

Hepatica maxima

Giant liverwort or doe-eared flower from the island

Brief Overview:

A little known species that occurs on Ururun Island in Korea. Usually grows under rhododendrons, in summer with high humidity, in winter with light snow cover. Its large leaves, up to 10 cm wide and 6 cm deep, have a hairy, red underside and a leathery, smooth upper surface. Also oversized are the bracts, to (3 cm long), which do not turn yellow even after seed maturity. The flowers resemble trillium flowers and have 6 - 8 petals, their color is white, rarely tinged with pink. Their inflorescences, oversized in silky matte black, ripen until September.



Blüte

Hepatica maxima is the largest in habit, its dimensions can be well 25-30 cm high and 30-40 cm in diameter.

Its chromosomes are $2n = 14$, so it fits into the normal *H. nobilis*. According to last fingerprint data it should be very close to *H. nobilis* var. *japonica*. Other studies favor the thesis that it is closer to *H. nobilis* var. *asiatica*. Until the final clarification, there will probably be some more investigations in this regard.

Due to its endemic occurrence on the Korean island of Ullung (Ururun), an independent race has developed. Its leaves are very large with up to 10 cm, also the pubescence is considerable, especially on its mostly red leaf underside.



Pflanze nach Abschnitt der alten Blätter



Blattunterseite

Blattoberseite

In autumn, with previous high drought, a kind of autumn color develops. The leaves get a dark edge and towards the inside they become yellowish. Otherwise, the *H. maxima* is wintergreen, only in the later spring, when the new leaves sprout, the leaves change color and die.

The flowers are somewhat reminiscent of trillium flowers when they are not yet fully bloomed. The individual crown leaves are too mostly narrow and slightly twisted. Their color palette is said to be more extensive in the natural habitat than the one you can get from *Hepatica* lovers or nurseries. There they are too mostly white, white-pink or slightly pink in color. The buds sit on evergreen bracts, they die only after the next flowering. Even at fertilization and fruit ripening, they remain green. The fruits (small nutlets) remain on the flower stalks until September, forming a gelatinous, shiny black clump. The nutlets are the largest seeds of *Hepatica* with their size of 5-6 mm.



neue Blätter



Blütenknospen mit Hochblätter



Saatstand



Pflanzenauge



Blattergleich:
H. maxima mit H. nobilis

The winter hardiness of *H. maxima* is always discussed! In the natural habitat they have only up to -5°C , but I know from personal experience that they are planted or in the pot even frosts up to 25°C near the ground. The conditions for this seem to be the same as for *H. nobilis* var. *japonica*. The planting site must not be too wet during the winter months. So, absolutely no waterlogging! I have them in a strongly ventilated and never closed foil house, the cold penetrates here just as outside, only that I used the foil as a moisture protection. Outdoor trials also gave good results, the only difference was that the leaves died already in January, the vegetative bud was undamaged. The same observations were made by a hepaticali grower at the Danish border. With the success that the *H. maxima* after a strong winter in the spring again fully bloomed, but without old leaf mass.



Rosa Blüte

Crosses with *H. maxima*

I know that some crosses have been made in Japan, but they have not been published further. In Europe it was probably S. Schlyter (Sweden) who has crossed *H. maxima* x *H. nobilis* var. *nobilis* (*H. x schlyterii*) a few times. Also in England there are attempts by hepaticali hobbyists. Unfortunately, no exact information could be obtained. My own crosses are so far still young, about this I can report: *H. maxima* seems to take the flower color of the crossing partner. The leaves usually have more than 3 lobes and are slightly curved, often with slight marbling. The vegetation buds are less hairy than in *H.*



H. maxima x *H. nobilis* v. *nobilis*
von S. Schlyter

maxima, also are they are more needle-like in shape. The leaves grow to the same size as *H. maxima*, the underside is also reddish and slightly hairy. The flower shape resembles *H. nobilis*, usually very beautiful and so to the advantage of the hybrid. I have also noticed that the bastards are starting seed again, not as much as the parents, but still. I think we will have some valuable surprises here too.

Beispiel einer Kreuzung von:



Blattrückseite



Blattvorderseite

H. maxima x *H. nobilis* var. *japonica* `Omurasaki`



Vegetationsknospe



Blüte



H. maxima x *H. nobilis* v. *nobilis* aus England



H. maxima x *H. nobilis* v. *nobilis* aus England im knospigen Zustand



H. maxima Vegetationsknospe



H. x media (*nobilis* x *maxima*) `Schlyter Blau`

Field report of a grower



Blüte und Austrieb, 22.2.97

Blüte erst cremeweiß, dann aufhellend,
weißgründig mit grünlicher Adnung,
dazwischen fast rosa, auch außen.
Stempel leuchtend gelbgrün,
Staubfäden grünlich weiß, Staubbeutel
und Blütenstaub cremeweiß
Stiele rötlich, abstehend seidig weiß
behaart, Blattunterseiten anliegend
behaart, an den Rändern einen
scharfen weißen Rand bildend

Einzel-
frücht-
chen, I
abgehobenes
Cim Früchtenbestand
auffällig schwarz mit
weißen Grund. Dieser
später durchscheinend
weißlich



Hepatica maxima is hardly one of those liverworts that collectors can easily call their own. People know about this plant, but few have seen it or even tried it in the garden, and even fewer have ever found it in the wild, two islands off the southern tip of Korea. There it grows primarily on northern slopes. In fact, this largest of all liverworts is still quite rare in our collection, and its winter hardiness is also far from adequately tested. In the Halle Botanical Garden this plant is said to be cultivated with success. Growing from seed is problematic so far and vegetative propagation is hardly tested due to lack of mass. In the more oceanic northern Germany, cultivation in the open field should be observed over a longer period of time; however, the conditions here are far from those of the native country, where Hepatica maxima experiences relatively mild winters and warm, very humid summers. Consequently, the plant does not make a dormant period forced on it here during the cold winter. The light requirement of the evergreen plant is also quite high in winter, while in summer it requires shade. In any case, the soil can be sandy humus and slightly acidic. Where the plant can be kept outdoors, it is quite an asset to the shade garden, albeit more as a foliage beauty than as a flowering treasure. It is well known that Hepatica maxima is highly variable in all foliage and flower characteristics in its native country, but only very few types have been found here. The type cultivated by me is in the 5th year about 20 cm high and about 30 cm wide. It is the typical hepaticagestalt with several shoots close together, but the plant is comparatively very large. The petioles are a good 10 cm long and dark red. They arise from the axil of membranous-dry stipules.

The leaf blade is almost succulent leathery and divided into three entire, roundish lobes and is up to 10 cm wide and 6 cm long. On the upper side, the leaf veins form slightly raised, whitish ridges. However, the upper side is otherwise smooth and dark green, the underside shiny and dark wine-red, but still covered with rather long white silk hairs. The leaf margins are also densely covered with short white ciliate hairs. The young leaves appear in spring at the same time as the flowers, while the old leaves slowly turn yellow only in July, but may well survive another winter. The flowers, on the other hand, are rather inconspicuous, the flower stalks always remaining shorter than the leaves. The flower stalks are also dark red and hairy. These are partly covered by the foliage anyway. The petals are inconspicuous and narrow, mostly white and only occasionally tinged with pink. It is likely that there are other color variations in the wild occurrences, but it appears that there are no shades of blue. Seeds set well, and the fruitlets are quite showy when compared to those of other, more familiar species. They ripen rather late in the year, in September. At 5 mm long, the fruits are considerably larger than the fruitlets of other Hepatica, and are also conspicuously glossy black when ripe, contrasted by a white coating at the lower end. This is likely

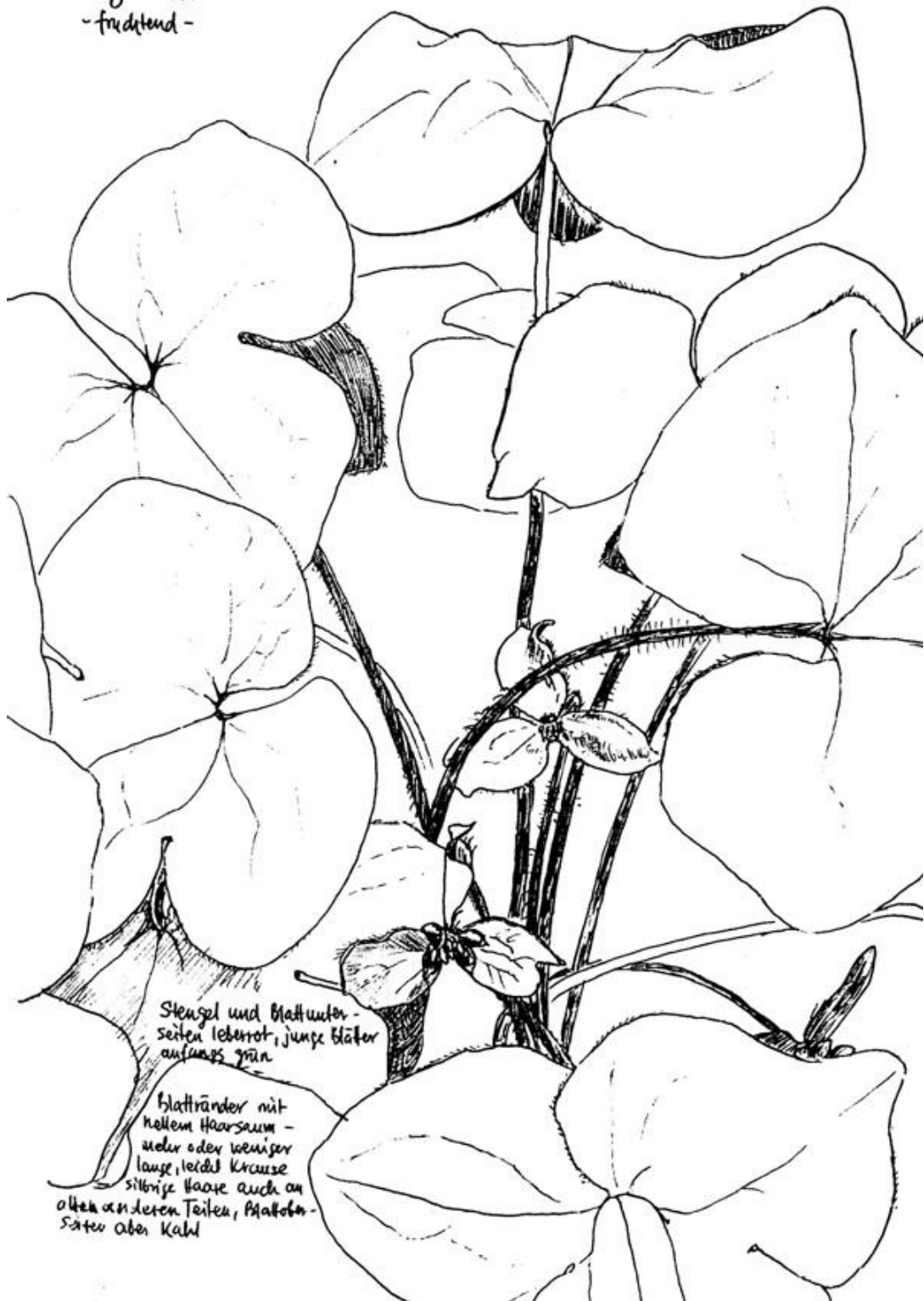
a nutritious attractant used to lure animals (ants?) that carry off the fruitlets to consume this appendage, thus ensuring dispersal.

Raw manuscript: Marlene Ahlburg

Drawings: Karl-Heinz Neuwirth, 1996

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Hepatica maxima
1. Juni 1996
-fruchtend-



Stängel und Blattunter-
seiten leberrot, junge Blätter
aufwärts grün

Blattränder mit
hellem Haarsaum -
mehr oder weniger
lange, leicht kreuzförmig
silberige Haare auch an
allen anderen Teilen, Blattob-
seiten aber kahl