Common Name: Salt marsh tiger beetle ***SPCN***
Scientific Name: *Cicindela marginata*
Taxon: Beetles

Federal Status: Not Listed
New York Status: Not Listed

Natural Heritage Program Rank:
Global: G5
New York: S3
Tracked: Watch List

Synopsis:
The salt marsh tiger beetle requires sandy substrate adjacent to salt marshes. This species has received little attention in the Northeast, and while some authors have suggested a regional decline (Leonard and Bell 1999, Knisley and Schulz 1997), Ward and Mays (2014) found the evidence of healthy populations in Maine. There is some evidence to suggest the species has disappeared from some sites in New York, but very little recent survey effort has been expended here. Given the large number of threats to coastal ecosystems, systematic surveys for this species to better determine its status are warranted.

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			
11% to 25%		Fairly common			
26% to 50%		Uncommon	X		
> 50%		Rare			

Habitat Discussion:
From Ward and Mays (2014): “As its name implies, salt marsh tiger beetle adults can be found in salt marshes, especially those associated with sandy barrier beaches (Leonard and Bell 1999). According to Dunn (1981), adults can be found along the back beach where the dunes and the salt marsh meet, on saline mud flats, and occasionally on sandy ocean beaches. Adults have also been reported from the mouths of tidal streams (Pearson et al. 2006), and even occasionally on coral outcrops (Choate 2003).”

Primary Habitat Type
Maritime Dunes

Distribution:
Very little survey effort has been put toward this species, so its current number of locations in New York—six— is likely an underestimate. It has turned up remarkably little given scattered survey effort throughout Long Island, however.

Threats to NY Populations				
Threat Category	**Threat**	**Scope**	**Severity**	**Irreversibility**
1. Natural System Modifications	Dams & Water Management/Use (altered salt marsh hydrology)	N	L	L
2. Climate Change & Severe Weather	Storms & Flooding (severe storms)	P	L	H
3. Climate Change & Severe Weather	Habitat Shifting & Alteration (rising sea level)	P	L	H

References Cited:

Knisley, C.B. and T.D. Schultz. 1997. The Biology of Tiger Beetles and a Guide to the Species of the South Atlantic States. Virginia Museum of Natural History, special publication #5, 210pp.

Leonard, J.G. and R.T. Bell. 1999. Northeastern Tiger Beetles: A Field Guide to Tiger Beetles of New England and Eastern Canada. CRC Press: Boca Raton, Florida. 176 pp.

Ward, M.A and J.D. Mays. 2014. Systematic surveys for a coastal tiger beetle, *Cicindela marginata* Fabricus, in Maine. Northeastern Naturalist 21(4):574–586.

Common Name: One-spotted tiger beetle ***SPCN***
Scientific Name: *Cicindela unipunctata*
Taxon: Beetles

Federal Status: Not Listed
New York Status: Not Listed

Natural Heritage Program Rank:
Global: G4G5
New York: SH
Tracked: Yes

Synopsis:
The one-spotted tiger beetle is at the northern edge of its distribution in New York and has one of the least predictable historical distributions of any of New York's rare tiger beetles. Historic records are from Long Island's pine barrens, the Adirondack Mountains, New York City, and the lower Hudson Valley (Schlesinger 2010). This beetle has not been found in New York since 1939. Its secretive and nocturnal nature likely contributes to its perceived rarity and its status as Possibly Extirpated may be premature (Schlesinger 2010); it may be more common than is known.

This beetle is shade-loving and has been found in hardwood forest situations, generally along shaded woodland paths. The ecology of this tiger beetle is not well known. Adults have been collected from April through September, with peak numbers in June or July (USGS 2006).

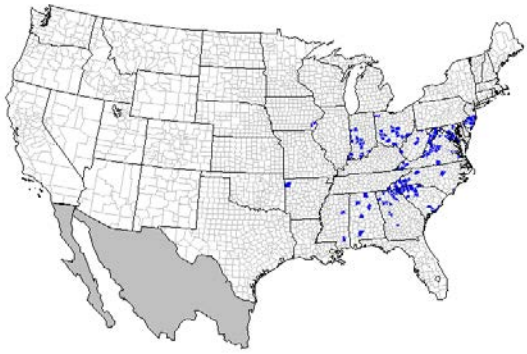
Distribution (% of NY where species occurs)		**Abundance** (within NY distribution)		**NY Distribution Trend**	**NY Abundance Trend**
0% to 5%	X	Abundant		Possibly Extirpated	Possibly Extirpated
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

Habitat Discussion:
This tiger beetle generally occurs in oak-pine or hardwood forests with broad-leafed litter but the species is also reported from shale barrens. The habitat includes the forest understory and not just openings or roads within the forest (NatureServe 2013).

Primary Habitat Type
Coastal Hardwoods
Mixed Northern Hardwoods
Oak Forest
Oak-Pine Forest
Rocky Outcrop

Distribution:
Three historic records are from Bronx, Brooklyn, and Kings counties. There are no current records of this species.

Locations for *Cicindela patruela patruela* (light green: approximate historical locations; dark green: extant location) and *C. unipunctata* (light blue: approximate historical locations) (Schlesinger 2010)



USGS (2006)

Threats:
Threats were not assessed.

References Cited:
NatureServe. 2013. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: January 4, 2012).

Schlesinger, M.D. 2010. Rare Tiger Beetles of New York: Status and Conservation. New York Natural Heritage Report.

USGS. 2006. Tiger Beetles of the United States: *Cicindela unipunctata*. http://www.npwrc.usgs.gov/resource/distr/insects/tigb/usa/92.htm

Common Name: Sylvan hygrotus diving beetle ***SPCN***
Scientific Name: *Hygrotus sylvanus*
Taxon: Beetles

Federal Status: Not Listed
New York Status: Not Listed

Natural Heritage Program Rank:
Global: GU
New York: S1
Tracked: Yes

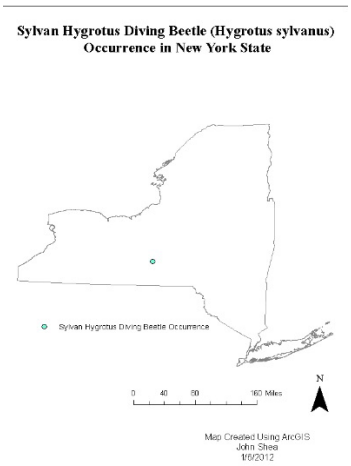
Synopsis:
Until the 1980s the sylvan hygrotus diving beetle was known in the Northeast only from pre-1900 specimens taken at Peekskill, New York and Lexington, Massachusetts, although Anderson (1976) felt that the Lexington location may be erroneous. Previous to its discovery in Anoka and Isanti counties in Minnesota (Daussin 1979), this beetle was generally believed to be extinct. A specimen in the Cornell collection from near Dreyden, New York collected in 1982 is identified as this species. Subsequently, there have been reports in Wisconsin, Manitoba, Ontario, and Quebec. What little is known of this beetle's habitat use is summarized by Daussin (1979). Most recent specimens were from temporary pools in fens. The New York specimens were from a small pond (NatureServe 2011). It is quite possible, even likely, that this species would prove to be much more common and widespread than records indicate if the habitat were better understood and there were more collectors searching such places.

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			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

Habitat Discussion:
The most recent specimens were from temporary pools in fens. The New York specimens were from a small pond (NatureServe 2011).

Primary Habitat Type
Freshwater Marsh
Lake

Distribution:
There is one record from the Town of Dryden, Tompkins County in 1982.



NYNHP (2012)

Threats to NY Populations				
Threat Category	**Threat**	**Scope**	**Severity**	**Irreversibility**
1. Natural System Modifications	Dams & Water Management/Use (changes in hydrology)	P	M	M
2. Pollution	Household Sewage & Urban Waste Water (poor water quality)	P	M	M
3. Pollution	Industrial & Military Effluents (poor water quality)	P	M	M
4. Pollution	Agricultural & Forestry Effluents (poor water quality)	P	M	M

References Cited:

Anderson, R. D. 1976. A revision of the Nearctic species of *Hygrotus* groups II and III (Coleoptera: Dytiscidae). Annals of the Entomological Society of America 69(4):577-584

Daussin, G. L. 1979. Rediscovery of *Hygrotus sylvanus* (Fall) (Coleoptera: Dytiscidae). Entomological News. 90(4):207-208.

NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: January 6, 2012).