

# Species Status Assessment

|                        |                         |                      |              |
|------------------------|-------------------------|----------------------|--------------|
| <b>Common Name</b>     | white colicroot         | <b>Date Updated:</b> | 2024-03-12   |
| <b>Scientific Name</b> | <i>Aletris farinosa</i> | <b>Updated By:</b>   | Richard Ring |
| <b>Family</b>          | Nartheciaceae           |                      |              |

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

White colicroot (*Aletris farinosa*) is the only species of *Aletris* known from New York, though there are several other species found in the southern United States. In NY, white colicroot is currently known only from Nassau and Suffolk counties on Long Island, although it historically was also known from the New York City area. The recent trend for both number of sites and overall population of white colicroot appears to be down in New York state, owing to loss of habitat and lack of protection at known sites. The species occurs in a variety of open, often somewhat wet sites, and is a poor competitor, requiring natural or artificial disturbance to require open habitats (NYNHP 2024).

## I. Status

### a. Current legal protected Status

|                      |                   |                   |  |
|----------------------|-------------------|-------------------|--|
| <b>i. Federal:</b>   |                   | <b>Candidate:</b> |  |
| <b>ii. New York:</b> | <u>Threatened</u> |                   |  |

### b. Natural Heritage Program

|                      |           |                          |                         |
|----------------------|-----------|--------------------------|-------------------------|
| <b>i. Global:</b>    | <u>G5</u> |                          |                         |
| <b>ii. New York:</b> | <u>S2</u> | <b>Tracked by NYNHP?</b> | On Active Tracking List |

### Other Ranks:

COSEWIC: Endangered/En voie de disparition  
IUCN Red List: Not assessed by IUCN Red List

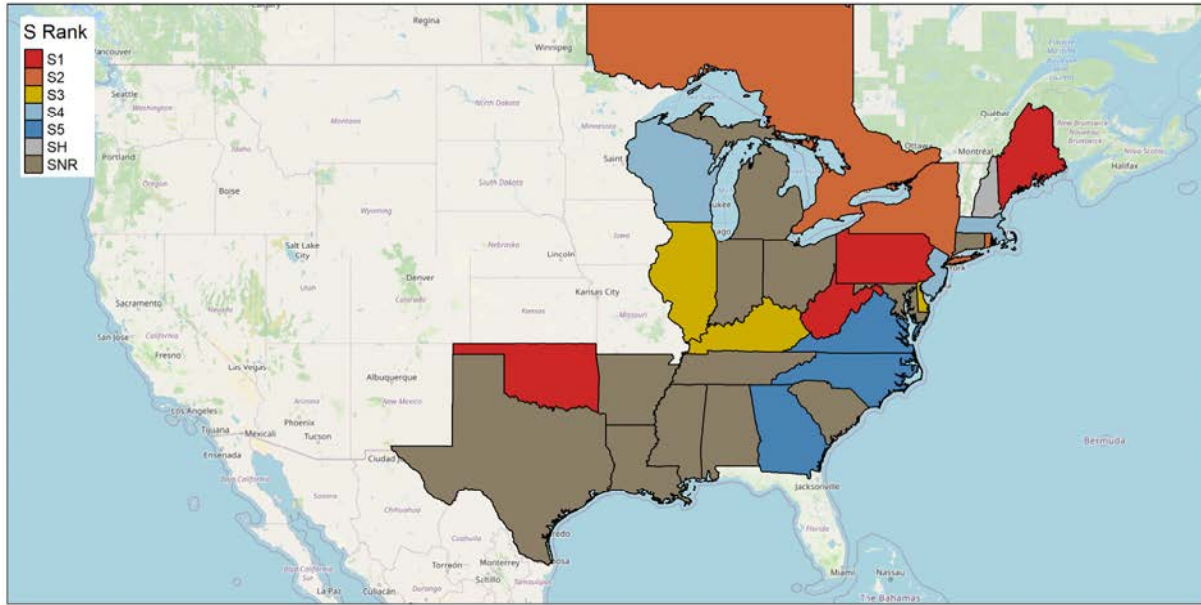
### Status Discussion:

*Aletris farinosa* is Threatened in New York (Ring 2023). There are thirteen known extant populations but at least four of them are very small and subject to succession and other disturbances. The estimated total population is from three to ten thousand, but there are only three large populations and the largest lacks a complete count. Some of the smaller populations appeared to be declining or possibly extirpated because of habitat changes (lack of

disturbance or openings). There are about ten records from the early 1900s that have not been searched for. Extant populations are only known from Long Island, with historical collections from the NYC area, likely extirpated, and a single questionable record from central NY. Some historically known populations have been extirpated but some may be rediscovered because there is plenty of habitat still available (Biotics 2023).

## II. Abundance and Distribution

| Region                 | Present? | Abundance | Distribution | Time Frame | Listing status or S-Rank | SGCN? |
|------------------------|----------|-----------|--------------|------------|--------------------------|-------|
| <b>North America</b>   | Yes      | Unknown   | Unknown      | Unknown    |                          |       |
| <b>Northeastern US</b> | Yes      | Unknown   | Unknown      | Unknown    |                          |       |
| <b>New York</b>        | Yes      | Unknown   | Unknown      | Unknown    | T                        |       |
| <b>Connecticut</b>     | Yes      | Unknown   | Unknown      | Unknown    | SNR                      |       |
| <b>Massachusetts</b>   | Yes      | Unknown   | Unknown      | Unknown    | S4                       |       |
| <b>New Jersey</b>      | Yes      | Unknown   | Unknown      | Unknown    | S4                       |       |
| <b>Pennsylvania</b>    | Yes      | Unknown   | Unknown      | Unknown    | S1                       |       |
| <b>Vermont</b>         | No       | -         | -            | -          |                          |       |
| <b>Ontario</b>         | Yes      | Unknown   | Unknown      | Unknown    | S2                       |       |
| <b>Quebec</b>          | No       | -         | -            | -          |                          |       |



**Figure 1 1:** *Aletris farinosa* 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                 | 500 kilometers                            |

### III. NY Rarity and Trends

#### Trends Discussion

##### Short term trends (<100 years)

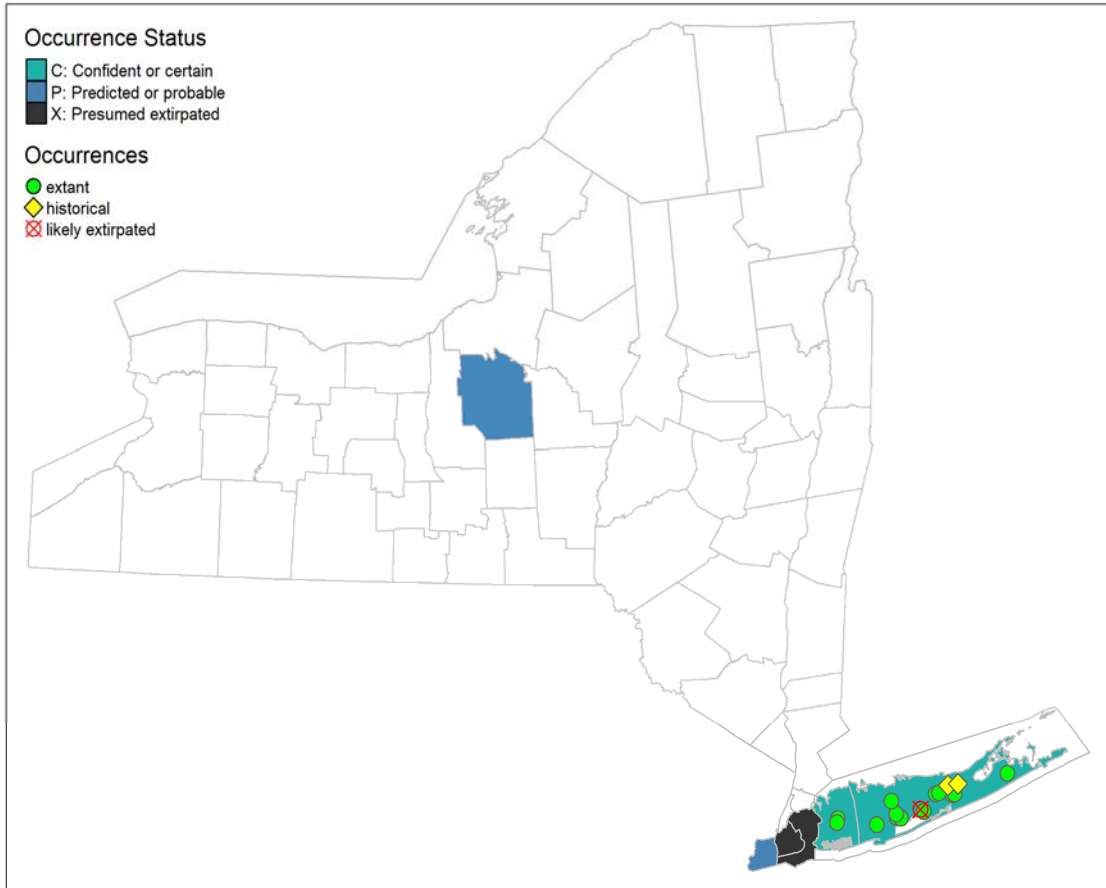
Only four of the known populations have been surveyed since 2010, and many sites have only been visited once, so the recent trends are uncertain. Three documented populations appear to have been extirpated since the 1990's so the short term trend appears to be downward.

##### Long term trends

Not all the historically known sites have been surveyed, but many are from the New York City area and are presumed extirpated by development. The long term trend appears to be downward due habitat loss.

##### Details of historic and current occurrence:

This species is currently known from Long Island, mainly the pine barrens of Suffolk County, but also from Nassau County. It is historically known from the New York City area and Staten Island where it is considered extirpated. There is also an 1837 record from Manlius, near Syracuse, but no specimen to confirm the report. There are many thousands of plants in total, but complete counts of the largest populations are needed.



**Figure 1 2:** NYS distribution for *Aletris farinosa*

**Table 1.** Number of records (element occurrences) of *Aletris farinosa* 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  | 14           | 11                  | 1.1                 |
| 1995-2004 | 3            | 3                   | 0.3                 |
| 2005-2014 | 3            | 3                   | 0.3                 |
| 2015-2023 | 2            | 2                   | 0.2                 |

### Monitoring in New York

Only one of the extant populations, located on State Park lands, is currently monitored (every 5 to 10 years). Additional monitoring is needed, particularly since the open habitats this species requires are subject to change through succession.

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

Northeastern Habitat Classification Macrogroup: Central Oak-Pine, Coastal Grassland and Shrubland, ?for Coastal Plain Pond

NY Natural Heritage Communities: Coastal plain pond shore, Hempstead Plains grassland, Maritime grassland, Pitch pine-oak forest, Pitch pine-scrub oak barrens, Successional northern sandplain grassland

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

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

**Habitat Discussion:**

In New York, white colicroot is known from open, often wet areas within pine barrens and pine-oak forests, coastal plain pond margins, and sandy shorelines (New York Natural Heritage Program 2023). Rare in moist clearings (Rhoads and Block 2000). Sandy soil, open woods, and barrens (Gleason and Cronquist 1991). In moist or sometimes dry, usually sandy or sandy-mucky soil, on lake shores and in swales, meadows, clearings, and abandoned fields (Voss 1972). Dry or moist peats, sands, and gravels (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):

White colicroot is a perennial, monocot species of herb, with populations (and presumably some plants) persisting for decades (NYNHP 2023, COSEWIC 2015). Cultivated plants do not flower in their first year (COSEWIC 2015); time to maturity of *Aletris farinosa* has not been studied in NY, although other species of *Aletris* have been found to reach maturity in two years (Sullivan 1973). White colicroot has been known to re-emerge after mowing has ceased or after disturbance of soil, but its persistence in the seedbank is unknown (COSEWIC 2015).

White colicroot is insect-pollinated by bumblebees and other bees (COSEWIC 2015). Its fruit are capsules which dehisce and allow dispersal of the many tiny seeds by wind or gravity. The seeds lack special structures for dispersal, and long-distance dispersal of white colicroot is unknown (COSEWIC 2015).

**Table 2.** Phenology of *Aletris farinosa* in New York (NYNHP 2023).

|                   | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Flowering</b>  |     |     |     |     |     | █   |     |     |     |     |     |     |
| <b>Fruiting</b>   |     |     |     |     |     |     |     | █   |     |     |     |     |
| <b>Vegetative</b> |     |     | █   |     |     |     |     |     |     |     |     |     |

## VI. Threats

A variety of disturbances and human activities threaten this species, perhaps foremost development pressures in the Long Island landscape where it is found in NY. The plant sometimes occurs close to trails or sand roads and is threatened by being run over, mowed, or trampled. Such disturbances may create habitat for white colicroot, yet excessive disturbance may also damage or destroy populations (COSEWIC 2015, NYNHP 2023). Road construction and housing developments as well as dumping have threatened populations (NYNHP 2023). The open areas where the plants occur are also threatened by succession of the natural habitat to trees and shrubs.

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

Yes:

No:



Unknown:

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

Many of the sites for white colicroot are along roadsides or powerlines. These sites need protection from physical damage or destruction as well as from succession/closing of the canopy in order to maintain suitable habitat. Controlled burns, timely mowing or other means of promoting open habitats may be advisable, depending on the site.

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 *Aletris farinosa*.

| 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:**

New York Natural Heritage Program, State University of New York College of Environmental

Science and Forestry. 2023. Element Occurrence and Element Dataset. Albany, New York. [Exported 12/14/2023].

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].

Werier, David, Kyle Webster, Troy Weldy, Andrew Nelson, Richard Mitchell, and Robert Ingalls. 2023 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. [Accessed 11/21/2023].

Additional references:

Clemants, Steven and Carol Gracie. 2006. Wildflowers in the Field and Forest. A Field Guide to the Northeastern United States. Oxford University Press, New York, NY. 445 pp.

COSEWIC 2015. COSEWIC assessment and update status report on the colicroot *Alextris farinosa* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii+39 pp.

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.

Elliott, D. 1995. Wild Roots: A Forager's Guide to the Edible and Medicinal Roots, Tubers, Corms, and Rhizomes of North America. Healing Arts Press, Rochester, Vermont. Pp. 30-31.

Fernald, M. L. 1950. Gray's manual of botany. 8th edition. Corrected printing (1970). D. Van Nostrand Company, New York. 1632 pp.

Flora of North America Editorial Committee. 2002. Flora of North America, North of Mexico. Volume 26. Magnoliophyta: Liliidae: Liliales and Orchidales. Oxford University Press, New York. 723 pp.

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.

Newcomb, Lawrence. 1977. Newcomb's Wildflower Guide: An Ingenious New Key System for Quick, Positive Field Identification of the Wildflowers, Flowering Shrubs, and Vines of Northeastern and North-Central North America. Little, Brown and Company. Boston.

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.

Sullivan, V.I. 1973. Biosystematics of *Alextris lutea* Small, *Alextris obovata* Nash, and natural hybrids (Liliaceae). Brittonia 25:294–303.