

GUIDE TO MARINE INVADERS IN THE GULF OF MAINE

Eriocheir sinensis Chinese mitten crab

Potential
Invader



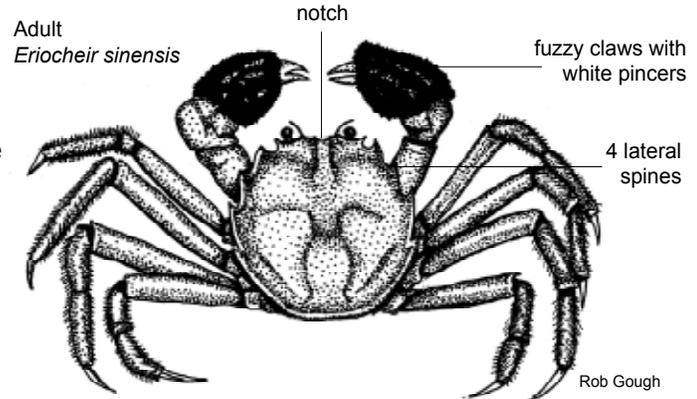
Lee Mecum, CDF&G

PHYSICAL DESCRIPTION

- Dense fuzzy patches on claws of adults and larger juveniles (>1 inch)
- Regenerated claws and claws of smaller juveniles may not have fuzz
- Claws are equally sized and white-tipped
- Four lateral spines on each side of carapace (shell); notch between the eyes
- Carapace light-brown to olive green color; width up to 4 in (10 cm)
- Sharp-tipped walking legs of adult over twice as long as carapace width

HABITAT PREFERENCE

- Catadromous life cycle: begins as estuarine larva, migrates into freshwater streams for 1-4 years, then returns to coast to reproduce
- Burrows in the bottom and banks of freshwater rivers and estuaries
- Tolerates a wide range of temperatures
- Able to survive in highly altered and polluted aquatic habitats
- Adept at walking on land and around barriers
- Nondiscriminating omnivores that consume plants and prey on fish and benthic invertebrates (clams, worms, shrimp)



Rob Gough

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INVASION STATUS & ECOLOGICAL CONCERNS

Native to east Asia, *Eriocheir sinensis* has achieved a global distribution that includes several countries in central and western Europe and most recently the U.S. Pacific and Atlantic coasts. In 1992, it was found reproducing in San Francisco Bay. By 1998, *E. sinensis* had spread throughout the bay and has since expanded upstream into the Sacramento and San Joaquin Rivers. Between 2005-2008, nineteen were confirmed along the U.S. Atlantic coast in the Chesapeake Bay (2005-2007), Delaware Bay (2007), Hudson River (2007-2008), and Raritan Bay and Toms River, New Jersey (2008). Both females and males have been found, but an established reproductive population in eastern U.S. has not been confirmed as of the summer of 2008. Possible vectors for its spread include intentional release, larval dispersion, ballast water, and transport by ship when crabs take refuge among the fouling communities on ship hulls. An efficient predator and competitor for food, they may have a profound effect on native biological communities. This crab's flexible, omnivorous feeding habits may give it a competitive edge over other crabs. They have damaged fishing gear and clogged pumps, screens, and intake pipes. Their burrowing nature (densities possibly exceeding 30 burrows/m²) has accelerated bank erosion and instability.

SIMILAR SPECIES

It is **illegal** to import eggs or live specimens of any species of mitten crab (genus *Eriocheir*) to the United States under the Federal Lacey Act.

In New England, there are no native freshwater crabs. The nineteen Chinese mitten crabs found on the Atlantic coast have been found in crab pots and washed ashore. *If you find a mitten crab, report it immediately.* Do not throw it back alive! Freeze the animal, keep it on ice, or preserve it in rubbing alcohol as a last resort. Please take a close up photo of the animal and record the precise location and date where it was found.

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.

