

# GUIDE TO MARINE INVADERS IN RI COASTAL WATERS

## *Diplosoma listerianum* compound sea squirt, diplosoma tunicate



Picton, B.E., and Morrow, C.C.

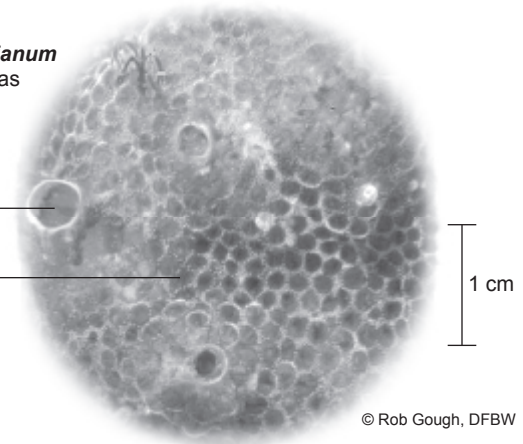
### PHYSICAL DESCRIPTION

- Colonial tunicate with small, cylindrical zooids (0.2 cm long)
- Grows in thin, flat, soft, gelatinous sheets on a variety of surfaces
- Milky, translucent appearance, often with white or grey spots
- Individual animals (zooids) are grouped around common large, exhalent openings (atriopore) within the colony
- Colony can grow up to 8 in (20 cm)

*Diplosoma listerianum*  
(portion of colony as  
seen from above)

large exhalent  
opening

Individual  
zooids



1 cm

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### HABITAT PREFERENCE

- Grows subtidally, attached to algae, eelgrass, molluscs, and nearly any hard, submerged surface
- Typically found in shallow water, but may occur at depths up to 250 ft (80 m)

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## INVASION STATUS & ECOLOGICAL CONCERNS

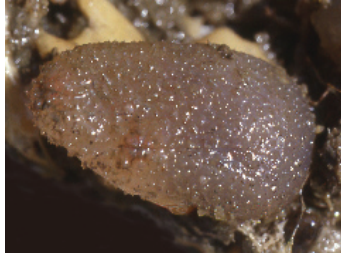
*Diplosoma listerianum*, likely a native of Europe, was most likely introduced to the Gulf of Maine as a result of its tendency to grow on the hulls of ships, hitchhiking to new locations as these vessels travel. This species can now be found from New Hampshire to Connecticut.

Like other invasive species that grow on both living and non-living surfaces, *D. listerianum* can alter a variety of habitats and may foul submerged pipes, ship hulls, docks, pilings, and other structures. On living organisms such as algae, *D. listerianum* colonies can block light and limit nutrient absorption, weakening their hosts. This species may also outcompete slower growing native

## SIMILAR SPECIES

### *Ascidia aspersa*

The translucent, milky colonies of *D. listerianum* may cause observers to mistake it for *Ascidia aspersa*, an invasive, solitary tunicate. However, a closer examination will reveal that *A. aspersa* are firm, bumpy, oval structures, rather than the thin encrusting layers formed by *D. listerianum* colonies.

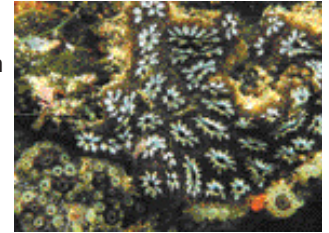


*Ascidia aspersa*

Robert Buchsbaum

### *Botryllus schlosseri*

The sheet-like, gelatinous colonies of *D. listerianum* may also be mistaken for those of other invasive tunicates, including *Botryllus schlosseri* (right). However, *B. schlosseri* zooids are arranged in a star-like pattern, while *D. listerianum* zooids are randomly positioned around large exhalent openings. In addition, *D. listerianum* is mostly translucent, vs. the light and dark patterning of *B. schlosseri*.



*Botryllus schlosseri*

Andrew Martinez

This card is adapted from an original series produced by Salem Sound Coastwatch ([www.salemsound.org](http://www.salemsound.org)). The original series was funded by the MA EOECA Office of Coastal Zone Management with funding from the U.S.F.W.S. For more information please visit [www.mass.gov/czm/invasives/monitor/reporting.htm](http://www.mass.gov/czm/invasives/monitor/reporting.htm). The production of this adapted card was funded by the RI Coastal Resources Management Council with funding from the U.S. Fish & Wildlife Service. To report findings please email [kcute@crmc.ri.gov](mailto:kcute@crmc.ri.gov) or call (401) 783-7772 or (401) 783-3370.