

Cranefly Orchid



Tipularia discolor flowers



Photo credits: John Heidecker

Scientific Name *Tipularia discolor*
(Pursh) Nutt.

Family Name Orchidaceae
Orchid Family

Did you know?

The leaves are green on top and purple on the bottom, giving this orchid its species name which means two colors (Fernald 1950). Many hours have been spent looking for an old record of this orchid in the woods near Montauk Point but it has never been rediscovered.

Summary

Protection Endangered in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 5 or fewer extant sites, or 2) fewer than 1,000 individuals, or 3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or 4) species listed as endangered by U.S. Department of Interior.

Rarity G4G5, S1

A global rarity rank of G4G5 means: Apparently or Demonstrably Secure globally - Uncommon to common in the world, but not rare; usually widespread, but 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 S1 means: This plant is endangered/critically imperiled in New York

because of extreme rarity (typically 5 or fewer populations or very few remaining individuals) or is extremely vulnerable to extirpation from New York due to biological factors.

Conservation Status in New York

There is one small existing occurrence of about 50-100 plants. It is subject to some direct disturbance from visitors to the park where it occurs. There are three populations from 1878 and the early 1900s that need to be resurveyed to see if they still exist. Four additional populations from New York City are now extirpated because their habitat has been destroyed.

Short-term Trends

The short-term trend appears to be stable, although the population numbers fluctuate from year to year.

Long-term Trends

Since the long-term trend is strongly negative, even populations were known in the past but only one population remains. Additional surveys are needed in a few areas but finding more plants is unlikely.

Conservation and Management

Threats

The failure to maintain sufficient woodland buffer around the plants and prevent direct disturbance is a threat.

Conservation Strategies and Management Practices

Maintain a natural buffer around the population and restrict direct access to the plants by rerouting trails away from the area they occupy.

Research Needs

More detailed information on the habitat preference of this species is needed because the existing population occurs in a seemingly common forest type.

Habitat

The plants are located in a mesic, rich (apparently acid) woods with oak, beech and maple that is quite swampy with a shrubby to open understory. The plants are in leaf litter. A historical record grew in wet woods with laurel and holly (New York Natural Heritage Program 2012). Rich damp woods (Gleason and Cronquist 1991).

Associated Ecological Communities

Red Maple-hardwood Swamp

A hardwood swamp that occurs in poorly drained depressions, usually on inorganic soils. Red maple is usually the most abundant canopy tree, but it can also be codominant with white, green, or black ash; white or slippery elm; yellow birch; and swamp white oak.

Associated Species

Red Maple (*Acer rubrum*)
Common Wintergreen (*Chimaphila umbellata*)
Beechdrops (*Epifagus virginiana*)
American Beech (*Fagus grandifolia*)
Mountain Laurel (*Kalmia latifolia*)
Scarlet Oak (*Quercus coccinea*)
Mapleleaf Viburnum (*Viburnum acerifolium*)

Identification Comments

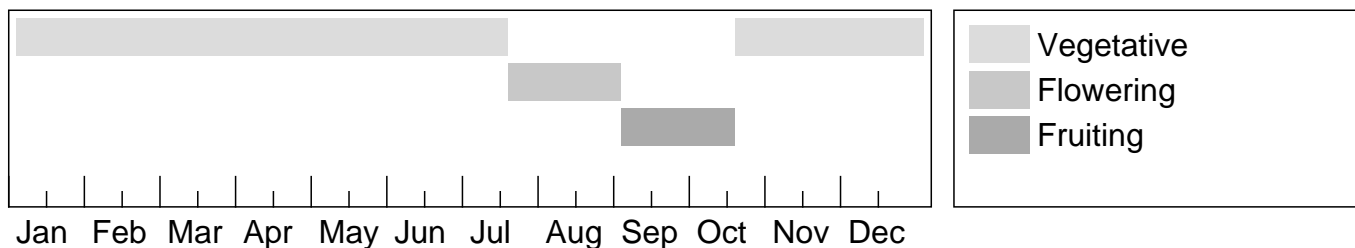
Cranefly orchid flowers are produced in midsummer and grow on a very slender stem that is 2-5 dm tall. The inflorescence is a spike of many drooping flowers, then fruits, 1-2 decimeters long. The narrow sepals and lateral petals are 4-8 mm long and greenish-purple with purple veins. The lip is pale purple and translucent, 4-8 mm long with basal lobes that are nearly semicircular with ragged edges. The long lobe of the lip is linear and arched forward with the tip facing out. The margins are rolled under. The whitish spur is 15-22 mm long and the column 3-4 mm long. A single leaf is produced at ground level in the fall and persists through the winter into the early spring. It is wide-elliptic in shape, 5-10 cm long and 2.5-7 cm wide, with a 5 cm long petiole. It is somewhat pleated along the veins and greenish on top and shiny purple below.

Best Life Stage for Identifying This Species

The plant can be identified with winter leaves or with summer flowers.

The Best Time to See

Flowers mid-July through August, fruits persist to early October.



The time of year you would expect to find Cranefly Orchid in New York.

Similar Species

Calypso and Puttyroot orchids also have winter leaves which are somewhat pleated and purple below but their ranges are north of Long Island and do not overlap. No other orchid has flowers similar to crane-fly orchid.

Taxonomy

Kingdom Plantae

└ **Phylum** Anthophyta

└ **Class** Monocots (Monocotyledoneae)

└ **Order** Orchidales

└ **Family** Orchidaceae (Orchid Family)

Synonyms

Tipularia unifolia ((Muhl.) BSP.)

Additional Resources

Links

Delaware Wildflowers

<http://www.delawarewildflowers.org/plant.php?id=2009>

Missouri Plants

http://www.missouriplants.com/Others/Tipularia_discolor_page.html

USDA Plants Database

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

NatureServe Explorer

<http://natureserve.org/explorer/servlet/NatureServe?searchName=TIPULARIA+DISCOLOR>

Google Images

<http://images.google.com/images?q=TIPULARIA+DISCOLOR>

Best Identification Reference

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.

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.

Fernald, M.L. 1950. Gray's manual of botany. 8th edition. D. Van Nostrand, New York. 1632 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.

- Keys, Jr., J.; Carpenter, C.; Hooks, S.; Koenig, F.; McNab, W.H.; Russell, W.; Smith, M.L. 1995. Ecological units of the eastern United States - first approximation (cd-rom), Atlanta, GA: U.S. Department of Agriculture, Forest Service. GIS coverage in ARC/INFO format, selected imagery, and map unit tables.
- Mitchell, Richard S. and Gordon C. Tucker. 1997. Revised Checklist of New York State Plants. Contributions to a Flora of New York State. Checklist IV. Bulletin No. 490. New York State Museum. Albany, NY. 400 pp.
- NatureServe. 2005. NatureServe Central Databases. Arlington, Virginia. USA
- New York Natural Heritage Program. 2010. Biotics database. New York Natural Heritage Program. New York State Department of Environmental Conservation. Albany, NY.
- 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.
- Weldy, T. and D. Werier. 2010. New York flora atlas. [S.M. Landry, K.N. Campbell, and L.D. Mabe (original application development), Florida Center for Community Design and Research <http://www.fccdr.usf.edu/>. University of South Florida <http://www.usf.edu/>]. New York Flora Association <http://www.nyflora.org/>, Albany, New York
- Zaremba, Robert E. 1991. Corrections to phenology list of April 9, 1991.

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 15, 2017

This guide was authored by Stephen M. Young