

Species Status Assessment

Common Name:	Yellow-banded Day Sphinx Moth	Date Updated:	2025-02-06
Scientific Name:	<i>Proserpinus flavofasciata</i>	Updated By:	Hollie Shaw
Class:	Insecta		
Family:	Sphingidae		

Species Synopsis

(a short paragraph which describes species taxonomy, distribution, recent trends, and habitat in New York):

Proserpinus flavofasciata is a bumblebee mimic sphinx moth (PNW Moths 2025, Tuttle 2007). It cannot be mistaken for any other species in the genus. The upper side of the forewing is medium to dark brown with white median band (Tuttle 2007). The upper side of the hindwing is dark brown and has an orange median. The wingspan is 4.2 – 5.1 cm (Lotts and Naberhaus 2025). It is the most widely distributed moth in this genus (Tuttle 2007).

This species range extends from Alaska (US) and British Columbia (Canada) south into the Rocky Mountains and Cascade Mountains (including Washington, Oregon, Idaho, Wyoming and Colorado). The range extends eastward, especially in southern Canada, to Nova Scotia and Maine in the United States (Pacific Northwest Moths 2025). There are also reports from Michigan (Michigan State University 2025), New York (Tuttle 2007, White et al. 2022), and Massachusetts (Mass Moths 2025).

Trends are unknown for this species. It is currently ranked SH (New York Natural Heritage Program 2025). There is an old record from Lewis County (Tuttle 2007, White et al. 2022).

This species occurs in boreal and montane habitats across North America. In the Pacific Northwest, it mostly occupies subalpine meadows (Pacific Northwest Moths 2025, NatureServe 2025). The food plant, *Chamaenerion angustifolium* ssp. *curcumvagum* is found throughout most of New York but is more common on the northern parts of the state where large patches can be found. It responds well the disturbances, such as fire and clearing (Werier et al. 2025).

I. Status

a. Current legal protected Status

b. Federal: Unprotected

Candidate: No

c. New York: Unprotected; SGCN

b. Natural Heritage Program

i. Global: G4G5

ii. New York: SH Tracked by NYNHP? On Active Tracking List

Other Ranks:

COSEWIC: Not listed in Canada

IUCN Red List: Not assessed by IUCN Red List

Northeast Regional SGCN: Not listed

Status Discussion:

P. flavofasciata is historically known from New York (Tuttle 2007, White et al. 2022) and is ranked SH (New York Natural Heritage Program 2025). Surveys are needed in areas with suitable habitat to determine if populations are still in New York.

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	Unknown	Unknown	SH	proposed
Connecticut	No	-	-	-		
Massachusetts	No	Unknown	Unknown	Unknown	SX	
New Jersey	No	-	-	-		
Pennsylvania	No	-	-	-		
Vermont	No	Unknown	Unknown	Unknown	SNR	
Ontario	No	Unknown	Unknown	Unknown	S3	
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):

Trends are unknown for this species. It is currently ranked SH (New York Natural Heritage Program 2025). There is an old record from Lewis County (Tuttle 2007, White et al. 2022). Field inventory is needed in suitable habitat.

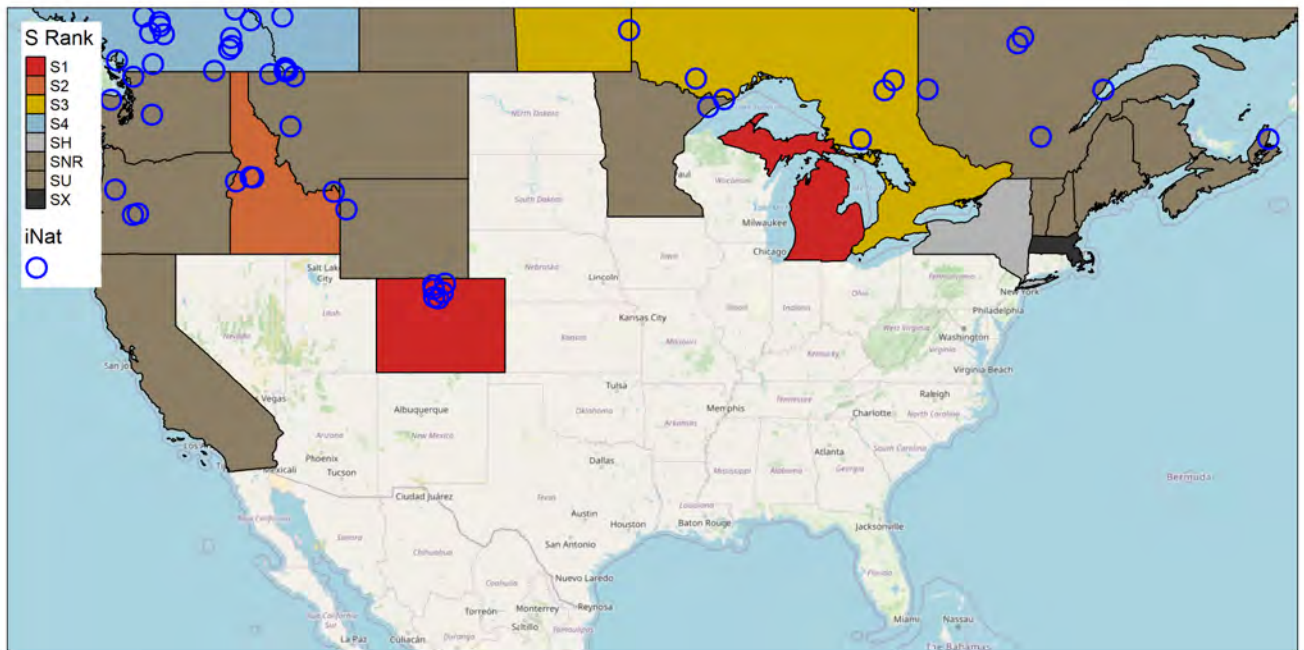


Figure 1: *Proserpinus flavofasciata* North American distribution. Points show research-grade iNaturalist observations.



Figure 2: *Proserpinus flavofasciata* regional distribution as reported at <https://northeastwildlifediversity.org/rsgcn> .

III. New York Rarity

Table 1. Number of observations of *Proserpinus flavofasciata* 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	# of Records	# of Counties	% of counties in State
Pre-2000	1	1	0.2
2000-present	0	0	0

Details of historic and current occurrence:

There is one known historical occurrence in New York from Lewis County (White et al. 2022). NatureServe (2025) states that this species could be extirpated from New England and more southern parts of Canada. However, adults are easily overlooked. Larvae are easier to find, especially the large black instar (NatureServe 2025). It appears that iNaturalist (2025) has not reports of observations from southern portion of the range in the Northeast.

Percent of North American Range in NY	Classification of NY Range	Distance to core population, if not in NY
1-25%	Peripheral	2225 mi

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):

NatureServe broad habitat types: Alpine

Habitat or Community Type Trend in New York

Habitat Specialist?	Indicator Species?	Habitat/ Community Trend	Time frame of Decline/ Increase
Unknown	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 occurs in boreal and montane habitats across North America. In the Pacific Northwest, it mostly occupies subalpine meadows (Pacific Northwest Moths 2025, NatureServe 2025). The food plant, *Chamaenerion angustifolium ssp. curcumvagum* is found throughout most of New York but is more common on the northern parts of the state where large patches can be found. It responds well the disturbances, such as fire and clearing (Werier et al. 2025).

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):

There is one brood each year throughout the *P. flavofasciata* range. Adults are present from late April to early July. Larvae are green during the first four instars and are found hidden on its food plant. After that, larvae are black and are often found openly feeding on the food plant or on

moving on the ground. The only known larval food plant is *Chamaenerion* spp. (fireweed). *Rubus* spp. has been reported as another possible food plant, but this is considered questionable by Tuttle (2007). Nectar sources are *Delphinium* spp (larkspur), *Malus* spp. (apple), *Syringa vulgaris* (lilac), *Amelanchier canadensis* (serviceberry), and *Prunus* spp. (Cherry). Larvae are typically observed from the third week of June to the fourth week of July. Pupation occurs below the surface in a shallow chamber (Tuttle 2007, Pacific Northwest Moths 2025).

VI. Threats

Threats to this species include loss of habitat and habitat degradation, pesticide and herbicide use, and climate change (Michigan State University 2025).

Threat Level 1	Threat Level 2	Threat Level 3	Spatial Extent	Severity	Immediacy	Trend	Certainty
1. Residential and Commercial	1.1 Housing & Urban Areas	(habitat loss/ degradation)	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	-	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 2. Threats to *Proserpinus flavofasciata*.

Action Category	Action	Description
C.9 Education and Training	C.9.2.0.0 Training and individual skill development	Training

Table 3. Recommended conservation actions for *Proserpinus flavofasciata*.

VII. References

This SSA drew heavily from these resources:

iNaturalist.org. 2025. *Proserpinus flavofasciata* records in New York State. California Academy of Sciences, San Francisco, CA. <http://www.inaturalist.org>. Accessed February 3, 2025.

Lotts, Kelly and Thomas Naberhaus, coordinators. 2025. Butterflies and Moths of North America. <http://www.butterfliesandmoths.org/> (Version 2/4/2025).

Mass Moths. 2025. Species information for *Proserpinus flavofasciata*. <https://massmoths.org/moths/proserpinus-flavofasciata/>. Accessed on 3 February 2025.

Michigan State University. 2025. Michigan Natural Features Inventory: *Proserpinus flavofasciata*. <https://mnfi.anr.msu.edu/species/description/11801/Proserpinus-flavofasciata>. Accessed on February 4, 2025.

New York Natural Heritage Program. 2025. Element Occurrence Database. State University of New York College of Environmental Science and Forestry, Albany, NY.

Northeast Fish and Wildlife Diversity. 2025. Regional Species of Greatest Conservation Need 2025. <https://northeastwildlifediversity.org/rsgcn>. Accessed February 4, 2025.

NatureServe. 2025. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <<http://www.natureserve.org/explorer>>. Accessed February 4, 2025.

Pacific Northwest Moths. 2025. Species fact sheet for *Proserpinus flavofasciata*. <<https://pnwmoths.biol.wvu.edu/browse/family-sphingidae/subfamily-macroglossinae/proserpinus/proserpinus-flavofasciata/>>. Accessed 3 February 2025.

Werier, David, Kyle Webster, Troy Weldy, Andrew Nelson, Richard Mitchell†, and Robert Ingalls†. 2025 **New York Flora Atlas**. [S. M. Landry and K. N. Campbell (original application development), **USF Water Institute. University of South Florida**]. **New York Flora Association**, Albany, New York.

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

Originally prepared by	Hollie Shaw
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