Common Name: Atlantic marsh fiddler crab ***SGCN***
Scientific Name: *Uca pugnax*
Taxon: Crustaceans

Federal Status: Not Listed
New York Status: Not Listed

Natural Heritage Program Rank:
Global: Not Ranked
New York: Not Ranked
Tracked: No

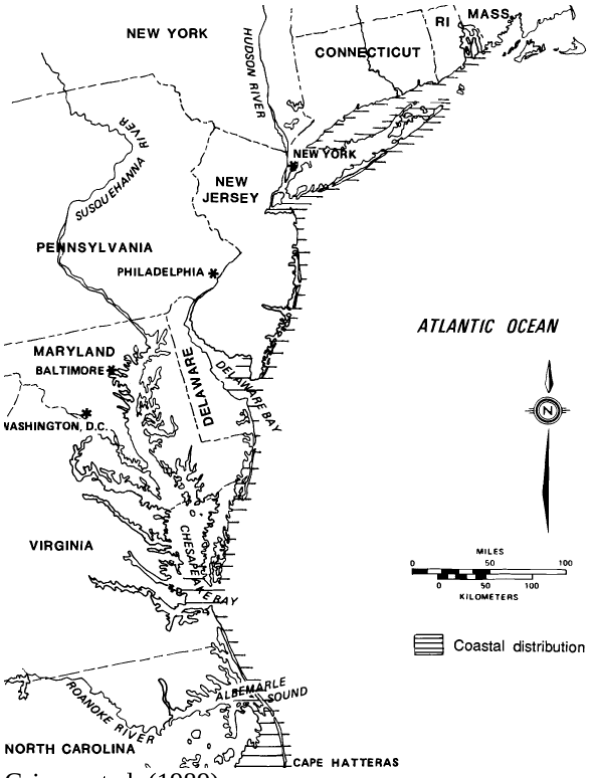
Synopsis:
The Atlantic marsh fiddler crab is found throughout intertidal wetlands along the Atlantic Coast from Massachusetts to Florida (Grimes et al. 1989). This is a burrowing crab that has a large impact on ecosystem functions in salt marshes and tidal waters by altering nutrient/oxygen availability and possibly encouraging root growth of *Spartina alterniflora* (Grimes et al. 1989, Shields 1999). In New York, this species can be found in the Lower Hudson River and Long Island estuaries and bays (NYSDEC 2005). There is little information describing the abundance and occurrence of this species, making it difficult to determine population trends; however, this species seems common where it occurs.

Distribution (% of NY where species occurs)		**Abundance** (within NY distribution)		**NY Distribution Trend**	**NY Abundance Trend**
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common	X		
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare			

Habitat Discussion:
The Atlantic marsh fiddler crab is associated with both high and low salt marsh where short cordgrass, *Spartina alterniflora*, is abundant (Grimes et al. 1989, Shields 1999). This crab creates burrows in the mud and burrows decrease in abundance as you move from low to high marsh. This is due to the accumulation of a heavy root mat in the high marsh (Grimes et al. 1989). This species is considered an ecosystem engineer and the loss of populations could be detrimental to the health of salt marshes (NYSDEC 2005).

Primary Habitat Type
Estuarine; Brackish Intertidal; Benthic Geomorphology
Estuarine; Brackish Intertidal; Tidal Wetland
Marine; Intertidal; Benthic Geomorphology

Distribution:
This species occurs in the Lower Hudson River and Long Island bays and estuaries (NYSDEC 2005).



Grimes et al. (1989)

Threats to NY Populations				
Threat Category	**Threat**	**Scope**	**Severity**	**Irreversibility**
1. Natural System Modifications	Other Ecosystem Modifications (loss of salt marsh*)	P	M	H
2. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (loss of native cordgrass-mute swan, Chinese mitten crab)	R	L	H
3. Invasive & Other Problematic Species & Genes	Problematic Native Species (Canada goose)	R	L	H
4. Pollution	Household Sewage &Urban Waste Water (eutrophication/algal blooms)	P	H	H

References Cited:

Grimes, B.H., M.T. Huish, J.H. Kerby, and D. Moran. 1989. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Mid-Atlantic)—Atlantic marsh fiddler. U.S. Fish and Wildlife Service. Biol. Rep. 82(11.114). U.S. Army Corps of Engineers, TR EL-82-4. 18pp.

New York State Department of Environmental Conservation. 2005. New York State Comprehensive Wildlife Conservation Strategy. http://www.dec.ny.gov/index.html.

Shields, J. 1999. The fiddler crab, *Uca pugnax*. Virginia Institute of Marine Science. Available at: http://www.vims.edu/~jeff/fiddler.htm. April 26, 2013.

Common Name: Blue crab ***SGCN***
Scientific Name: *Callinectes sapidus*
Taxon: Crustaceans

Federal Status: Not Listed
New York Status: Not Listed

Natural Heritage Program Rank:
Global: Not Ranked
New York: Not Ranked
Tracked: No

Synopsis:
The blue crab ranges from Nova Scotia to Argentina, encountering blue crabs as far north as Nova Scotia is unlikely due to the cold water temperatures, New York is the northern extreme of their geographic range (Kenney 2005). In New York it is found throughout the Hudson River Estuary and in estuaries throughout Long Island During the summer months when the water is warm, blue crabs actively feed and forage throughout New York's local bays and estuaries. During the winter blue crabs move into deeper waters and bury themselves in the mud, remaining dormant until the water warms up (DEC 2013). Blue crabs are an important species in New York because they provide commercial and recreational fisheries and play an important ecological role. Prior to the year 2000 there was no ongoing collection of biological data for blue crabs and harvest information was limited to catch reports by fishers (Kenney 2002).

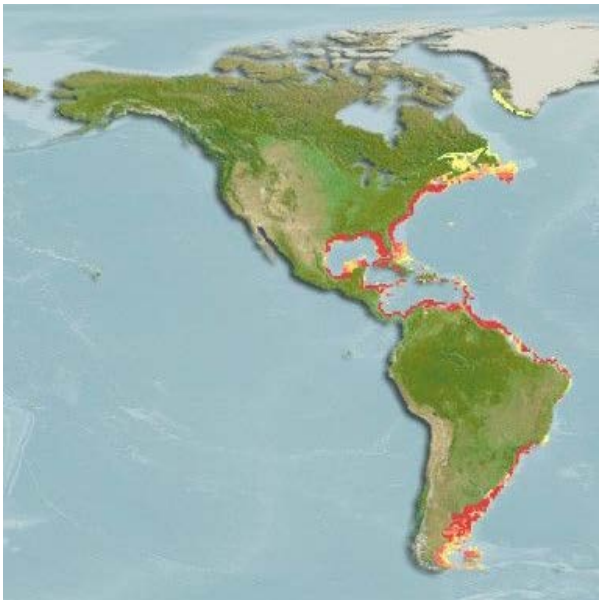
Distribution (% of NY where species occurs)		**Abundance** (within NY distribution)		**NY Distribution Trend**	**NY Abundance Trend**
0% to 5%		Abundant		Stable	Unknown
6% to 10%	X	Common	X		
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare			

Habitat Discussion:
Blue crabs occupy a wide variety of habitats throughout their life history. In general, males remain in lower-salinity waters. Females migrate to higher-salinity water to spawn. Offshore, high-salinity waters are used during early larval stages. Larvae move into the estuary and use intertidal marshes, seagrass beds, and soft-sediment shorelines as they grow. In the winter months adults and juveniles will burrow into the mud or sediment until the temperatures warm in the spring (NOAA 2012).

Primary Habitat Type
Estuarine; Brackish Intertidal
Estuarine; Brackish Shallow
Estuarine; Freshwater Shallow Sub-tidal

Distribution:
The greatest commercial crab landings in New York are from pot fisheries from the bays along the south shore of Long Island, mostly from Great South Bay (Briggs 1985, 1998). The second most important commercial fishery is New York Harbor where a dredge fishery exists from late fall through winter. The

blue crab is known to inhabit the entire Hudson River estuary from New York Harbor (RM 0) to the Federal Dam at Troy (RM 153).



Data sources: SeaLifeBase, Aquamaps, GBIF, OBIS

Threats to NY Populations				
Threat Category	**Threat**	**Scope**	**Severity**	**Irreversibility**
1. Biological Resource Use	Fishing & Harvesting Aquatic Resources (legal harvest)	W	L	L
2. Biological Resource Use	Fishing & Harvesting Aquatic Resources (illegal harvest (commercial and recreational)	N	L	M
3. Pollution	Household Sewage & Urban Waste Water (Hypoxia)	N	L	H
4. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (disease: paramobea)	N	L	V

5. Pollution	Industrial & Military Effluents (cadmium, mercury, PCBs, dioxin)	N	L	M
6. Pollution	Industrial & Military Effluents (oil/chemical spills)	N	L	M
7. Pollution	Air-Borne Pollutants (pesticide spraying for West Nile)	R	M	M
8. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Chinese mitten crab)	P	L	V
9. Pollution	Air-Borne Pollutants (ocean acidification)	P	L	V

References Cited:

Kenney, G. 2002. Annual Report on Commercial Monitoring of the Hudson River Blue Crab Fishery. New England Interstate Water Pollution Control Commission and New York Department of Environmental Conservation. 23pp.

Kenney, G. 2005. State Wildlife Comprehensive Plan. September 27, 2005. DRAFT Species Group Report for Blue Crab.

New York State Department of Environmental Conservation. Blue Crabs of the Hudson River. http://www.dec.ny.gov/docs/fish_marine_pdf/hrblcrab.pdf Accessed February 2013

National Oceanic and Atmospheric Administration. Chesapeake Bay Office: Blue Crab. 2012. http://chesapeakebay.noaa.gov/fish-facts/blue-crab. Accessed February 2013.