

Hepatica (*Hepatica nobilis*)

Identification:

So, how many hepaticas are there. It may depend on who you talk to. A debate continues over the nomenclature of the plant. Current thinking is that all North American hepaticas are but one species, however you might find your favorite field guide divides the genus into 2 species: *acutiloba* and *americana*). As the name implies, *acutiloba* has sharply pointed tips to the three-lobed leaves.

Americana, or *Hepatica nobilis* variety *obtuse*, has more rounded leaves. Two scientists working in Illinois found that the difference

between the two varieties was mostly a function of their environment. Plants growing on dry, acidic soils tended toward the more round-lobed variety, while those growing in moister soils were more likely the sharp-lobed variation. Hybrids, as you might imagine, grew in areas where the two varieties were nearby.



The plant itself is usually no more than a few inches tall, although the flowers will rise on a hairy stalk up to 8 inches high. The flowers may be white, pink, or even blue. They are usually small, less than an inch wide, and relatively short-lived. As one of the earliest spring ephemerals you better get out early if you want to see this plant in bloom. The blossom is similar in shape to those of the anemones you might also find blooming in the same area. Look to the leaves to be sure of your identification.

The pretty little blossom you see has no petals. What you think are petals are in fact the plant's sepals. What you might ask is the difference?

Sepals are modified leaves that protect the flower while a bud. Petals, also a modified leaf, are found inside the flower bud before opening. In hepatica, the colored sepals perform the function of both sepals, protection of the flower while a bud, and petals which are designed to attract pollinators. As strange as it may seem, this is not an uncommon practice amongst plants.

Natural History:

Like many spring ephemerals, hepatica is going to make use of energy stored underground in its roots. But it also holds its leaves from last year to give itself a photosynthetic boost early in the season. After pollination, the ragged winter leaves will give way to fresh new leaves. These leaves will begin the process of storing energy for next year and survive the winter to bring forth the first blooms of spring.

Numerous pollinators visit the fragrant flowers of hepatica, but if they should be unsuccessful in transferring pollen, the flower is capable of self-pollination. Self-pollination is a strategy used by many plant species that live, or at least flower, in non-advantageous places or times. For hepatica, there exists a real risk that cold weather can wipe out its pollinator population. If hepatica should rely exclusively on cross-pollination, the loss of their pollinators could decimate the entire population. So, over time, those plants capable of self-pollination have come to dominate the population of hepatica.



Conservation:



In the 1500s, a Swiss physician called Paracelsus renewed the concept of the Doctrine of Signatures. In his version of this ancient tradition, God had hidden the secrets to the medicinal values of plants in their appearance. A physician simply needed to read the signatures to understand which plant provided the treatment to a particular ailment.



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The leaves of hepatica are said to resemble the three-lobed human liver and so were often used to treat liver disorders. Unfortunately, modern medicine finds no such connection between hepatica and liver disorders. Homeopathic practitioners may still use the plant as a diuretic or to suppress coughs. Although once heavily harvested from woodlands, the demand for this plant has decreased dramatically, allowing for its population to recover well.