

although "proper" botanical identification can drive the taxonomists loony or at least create in them a greater degree of humbling humility in the face of awesome nature.

Of succulent interest, also, perhaps is that I've been putting in hundreds of *Euphorbia cyparissias* ("Cypress Spurge"), which is really invasive here, in order to fight the weed problem. With five acres to landscape, hand weeding is usually "out". I got the plants from thousands of old invaders from a nearby lot: going back to the sixties, these plants have been spreading onto our property---very convenient. *Asclepias tuberosa* and *Yuccas* pop right up through the thick thatch that is slowly developing. Yes, I am looking for "low maintenance or no maintenance landscaping", although I will not use this combination everywhere, of course. *Cerastium tomentosum* also does fairly well in our sand/gravel soil, once it gets a good start, but it cannot handle weed growth that goes back to the last glaciation. "Cypress Spurges" often can, *Yuccas* too!

Time to wind it up! I probably won't get into Texas this time, but I may see parts of Utah and Nevada> I'll also be keeping my eyes open for *Y.harrimaniae* seeds, none of which I've ever found (they are not arboreal, but are still absolutely splendid plants--hardy, too), as well as dinner plate size, zone 5 *Opuntia* seeds. I'm still not

giving up on having a big mounding prickly pear plant to decorate some protected corner or another. We experimenters keep trying.

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**A GEM OF THE EASTERN ALPS OF SWITZERLAND:**

***SEMPERVIVUM WULFENII***

Urs Eggli

Switzerland is a small country, of which almost half the surface is occupied by the mountains of the Alps. Despite the fact that the climate does not normally provide for a dry season of any length, the rocky habitats, especially of the Alpine regions, provide suitable conditions for several members of the family *Crassulaceae*.

While the genus *Sedum* ("stonecrops") is native to Switzerland with some 15 species and is found well, the genus *Sempervivum* only has five native species in Switzerland. All of these occur in the Alpine range only, with the possible exception of some doubtfully natural localities in the Jura hills.

Of the five species of *Sempervivum* native to Switzerland, three (namely *S.alpinum* Grisebach & Schenk, *S.montanum* Linné and *S.arachnoideum* Linné have a wide distribution (also at least for some of them beyond

the Alps outside Switzerland). The two remaining species, i.e. *S. grandiflorum* Haworth and *S. wulfenii* Hoppe, are much more restricted in their distribution, and both are rare enough to have them included in the list of federally protected plants.

*Sempervivum wulfenii* is probably the most striking of our native sempervivums. Its complete distribution is confined to the eastern portion of the Alpine range, and its area just extends into Switzerland in the region of the Engadin valley, but no localities to the west of the water divide between Rhine and Danube are known. In western Austria, it is more widely distributed, but never the less it cannot be said that it is a common plant anywhere in its range.

When the ecology of the localities of Swiss sempervivums outside the Alpine range are compared with each other, it is soon apparent that the ecological amplitude of *Sempervivum wulfenii* is quite narrow: It is most frequently found in alpine meadows, always around small or large boulders, and predominantly in the semi-shade at the edge of low growing junipers (*Juniperus communis* Linné). It appears to need a rather deep, open humic substrate, and in contrast to the sympatrically occurring *S. alpinum*, *S. montanum* and *S. arachnoideum*, *S. wulfenii* never occurs in open meadows, or on pure rocky or gravelly substrates. It can definitely

not stand any amount of trampling by grazing cattle, or other disturbances of its habitat.

*Sempervivum wulfenii* is easily recognized by its blue-green rosettes of rather softly fleshy and somewhat glaucous spreading leaves. The leaves are otherwise glabrous, but have a minutely ciliate margin, and a small mucronate tip. The most diagnostic character of the leaves is the colour of the very base which is pale to strikingly bright pinkish-magenta. The formation of offsets is slow, and the plants from relatively small cushions only. Frequently, the offset is set off from the mother rosette by a short, but definite, rather thickish ochre-brown stem.

Inflorescences appear terminally as with all other members of the genus, and reach a height of 7 to 15 cm with closely set flowers. The flowers are striking with their dark lemon-yellow petals which are densely glandular-hairy on the outer face. The filaments are bright dark purple, which gives a striking contrast with the petals. The carpels are greenish-yellow. In warm weather without wind, a very definite floral scent is notable which can best be described as a mixture of dry straw with some lemon. This

figure 1. An unusually large cushion of *Sempervivum wulfenii* in the eastern Swiss Alps, in a side-valley of the upper Engadin valley. Flowering, too, is unusually massive for this species.



figure 2. A more typical plant of *Sempervivum wulfenii*, growing at the edge of *Juniperus communis*. The pale blue-green colour of the rosettes is very typical.

description applies to typical plants of *Sempervivum wulfenii*

Whenever *S. wulfenii* is growing together with other members of the genus, spontaneous hybrids are formed, and these plants with more or less intermediate characteristics between the parents involved, considerably blur the clear-cut image given above. It appears that the first-generation hybrids are at least partially fertile, as all proportions of mixtures between any two parents can be observed in hybrid populations, and in rare cases, hybrids showing characteristics of more than two parent species can be observed, indicating the ability to further cross. Many of these hybrids are very handsome and exhibit interesting flower colours. The most striking clones are those with orange-coppery flowers, exhibited by hybrids between *S. wulfenii* X *S. montanum*, and, to a lesser degree, *S. wulfenii* X *S. alpinum*. Hybrids with *S. arachnoideum* are much rarer because the two taxa only rarely grow together. Indeed, it seems more common to encounter triple hybrids, with *S. wulfenii*, *S. montanum* or *S. alpinum*, and *S. arachnoideum* involved in various proportions.

Cultivation: *Sempervivum wulfenii* would be an attractive subject for cultivation, but at least our experiences with show that this species is a rather mixed blessing away from its native

habitat: The plants are very slow-growing and offsets form at a slow rate only.

Continuously damp conditions, as experienced in winter in Switzerland outside of the Alps, frequently lead to the loss of whole plants due to rot. In addition, plants are susceptible by attacks of the larvae of wine-weevil, which feed inside the stems and damage is only noticed when it is too late, i.e. when the rosettes start to disintegrate. Flowering is far from common in cultivated plants, and so it seems best to go and admire *S. wulfenii* in its native localities. As the species is federally protected by Swiss law, it is a criminal offence to collect material anywhere in Switzerland, be it on private property or publicly owned land, not to speak of protected areas.

#### Editor's note:

*Sempervivum alpinum* Grisebach & Schenk is listed as a variety of *S. tectorum* L. in Praeger's 1932 monograph. In Jacobsen (1960, 1974) it is listed as a subspecies of the latter species.

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#### DELOSPERMA NUBIGENUM, OR IS IT?

Steve Jankalski

There has been a rather curious cold hardy succulent in cultivation for a number of years under the rather odd moniker of "*Mesembryanthemum*