



## **Wildflowers of the Adirondacks:** **Starflower (*Trientalis borealis* Raf.)**



Wildflowers of the Adirondacks: Starflower's small, white, star-shaped flowers appear in late May and June in the Adirondack Park. The flowers have six to eight petals (with seven most common), narrow, pointed light green sepals, and stamens topped with pale yellow anthers. Starflower near Craig Wood Golf Course, Lake Placid (26 May 2012).

Starflower (*Trientalis borealis* Raf.) is a low-growing wildflower which produces small, star-shaped white flowers in spring in the Adirondacks of upstate New York.

- The genus name (*Trientalis*) is from a Latin word meaning one-third of a foot. This is a reference to the height of the plant.
- The species name (*borealis*) is a reference to north, although this plant also grows in the Midwest and the higher elevations of the southern Appalachian Mountains.
- The author name (Raf.) is a reference to Constantine Samuel Rafinesque, a naturalist born in Constantinople in the late 18th century. He later settled in the US and recorded many new species of plants and animals.

Starflower, which has been categorized as part of the Primrose (*Primulaceae*) family, is now apparently being merged into other genera in the genus *Lysimachia* and given a new species name: *Lysimachia borealis*. This shift was the result of new analyses of molecular and morphological data.

- Other species in the *Lysimachia* genus which occur in the Adirondacks include Swamp Candles, Creeping Jenny, Fringed Loosestrife, and Tufted Loosestrife.
- The genus name (*Lysimachia*) may refer to King Lysimachus of Thrace, said to have been the first to discover the styptic and astringent qualities of some of the plants in this genus.

- This shift has not yet been reflected in the [Integrated Taxonomic Information System](#), which still carries this plant as *Trientalis borealis* Raf. Most sources (including [Flora of North America](#) and the [US Department of Agriculture](#)) still refer to Starflower as belonging to the genus *Trientalis*.

The plant's common name (Starflower) refers to the flower's star like appearance. Other common names include Star Flower, Northern Starflower, American Starflower, Mayflower, Star-chickweed, Chickweed Wintergreen, and Star-of-Bethlehem.

## Identification of Starflower

Starflower is a perennial, 4 to 8 inches tall (most typically under six inches). It grows from creeping [rhizomes](#) and tends to form colonies. The slender stem is usually light green.

Starflower **leaves** vary considerably in size, from 1½ inches to about 4 inches in length.

- Starflower leaves are [lance-shaped](#), tapering to a tip.
- The leaves are arranged in a single [whorl](#) with 5 to 9 leaves (most commonly 7) near the top of the stem.
- The leaf edges are [smooth](#), with no or very fine teeth.
- [Leaf venation](#) is [pinnate](#), meaning that there is one main [vein](#) running from the base to the tip and secondary veins branching off at intervals.



*Wildflowers of the Adirondacks*: Starflower leaves are lance-shaped, with one primary vein running from base to tip and secondary veins branching off at intervals. Starflower on Country Club Lane, Lake Placid (10 June 2017).

The pattern of the veins is a key to distinguishing the foliage of Starflower from that of [Indian Cucumber-root](#), another low-growing wildflower which shares a similar habitat.

- The dangling, yellowish flowers of Indian Cucumber-root are very different from Starflower flowers; and Indian Cucumber-root usually appears as a two-storied plant, with two whorls of leaves.
- Some Indian Cucumber-root plants, however, are one-storied and can be confused with Starflower when flowers are not present. The vein arrangement is the key to distinguishing the foliage of the two plants. Indian Cucumber-root's leaves have [parallel](#) venation, meaning that the curving veins run parallel from the leaf base to the tip.

Starflower produces one or two snow-white **flowers** at the top of its slender stalk, just above the whorl of leaves.

- Each flower is about ½ to ¾ inch wide and consists of five to nine petals (most commonly, seven) that form a star-like shape.
- Each flower has 5 to 9 [stamens](#), tipped with yellow on the [anthers](#).
- Each flower has 5 to 9 narrow, pointed, light green [sepals](#), which appear underneath the petals and contribute to the flower's star-like appearance.

Starflower is a late-spring blooming wildflower. In the Adirondack Mountains, Starflower begins blooming in late May and can be seen in bloom to about mid-June. A tally of flowering dates for the upland Adirondack areas compiled by Michael Kudish, based on data collected from the early seventies to the early nineties, lists the plant as in flower 5 June through 12 June, with the median date as 9 June. Starflower may be in flower as late as 30 June at higher elevations.

The flowers are followed by **fruit**, which consists of a small, five-celled capsule which changes from green to brown and eventually splits open to release the tiny seeds. Seeds need a cold treatment to germinate.





## Uses of Starflower

Starflower has virtually no edible uses and very limited medicinal uses. It was not widely used for medicinal purposes by native American groups. However, several groups are said to have used it as a treatment for ailments of the eye.

## Wildlife Value of Starflower

Starflower has limited value to wildlife. The Eastern Chipmunk reportedly consumes some of the seeds or capsules, but this does not constitute a significant portion of its diet. Bees and flies feed on the pollen.

## Distribution of Starflower

Starflower is one of the most common spring wildflowers in eastern North

Wildflowers of the Adirondacks: Starflowers begin blooming in late May in the Adirondacks. Starflower on the Boreal Life Trail at the Paul Smith's College VIC (30 May 2015).

America and is widely distributed on the North American continent. It occurs in all provinces in the southern half of Canada and all states in the northeastern US, south to Georgia and Tennessee, and in the west coast states south to California. Starflower is listed as Endangered in Georgia and Kentucky, and Threatened in Illinois and Tennessee.

Starflower has been document in most New York State counties in the eastern two-thirds of the state. Starflower can be found in all counties within the Adirondack Park Blue Line except Warren and Saratoga.

## Habitat of Starflower

Starflowers are shade-tolerant, with a preference for light shade or dappled sunlight. The plant prefers moist soil, but has been seen growing on well-drained to dry sites. This plant can tolerate acid soils. It grows under both northern hardwoods and conifers. Starflowers will establish themselves in successional old fields that are adjacent to established colonies in old woods.

In terms of habitat, Starflower is relatively flexible, growing in hardwood forests, mixed wood forests, and wetland habitats, in all elevation zones up to (but not including) alpine. This plant is said to be smaller than usual when growing on mountain tops.

In the Adirondack Mountains, Starflower is found in a number of ecological communities:

- Spruce-Northern Hardwood Forest
- Spruce-Fir Swamp
- Ice Cave Talus Community
- Northern White Cedar Swamp
- Beech-Maple Mesic Forest
- Hemlock-Northern Hardwood Forest
- Red Maple-Tamarack Peat Swamp
- Pine-Northern Hardwood Forest

For instance, the spruce-northern hardwood forest ecological community is a mixed forest often found on mid-elevation slopes or on the margins of swamps.



Wildflowers of the Adirondacks: Starflowers can be found growing in hardwood forests, mixed woods forests, and wetland habitats, under both northern hardwoods and conifers. Starflower growing under hardwood trees on the Heaven Hill Trails (7 June 2017).

- In this community, you can find Starflowers growing near [Eastern Hemlock](#), [Sugar Maple](#), [Red Maple](#), [American Beech](#), and [Yellow Birch](#).
- Growing underneath the canopy trees are [Striped Maples](#), the saplings of canopy trees, and shrubs such as Witch Hazel and [Hobblebush](#).
- Characteristic ground-layer plants include [Canada Mayflower](#), [Wild Sasaparilla](#), [Partridgeberry](#), [Common Wood Sorrel](#), [Indian Cucumber-root](#), [Foamflower](#), [Purple Trillium](#), and [Pincushion Moss](#). [Hay-scented Ferns](#) and [New York Ferns](#) may flourish in canopy gaps.
- Characteristic birds to look and listen for include the [Blue-headed Vireo](#), [Black-throated Green Warbler](#), and [Blackburnian Warbler](#).

Starflowers can be seen on many of the trails covered here, including the [Boreal Life Trail](#) and [Barnum Brook Trail](#) at the Paul Smith's College VIC, the [Peninsula Nature Trails](#), and several of the [Heaven Hill Trails](#).

## References

- Michael Kudish. *Adirondack Upland Flora: An Ecological Perspective*(The Chauncy Press, 1992), pp. 25-28, 148.
- Michael Kudish. *Paul Smiths Flora II: Additional Vascular Plants; Bryophytes (Mosses and Liverworts); Soils and Vegetation; Local Forest History* (Paul Smith's College, 1981), pp. 38, 40-41.
- New York Flora Association. New York Flora Atlas. [Starflower. \*Lysimachia borealis\* \(Raf.\)](#). Retrieved 30 November 2017.
- Integrated Taxonomic Information System. [Trientalis borealis. Raf.](#) Retrieved 30 November 2017.
- United States Department of Agriculture. The Plants Database. [Starflower. \*Trientalis borealis\* Raf.](#) Retrieved 30 November 2017.
- United States Department of Agriculture. Forest Service. Plant of the Week. [Starflower \(\*Trientalis borealis\* Raf.\)](#). Retrieved 30 November 2017.
- Alison C. Dibble, et. al. [Vegetation of Forested Uplands in the Massabesic Experimental Forest](#). United States Department of Agriculture. US Forest Service. Retrieved 30 November 2017.
- Flora of North America. [Trientalis borealis Rafinesque](#). Retrieved 30 November 2017.
- NatureServe Explorer. Online Encyclopedia of Life. [Northern Starflower. \*Trientalis borealis\* - Raf.](#) Retrieved 30 November 2017.
- New England Wildflower Society. Go Botany. [Lysimachia borealis \(Raf.\) U. Manns & A. Anderb.](#) Retrieved 30 November 2017.
- New York State. Department of Environmental Conservation. New York Natural Heritage Program. [Ecological Communities of New York State](#). Second Edition (March 2014), pp. 72, 73-74, 74-75, 106-107, 119-120, 121, 121-122, 123. Retrieved 17 October 2015.
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Spruce-Northern Hardwood Forest](#). Retrieved 22 February 2017
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Spruce-Fir Swamp](#). Retrieved 22 February 2017.
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Ice Cave Talus Community](#). Retrieved 14 March 2017.
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Northern White Cedar Swamp](#). Retrieved 22 February 2017.

- New York Natural Heritage Program. 2015. [Online Conservation Guide for Beech-Maple Mesic Forest](#). Retrieved 22 February 2017.
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Hemlock-Northern Hardwood Forest](#). Retrieved 22 February 2017.
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Red Maple-Tamarack Peat Swamp](#). Retrieved 6 March 2017.
- New York Natural Heritage Program. 2015. [Online Conservation Guide for Pine-Northern Hardwood Forest](#). Retrieved 22 February 2017.
- New York State. Adirondack Park Agency. *Preliminary List of Species Native Within the Adirondack Park Listed Alphabetically by Scientific Name and Sorted by Habit*. Volume 1. Updated 10.23.2006, p. 40. Retrieved 26 January 2017.
- USA National Phenology Network. Nature's Notebook. [Trientalis borealis](#). Retrieved 30 November 2017.
- The New York Phenology Project. [Starflower. Trientalis borealis](#). Retrieved 30 November 2017.
- Connecticut Botanical Society. [Starflower. Lysimachia borealis \(Raf.\)](#) Retrieved 30 November 2017.
- University of Wisconsin. Flora of Wisconsin. [Trientalis borealis Raf.](#) Retrieved 30 November 2017.
- Minnesota Wildflowers. [Lysimachia borealis \(Starflower\)](#). Retrieved 30 November 2017.
- Illinois Wildflowers. [Starflower. Trientalis borealis](#). Retrieved 30 November 2017.
- Lady Bird Johnson Wildflower Center. [Trientalis borealis](#). Retrieved 30 November 2017.
- Online Encyclopedia of Life. Plant Species. [Trientalis borealis. Star Flower](#). Retrieved 30 November 2017.
- iNaturalist. Adirondack All-Taxa Biodiversity Inventory. [Starflower. Lysimachia borealis](#). Retrieved 30 November 2017.
- Anne McGrath. *Wildflowers of the Adirondacks* (EarthWords, 2000), p. 11, Plate 5.
- Roger Tory Peterson and Margaret McKenny. *A Field Guide to Wildflowers. Northeastern and North-central North America* (Houghton Mifflin Company, 1968), pp. 22-23.
- Doug Ladd. *North Woods Wildflowers* (Falcon Publishing, 2001), p. 209.
- Lawrence Newcomb. *Newcomb's Wildflower Guide* (Little Brown and Company, 1977), pp. 386-387.
- David M. Brandenburg. *Field Guide to Wildflowers of North America*(Sterling Publishing Company, Inc., 2010), p. 448.
- John Kricher. *A Field Guide to Eastern Forests. North America*(Houghton Mifflin, 1998), pp. 31-32, 62, 96, 325.
- Timothy Coffey. *The History and Folklore of North American Wildflowers* (FactsOnFile, 1993), p. 105.
- Ruth Schottman. *Trailside Notes. A Naturalist's Companion to Adirondack Plants* (Adirondack Mountain Club, 1998), p. 71.
- William Carey Grimm. *The Illustrated Book of Wildflowers and Shrubs* (Stackpole Books, 1993), pp. 202-203.
- National Audubon Society. *Field Guide to North American Wildflowers. Eastern Region*. (Alfred A. Knopf, 2001), pp. 716-717, Plate 43.
- William K. Chapman et al. *Wildflowers of New York in Color* (Syracuse University Press, 1998), pp. 30-31.
- Gary Wade et al. [Vascular Plant Species of the Forest Ecology Research and Demonstration Area, Paul Smiths](#).

New York. USDA Forest Service. Research Note NE-380, p. 4. Retrieved 22 January 2017.

Mark J. Twery, et al. *Changes in Abundance of Vascular Plants under Varying Silvicultural Systems at the Forest Ecosystem Research and Demonstration Area, Paul Smiths, New York*. USDA Forest Service. Research Note NRS-169. Retrieved 22 January 2017, p. 8.

John Eastman. *The Book of Swamp and Bog: Trees, Shrubs, and Wildflowers of Eastern Freshwater Wetlands* (Stackpole Books, 1995), pp. 47-51.

Thomas S. Elias and Peter A. Dykeman. *Edible Wild Plants. A North American Field Guide to over 200 Natural Foods* (Sterling Publishing, 1982), p. 139.

University of Michigan. Native American Ethnobotany. A Database of Foods, Drugs, Dyes and Fibers of Native American Peoples, Derived from Plants. *Trientalis borealis* ssp. *Borealis*. Maystar. Retrieved 30 November 2017.

The Cornell Lab of Ornithology. Birds of North America. Subscription web site. Yellow-bellied Flycatcher. *Empidonax flaviventris*. Retrieved 30 November 2017.

Iowa State University. BugGuide. Starflower psyllid nymph. Retrieved 30 November 2017.

Iowa State University. BugGuide. Starflower gelechiid. Retrieved 30 November 2017.

Nancy G. Slack and Allison W. Bell. *Adirondack Alpine Summits: An Ecological Field Guide* (Adirondack Mountain Club, Inc., 2006), p. 27.

Charles H. Peck. *Plants of North Elba*. (Bulletin of the New York State Museum, Volume 6, Number 28, June 1899), p. 115. Retrieved 22 February 2017.

Ulirika Manns & Arne A. Anderberg. "New combinations and names in *Lysimachia* (*Myrsinaceae*) for species of *Anagallis*, *Pelletiera* and *Trientalis*," *Willdenowia*, Volume 19, Issue 1 (July 2009), pp. 49-54. Retrieved 30 November 2017.

Thomas Wright. *The Royal Dictionary-cyclopædia, for Universal Reference, Compiled under the Direction of T. Wright* (The London Printing and Publishing Company), Volume 3, p. 667. Retrieved 1 December 2017.

The International Plant Names Index. Rafinesque, Constantine Samuel (1783-1840). Retrieved 1 December 2017.

## **Wildflowers of the Adirondack Park**



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## FUNGI

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The Paul Smiths VIC contains every habitat found in the Adirondacks (except alpine vegetation), providing unparalleled opportunities to observe native wildflowers and flowering shrubs. \*Partial list of plants observed in spring and summer on selected trails \*\*Non-native. Explore the VIC. Home About Trail Map Events Calendar. Wildflowers of the Adirondacks. Submitted by eea on Thu, 2020-01-30 4:40 PM. Stunning. That was my impression on my first visit to the Adirondacks in summer 2009. I had recently spent considerable time in other beautiful areas but nothing compared to the majesty of the Adirondacks. It was a new world to me. The image of sky, water, and forests, the smell of the lake on that sunny day – stays with me. I was invited by Professor Don Leopold to teach a botany course at the Cranberry Lake Biological Station that summer. I jumped at the opportunity because I taught at other field stations and always... He is the coauthor of Wildflowers of the Adirondacks. Tags: Adirondack park. Flower Photography Train Station My Flower Wildflowers York Wild Flowers. #ADK #Adirondacks #Lupin - Backlit Lupin near the train station in Thendara, New York. Garden Theme Parking Lot Wildflowers White Flowers Bloom Tropical England Herbs Tattoo. Adirondack Wildflowers | Bunchberry (Cornus canadensis). Bunchberry (Cornus canadensis) is a common Adirondack wildflower which produces white flowers in early summer at the Paul Smiths Visitor Center and throughout the Adirondack Mountains. Adirondack wildflowers in the summertime. The official site of Adirondack Weddings Magazine. Woodland Flowers Beautiful Paintings I Am Happy Crochet Flowers Wild Flowers Beautiful Flowers Kids Rugs Artist Explore. ~ Lynn Benevento. Buy Wildflowers of the Adirondacks on Amazon.com ✓ FREE SHIPPING on qualified orders. Wildflowers of the Adirondacks Paperback – February 11, 2020. by Donald J. Leopold (Author), Lytton John Musselman (Author). See all 2 formats and editions Hide other formats and editions. Where to spot wildflowers in the Adirondacks. A reminder that it is currently mud season in the Adirondacks, and there is still snow at higher elevations. The New York State Department of Environmental Conservation (DEC) is asking hikers to stay below 2,500 feet to avoid damaging trails and sensitive vegetation during this time. Coon Mountain. The Adirondack Land Trust's Coon Mountain Preserve is the destination when it comes to Spring wildflowers. Botanist Jerry Jenkins describes this area as "more diverse and richer in rare and uncommon species than any other community in the in the Adirondack Park." Coon Mountain Official Brochure. Paul Smith's VIC. The Paul Smith's Visitor Interpretive Center trails are open year round.