Crustaceans

**SKELETON SHRIMP, CAPRELLID AMPHIPOD** *Caprella mutica*

- **Description:** Slender crustacean, large claws, long antennae, spines on body; males twice as large as females, over 2 in (5 cm)
- **Distribution:** Maryland to Newfoundland
- **Introduced from:** Western Pacific
- **Habitat:** Found in fouling communities, attaches to algae, ropes, docks, and pilings; subtidal

**EUROPEAN ROCK SHRIMP** *Palaemon elegans*

- **Description:** Shrimp with five pairs of legs, two with claws, and one pair of claws have orange and bright blue bands; 2.5 in (6.4 cm)
- **Distribution:** Long Island Sound to Maine
- **Introduced from:** Europe
- **Habitat:** Near docks, rocky coasts and tidepools, also associated with algae; subtidal

**ORIENTAL SHRIMP** *Palaemon macrodactylus*

- **Description:** Shrimp with five pairs of legs, first pair have claws with orange and beige stripes; up to 2.7 in (6.9 cm)
- **Distribution:** Chesapeake to New Hampshire
- **Introduced from:** Western Pacific
- **Habitat:** Docks, marinas, soft bottoms, and vegetation; subtidal

**ASIAN SHORE CRAB** *Hemigrapsus sanguineus*

- **Description:** Banded legs, red spots on claws, variable color, square shape, three marginal teeth; 1.9 in (4.8 cm)
- **Distribution:** North Carolina to Canada
- **Introduced from:** Western Pacific
- **Habitat:** Rocky shores, cobbles, often found under rocks; mid-intertidal to subtidal

**EUROPEAN GREEN CRAB** *Carcinus maenas*

- **Description:** Green, reddish orange, or tan carapace with darker mottling; five marginal teeth; 2.5–4 in (6.4–10.1 cm)
- **Distribution:** Virginia to Newfoundland
- **Introduced from:** Europe
- **Habitat:** Hard and soft surfaces; intertidal to subtidal

Mollusks

**COMMON PERIWINKLE SNAIL** *Littorina littorea*

- **Description:** Shell usually dark, transverse black stripes on tentacles, poorly developed sutures on whorls; up to 1.7 in (4.3 cm)
- **Distribution:** Nova Scotia to Virginia
- **Introduced from:** Europe
- **Habitat:** Prefers hard surfaces, estuarine to marine; intertidal to subtidal

**EUROPEAN OYSTER** *Ostrea edulis*

- **Description:** Slender crustacean, large claws, long antennae, spines on body; males twice as large as females, over 2 in (5 cm)
- **Distribution:** Nova Scotia to Virginia
- **Introduced from:** Western Pacific
- **Habitat:** Found in fouling communities, attaches to algae, ropes, docks, and pilings; subtidal

DEFINITIONS

- **Intertidal:** The area between the high and low tide
- **Subtidal:** Areas below low tide
- **Estuarine:** Where fresh water and sea water mix
- **Carapace:** The shell of a crustacean
- **Zooid:** Individual animal of a colony of bryozoans or ascidians

- = Organisms may be found further north or south

FOR MORE INFORMATION PLEASE CONTACT:

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This guide identifies 19 species of the many marine non-native (introduced) species that may be found along the New England coast. Some species, such as the common periwinkle snail, the green fleece alga, the European green crab, and many of the sea squirts, have been here for a long time and are very common. Others, such as the Asian shore crab, two shrimp species, a red alga, and a bryozoan, are relatively new invaders. Not included in the guide are the “down under” barnacle and the Chinese mitten crab, which have not yet been observed on our shores, but are likely to arrive soon. You may find these non-native species washed up on the shore or in the wrack zone along the high tide line. Most of the organisms in this guide can also be observed on the bottom of the sea floor, or attached to hard structures like rocks, pilings, and floating docks in marinas and harbors.
**Algae**

**RED ALGA**
*Grateloupia turuturu*
- Description: Usually red to burgundy, flat silky blades, simple or divided, single or in clumps; up to 15 in (38.1 cm) wide and 6 ft (1.8 m) long
- Distribution: Long Island Sound to Maine
- Introduced from: Western Pacific
- Habitat: Attached to rocks, stones, mussels, piers, pontoons, and other hard structures; low intertidal to 18 ft (5.5 m)

**RED ALGA**
*Codium fragile*
- Description: Filamentous red alga with many branches; difficult to identify from native species; up to 2.5 in (6.4 cm) long
- Distribution: Long Island Sound to Maine
- Introduced from: Western Pacific
- Habitat: Likely to be seen on shore (decaying alga smells like rotten eggs); subtidal to depths of 6–20 m

**GREEN FLEECE ALGA**
*Dasyiphonia japonica*
- Description: Green, spongy, finger-like branched alga; bleaches white; up to 36 in (91.4 cm) long
- Distribution: Nova Scotia to North Carolina
- Introduced from: Western Pacific
- Habitat: Attached to hard surfaces, rocks, shells, bays; subtidal and often washed up on the beach

**FEATHERY RED ALGA**
*Dasysiphonia japonica*
- Description: Filamentous red alga with many branches; difficult to identify from native species; up to 2.5 in (6.4 cm) long
- Distribution: Long Island Sound to Maine
- Introduced from: Western Pacific
- Habitat: Attached to hard surfaces, rocks, shells, bays; subtidal and often washed up on the beach

**GRATELOUPIA ALGA**
*Grateloupia turuturu*
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