



**Status Discussion:**

The Orange-horned Leafwalker was ranked an S1 as part of the ESNPS (White et al. 2022) based on rarity, trend, and threat information. This species was historically known from St. Lawrence, Tompkins, Queens, and Richmond Counties. Despite survey effort as part of a statewide pollinator survey, only one specimen was collected. This one specimen was collected in Warren County.

**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		No
New York	Yes	Unknown	Unknown	Unknown	S1	No
Connecticut	No	Unknown	Unknown	Unknown	SNR	
Massachusetts	No	Unknown	Unknown	Unknown	SNR	
New Jersey	No	Unknown	Unknown	Unknown	SNR	
Pennsylvania	No	Unknown	Unknown	Unknown	SNR	
Vermont	No	-	-	-		
Ontario	No	Unknown	Unknown	Unknown	SU	
Quebec	No	Unknown	Unknown	Unknown	SNR	

*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**

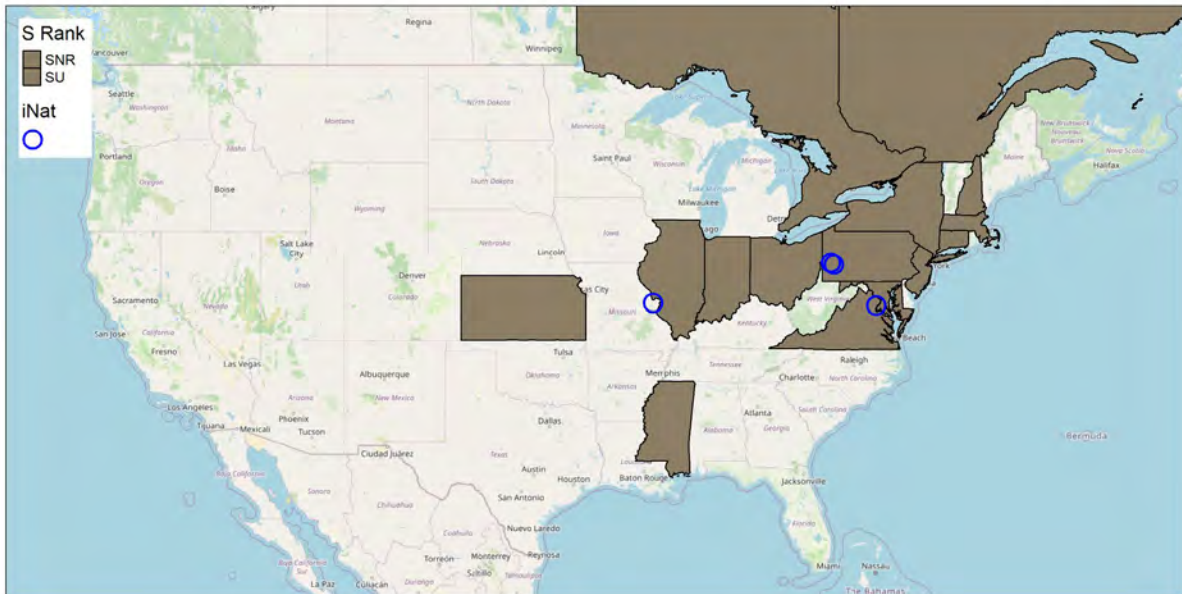
*(specify any monitoring activities or regular surveys that are conducted in New York):*

The Empire State Native Pollinator Survey (ESNPS) was conducted from 2017-2021, but there are no organized, regular monitoring or survey activities directed toward this species or to sites where they have been documented. Some regular monitoring may occur at protected sites that Heritage staff revisit if they occur on state properties, as part of OPRHP or State Lands inventory work.

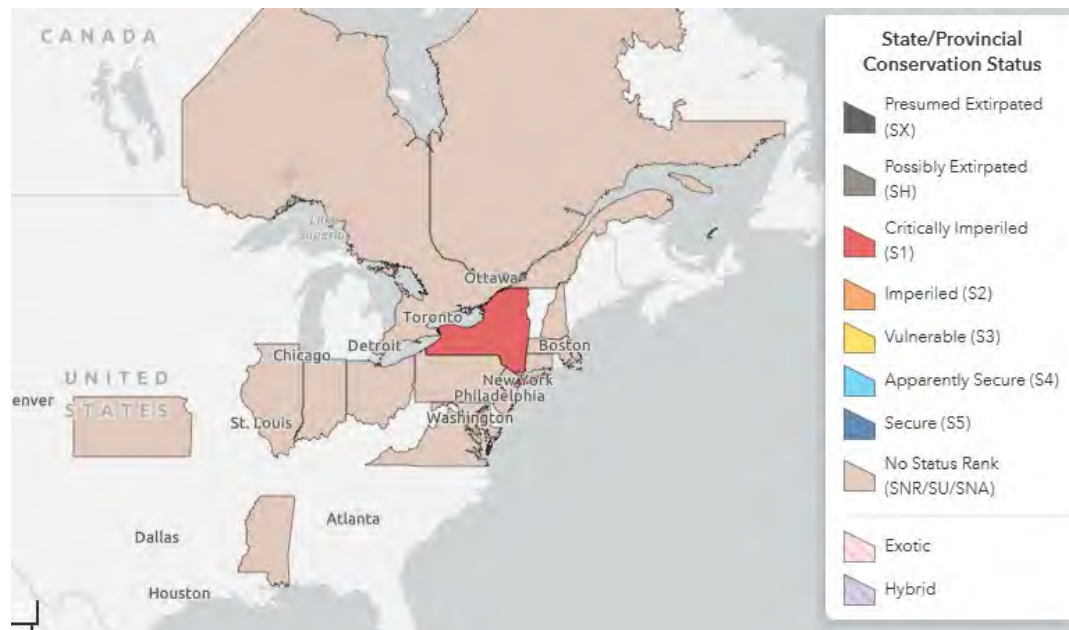
**Trends Discussion**

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

The species is historically (1999 and earlier) known from St. Lawrence, Tompkins, Queens, and Richmond Counties in NY and has always been a rare fly in the state. It has been confirmed in Warren County since 2000. Despite survey effort as part of a statewide pollinator survey, just one specimen has been confirmed in recent years.



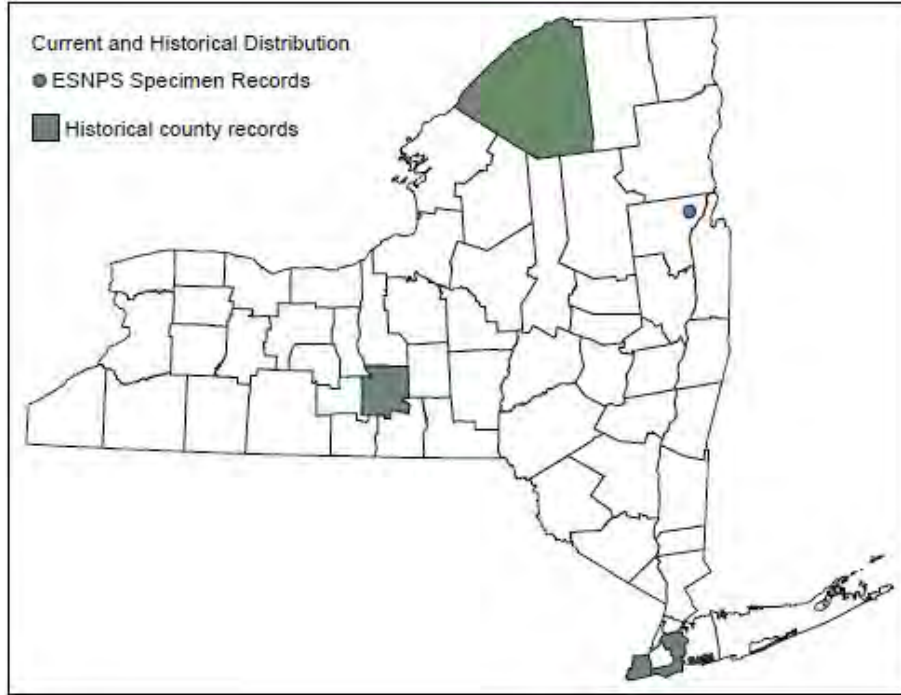
**Figure 1.** *Chalcosyrphus metallifer* North American distribution. Points show research-grade iNaturalist observations.



**Figure 2.** Conservation status of *Chalcosyrphus metallifer* in North America (NatureServe 2024.)

### III. New York Rarity

(provide map, numbers, and percent of state occupied)



**Figure 2:** NYS distribution for *Chalcosyrphus metallifer* based on ESNPS data.

Table 1. Number of observations of *Chalcosyrphus metallifer* 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 counties these observations fall within for New York State.

Years	Observations	# of Counties	% of counties in State
Pre-2000	6	4	6.5
2000-2023	1	1	1.6

**Details of historic and current occurrence:**

The species was documented in one site in Warren County in 2019 as part of a statewide pollinator survey (White et al. 2022).

Historically, 1999 and earlier, the species is known from four counties including St. Lawrence, Tompkins, Queens, and Richmond Counties.

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

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

(from NY crosswalk of NE Aquatic, Marine, or Terrestrial Habitat Classification Systems):

Mixed Northern Hardwoods

Mixed Hardwood Swamp

### 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:

This species lives in wetlands such as wooded swamps and seepage areas within late-successional forests. *Chalcosyrphus* larvae use sap runs and decaying sap under bark (Skevington et al. 2019).

## 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):

Flight times are early April to early June (Skevington et al. 2019) and the New York observation was from May 22 (White et al. 2022).

## VI. Threats

Threats facing our focal saproxylic hover flies and beetles include habitat loss and degradation, invasive plants and pathogens, pesticides, and climate change (White et al. 2022). Habitat shifting and alteration, droughts, and more frequent severe weather events due to climate change is expected to impact saproxylic flies and beetles.

<b>Threat Level 1</b>	<b>Threat Level 2</b>	<b>Threat Level 3</b>	<b>Spatial Extent*</b>	<b>Severity*</b>	<b>Immediacy*</b>	<b>Trend</b>	<b>Certainty</b>
1. Residential and Commercial	1.3 Tourism & Recreation Areas	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
4. Transportation & Service Corridors	4.2 Utility & Service Lines	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
4. Transportation & Service Corridors	4.1 Roads & Railroads	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
5. Biological Resource Use	5.3 Logging & Wood Harvesting	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	8.1 Invasive Non-Native Plants & Animals	8.1.1 Terrestrial animals (wood-boring insects)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	8.1 Invasive Non-Native Plants & Animals	8.1.2 Terrestrial plants	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	8.4 Pathogens	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.3 Agricultural & Forestry Effluents	9.3.3 Herbicides & pesticides	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.3 Changes in Temperature Regimes	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.4 Changes in Precipitation & Hydrological Regimes	11.4.2 Droughts	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.5 Storms & Severe Weather	11.5.1 Storms & severe weather	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 2. Threats to *Chalcosyrphus metallifer*.



## VII. References

### This SSA drew heavily from these resources:

New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry. 2023. Element Occurrence and Element Dataset. Albany, New York. [Exported 12/14/2023].

NatureServe. 2024. NatureServe Explorer. Page last published 11/14/24. [https://explorer.natureserve.org/Taxon/ELEMENT\\_GLOBAL.2.950408/Chalcosyrphus\\_metallifer](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.950408/Chalcosyrphus_metallifer). Accessed November 20, 2024.

### Additional references:

Gawler, S.C. 2008. Northeastern Terrestrial Wildlife Habitat Classification. NatureServe, Boston, MA.

IUCN 2024. IUCN Red List of Threatened Species. Version 2023.1. <[www.iucnredlist.org](http://www.iucnredlist.org)>. Accessed 8 October 2024.

Schweitzer, D.F., N.A. Capuano, B.E. Young and S.R. Colla. 2012. Conservation and management of North American bumble bees. NatureServe, Arlington, Virginia, and USDA Forest Service, Washington, D.C. 17 pp.

Skevington, J.H., M.M. Locke, A.D. Young, K. Moran, W.J. Crins, and S.A. Marshally. 2019. Field guide to the flower flies of northeastern North America. Princeton University Press.

White, E.L., M. D. Schlesinger, and T.G. Howard. 2022. The Empire State Native Pollinator Survey (2017-2021). New York Natural Heritage Program, Albany, NY.

<b>Originally prepared by</b>	Ashley Ballou
<b>Date first prepared</b>	October 15, 2024
<b>First revision</b>	
<b>Last revision</b>	Formatted threats/actions 11/20/24