

Golden-seal



Scientific Name *Hydrastis canadensis*
L.

Family Name Ranunculaceae
Buttercup Family

Did you know?

Goldenseal is highly valued for its medicinal properties and is now becoming more rare range-wide because it is being overcollected. Fortunately, it can also be grown in a nursery without disturbing wild populations.

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 G3G4, S2

A global rarity rank of G3G4 means: Vulnerable globally, or Apparently Secure -- At moderate risk of extinction, with relatively few populations or locations in the world, few individuals, and/or restricted range; or uncommon but not rare globally; may be rare in some parts of its range; possibly some cause for long-term concern due to declines or other factors. More information is needed to assign a single conservation status.

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

There are 20 existing populations and about 10 historical records. It is not expected that many more populations will be found and that the threat from collection and habitat destruction may increase in the future.

Short-term Trends

One site in eastern New York has been severely degraded but populations remain fairly stable throughout the rest of state.

Long-term Trends

Historical records show that this plant was never common in New York and the number of known occurrences has remained about the same over the last 100 years.

Conservation and Management

Threats

This plant is collected for medicinal purposes but so far there is no evidence that it is being over-collected in New York. There is a moderate threat from habitat destruction, especially in the Lower Hudson area. Exotic species like garlic mustard and bush honeysuckle threaten its understory habitat.

Conservation Strategies and Management Practices

The woodland areas where this species occurs need to be protected from disturbance that could introduce too much sunlight or invasive species to the site. If there are invasive species they need to be removed.

Research Needs

Some research has been done on habitat preference by the College of Environmental Science and Forestry but there have been no results as of 2007. Research needs to be done on whether populations could be augmented at existing sites.

Habitat

Goldenseal colonies are found at the bottom or mid-slopes of rich woodlands, often near streams. Sometimes the slopes are deeply dissected by runoff or they may consist of limestone talus and cliffs. The forests are usually mature with old logs and an open understory with a diverse Spring wildflower flora. The underlying rock is usually limestone and the soils are rich in organic matter, sometimes with springs emanating from the slopes. (New York Natural Heritage Program 2007). Deep rich woods (Fernald 1970). Deep rich woods (Gleason 1952).

Associated Ecological Communities

Calcareous Talus Slope Woodland

An open or closed canopy community that occurs on talus slopes composed of calcareous bedrock such as limestone or dolomite. The soils are usually moist and loamy; there may be numerous rock outcrops.

Floodplain Forest

A hardwood forest that occurs on mineral soils on low terraces of river floodplains and river deltas. These sites are characterized by their flood regime; low areas are annually flooded in spring, and high areas are flooded irregularly.

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.

Maple-basswood Rich Mesic Forest

A species rich hardwood forest that typically occurs on well-drained, moist soils of circumneutral pH. Rich herbs are predominant in the ground layer and are usually correlated with calcareous bedrock, although bedrock does not have to be exposed. The dominant trees are sugar maple, basswood, and white ash.

Oak-tulip Tree Forest

A hardwood forest that occurs on moist, well-drained sites in southeastern New York. The dominant trees include a mixture of five or more of the following: red oak, tulip tree, American beech, black birch, red maple, scarlet oak, black oak, and white oak.

Associated Species

Black Maple (*Acer nigrum*)
Sugar Maple (*Acer saccharum*)
Northern Maidenhair-fern (*Adiantum pedatum*)
White Snakeroot (*Ageratina altissima*)
Garlic Mustard (*Alliaria petiolata*)
Narrow-leaved Wild Leek (*Allium tricoccum*)
American Hogpeanut (*Amphicarpaea bracteata*)
Swamp Jack-in-the-pulpit (*Arisaema triphyllum*)
Canada Wild-ginger (*Asarum canadense*)
Southern Lady Fern (*Athyrium filix-femina*)
Paper Birch (*Betula papyrifera*)
Cutleaf Toothwort (*Cardamine concatenata*)
Two-leaf Toothwort (*Cardamine diphylla*)
Broad-leaved Sedge (*Carex platyphylla*)
American Hornbeam (*Carpinus caroliniana*)
Bitternut Hickory (*Carya cordiformis*)
Big Shellbark Hickory (*Carya laciniosa*)
Blue Cohosh (*Caulophyllum thalictroides*)
Virginia Springbeauty (*Claytonia virginica*)
Canada Horse-balm (*Collinsonia canadensis*)
Flowering Dogwood (*Cornus florida*)
Canada Honewort (*Cryptotaenia canadensis*)
Bulblet Fern (*Cystopteris bulbifera*)
Silvery Spleenwort (*Deparia acrostichoides*)
Field Horsetail (*Equisetum arvense*)
White Trout-lily (*Erythronium albidum*)
White Wood-aster (*Eurybia divaricata*)
American Beech (*Fagus grandifolia*)
White Ash (*Fraxinus americana*)
Licorice Bedstraw (*Galium circaezans*)
Wild Crane's-bill (*Geranium maculatum*)
American Witch-hazel (*Hamamelis virginiana*)

Round-leaved Liverleaf (*Hepatica nobilis*)
Twinleaf (*Jeffersonia diphylla*)
Spicebush (*Lindera benzoin*)
Tulip Tree (*Liriodendron tulipifera*)
Cucumber Magnolia (*Magnolia acuminata*)
Large False Solomon's-seal (*Maianthemum racemosum*)
Ostrich Fern (*Matteuccia struthiopteris*)
Canada Moonseed (*Menispermum canadense*)
Hophornbeam (*Ostrya virginiana*)
Virginia Creeper (*Parthenocissus quinquefolia*)
Broad Beech Fern (*Phegopteris hexagonoptera*)
Eastern White Pine (*Pinus strobus*)
May-apple (*Podophyllum peltatum*)
Downy Solomon's-seal (*Polygonatum pubescens*)
White-flower Leafcup (*Polymnia canadensis*)
Wild Black Cherry (*Prunus serotina*)
Choke Cherry (*Prunus virginiana*)
White Oak (*Quercus alba*)
Red Oak (*Quercus rubra*)
Littleleaf Buttercup (*Ranunculus abortivus*)
Bloodroot (*Sanguinaria canadensis*)
Bluestem Goldenrod (*Solidago caesia*)
Broad-leaved Goldenrod (*Solidago flexicaulis*)
American Bladdernut (*Staphylea trifolia*)
Skunk Cabbage (*Symplocarpus foetidus*)
Early Meadow-rue (*Thalictrum dioicum*)
New York Fern (*Thelypteris noveboracensis*)
White Basswood (*Tilia americana*)
Eastern Poison Ivy (*Toxicodendron radicans*)
Wake Robin (*Trillium erectum*)
Large-flower Trillium (*Trillium grandiflorum*)
Eastern Hemlock (*Tsuga canadensis*)
Slippery Elm (*Ulmus rubra*)
Large-flowered Bellwort (*Uvularia grandiflora*)
Sessile-leaved Bellwort (*Uvularia sessilifolia*)
Mapleleaf Viburnum (*Viburnum acerifolium*)
Long-spur Violet (*Viola rostrata*)

Identification Comments

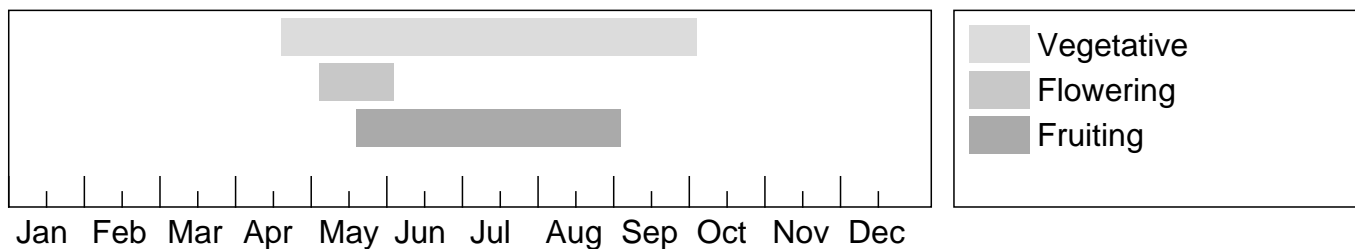
A small herbaceous plant usually growing in groups with one small leaf at the bottom and two large leaves at the top of the hairy stem. The leaves are heart-shaped with five-seven toothed lobes. There is one flower at the top of the stem composed of showy white stamens. This matures into a round cluster of showy red berries.

Best Life Stage for Identifying This Species

It is best to search for this plant when the leaf is present with a flower or fruit. However, the distinctive leaves can be used for identification when flowers and fruits are absent.

The Best Time to See

Hydrastis canadensis flowers in May. Its red fruits mature June through August.



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

Similar Species

This species may be confused for Mayapple, *Podophyllum peltatum*, or Canada waterleaf, *Hydrophyllum canadense*, when not in flower. Mayapple has a peltate leaf with lobes that are split into two smaller lobes at the tip and a single white flower blooms below the leaves. Canada waterleaf has lobes with larger teeth and a very rough surface and the light lavender flowers bloom in clusters just below the leaf blades.

Taxonomy

Kingdom Plantae

└ **Phylum** Anthophyta

└ **Class** Dicots (Dicotyledoneae)

└ **Order** Ranunculales

└ **Family** Ranunculaceae (Buttercup Family)

Additional Common Names

Orange-root
Yellow Puccoon

Synonyms

Warnera canadensis ((L.) Mill.)

Additional Resources

Links

Flora of North America

http://efloras.org/florataxon.aspx?flora_id=1&taxon_id=220006616

New York Flora Atlas

<http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=2604>

USDA Plants Database

<http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=HYDRASTIS+CANADENSIS>

NatureServe Explorer

<http://natureserve.org/explorer/servlet/NatureServe?searchName=HYDRASTIS+CANADENSIS>

Google Images

<http://images.google.com/images?q=HYDRASTIS+CANADENSIS>

Missouri Plants

http://www.missouriplants.com/Whitealt/Hydrastis_canadensis_page.html

Illinois Wildflowers

<http://www.illinoiswildflowers.info/woodland/plants/goldenseal.htm>

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New York Natural Heritage Program

625 Broadway, 5th Floor,
Albany, NY 12233-4757
Phone: (518) 402-8935
acris@nynhp.org

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 22, 2017

This guide was authored by