New England Marine Invader ID Card

Colonial Tunicates



Botrylloides violaceus Sheath Tunicate

- Bright orange, red, yellow, or dull/dark purple
- Zooids in chain-like rows





Botryllus schlosseri Golden Star Tunicate

- Blue-black, green, violet, brown, red, orange, or yellow
- Zooids arranged in star-like clusters
- Native origins unclear





Didemnum vexillum
"Mystery" Colonial Tunicate

- Tan, cream, or light orange-pink
- Dense colonies of microscopic zooids, tunic contains small white dots (spicules)

May form long, ropey tendrils or large mats resembling pancake batter



Diplosoma listerianum Diplosoma Tunicate

- Milky, grayish black, green, or tan
- Small zooids within a transparent tunic
- Can feel slimy to the touch



Colonial tunicates are individual animals (zooids) organized within a gelatinous cover (tunic). They attach to docks, rocks, pilings, ship hulls, seaweeds, and eelgrass in subtidal and protected intertidal areas. *B. violaceus* and *D. vexillum* are native to the Northwest Pacific, and the origins of *B. schlosseri* and *D. listerianum* are currently unknown. All of these species are found throughout New England. Colonial tunicates may require examination with a hand lens to distinguish between species in the field (definitive ID requires a microscope).

Similar Species



Aplidium spp. Sea Pork

- Orange, pink, or dull gray
- Can appear as a thick mass resembling congealed fat
- Attaches to hard structures in shallow to deep waters or on sand



Adrienne Pappal

Didemnum albidum Northern White Crust

- Similar to *D. vexillum* but typically bright white
- Feels firm to the touch with dense calcareous spicules in the tunic
- Occurs in shallow to deep water, attached to hard surfaces



Phylum Porifera Sponges

- A wide variety of native and non-native sponges occur in New England and can be visually similar to colonial tunicates, especially encrusting forms
- On closer inspection, the look and feel of a sponge is different from the firmer and more organized structure of colonial tunicates
- Sponges do not contain zooids and will compress when squeezed



Native Clathria prolifera (Red Beard Sponge) (top left) and a slime sponge (bottom left); Halichondria spp. (Crumb-of-Bread Sponges) (right) include the visually similar native Halichondria panicea and non-native Halichondria bowerbanki