

Species Status Assessment

Common Name: Pink swallow

Date Updated: 11/14/2024

Scientific Name: *Psectraglaea carnosa* **Updated By:** Central Office Herp & Invert Unit

Class: Insecta

Family: Noctuidae

Species Synopsis

The pink swallow is a barrens species with a spotty distribution across eastern North America. Its range is fragmented and while some populations appear stable, it is generally considered rare and declining (NatureServe 2024). In New York, this moth was historically found in Albany and Dutchess Counties. Three populations are extant in the dwarf pine barrens in Suffolk County (NYNHP 2012a, NYNHP 2013b). It appears to require large patches of habitat but is notably absent from several areas with suitable habitat (Schweitzer et al. 2018).

I. Status

a. Current legal protected Status

i. **Federal:** Not listed **Candidate:** _____

ii. **New York:** Not listed; SGCN _____

b. Natural Heritage Program

i. **Global:** G3 _____

ii. **New York:** S2 **Tracked by NYNHP?:** Yes _____

Other Ranks:

-IUCN Red List:

-Northeast Regional SGCN: Watchlist (Assessment Priority)

Status Discussion:

Short-term trends indicate stable to slight decline and long-term trend indicates declines up to 90% range wide (NatureServe 2024). This species typically occupies pine or oak barrens habitat that is not burned frequently (NatureServe 2024, Schweitzer et al. 2018). Surveys conducted from 2005 to 2011 in New York indicate the Suffolk County population is stable.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Declining	Declining			(blank)
Northeastern US	Yes	Declining	Declining			(blank)
New York	Yes	Stable	Stable			Yes
Connecticut	Unknown	Unknown	Unknown		Threatened	Yes
Massachusetts	Yes	Stable	Stable		Special Concern	Yes

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
New Jersey	Yes	Stable	Stable			Yes
Pennsylvania	Yes	Unknown	Unknown			Yes
Vermont	No	N/A	N/A			(blank)
Ontario	Unknown	Unknown	Unknown			(blank)
Quebec	Unknown	Unknown	Unknown			(blank)

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:

No monitoring is currently being conducted for this species. Surveys were recently conducted annually from 2005 to 2011 (NYNHP 2024).

Trends Discussion:

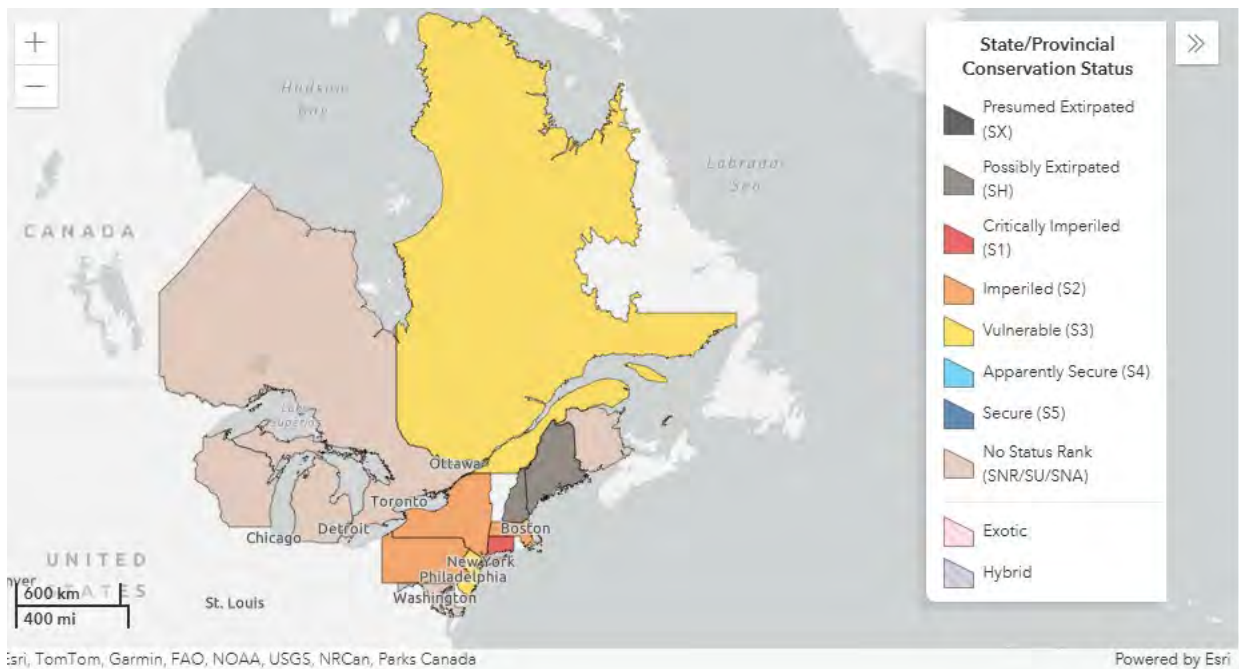


Figure 1. *Psectraglaea carnosa* distribution/status in North America (NatureServe 2024).

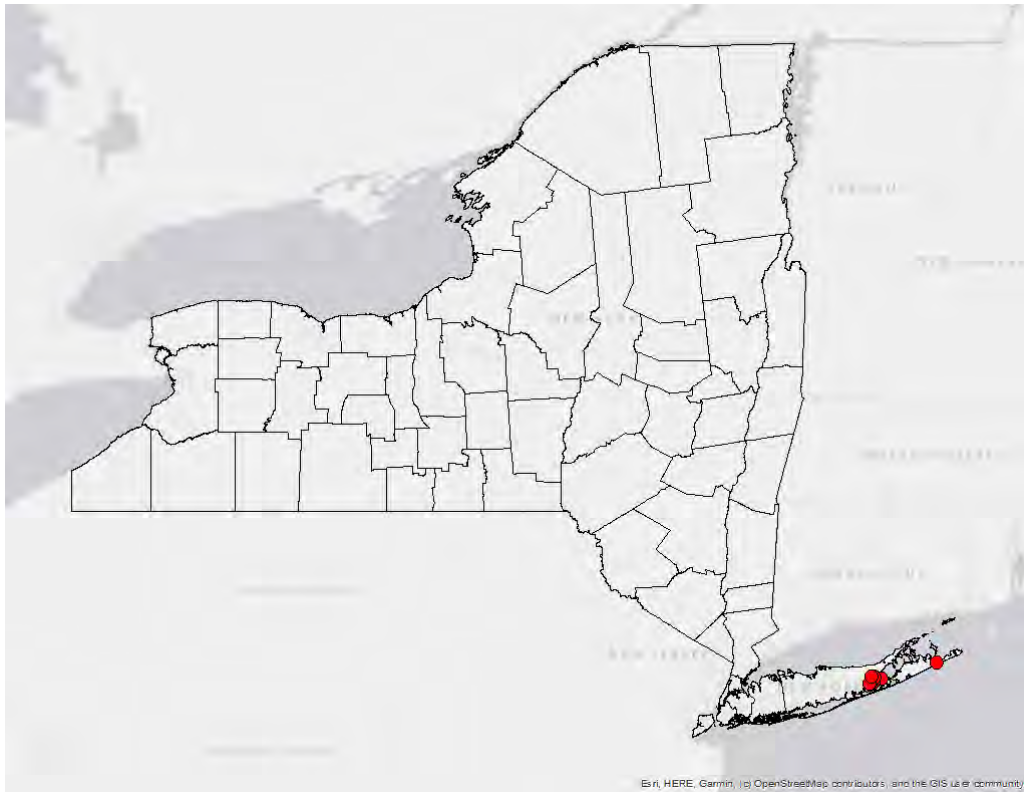


Figure 2. *Psectraglaea carnosa* occurrences in New York (NYNHP 2013).

III. New York Rarity

Years	# of Records	# of Distinct Waterbodies/Locations	% of State
Pre-2000	1	1	
2000- 2023	8	2	

Table 1. Records of *Psectraglaea carnosa* in New York.

Details of historic and current occurrence:

There is historic documentation of this species from the Albany Pine Bush and Poughkeepsie, but both records are several decades old (NYNHP 2024). Currently the distribution appears relatively stable on Long Island.

New York’s Contribution to Species North American Range:

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

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):

- a. Pine barrens
- b. Oak forest
- c. Oak-pine forest
- d. Subalpine woodland and shrub

Habitat or Community Type Trend in New York

Habitat Specialist?	Indicator Species?	Pollinator Species?	Habitat/Community Trend	Time frame of Decline/Increase
Yes	No	(blank)	Declining	

Column options

Habitat Specialist, Indicator Species and Pollinator 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 occupies large sandy or rocky pine barrens and oak scrublands (Schweitzer et al. 2018, NatureServe 2024, NYNHP 2024). *Psectraglaea carnosa* also has been found in areas with glacial till and ridgetops (Schweitzer et al. 2011). Occasionally, it is recorded in more mature oak forests (Schweitzer et al. 2018).

V. Species Demographic, and Life History:

Breeder in NY?	Non-breeder in NY?	Migratory Only?	Summer Resident?	Winter Resident?	Anadromous/Catadromous?
Yes	(blank)	(blank)	Yes	Yes	(blank)

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

Adults emerge in early to mid-autumn and have a flight period of approximately three weeks; eggs laid in the fall overwinter and hatch in spring (Schweitzer et al. 2018). Preferred host plants for feeding are unknown, though captive larvae have been documented feeding on blueberry and oak species in captivity (Schweitzer et al. 2018).

VI. Threats (from NY 2015 SWAP or newly described):

The primary threats to *Psectraglaea carnosa* include habitat loss and fragmentation due to commercial and residential development. Use of pesticides targeting spongy moth may have affected populations. While this species occupies habitat that is often managed with prescribed burning to benefit other lepidopterans, frequent fires are likely a threat to this species (Schweitzer et al. 2018, NYNHP 2024). Other threats may include light pollution affecting reproductive success, over grazing of host plants by wild deer populations, and off-road vehicle use (NYSDEC 2005).

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/ fragmentation)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
1. Residential and Commercial	1.2 Commercial & Industrial Areas	(habitat loss/ fragmentation)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
6. Human Intrusions & Disturbance	6.1 Recreational Activities	6.1.1 Motor vehicles (offroad)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
7. Natural System Modifications	7.1 Fire & Fire Suppression	7.1.1 Increase in the fire regime	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	8.2 Problematic Native Plants & Animals	8.2.2 Increased grazing by vertebrates	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 (spongy moth pesticides)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.6 Excess Energy	9.6.1 Light pollution	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 2. Threats to *Psectraglaea carnosa*.

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

Yes: _____ No: Unknown: _____

All current locations of this species in New York are on land owned by the state or by The Nature Conservancy and are protected from future development.

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

The main management need for this species is to maintain suitable habitat. Suitable habitat areas require periodic wildfires to maintain an open canopy system. Some suitable habitats can persist for 50 years or more without the occurrence of a wildfire (NYNHP 2012a). The best time for fires is when this species is in prepupal larvae underground, from July to August, as eggs, larvae and adults exist above ground at other times throughout the year (NYNHP 2012a). Habitats should not be completely burned at once and unburned refuge patches should be left to prevent the eradication of the pink sallow from the area (Wagner et al. 2003). Recently burned habitats will be vacant for at least 2-5 years after a burning period (WDNR 2013).

Action Category	Action	Description
A.1 Direct Habitat Management	A.1.0.0.0 Direct Habitat Management	Site Management
A.2 Direct Species Management	A.2.0.0.0 Direct Species Management	Invasive/problematic species control
B.3 Outreach	B.3.0.0.0 Outreach	Awareness and Communications
C.6 Design and Plan Conservation	C.6.0.0.0 Design and Plan Conservation	Site/Area Protection
C.6 Design and Plan Conservation	C.6.0.0.0 Design and Plan Conservation	Resource/Habitat Protection
C.7 Legislative and Regulatory Framework or Tools	C.7.0.0.0 Legislative and Regulatory Framework or Tools	Policies and Regulations

Table 3. Recommended conservation actions for *Psectraglaea carnosa*.

VII. References

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- Wisconsin Department of Natural Resources (WDNR). 2013. Online field guide to rare Lepidoptera: Bogs and barrens: Pink sallow (*Psectraglaea carnosa*).
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