New England Marine Invader ID Card

Solitary Tunicates



Ascidiella aspersa European Sea Squirt

- Thin, grayish or pink, semi-translucent tunic with a rough, bumpy surface
- Typically oval or egg-shaped, can grow up to 5 inches long
- Oral siphon (inflow) at the top of the body, atrial siphon (outflow) located on the side
- Found in shallow, protected, subtidal waters (both marine and estuarine), common on docks
- Native to Europe, first observed in New England in the early 1980s



Anatomy of a solitary tunicate (top figure), A. aspersa on a spider crab (bottom left), and S. clava covered in colonial tunicates (bottom right)





Styela clava Club Tunicate

- Brownish, mottled color with leathery and warty tunic
- Long, club-shaped body up to 8 inches long with a narrow stalk about 1/3 of total length
- Alternating dark and light stripes on siphons when open
- Found in sheltered, shallow waters, very common on docks and fishing gear
- Native to the Northwest Pacific, first observed in New England in the early 1970s

Solitary tunicates (commonly known as sea squirts because they can squirt water from their siphons) have a soft body that is contained within a tough membrane (tunic). They are filter feeders that attach to hard surfaces. Tunicates retract their siphons when disturbed, making them more difficult to identify (however, the siphons will re-open when the tunicates are left in the water).

Marine Invader Monitoring and Information Collaborative (MIMIC)

Established Invaders



Similar Species

U.S.	Environmental	Protection Agency	Y
------	---------------	-------------------	---

Ciona intestinalis Sea Vase

- Tunic is smooth and transparent, varies in color (clear, white, orange, light pink, or light yellow), and grows to 6 inches long
- Siphons are ringed in yellow
- Body is soft and often collapses when taken out of the water
- Can be extremely abundant, carpeting the undersides of docks and piers
- Common, considered cryptogenic (native origins are unknown) in New England



C. intestinalis can vary in color from white to orange, siphons often have yellow rims.

Molgula spp. are often covered with a fine layer of sediment.

Molgula spp.

Sea Grape

• Small (up to 1.5 inches wide), grape-

Translucent gray or greenish blue

shaped, often in dense clusters

Siphons are close together at the

Several species occur in New

top of the body

England

Adrienne Pappa

Cristina Kennedy

🕴 Arjan Gittenberger

Styela canopus Rough Tunicate

- Tunic is reddish brown and rough or warty, often covered with fine debris
- Small (usually about 1 inch long) and lacks a long stalk
- Attaches to hard surfaces in sheltered areas
- Introduced species native to Asia
- Can be found throughout New England (but more common in warmer waters)

Species are native unless otherwise noted.