

Species Status Assessment

Common Name northern wild licorice **Date Updated:** 2024-03-22
Scientific Name *Galium kamtschaticum* **Updated By:** Gregory J. Edinger
Family Rubiaceae

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

Northern wild licorice (*Galium kamtschaticum*), also called boreal bedstraw, 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).

Northern wild licorice is found sporadically from Kamtchatka and Korea through the Aleutian Islands and the Alaska Panhandle to the Olympic and Cascade Mountains of Washington, then east across Canada and south to Michigan and New York (NatureServe 2023). It may have obtained its distribution in North America via the “Bering Land Bridge” (Soza. 2010).

Northern wild licorice is very rare in nearby New England, with a few populations each from Maine, New Hampshire and Vermont (Native Plant Trust 2024). In NY, northern wild licorice is only found in Essex and Hamilton counties with NY being at the south edge of its range. There is one verified occurrence of northern wild licorice in the state (130 plants) and eight historical occurrences that need to be surveyed. In NY, it is known from spruce-beech woods and steep wooded slopes in moist humus. Threats to northern wild licorice include off trail trampling by hikers and unintentional impacts related to trail maintenance (NYNHP 2023). Demographic and life history information for northern wild licorice is needed.

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 kamtschaticum is Endangered in New York (Ring 2023). There is one verified occurrence of northern wild licorice with about 130 plants, and eight historical occurrences that need to be surveyed (NYNHP 2023).

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	No	-	-	-		
Pennsylvania	No	-	-	-		
Vermont	Yes	Unknown	Unknown	Unknown	S3	
Ontario	Yes	Unknown	Unknown	Unknown	S2	
Quebec	No	-	-	-		

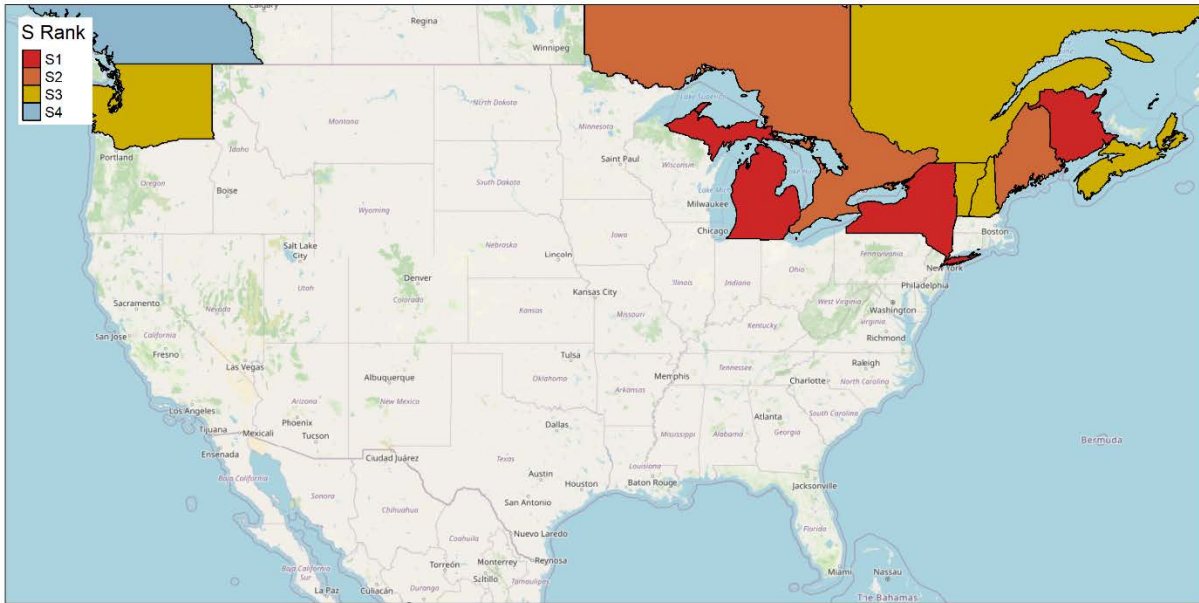


Figure 1 1: *Galium kamschatcicum* North American distribution.

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 and Trends

Trends Discussion

Northern wild licorice is found sporadically from Kamtchatka and Korea through the Aleutian Islands and the Alaska Panhandle to the Olympic and Cascade Mountains of Washington, then east across Canada and south to Michigan and New York (NatureServe 2023). It may have obtained its distribution in North America via the “Bering Land Bridge” (Soza. 2010). Northern New England and northern New York to southeastern Canada; northeast side of Lake Superior; near the Pacific coast from Korea to Washington (Gleason and Cronquist 1991). Western Newfoundland; mountains of Cape Breton Island, Nova Scotia; Quebec; northern New England and northern New York (Fernald 1950).

Northern wild licorice is very rare in nearby New England, with a few populations each from Maine, New Hampshire and Vermont in boreal and subalpine forests, seeps and stream banks, often associated with bryophytes (Native Plant Trust 2024).

Details of historic and current occurrence

In NY, northern wild licorice is only found in Essex and Hamilton counties with NY being at the south edge of its range (NYNHP 2023).

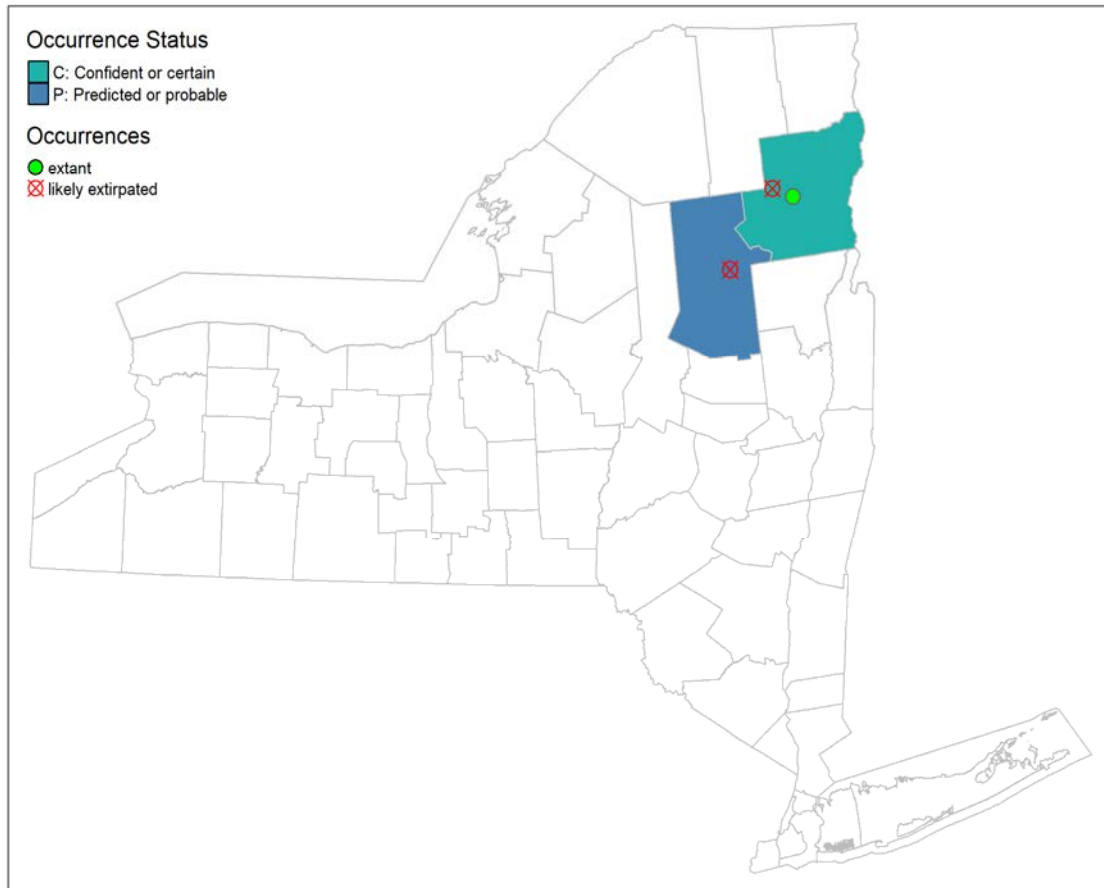


Figure 22: NYS distribution for *Galium kamschaticum*.

Table 1. Number of records (element occurrences) of *Galium kamschaticum* 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	5	0.5
1995-2004	0	0	0.0
2005-2014	0	0	0.0
2015-2023	0	0	0.0

Monitoring in New York

No northern wild licorice populations occur on State Park or State Forest lands. No regular monitoring program is currently in place in New York. However, the one extant occurrence in the state on NYS DEC Conservation Easement land in the Adirondacks would be worthy of monitoring (NYNHP 2023).

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

Northeastern Aquatic and Terrestrial Habitat Macrogroups: Boreal Upland Forest, banks of Headwaters and Creeks.

NY Natural Heritage Communities: Spruce-northern hardwood forest, shores of Rocky headwater stream (Edinger et al. 2014, NYNHP 2023).

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, northern wild licorice is known from spruce-beech woods and steep wooded slopes in moist humus (NYNHP 2023). Boreal and subalpine forests, seeps and stream banks in northern and/or mountainous areas, often associated with abundant bryophyte cover (GoBotany 2015). Mossy woods (Gleason and Cronquist 1991). Cool woods, thickets and brooksides (Fernald 1950).

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 one extant population of northern wild licorice in NY persisted for a little over ten years with a noticeable increase in stem count. In 1989 there were 50 stems counted and in 2000 there 130 stems counted (NYNHP 2023). Demographic and life history information for northern wild licorice is needed.

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

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

VI. Threats

Threats to northern wild licorice include off trail trampling by hikers and unintentional impacts related to trail maintenance (NYNHP 2023).

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:

Northern wild licorice populations growing along hiking trails need protection from trampling and routine trail maintenance. Rerouting trails around wild licorice populations may be an appropriate solution in those cases (NYNHP 2023).

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 kamtschaticum*.

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:

NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. [Accessed 12/14/2023].

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Additional references:

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY. <https://www.nynhp.org/documents/39/ecocomm2014.pdf>

Gleason, Henry A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York. 910 pp.

Holmgren, Noel. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York.

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Ring, Richard M. 2023. New York Rare Plant Status Lists. New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry, Albany, NY. December 2023. 108 pp.

Soza, Valerie L. 2010. Diversification of *Galium* within Tribe Rubieae (Rubiaceae): Evolution of Breeding Systems, Species Complexes, and Gene Duplication. University of Washington ProQuest Dissertations Publishing, 2010. 3443171.