

Species Status Assessment

Common Name: Ghost Tiger Beetle **Date Updated:** 2025-02-26
Scientific Name: *Ellipsoptera lepida* **Updated By:** mds/tgh
Class: Insecta
Family: Cicindelidae

Species Synopsis

The Ghost Tiger Beetle is a species of barrens and other sandy habitats that often goes undetected due to its coloration and small size. Surveys from the late 1990s found this beetle to be somewhat common in old sand pits and blowouts in central New York, but there are only three recent records (all on iNaturalist, including one just in 2024) despite surveys targeting tiger beetles all over the state in recent decades. Targeted surveys of atypical locations like borrow pits are needed to determine if this species is as rare as the lack of records suggests.

I. Status

a. Current legal protected Status

i. Federal: **Candidate:**
ii. New York:

b. Natural Heritage Program

i. Global: G3
ii. New York: S3 **Tracked by NYNHP? N**

Other Ranks:

COSEWIC: Not listed in Canada
IUCN Red List: Critically Endangered
Northeast Regional SGCN: Not listed

Status Discussion: This species' status is unknown but suspected to have declined elsewhere. It was determined to be reasonably common across central NY in the 1990s but there are only three recent records statewide. Additional inventory is needed to determine its status.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status or S-Rank	SGCN?
North America	Yes	Unknown	Unknown	Unknown		
Northeastern US	Yes	Unknown	Unknown	Unknown		
New York	Yes	Unknown	Declining	Unknown	S3	
Connecticut	Yes	Unknown	Declining	Unknown	S1	
Massachusetts	No	Unknown	Unknown	Unknown	SX	
New Jersey	Yes	Unknown	Declining	Unknown	S1	
Pennsylvania	No	Unknown	Unknown	Unknown	SH	
Vermont	Yes	Unknown	Unknown	-		
Ontario	Yes	Unknown	Unknown	Unknown	S2	
Quebec	Yes	Unknown	Unknown	Unknown	S2	

Column options

Present?: Yes; No; Unknown; No data; (blank) or Choose an Item

Abundance and Distribution: Declining; Increasing; Stable; Unknown; Extirpated; N/A; (blank) or Choose an item

SGCN?: Yes; No; Unknown; (blank) or Choose an item

Monitoring in New York

None

Trends Discussion

(insert map of North American/regional distribution and status):

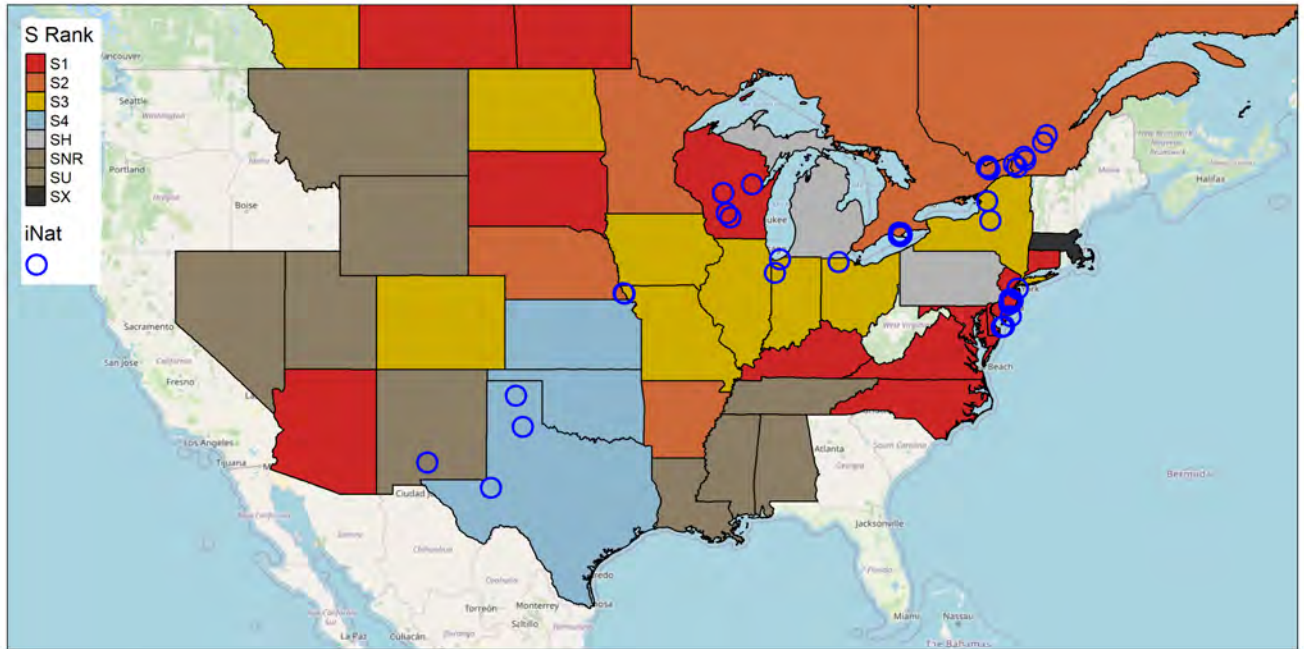


Figure 1: *Ellipteroptera lepida* North American distribution. Points show research-grade iNaturalist observations.

Ellipteroptera lepida was determined to be reasonably common across central NY in the 1990s but there are only three recent records statewide.

III. New York Rarity

E. lepida is known currently from just three locations in New York: the sandplain grasslands of Fort Drum, the pitch-pine barrens of Rome Sand Plains, and, as of 2024, Rockaway Beach in Queens. A 1990s survey found *E. lepida* in other sandy habitats of central New York – Oswego, Oneida, and Lewis counties, but these locations have not been surveyed for 30 years.

Table 1. Number of observations of *Ellipteroptera lepida* grouped by the dates known to be extant (repeat observations (element occurrences) include the years spanning first observation to last observation) and the number and percent of total of quads these observations fall within for New York State.

Years	# of Records	ccount	% of quads in State
Pre-1995	~17	11	0
1995-2004	0	0	0
2005-2013	0	0	0
2014-Present	3	3	0

Details of historic and current occurrence:

Percent of North American Range in NY	Classification of NY Range	Distance to core population, if not in NY
1-25%	Core	

Column options

Percent of North American Range in NY: 100% (endemic); 76-99%; 51-75%; 26-50% 1-25%; 0%; Choose an item

Classification of NY Range: Core; Peripheral; Disjunct; (blank) or Choose an item

IV. Primary Habitat or Community Type

Beaches & Dunes

Glades, Barrens & Savannas

Habitat or Community Type Trend in New York

Habitat Specialist?	Indicator Species?	Habitat/ Community Trend	Time frame of Decline/ Increase
Yes	Unknown	Unknown	Unknown

Column options

Habitat Specialist and Indicator Species: Yes; No; Unknown; (blank) or Choose an item

Habitat/Community Trend: Declining; Stable; Increasing; Unknown; (blank) or Choose an item

Habitat Discussion:

E. lepida is known from barrens, sandplains grasslands, beaches, blowouts, and old sand pits—seemingly any sandy habitat could support this species.

V. Species Demographics and Life History

Breeder in NY?	Non-breeder in NY?	Migratory Only?	Summer Resident?	Winter Resident?	Anadromous/ Catadromous?
Yes	Yes	No	Yes	Yes	No

Column options

First 5 fields: Yes; No; Unknown; (blank) or Choose an item

Anadromous/Catadromous: Anadromous; Catadromous; (blank) or Choose an item

Species Demographics and Life History Discussion

(include information about species life span, reproductive longevity, reproductive capacity, age to maturity, and ability to disperse and colonize):

VI. Threats

Are there regulatory mechanisms that protect the species or its habitat in New York?

Yes:

No:



Unknown:

If yes, describe mechanism and whether adequate to protect species/habitat:

Threat Level 1	Threat Level 2	Threat Level 3	Spatial Extent	Severity	Immediacy	Trend	Certainty
7. Natural System Modifications	7.1 Fire & Fire Suppression	7.1.2 Suppression in the fire regime	Unknown	Unknown	Unknown	Unknown	Unknown
6. Human Intrusions & Disturbance	6.1 Recreational Activities	6.1.1 Motor vehicles	Unknown	Unknown	Unknown	Unknown	Unknown

E. lepida is known from barrens habitats (which are negatively affected by fire suppression) and also beaches, heavily affected by recreation (especially driving).

Describe knowledge of management/conservation actions that are needed for recovery/conservation, or to eliminate, minimize, or compensate for the identified threats:

Table 2. Recommended conservation actions for *Ellipsoptera lepida*.

Action Category	Action	Description
C.8 Research and Monitoring	Inventory	Monitoring of existing populations and continued surveys for others.
C.8 Research and Monitoring	Habitat associations	Determine habitat needs of larval beetles.

VII. References

This SSA drew heavily from these resources:

Stanton, E. J., and F. E. Kurczewski. 1999. Notes on the distribution of *Cicindela lepida* Dejean (Coleoptera: Cicindelidae) in New York, Ontario and Quebec. *The Coleopterists Bulletin* 53:275–279.

NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. [Accessed 12/14/2023].

Additional references:

Smith, J. A. M., K. J. Rossner, and D. P. Duran. 2021. New opportunities for conservation of a rare tiger beetle on developed barrier island beaches. *Journal of Insect Conservation* 25:733–745.

Originally prepared by	M Schlesinger
Date first prepared	2/26/2025
First revision	
Last revision	