

Identifying the Chinese Mitten Crab

By Linda Barry, Assistant Fisheries Biologist



The non-native and invasive Chinese mitten crab first appeared on the Atlantic coast of the United States in 2006 when a male crab was caught at the mouth of Maryland's Patapsco River. Since then these crabs have been observed in the Chesapeake Bay, Delaware Bay, New Jersey coastal waters and the Hudson River. Last year, thanks to the vigilance of commercial and recreational fishermen, fifty specimens of the Chinese mitten crabs were collected from New Jersey waters. Of these crabs, 28 were male and 22 were female, four of which had egg masses.

The locations spanned the state's coastline from the lower Hudson River and Raritan Bay to Delaware Bay, and included sightings in Belford, Matawan and Cheesequake creeks, the Navesink, Shrewsbury and Manasquan rivers plus Barnegat Bay. The vast majority of the crabs (39) were caught in Raritan Bay and its surrounding waters.

To help identify these invasives, listed below are identifying characteristics of the mitten crab as well as those for two New Jersey common crabs often mistaken for mitten crabs.



Peter Clarke, NJ ACCSP State Coordinator

Chinese Mitten Crab (*Eriocheir sinensis*)

- Smooth, round carapace, olive green to brown in color
- Four spines with a deep, central notch between the eyes, and four spines along the margin to the side of each eye (last spine is very small)
- Thick, furry "mittens" covering equal-sized claws with white tips protruding.
- No swimming legs and eight long, slender, sharp-tipped walking legs
- Size to 4-inch carapace width.

Spider Crab (*Libinia dubia* and *Libinia emarginata*)

- Teardrop-shaped, globular brown carapace covered with many small spines and tubercles, pointed rostrum extending outward between the eyes
- Six (*L. dubia*) or nine (*L. emarginata*) prominent spines progressing along the midline of the back, and six spines to the side of each eye
- Very fine, very short fibers on carapace and legs
- Small, white-tipped claws
- No swimming legs and eight very long, spindly, walking legs giving the crab a spider-like appearance
- Size to 4-inch carapace length



Chris Fitzsimmons—Seasonal Technician, NJ Div. Fish and Wildlife

Green Crab (*Carcinus maenas*)

- Finely grained, hexagonal or fan-shaped carapace with a blotched or mottled pattern of olive to dark green to brown above, tinted yellow to red below
- Three small, rounded spines between the eyes without a central notch, and five spines to the side of each eye
- Equal-sized, hairless claws with small black spots on the palm and black stripes in the grooves
- Last pair of legs slightly flattened
- Size to 3.5-inch carapace width



Linda Barry, Assistant Biologist, NJ Div. Fish and Wildlife

New Jersey Division of Fish and Wildlife thanks those anglers who reported sightings of the Chinese mitten crab and asks all who fish New Jersey's waters to continue reporting each observation of this invasive species. If a mitten crab is caught, **do not release it!** Contact the Nacote Creek Marine Fisheries office at (609) 748-2020. Fish and Wildlife continues to work with the Smithsonian Environmental Research Center, the lead investigator documenting and analyzing Chinese mitten crab occurrences along the Atlantic coast. Information about the crab's whereabouts and the collection of specimens for genetic analysis is crucial in establishing their status on our shores. More information on the Chinese mitten crab can be found on Fish and Wildlife's Web site at NJFishandWildlife.com/news/2009/mittencrab09.htm. 