Golden Corydalis

Scientific Name *Corydalis aurea* Willd.

Family Name Fumariaceae
Fumitory Family

Did you know?
The seeds of golden corydalis have a nutrient-rich appendage, or aril, typically found in plant wildflower species attractive to ants. The ants collect the arils, which in turn serves to disperse the seeds. The corms of Corydalis and related plants contain alkaloids used in traditional Native American and Chinese medicines.

Summary

Protection Threatened in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 6 to fewer than 20 extant sites, or 2) 1,000 to fewer than 3,000 individuals, or 3) restricted to not less than 4 or more than 7 U.S.G.S. 7 ½ minute topographical maps, or 4) listed as threatened by U.S. Department of Interior.

Rarity G5, S2

A global rarity rank of G5 means: This species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
A state rarity rank of S2 means: This plant is threatened/imperiled in New York because of rarity (typically 6-20 populations or few remaining individuals) or is vulnerable to extirpation from New York due to biological factors.

Conservation Status in New York

In New York there are 9 verified, current locations for golden corydalis; 3 of these occurrences are very small. There are about 10 historical locations need to be checked.

Short-term Trends

The transitory nature of this species, which may appear for only a few years following a disturbance but persist in the seed bank and re-appear when conditions are favorable, make it difficult to track at any given location.

Long-term Trends

More inventory of historical locations is needed in order to better assess long-term trends for New York populations of this species.

Conservation and Management

Threats

Changes in disturbance regime (both natural and human disturbance) could threaten occurrences of this species.

Conservation Strategies and Management Practices

Regular disturbance may be needed for populations of golden corydalis to persist over time.

Research Needs

Additional inventory of historical sites, as well as monitoring of extant sites as conditions change, is needed.

Habitat

In New York golden corydalis is known primarily from dry, rocky calcareous sites, including alvar and limestone pavements, barrens, summits, and woodlands (New York Natural heritage program 2007). In other states it also occurs on gravelly shores, rock ledges and summits, piney woodlands, and disturbed sites such as clearings, trails, and gravel or sand pits (Voss 1985, Rhoads and Block 2000).

Associated Ecological Communities

Alvar Grassland
A community that occurs on shallow soils over level outcrops of calcareous bedrock (limestone or dolomite). Apparently alvar grasslands are restricted to areas that are seasonally flooded in spring or after heavy rainfall, as well as seasonally dry by late summer.

Alvar Woodland
A subset of the limestone woodland community restricted to the alvar region in Jefferson County, New York.

Calcareous Pavement Barrens
A savanna community that occurs on nearly level outcrops of calcareous bedrock (limestone or dolomite). The community consists of a mosaic of shrub-savanna, grass-savanna, and rock outcrop vegetation.

Calcareous Shoreline Outcrop
A community that occurs along the shores of lakes and streams on outcrops of calcareous rocks such as limestone and dolomite. The vegetation is sparse; most plants are rooted in rock crevices.

Limestone Woodland
A woodland that occurs on shallow soils over limestone bedrock in non-alvar settings, and usually includes numerous rock outcrops. There are usually several codominant trees, although one species may become dominant in any one stand.

Other Probable Associated Communities

Alvar shrubland
Calcareous cliff community
Calcareous red cedar barrens
Calcareous talus slope woodland
Cliff community
Dwarf pine ridges
Northern white cedar rocky summit
Pitch pine-oak-heath rocky summit
Red cedar rocky summit
Shale cliff and talus community
Successional red cedar woodland

Associated Species

Northern Maidenhair-fern (*Adiantum pedatum*)
Climbing Fumitory (*Adlumia fungosa*)
American Harebell (*Campanula rotundifolia*)
Back's Sedge (*Carex backii*)
Short-scale Sedge (*Carex deweyana*)
Bristleleaf Sedge (*Carex eburnea*)
Rosy Sedge (*Carex rosea*)
Northern Wild Comfrey (*Cynoglossum virginianum*)
Marginal Wood Fern (*Dryopteris marginalis*)
Virginia Strawberry (*Fragaria virginiana*)
Bicknell's Cranesbill (*Geranium bicknellii*)
Red Cedar (*Juniperus virginiana*)
Hophornbeam (*Ostrya virginiana*)
Eastern White Pine (*Pinus strobus*)
Canada Bluegrass (*Poa compressa*)
Red Oak (*Quercus rubra*)
Virginia Saxifrage (*Saxifraga virginiensis*)
Northern White Cedar (*Thuja occidentalis*)
White Basswood (*Tilia americana*)
Eastern Poison Ivy (*Toxicodendron radicans*)

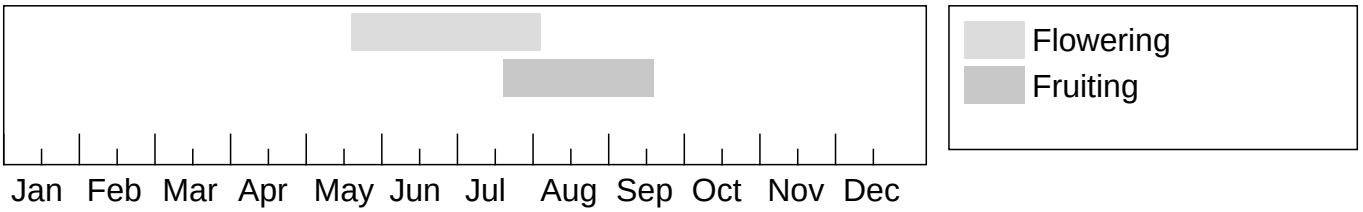
Identification Comments

Best Life Stage for Identifying This Species

Golden corydalis is best identified when in flower.

The Best Time to See

Golden corydalis may be found flowering from May into September; fresh flowers found in late summer may be the product of fruit from early-blooming plants of the same season. The leaves senesce but persist into flowering and fruiting. Flowering specimens are best for identification and collection purposes.



The time of year you would expect to find Golden Corydalis in New York.

Similar Species

Corydalis flavula, the only other yellow-flowered corydalis in New York, has similar leaves but its flowers are about half the size of those of C. aurea, and have a prominent crest or wing on the outer petal not found in golden corydalis. Corydalis flavula also is typically found in wetter and/or less open sites than C. aurea.

Golden corydalis may grow alongside Corydalis sempervirens (Rock Harlequin, or Pale Corydalis), which has pink to purplish flowers. In vegetative form C. aurea differs from C. sempervirens by its less glacous leaves and stems, more sprawling habit, and more finely dissected leaves.

Taxonomy

Kingdom Plantae
- **Phylum** Anthophyta
  - **Class** Dicots (Dicotyledoneae)
    - **Order** Papaverales
      - **Family** Fumariaceae (Fumitory Family)

Synonyms

Capnoides aureum ((Willd.) Kuntze)

Additional Resources

Links

USDA Plants Database
http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=CORYDALIS+AUREA

NatureServe Explorer

http://natureserve.org/explorer/servlet/NatureServe?searchName=CORYDALIS+AUREA

Google Images

http://images.google.com/images?q=CORYDALIS+AUREA

Best Identification Reference

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This project is made possible with funding from:
- New York State Department of Environmental Conservation Hudson River Estuary Program
- Division of Lands & Forests, Department of Environmental Conservation
- New York State Office of Parks, Recreation and Historic Preservation

Information for this guide was last updated on Aug 21, 2017

This guide was authored by