

# GUIDE TO MARINE INVADERS IN THE GULF OF MAINE

## *Eriocheir sinensis* Chinese mitten crab



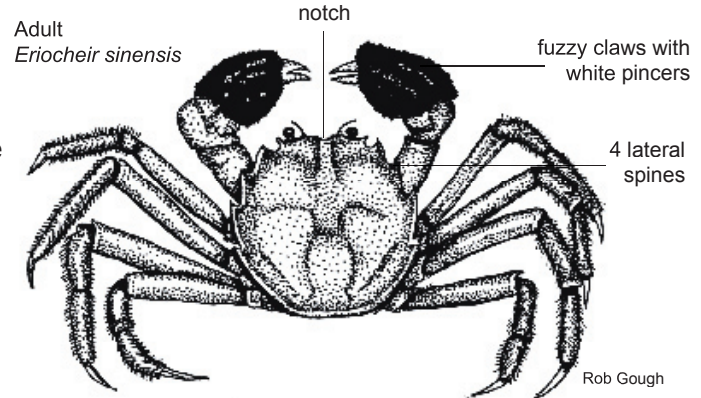
Lee Mecum, CDF&G

### PHYSICAL DESCRIPTION

- Dense fuzzy patches on claws of adults and larger juveniles
- 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)
- Legs of adult over twice as long as carapace width

### HABITAT PREFERENCE

- Catadromous life cycle: begins as estuarine larva, migrates into freshwater streams for 1-3 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)



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## Chinese mitten crab

### INVASION STATUS & ECOLOGICAL CONCERNS

Not yet recorded in New England, *Eriocheir sinensis* has been nominated as one of the 100 “World’s Worst” invaders by the World Conservation Union. This species is native to the Yellow Sea in Korea and China, but has achieved a global distribution that includes several countries in central and western Europe. This crab has also been reported in North America in the Detroit River, Windsor, Ontario (introduced in 1965), Lake Erie (1973), and near the Mississippi River mouth (1987), as well as an isolated occurrence in Hawaii, all without confirmed establishment. In 1991, it was found to be reproducing in San Francisco Bay. By 1998, *E. sinensis* had spread throughout the bay and was expanding up into the Sacramento river system. 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/m<sup>2</sup>) has accelerated bank erosion and instability.

*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. It is also illegal to import, transport, or possess live Eriocheir sinensis in California, Washington, and Oregon.*

### SIMILAR SPECIES

Japanese mitten crab (*Eriocheir japonica*) is very similar to the Chinese mitten crab (*Eriocheir sinensis*). In 1998, a Japanese mitten crab was caught in the Columbia River, Oregon. Both species of mitten crabs are considered delicacies and have been illegally imported in the United States for the live food market and deliberately released.

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](http://www.marineID.org) or email [marineID@northeastANS.org](mailto:marineID@northeastANS.org).

