New England Marine Invader ID Card

Colonial Tunicates

Cristina Kennedy	Cristina Kennedy	Betsy Rickards	Arjan Gittenberger
Botrylloides violaceus Sheath Tunicate	Botryllus schlosseri Golden Star Tunicate	Didemnum vexillum "Mystery" Colonial Tunicate	Diplosoma listerianum Diplosoma Tunicate
 Bright orange, red, yellow, or dull/dark purple Zooids in chain-like rows Can form extensive colonies in encrusting and lobe forms Adrienne Pappal 	 Blue-black, green, violet, brown, red, orange, or yellow Zooids arranged in star-like clusters Native origins unclear 	 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 	 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).

Marine Invader Monitoring and Information Collaborative (MIMIC)

Established Invaders



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

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



Adrienne Pappal

Arjan Gittenberger

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*

Species are native unless otherwise noted.