

Species Status Assessment

Common Name: Northern Flower Moth **Date Updated:** 2025-01-27
Scientific Name: *Schinia septentrionalis* **Updated By:** Hollie Shaw
Class: Insecta
Family: Noctuidae

Species Synopsis

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

Northern flower moth is more robust than other *Schinia* species. The pattern of red-brown and black on the forewing is variable. Identification can often be made by looking at the hindwing which is typically black with yellow fringe (Schweitzer 2018). Forbes (1954) describes the hindwings as mainly black with two or three yellow spots.

This species was considered widespread in the west with populations extending eastward (Schweitzer et al. 2018). Current populations range from Missouri to Quebec and south to Louisiana and South Carolina. There are also populations in Colorado, Oklahoma, South Dakota, and Texas (iNaturalist 2025). Currently, this species is considered critically imperiled (S1) in New York. Historically, it was collected from eight counties: Albany, Bronx, Nassau, Orange, Rockland, Queens, Suffolk, Tompkins, and Westchester (White et al. 2022). The most recent collections are from the Albany Pine Bush (Albany County) in 1991 (McCabe 1997, NatureServe 2025) and in eastern Suffolk County in 1995 (NatureServe 2025).

This species range and population size has decreased significantly in areas of the Northeast, including New York, and other parts of its range (Schweitzer et al. 2018). It has not been found since 1995 in New York despite some lepidopteran surveys at previously occupied sites (New York Natural Heritage 2025). Two known foodplants are rare in New York: *Eurybia spectabilis* (showy aster) and *Symphotrichum concolor* var. *concolor* (Eastern silvery aster). *Symphotrichum novae-angliae* (New England Aster) is also a known food plant.

Schinia septentrionalis is found dry, sandy habitats, prairies, and old fields (NatureServe 2025). It is generally an easy moth to find when it is present because it can be found at flowers during the day, and they are attracted to lights at night (Schweitzer et al. 2018).

I. Status

a. Current legal protected Status

Candidate: No

b. Federal: Not listed

c. New York: Not listed; HPSGCN

b. Natural Heritage Program

i. Global: G3G4

ii. New York: S1

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: Watchlist [Assessment Priority]

Status Discussion:

Schinia septentrionalis has been found three times since the 1950s in New York: Ithaca, Albany Pine Bush, and Montauk. This species relies on asters as their larval food plant. Some documented plants include rare and common species. It was once found in nine counties and the most recent sightings were in 1974, 1991, and 1995 in three different counties (McCabe 1997, NatureServe 2025, New York Natural Heritage Program 2025). The current status is unknown other than it has not been observed in 30 years in the state. This species is proposed to be HPSGCN due to its current rank status and notes declines throughout the Northeast.

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 | | Watchlist [Assessment Priority] |
| New York | Yes | Unknown | Unknown | Unknown | U | Proposed |
| Connecticut | Yes | Unknown | Unknown | Unknown | SNR | Yes |
| Massachusetts | No | Unknown | Unknown | Unknown | SU | No |
| New Jersey | Yes | Unknown | Unknown | Unknown | SNR | Yes |
| Pennsylvania | No | Unknown | Unknown | Unknown | SNR | No |
| Vermont | No | - | - | - | | No |
| Ontario | No | - | - | - | | |
| Quebec | No | Unknown | Unknown | Unknown | SH | |

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):

Declines have been noted through much of this species range, especially in the Northeast. Generally, this species is not easily overlooked as it is known to be attracted to black lights and it is active during the day. It has not been observed in the state since 1995 (NatureServe 2025, New York Natural Heritage Program 2025).

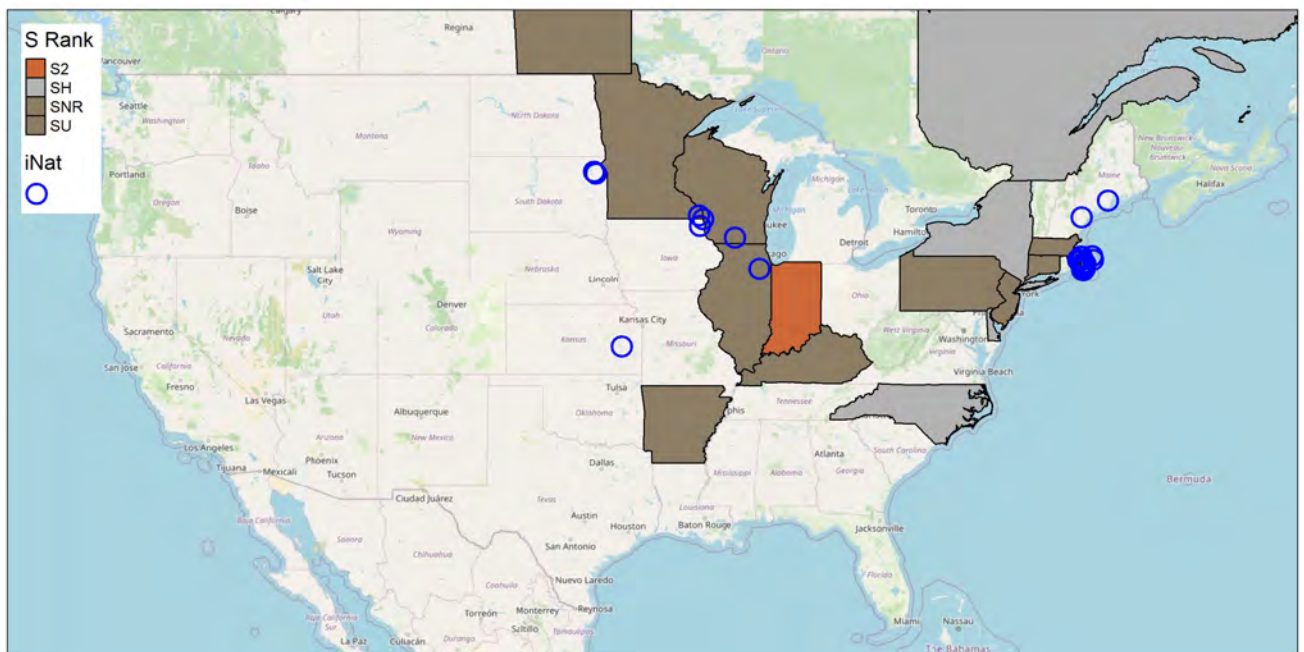


Figure 11. *Schinia septentrionalis* North American distribution. Points show research-grade iNaturalist observations.



Figure 22. *Schinia septentrionalis* regional distribution as reported at <https://northeastwildlifediversity.org/rsgcn> .

III. New York Rarity

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

| Years | Observations | # of Counties | % of counties in State |
|-----------|--------------|---------------|------------------------|
| Pre-2000 | 29 | 9 | 8.1 |
| 2000-2023 | 0 | 0 | 0.0 |

Table 1. Number of observations of *Schinia septentrionalis* 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.

Details of historic and current occurrence:

Currently, this species is considered critically imperiled (S1) in New York. Historically, it was collected from eight counties (Albany, Bronx, Nassau, Orange, Rockland, Queens, Suffolk, Tompkins, and Westchester) (White et al. 2022). The most recent collections are from the Albany Pine Bush (Albany County) in 1991 (McCabe 1997, NatureServe 2025) and in eastern Suffolk County in 1995 (NatureServe 2025).

This species range and population size has decreased significantly in areas of the Northeast, including New York, and other parts of its range (Schweitzer et al. 2018). It has not been found

since 1995 in New York despite some lepidopteran surveys at previously occupied sites (New York Natural Heritage 2025). Two known foodplants are rare in New York: *Eurybia spectabilis* (showy aster) and *Symphyotrichum concolor* var. *concolor* (Eastern silvery aster). *Symphyotrichum novae-angliae* (New England Aster) is also a known food plant.

| Percent of North American Range in NY | Classification of NY Range | Distance to core population, if not in NY |
|---------------------------------------|----------------------------|---|
| 1-25% | Peripheral | 900 |

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: Grassland/herbaceous, Savanna, Old field

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:

Schinia septentrionalis is typically found in coastal and sand plain grasslands in the east. Upstate New York habitats include old fields and pine barrens habitats. There are reports of populations along powerline rights-of-way with sandy soil, but it is unknown if there are occurrences in this habitat in New York (NatureServe 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):

Adults are present from late August to September. They are diurnal, but also go to lights at night. Larvae feed on flowers and developing seeds of certain blue asters until they mature in October. They must feed on achenes prior to pupation. The pupae overwinter underground (Schweitzer et al. 2018).

VI. Threats

Succession is a threat to *Schinia septentrionalis* as it is often found in old fields or habitats that require disturbances (e.g., fire). However, ill-timed management practices can also be detrimental to populations because food plant flowers and achenes are needed for the larvae to mature. Fall mowing and prescribed burns would likely result in direct mortality of eggs, larvae, and adults (Schweitzer et al. 2018). Habitat shifting and alteration and more frequent severe weather events due to climate change is expected to impact moths. Spongy Moth (*Lymantria dispar*) management should not greatly affect this species.

| Threat Level 1 | Threat Level 2 | Threat Level 3 | Spatial Extent* | Severity* | Immediacy* | Trend | Certainty |
|---------------------------------|------------------------------------|---|------------------------|------------------|-------------------|-----------------|------------------|
| 7. Natural System Modifications | 7.1 Fire & Fire Suppression | 7.1.1 Increase in the fire regime (poorly timed/managed prescribed burns) | Choose an item. | Choose an item. | Choose an item. | Choose an item. | Choose an item. |
| 7. Natural System Modifications | 7.3 Other Ecosystem Modifications | 7.3.2 Vegetation succession | Choose an item. | Choose an item. | Choose an item. | Choose an item. | Choose an item. |
| 11. Climate Change | 11.1 Habitat Shifting & Alteration | | Choose an item. | Choose an item. | Choose an item. | Choose an item. | Choose an item. |

Table 2. Threats to *Schinia septentrionalis*

| Action Category | Action | Description |
|----------------------------------|---|-------------------------------------|
| C.6 Design and Plan Conservation | C.6.5.1.3 Develop a conservation, management, or restoration plan for protected private lands | Habitat/Natural process restoration |
| C.9 Education and Training | C.9.2.0.0 Training and individual skill development | Training |

Table 3. Recommended conservation actions for *Schinia septentrionalis*.

VII. References

This SSA drew heavily from these resources:

Additional references:

Forbes, William T. M. 1954. Lepidoptera of New York and neighboring states part III. Cornell University Experiment Station Memoir 329.

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

NatureServe. 2025. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. [Accessed 01/24/2025].

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Schweitzer, D.F., M.C. Minno, and D.L. Wagner. 2011. Rare, Declining, and Poorly Known Butterflies and Moths (Lepidoptera) of Forests and Woodlands in the Eastern United States. USFS Technology Transfer Bulletin, FHTET-2009-02.

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.

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| First revision | |
| Last revision | |