

# Species Status Assessment

**Common Name** shining bedstraw      **Date Updated:** 2024-03-15  
**Scientific Name** *Galium concinnum*      **Updated By:** Gregory J. Edinger  
**Family** Rubiaceae

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

Shining bedstraw (*Galium concinnum*) is a perennial forb/herb in the Madder Family (Rubiaceae). There are 25 species of *Galium* in NY of which 15 are native to the state (Werier et al. 2023).

Shining bedstraw is found from New York and Ontario in the east, south as far as Virginia and Tennessee, and ranges west from Minnesota south to Oklahoma. It is also disjunct to Utah. All the known, extant sites for this plant in New York are in the Lower Hudson Valley; there are historical records from Monroe and Ontario Counties in the western part of the state. There are three existing populations of shining bedstraw, but all of them are small and we lack a complete understanding of their threats and management issues. There are three additional historical locations, but one of them is probably extirpated (NYNHP 2023, 2024).

In NY, shining bedstraw has been found in hemlock-northern hardwood and oak-hickory forests, as well as along roadsides, trails, and riverside meadows. More information on habitat requirements in the state is needed (NYNHP 2023, 2024).

The three existing populations of shining bedstraw were all last surveyed before the mid-2000s (2005, 1999, 1995). These populations need to be resurveyed to evaluate short-term trends. This species has never been common in NY with only four historical records. One historical record has been relocated and one has not, while two new records have been found but there is little information on their condition and size. The habitat preference is not well understood, and more research is needed to help narrow the possibilities of areas to survey and to refine predictive models. Identification characters are difficult to observe and more characters are needed to help develop search images (NYNHP 2023, 2024).

## **I. Status**

### **a. Current legal protected Status**

**i. Federal:**

**Candidate:**

**ii. New York:**

Endangered

## b. Natural Heritage Program

i. Global: G5

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

### Status Discussion:

*Galium concinnum* is Endangered in New York (NYNHP 2023). There are three existing populations of shining bedstraw and all were last surveyed before the mid-2000s (2005, 1999, 1995). They are all small and we lack a complete understanding of their threats and management issues. There are three additional historical locations, but one of them is probably extirpated (NYNHP 2023, 2024).

## II. Abundance and Distribution

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	E	
Connecticut	No	-	-	-		
Massachusetts	No	-	-	-		
New Jersey	Yes	Unknown	Unknown	Unknown	SX	
Pennsylvania	Yes	Unknown	Unknown	Unknown	SNR	
Vermont	No	-	-	-		
Ontario	Yes	Unknown	Unknown	Unknown	S1	
Quebec	No	-	-	-		

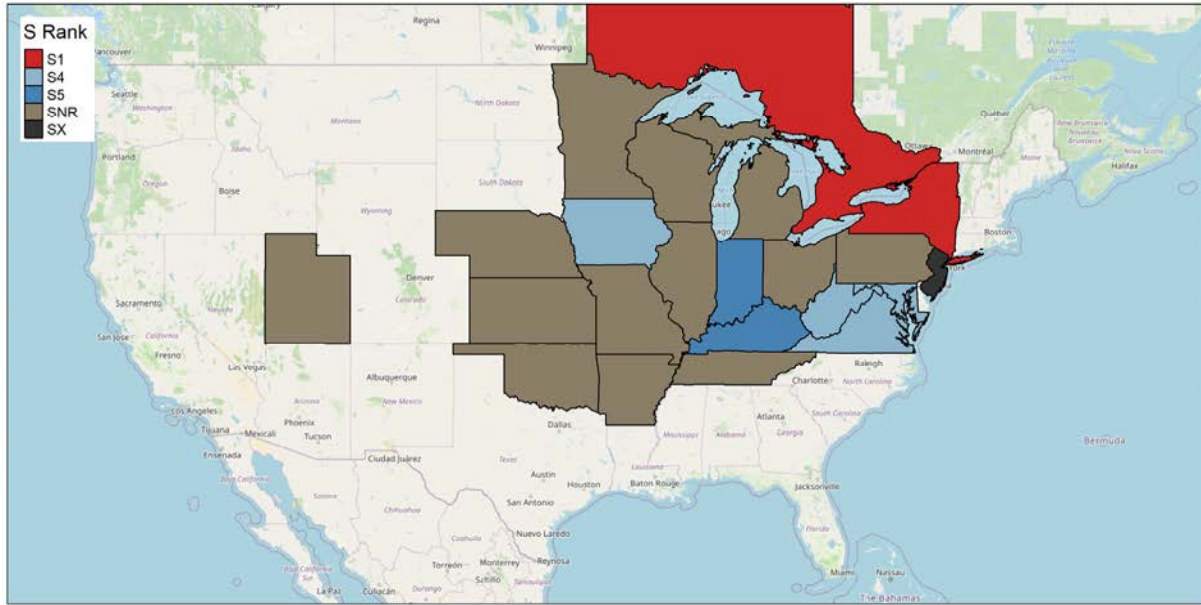


Figure 11: *Galium concinnum* North American distribution.

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

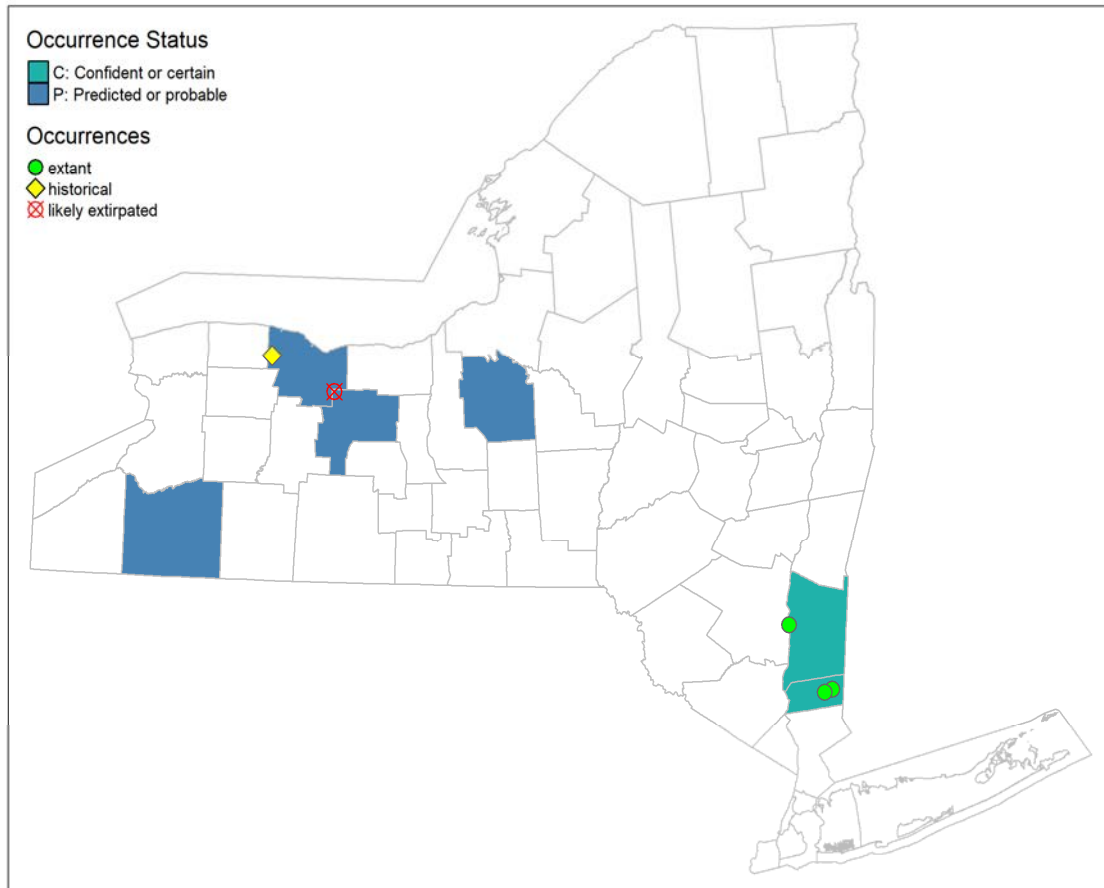
### III. NY Rarity

#### Trends Discussion

The known populations of shining bedstraw have not been resurveyed to evaluate short-term trends. This species has never been common in NY with only four historical records. One historical record has been relocated and one has not, while two new records have been found but there is little information on their condition and size (NYNHP 2023, 2024).

#### Details of historic and current occurrence

Comments on range: All the known, extant sites for this plant in New York are in the Lower Hudson Valley; there are historical records from Monroe and Ontario Counties in the western part of the state.



**Figure 22:** NYS distribution for *Galium concinnum*.

**Table 1.** Number of records (element occurrences) of *Galium concinnum* grouped by the dates known to be extant (the years spanning first observation to last observation) and the number and percent of total of USGS 7.5 minute map quadrangles these observations fall within for New York State.

Years	# of Records	# of distinct quads	% of quads in State
Pre-1995	3	3	0.3
1995-2004	3	3	0.3
2005-2014	1	1	0.1
2015-2023	0	0	0.0

### Monitoring in New York

No shining bedstraw populations occur on State Park lands. No regular monitoring program is currently in place in New York. However, one occurrence is on a National Historic Site that would be worthy of monitoring (NYNHP 2023, 2024).

**IV. Primary Habitat or Community Type** (from NY crosswalk of NE Aquatic, Marine, or Terrestrial Habitat Classification Systems):

Northeastern Terrestrial Habitat Classification Macrogroup: Northern Hardwood and Conifer

NYNHP Ecological Communities: Hemlock-northern hardwood forest, Beech-maple mesic forest (Edinger et al. 2014, NYNHP 2023, 2024).

**Habitat or Community Type Trend in New York**

Declining:                      Stable:                      Increasing:                      Unknown: ✓  
 Time Frame of Decline/Increase:  
 Habitat Specialist    Yes: ✓                      No:

**Habitat Discussion:**

In NY, shining bedstraw has been found in hemlock-northern hardwood and oak-hickory forests, as well as along roadsides, trails, and riverside meadows. More information on habitat requirements in the state is needed (NYNHP 2023, 2024). Deciduous woods, including beech-maple and oak hickory; banks, swampy ground along streams (Voss 1996). Dry woods (Gleason and Cronquist 1991). Woods and thickets (Fernald 1970).

**V. Species Demographics and Life History** (include information about species life span, reproductive longevity, reproductive capacity, age to maturity, and ability to disperse and colonize):

The small flowers of shining bedstraw are pollinated by small insects, such as Masked bees (*Hylaeus* spp.), Halictid bees (*Lasioglossum* spp.), and Syrphid flies. These insects feed on nectar from the flowers. Other insects feed on various plant parts. These insect feeders include moths caterpillars, such as the White-Banded Toothed Carpet Moth (*Epirrhoe alternata*), the Drab Brown Wave Moth (*Lobocleta ossularia*), and Galium Sphinx Moth (*Hyles gallii*). Because the hooked hairs of the leaves can attach to hair and fur, animals may play a minor role in dispersing the seeds to new locations (Illinois Wildflowers 2024).

**Table 2.** Phenology of *Galium concinnum* in New York State (NYNHP 2023).

Phenology	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flowering												
Fruiting												
Vegetative												

**VI. Threats**

Habitat destruction by housing developments is the greatest threat to shining bedstraw. Its upland, woodland habitat is often not protected from development (NYNHP 2023, 2024).

## 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:

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

Prevent shining bedstraw habitat destruction by protecting woodland buffers around populations. Prevent introduction or remove invasive woodland species such as barberry, garlic mustard, or shrub honeysuckle (NYNHP 2023, 2024).

Complete Conservation Actions table using IUCN conservation actions taxonomy at link below. Use headings 1-6 for Action Category (e.g., Land/Water Protection) and associated subcategories for Action (e.g., Site/Area Protection) -

<https://www.iucnredlist.org/resources/conservation-actions-classification-scheme>

**Table 3.** Recommended conservation actions for *Galium concinnum*.

Conservation Actions	
Action Category	Action
Land/water protection	1.1. Site/area protection
Land/water protection	1.2. Resource & habitat protection
Land/water management	2.1. Site/area management
Land/water management	2.2. Invasive/problematic species control
Land/water management	2.3. Habitat & natural process restoration

## VII. References

### This SSA drew heavily from these resources:

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