Institution
 MS #2, 193 Oyster Pond Rd.
 Woods Hole, MA 02543-1525
 Ph. (508) 289-2398
 www.who.edu/seagrant

County of Barnstable Massachusetts
 Cape Cod Cooperative Extension
 P.O. Box 367
 Barnstable, MA 02630-0367
 Ph. (508) 375-6849
 www.capecodextension.org

Cover photos: D. Murphy, CCCE© (top); ©Chris Linder (bottom)
 Illustrations: Alice Jane Lippson
 Oyster photos : Howard et al, 2004. NOAA Tech. Memo NOS NCCOSS.
 www.chbr.noaa.gov/CooperativeOxfordLaboratory.html

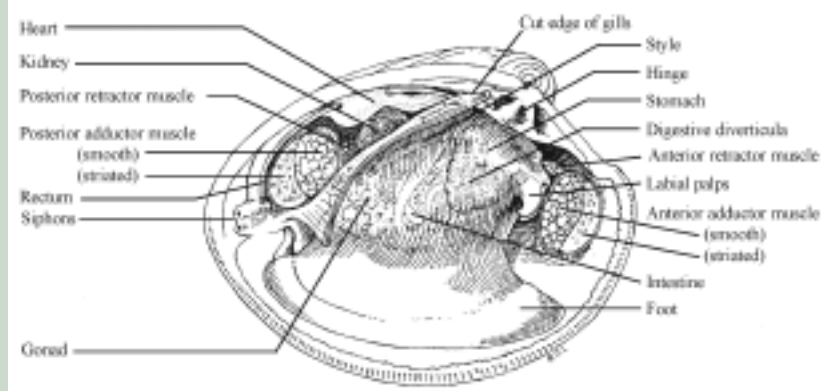


Shellfish Diseases

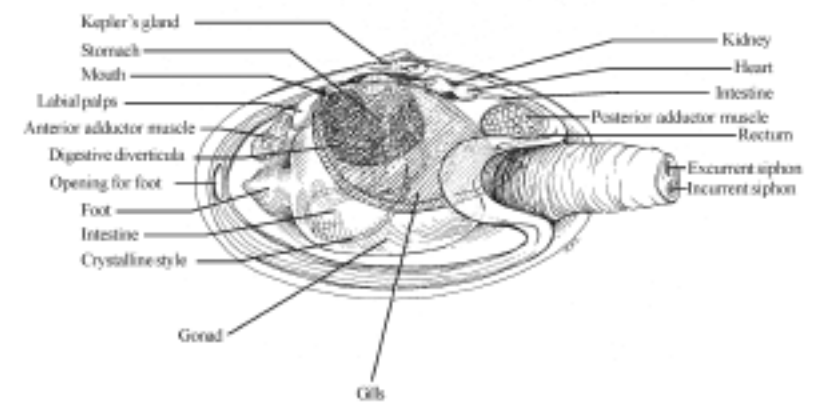
If you are a shellfish grower, harvester, or resource manager, you know that there are a number of diseases that may affect your shellfish. The Woods Hole Sea Grant Program and the Cape Cod Cooperative Extension Service have teamed up to provide you with information about common shellfish diseases. This illustrated guide provides a description of the diseases and identification tips—including times of year each is typically found to affect shellfish in New England waters.

With information about your shellfish disease(s), you can begin to find a solution, such as treatments, alternative growing techniques, siting and planting techniques, and control measures. If you have any questions about the information provided in Shellfish Diseases of Concern to New England Shellfish Growers, or if you would like more information about solutions, contact your local extension agent.

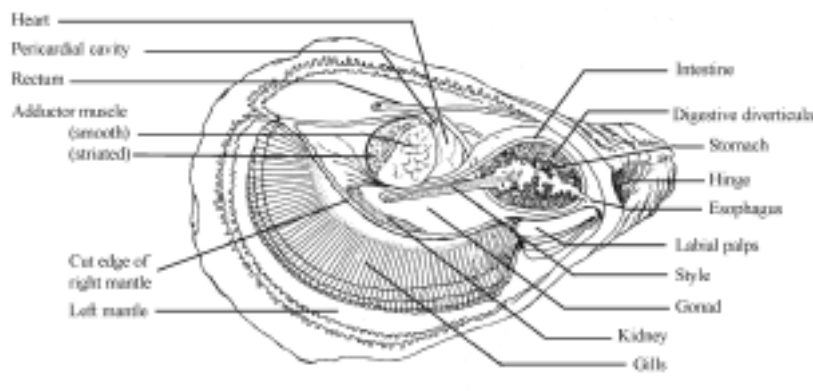
Anatomy of a quahog



Anatomy of a soft shell clam

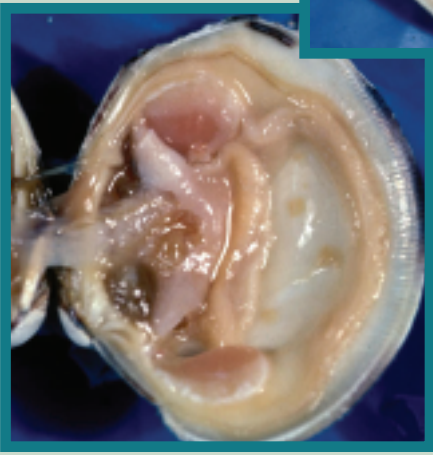
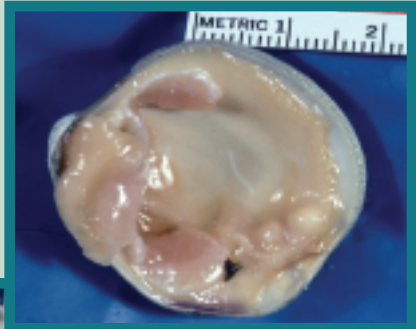


Anatomy of an oyster



Diseases of quahogs

QPX or Quahog Parasite Unknown
Current Range: North American east coast
Appearance: Slow growth, chipped shell margins occasionally, nodules in the mantle
Promoting Conditions: High salinity areas
Time of Year: Mortality often occurs in spring and late summer



Mortality from QPX can be extreme at times. In some sediments, dead and dying quahogs will come to the surface creating a carpet of shells.

Diseases of soft shell clams

Hemocytic neoplasia
Current Range: North American east coast
Appearance: Watery tissues
Promoting Conditions: May be associated with polluted areas



Clams affected by hemocytic neoplasia do not look outwardly different from healthy clams. This means that obtaining seed only from professionally certified, disease-free hatcheries is essential to disease management.