

GUIDE TO MARINE INVADERS IN THE GULF OF MAINE

Diadumene lineata orange-striped anemone



Robert Buchsbaum



Andrew N. Cohen

D. lineata with tentacles extended

D. lineata with tentacles retracted

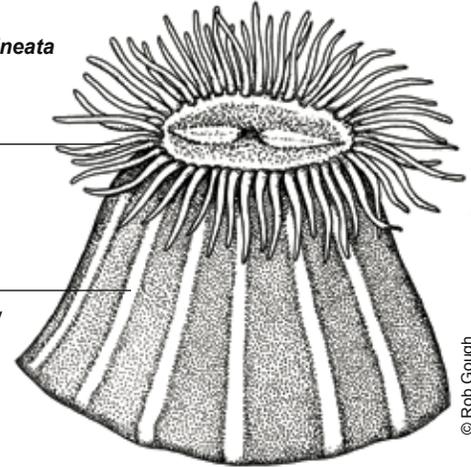
PHYSICAL DESCRIPTION

- Small anemone with crown of 50 - 100 tentacles
- Cylindrical light greenish to brown body, typically with thin, vertical, orange or tan stripes
- Grows up to 1.5 in (< 4 cm)

Diadumene lineata

50 - 100
tentacles

orange or tan
stripes up
greenish body



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HABITAT PREFERENCE

- Found attached to firm surfaces in shallow, subtidal waters, including tidepools, docks, and other protected areas
- Often associated with mussels or oysters
- May occur in brackish waters
- Occasionally found in mud or on vegetation in marshes and other calm waters.

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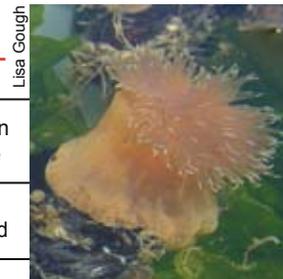
INVASION STATUS & ECOLOGICAL CONCERNS

Diadumene lineata is native to the Western Pacific (Japan, China, Hong Kong), but has a current distribution that also includes Indonesia, New Zealand, and both the Pacific and Atlantic coasts of North America. On Atlantic Ocean shores, this species can be found from Massachusetts to Florida. *D. lineata* was likely spread unintentionally, via fouling on ship hulls and/or by commercial shellfish.

The ecological impact of this species is not well understood. However, it is known as a fouling organism and can negatively impact the structures and organisms on which it grows. For example, mussels and oysters may have difficulty feeding and growing when covered by *D. lineata* colonies. In addition, *D. lineata* shows an ability to tolerate a wide range of abiotic conditions (e.g. temperature and salinity), perhaps tipping the scales in this species' favor in the competition with native anemones for available habitats. This species, like other anemones, can spread rather quickly as a result of its ability to reproduce sexually via external fertilization and asexually by simply splitting themselves in half.

SIMILAR SPECIES

| | Body Column | Tentacles | Max. Size | Notes |
|--|--|---|----------------|--|
| <i>Metridium senile</i> frilled anemone (right) native | Variable color; often white, cream, pink; no stripes | 100 to 1000 tiny tentacles; form bushy lobes (adults) | 18 in (46 cm) | Largest and most common anemone in Gulf of Maine |
| <i>Fagesia lineata</i> lined anemone native | Slender, white to brownish body; pale vertical stripes | 40 tentacles; positioned in 3 crown-like rings | 1.25 in (3 cm) | Prefers steady, swift current amid rocks or sand |
| <i>Sagartia elegans</i> purple anemone invasive | Tan to brown body color; no stripes | Up to 200 purple or pink tentacles | 8 in. (20 cm) | Introduced from Europe, Prefers calm waters |



Lisa Gough

Young *Metridium senile*

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 EOOEA 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.

