

GUIDE TO MARINE INVADERS IN THE GULF OF MAINE

Caprella mutica

spiny red Caprellid amphipod, skeleton shrimp



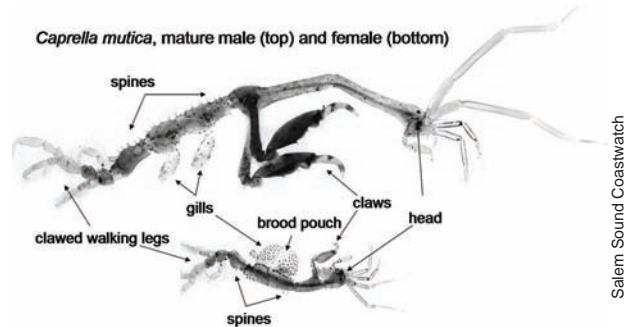
Andrew Martinez

PHYSICAL DESCRIPTION

- Slender crustacean with a skeletal appearance, long robust antennae and large claws
- Distinct ridges of small spine visible on the main body segments that begin at base of neck where the clawed forelegs join the body
- Found at all sizes, but full-grown males reach over 2" (5+ cm) in length, nearly twice as long as adult females
- Males have much longer neck segments and larger claws than females
- Body is often red and mottled in color, particularly on full-grown adults
- Highly mobile, animated in appearance, seen "waving" back and forth on substrate, often in large groups; attached to substrate using small posterior legs

HABITAT PREFERENCE

- Abundant in fouling communities such as docks, pilings and ropes, as well as on many living substrates, particularly hydroids and macroalgae
- Can survive in salinities of 20 to at least 35 ppt
- Not commonly found in brackish waters
- Capable of surviving varied water temperatures from ~35°-85°F (2°-



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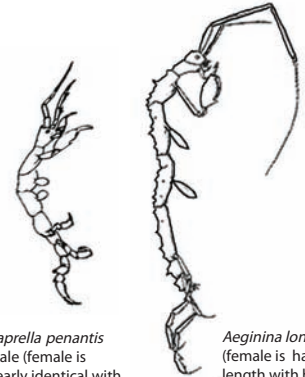
skeleton shrimp, spiny red Caprellid amphipod

INVASION STATUS & ECOLOGICAL CONCERNS

A native of the western Pacific, *Caprella mutica* is a particularly successful invader, now common throughout the northern hemisphere and parts of the southern Pacific. It can be locally abundant to such an extent that all native Caprellids, and possibly other small crustaceans, may be excluded. Much remains to be studied about their ecology and probable impact but, given their large size, high abundance, and predatory capacity, they are likely one of the most successful invaders in coastal marine habitats.

SIMILAR SPECIES

Several other species of Caprellid amphipods are native to coastal New England, but most have become rare since *C. mutica*'s arrival. Few get much larger than half the length of a full grown male *C. mutica*, and none have the same dense spines found along the back of *C. mutica*'s three abdominal segments. *Aeginina longicornis*, is the only common native that is both of comparable length to mature *C. mutica*, and bears spines, though these are found over the length of the entire back of an adult, not just on the main abdominal segments. Furthermore, mature *A. longicornis* males are also distinguished by the lack of the long necks of *C. mutica* males. *C. penantis*, once a common native, is much shorter than *C. mutica*, with males only reaching ½" (14mm), lacking the long neck, and having no spines on the body. A distinguishing mark is a single small "horn" on its head. Immature specimens can be difficult to distinguish, but if *C. mutica* is present at a site, it is likely that there will be no shortage of large adults to identify. Smaller individuals require more detailed identification using features difficult to distinguish in the field.



Caprella penantis
male (female is
nearly identical with
brood pouch)

Aeginina longicornis
(female is half the
length with brood

This identification card is one of a series produced by Salem Sound Coastwatch highlighting introduced species that pose a threat to the marine environments of Massachusetts and the Gulf of Maine. These cards were funded by the MA Executive Office of Environmental Affairs, Office of Coastal Zone Management with funding from the U.S. Fish and Wildlife Service. For additional information on these species, or to report sightings, please visit www.marineID.org or email marineID@northeastANS.org.

