

Tube worms

Hydroides dianthus and *Spirorbis* spp.

Range: Maritime Provinces to Gulf of Mexico

Habitat: Attached to some form of substrate, including hard surfaces and plants

Time of Year: Most abundant in warmer months



Boring sponges

Cliona spp.

Range: Maritime Provinces to Gulf of Mexico

Habitat: Live within mollusk shells, typically subtidal

Time of Year: Common year around; particularly active during warmer months

Notes: Affected shells are peppered with small (~1/8") holes



Acorn barnacles

Balanus and *Semibalanus* spp.

Range: North American east coast

Habitat: Attached to hard substrate along both protected and exposed coast. Some tolerate low salinities. Intertidal and subtidal.

Time of Year: Barnacle sets are often observed in the late winter/early spring.



Blue mussel

Mytilus edulis

Range: Maritime Provinces to South Carolina

Habitat: Attached to firm substrate, but can form extensive beds in soft substrate areas by clumping together. Intertidal and subtidal.

Time of Year: Mussel sets are often observed as early as late winter, but occur throughout the year

Notes: Blue mussels are very active and do quite a bit of 'walking' during high tide



Eastern oysters

Crassostrea virginica

Range: Maritime Provinces to Gulf of Mexico

Habitat: Coastal embayments, intertidal to subtidal, including low salinity areas. Oysters attach to some type of hard substrate

Time of Year: Set typically occurs in June or July and are soon visible to the naked eye



PESTS of Concern to New England Shellfish Growers



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Shellfish Pests

If you are a shellfish grower, harvester, or resource manager, you are very familiar with the plants and animals that foul or infest 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 pests. This guide provides information about common shellfish pests, including their geographic range, habitat, and when they are most likely to pose a problem in New England waters.

This information is designed to help you determine which pest(s) you might be dealing with so 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 *Pests of Concern to New England Shellfish Growers*, or if you would like more information about solutions, contact your local extension agent.

Algae

Fleece alga, a.k.a., Deadman's Fingers

Codium fragile ssp. *tomentosoides*

Range: Maine to New Jersey

Habitat: Subtidal, but often washes ashore. Often attached to some rock or hard-shelled animal



Sea lettuce

Ulva lactuca

Range: North American east coast

Habitat: Lower intertidal to subtidal, but often washes ashore. Often attached to some rock or hard-shelled animal.



Hollow green weeds

Enteromorpha spp.

Range: North American east coast

Habitat: Tolerant of tidal exposure, occur in wide variety of habitats.

Time of Year: Can be year round, but some species are more common in spring and summer



Rockweed

Fucus spp.

Range: Maritime Provinces to South Carolina

Habitat: Intertidal to subtidal, attached to rocks or pilings.



Invertebrates

White crust

Didemnum spp.

Range: North American east coast

Habitat: Lower intertidal to subtidal, on hard surfaces

Time of Year: Present year around, though it's growing season is typically from June-October (depending upon location)

Notes: Unlike many of the other sea squirts, this species can cover extensive areas of the seafloor if the substrate consists of pebbles and cobbles



Star tunicate

Botryllus schlosseri

Range: Maritime Provinces to Chesapeake Bay

Habitat: Lower intertidal to subtidal protected waters, can tolerate brackish water. Attached to hard substrates.

Time of Year: Most common in summer



Club or stalked tunicate

Styela clava

Range: Maritime Provinces to Chesapeake Bay

Habitat: Subtidal, attached to hard substrates

Time of Year: Common year around, recruits in warmer months



Sea grape

Molgula spp.

Range: Maritime Provinces to New York

Habitat: Usually attached to substrate. Subtidal.

Time of Year: Most common during warmer months

Notes: Often encrusted with debris; unlike many other sea squirts it can tolerate brackish water conditions for short periods of time



Mud or blister worm

Polydora spp.

Range: Maritime Provinces to Gulf of Mexico

Habitat: Lives within oyster shell

Time of Year: Most common during warmer months



Hydroid

Campanularia spp. and related genera

Range: North American east coast

Habitat: Lower intertidal to subtidal, attached to hard substrate

Time of Year: Most common from spring to fall

