GUIDE TO MARINE INVADERS
IN THE GULF OF MAINE

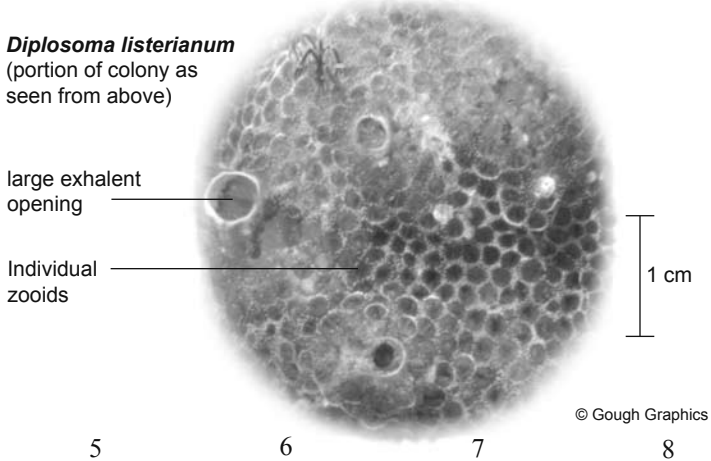
Diplosoma listerianum

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)



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, weaking their hosts. This species may also outcompete slower growing native species for suitable space.

SIMILAR SPECIES

Ascidiella aspersa

The translucent, milky colonies of *D. listerianum* may cause observers to mistake it for *Ascidiella 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.

Robert Buchsbaum

Ascidiella aspersa

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.*

Andrew Martinez

Botryllus schlosseri

This identification card is one of a series produced by Salem Sound Coastwatch (www.salemsound.org) highlighting introduced species that pose a threat to the marine environments of Massachusetts and the Gulf of Maine. The original development of these cards was funded by the MA EOEEA Office of Coastal Zone Management with funding from the U.S. Fish and Wildlife Service. For additional species information or to report sightings, please visit www.mass.gov/czm/invasives/monitor/reporting.htm.

CZM