

MITTEN CRAB UPDATE!

By Brandon Muffley, Research Scientist

Citizen Network to Keep a Continued Lookout

Sightings of the non-native and invasive Chinese mitten crab continue in waters surrounding New Jersey. The mitten crab has already invaded other areas of the United States causing significant ecological and economical losses in those areas, and has the potential to establish itself in New Jersey bays and estuaries. Both commercial and recreational crabbers plus the general public are asked to be watchful and assist scientists to document sightings of mitten crabs. Your support is important to effectively determine this invader's current distribution and possible establishment in our waters.

Mitten crabs are native to East Asia but have invaded portions of northern Europe and also California. The crabs have the potential to increase erosion along stream banks, compromise levees and impact aquatic vegetation and wildlife. Therefore, the crabs are listed as "Injurious Wildlife" under the Federal Lacey Act which makes it illegal to import or transport this species across state boundaries without a permit. Mitten crabs spend most of their life cycle in freshwater. Around age three or four years, they migrate to higher-salinity areas to mate.

To date, thirteen confirmed mitten crabs have been caught predominately by commercial crab pots in the mid-Atlantic region, ranging from the Chesapeake Bay to the Hudson River. These sightings first appeared in the Chesapeake Bay when one adult male crab was caught in the summer of 2005. Sightings have since expanded with confirmed specimens in the Chesapeake Bay (five), upper Delaware Bay (five) and the Hudson River (three). There have been no confirmed sightings in any New Jersey waters.

Nine of the thirteen mitten crabs captured were males, with four mitten crab sightings turning up females. It is unknown if a self-sustaining population of mitten crabs exists in the mid-Atlantic region, however, two of the female crabs had mated and eggs were present on the abdomen. Two mitten crabs, one female and one male, found in the Hudson River in October 2007 and January 2008, respectively, were juveniles. No larvae have been found. Scientists are also still unsure of the potential impact should the mitten crab become established in the mid-Atlantic.

New Jersey Division of Fish and Wildlife along with the Smithsonian Environmental Research Center (SERC), the lead investigator in documenting mitten crab sightings, are continuing to collect information to determine the current status, abundance and distribution of mitten crabs along the eastern United States. Recreational crabbers are asked to stay alert for mitten crabs you may catch in New Jersey's bays and coastal estuaries.



Front view of an adult male mitten crab. Distinct 'hair' on the claws and a deep notch between the eyes differentiate this crab from others.

If you catch a mitten crab:

- Note the date and specific location of capture
- Photograph and/or retain the crab – *do not throw it back alive!*
- Contact either: Nacote Creek Marine Fisheries Office at (609) 748-2020 or Mitten Crab Hotline (SERC) at (443) 482-2222

Mitten Crab Identification

Mitten crabs are easy to confuse with several other crabs. Look for these key characteristics:

- Claws: equal in size with white tips and covered in hair
- Color: light brown to olive green
- Carapace: up to four inches wide with notch between the eyes
- Legs: eight sharp-tipped walking legs – no swimming legs

Thank you for helping New Jersey Division of Fish and Wildlife by staying watchful for the Chinese mitten crab. For more information on mitten crab sightings, current research and life history, visit the SERC Marine Invasions Research Lab Web site at: http://www.serc.si.edu/labs/marine_invasions/index.jsp.



Photo: Smithsonian Environmental Research Center

An adult male mitten crab; notice the four key identification characteristics described in the text: claws, color, carapace and legs.