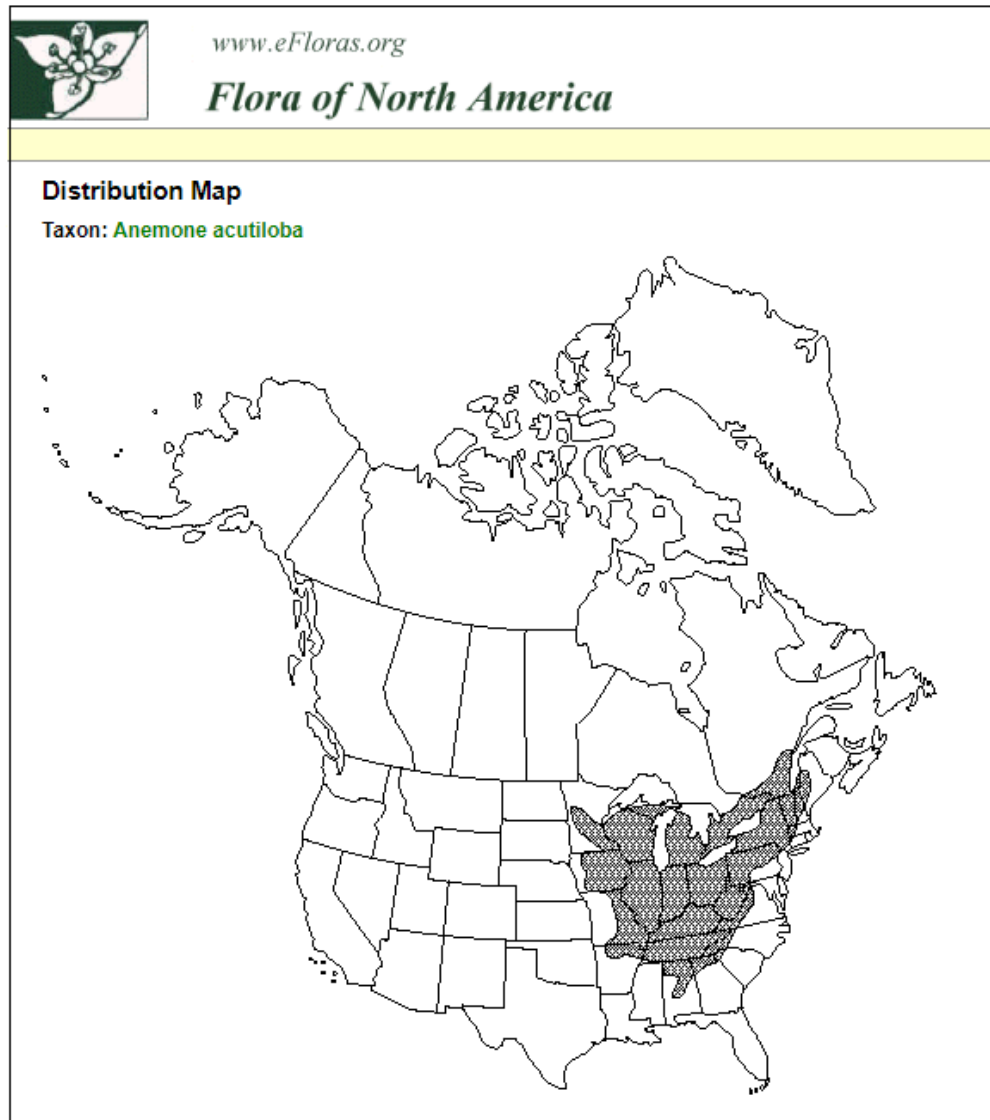


***Hepatica americana* var. *acuta*, Sharp-lobed hepatica**

April 2023

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Sharp-lobed hepatica is a fascinating North America species that has not been fully understood as witnessed by its many scientific names through the years. Flora of North America currently has it as *Anemone acutiloba*.



Its other names have included *Hepatica acutiloba*, *Hepatica nobilis* var. *acuta*, and recently *Hepatica americana* var. *acuta* (John Massey 2022).

The other North America hepatica, Round-lobed hepatica has also had several different scientific names including *Hepatica nobilis* var. *obtus*a, *Anemone americana*, and recently *Hepatica americana* var. *americana* (John Massey 2022).

It may be simpler to just use their two common names, Sharp-lobed hepatica and Round-lobed hepatica. These names are obviously based upon the typical shape of their leaf lobes.



Sharp-lobed hepatica on the left and Round-lobed hepatica on the right

The purpose of this writing is to outline my findings on Sharp-lobed hepatica which I hope helps to clarify and expand the understanding of this species/variety. All that follows is based upon a snapshot look at the Sharp-lobed hepatica found in the wild public lands of Tioga County, Pennsylvania, USA (2014-2023):



Leaf shapes and forms – Most typical with three lobes but four or five isn't uncommon. There are even some with six or more and a few very rare ones with as many as twelve.



Leaf color and mottling – Leaf color varies depending on the time of year and how much sun sites receive. Winter color can be an intense burgundy. Underside of leaves can be pink to reddish. New leaves often emerge at flowering. Many plants have beautiful mottled leaf patterns.



Floral scent – Some flowers have amazing scent.

Flower petal (sepal) colors – Whites are the most common but pinks and blues/purples can also be commonly found.



Yellows/greens are very rare.

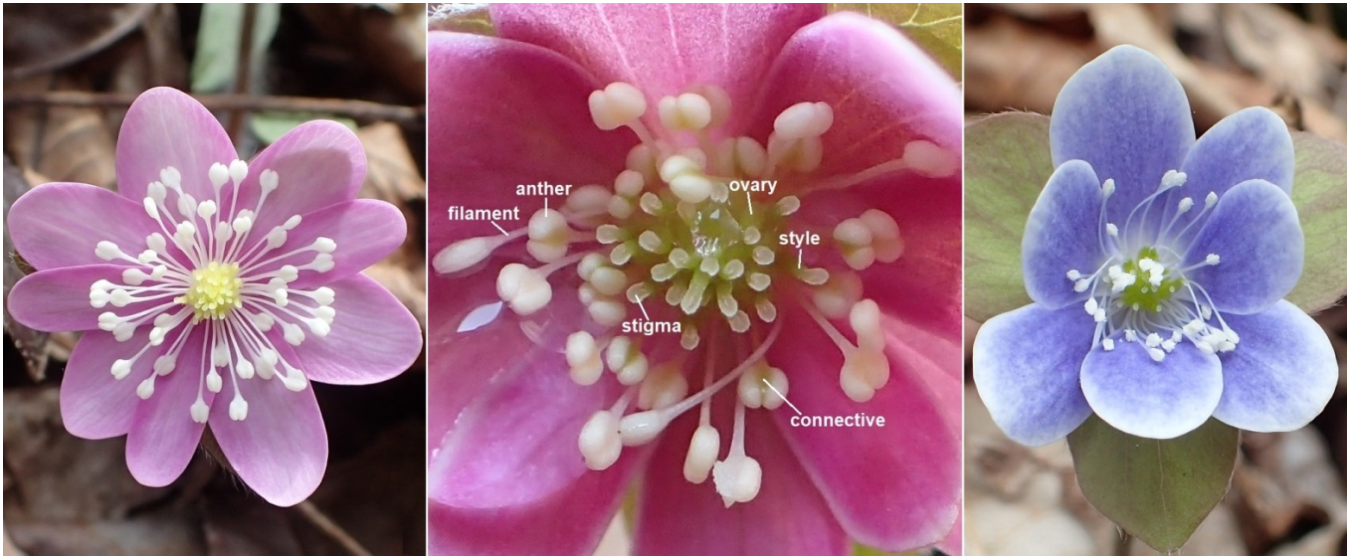


Flower shapes – Extremely variable.



Flower Part Colors (stamen - anther, filament, connective; pistil - ovary, style, stigma) –
The most common stamen color is white for all parts but there are also many where all parts

are yellow or yellow anthers with green filaments and/or connectives. Have also found some very rare flowers with light blue or light pink filaments. For pistils stigmas are usually white or light yellow to greenish yellow and styles/ovaries are commonly yellow to green.



Petaloid stamens and/or pistils – Have only found one with mostly petaloid stamens and mostly normal pistils.



Maiden forms - Not that rare to find flowers without stamens (maiden).



Number of flower petals (sepals) – Usually the typical five to eight but sometimes as many as twelve or more (multi petal).



Fully double flowers – Very rare except for the discovery of an entire swarm of thirty plus, named the *Hepatica americana* var. *acuta* “Tioga Swarm” (David Hand). Nuclear fallout has been mentioned as a possibility as to why a few Hepatica sites in both Europe and Asia appear to have more of the unusual flowering forms such as extreme multi petals (sepals), petaloid stamens and/or pistils, and fully filled doubles (John Massey). The Three Mile Island nuclear plant disaster of 1979 took place one hundred miles south of this “Tioga Swarm”.



Number of flower bracts – Three is typical but several have been found with four and even a few have been found with six.



Pedicle lengths – Pedicels are usually almost nonexistent, but have found a few with pedicels that are much longer than normal.



Hepatica cherry rust (*Tranzschelia pruni-spinosae*) – This fungus disease causes deformed and elevated leaves and may kill the hepatica. Have found it in almost every Sharp-lobed hepatica colony here. (A 2023 iNaturalist pictures review found this rust, based upon the typical deformed/elevated leaves, in fourteen US states and Canadian provinces across its range.)



Distribution and habitat – Sharp-lobed hepatica is fairly common on the public lands of mountainous (highest point 2,543') Tioga County, Pennsylvania, USA. There are a lot of small colonies that number less than a hundred plants, but there are also a few large colonies with plants numbering in the thousands. Found within mostly deciduous northern hardwood forests.

Approximately 22,000 years ago Tioga County was covered by the Late Wisconsin Glacier. Erosional processes dominated that glacier with sedimentary deposits of local sandstones, siltstones, and shales (PA DCNR). Although most of the rock at the hepatica sites is sandstone

there may also be a calcareous rock influence. An example of this is the occasional association of hepatica with the possible calciphile Walking fern (*Asplenium rhizophyllum*).



Plant associates -

For an example of plant associates here is a hepatica colony with more than 3,000 hepatica plants on 0.5 acres over sandstone rubble with a western exposure at an elevation of 1365' located along a fairly steep road bank under an over story of –

Acer rubrum, Red maple

Carya ovata, Shagbark hickory

Fraxinus americana, White ash

Quercus rubra, Red oak

Betula alleghaniensis, Yellow birch

Fagus grandiflora, American beech

Prunus americana, Black cherry

Tilia americana, Basswood

Understory associates include but are not limited to –

Acer pensylvanicum, Moosewood

Carpinus caroliniana, Hornbeam

Hydrangea arborescens, Wild hydrangea

Adiantum pedatum, Maidenhair fern

Asarum canadense, Wild ginger

Dicentra cucullaria, Dutchman's-breeches

Hydrophyllum, ssp.

Maianthemum canadense, Canada mayflower

Poaceae ssp.

Polystichum acrostichoides, Christmas fern

Trillium erectum, Red trillium

Uvularia grandiflora, Bellwort

Viola rostrata, Long-spurred violet

Maianthemum racemosum, False Solomon's-seal

Acer spicatum, Mountain maple

Corylus cornuta, Beaked hazelnut

Ostrya virginiana, Hop-hornbeam

Arctium ssp.

Asteraceae ssp.

Dryopteris, ssp.

Impatiens capensis, Jewelweed

Mitella diphylla, Miterwort

Ribes ssp.

Tiarella cordifolia, Foamflower

Urtica ssp.

Viola canadensis, Canada violet

Viola ssp.

For hepatica enthusiasts it doesn't get any better than this -



References:

Flora of North America, Flora of North America Association, 2014

My World of Hepaticas, John Massey with Tomoo Mabuchi, 2022

Pennsylvania Department of Conservation & Natural Resources (PA DCNR), 2023

All photos were taken in Tioga County, PA, USA by Mark W. Simonis unless noted otherwise.