

## **Hanging in There by a Fall – The Oncocyclus Irises of Lebanon**

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### **Introduction**

Ask someone to name a plant from Lebanon, and the first one that often comes to mind is the majestic Cedar of Lebanon (see Talhouk *et al.*, 2001 for a recent review). However the Mediterranean basin is one of the world's hotspots for plant diversity, and there are many plants native to Lebanon that merit equal attention. Amongst these are the extraordinary wild irises of the Levant.

Oncocyclus irises are rhizomatous irises with showy large flowers that are native to the Middle East and Transcaucasia. The flowers vary in colour from a very dark purple to white, and are often veinated. Oncocyclus is a Greek word, with *onco-* meaning mass, or bulk, and *-cyclus* meaning circle. This is believed to be in reference to the single dark patch on the falls of oncocyclus flowers.

These beautiful flowers have fascinated horticulturists since ancient times. There are references to them in documents not only from ancient Egypt and Persia, but also in the Holy Bible and Dioscorides, the classic 6<sup>th</sup> century medical herbal.

### **Irises in Lebanon**

It is difficult to state with any accuracy the exact number of iris taxa native to Lebanon, since the taxonomy of irises in the region suffers from a lack of field and phylogenetic research and an associated taxonomic ambiguity. Mouterde (1966) lists 8 *Iris* species that are native to Lebanon; however, this work is in fundamental need of updating. Two examples of *Iris* species currently found in Lebanon are *I. histrio* and *I. palaestina*.

There are four oncocyclus iris species described from Lebanon, but today only two species can be confirmed as surviving in the wild, *Iris sofarana* and *I. cedretii*. The status of the two remaining species in Lebanon is unclear but it is suspected that they are highly threatened (see below).

### **Oncocyclus species**

*Iris sofarana* is the most widespread species of oncocyclus iris in Lebanon, with two subspecies *I. sofarana* subsp. *sofarana* and *I. sofarana* subsp. *kasruwana*. Both grow on rocky slopes at high elevations (1300 m -1700 m). The subsp. *sofarana* is a tall (40 cm) plant with flowers lightly marked with purple to maroon veins and dots on a white to blue ground (picture 1). The subsp. *kasruwana* differs by having the standards paler in colour than the falls. The colour nuances are numerous and the two subspecies are usually found growing in the same locality.

*Iris cedretii* is found in the Cedars area above Bsherri at elevations going up to 1900 m. It likes a sunny, well drained, rocky habitat. For the inexperienced eye, it could be easily taken for a shorter variant of *I. sofarana*.

*Iris westii* and *I. lortetii* are two species described in Mouterde (1966) and Dinsmore (1934), both of whom record their distribution in the southern hills. However, heavy mining during the recent war has meant that the localities mentioned are not accessible and we therefore cannot verify the status of these two species.

Our field work on oncocyclus irises has revealed that several populations that were previously recorded in floras and travelogues up to the late 1960s no longer exist. This is primarily due to urbanisation. Other effects of the recent war in Lebanon (1974-1990) have had their toll on natural habitats and native plant species, in particular the increase in quarrying and in the unsustainable harvesting of the iris flowers.

### **What's in a name**

The collective name for irises in Arabic is *sawsan*, with the singular being a *sawsana* (pronounced saū-san). This name has its roots in Aramaic, the parent language of both Arabic and Hebrew. The name in Hebrew is *shoshana*. The ancient Egyptians had a flower they called *sushan*, and in ancient Persia there is a *susi* or *soosann*. Evidence that these are probably the same as *sawsan* comes from an illustration of an iris from the medicinal herbal written in 512 A.D. by Dioscorides, a Greek physician of the time and arguably the father of botanical study. This manuscript, which is housed at the National Library of Austria in Vienna, was found by the Austrian court in Constantinople in 1562 (Hobhouse, 1996), and has writing on it in Arabic script, which was the alphabet used by the Turks up until Atatürk introduced the Latin alphabet in 1928. The transliterations of the Arabic writings on this picture are, in order from the top: *īreess*, *sawsana sama-nijwana*, and *īrsā*. These are probably the various vernacular names of this plant at the time. The first and last names are reminiscent of Iris, pronounced as in the French *Irise*, and the middle name starts with the Arabic name *sawsan* and then has a suffix *sumanijwana*. It is unclear what this suffix means, the authors are in consultation with an expert in ancient Turkish who might be able to help.

There are several references to *sawsan* in the Old Testament, and they are mostly in the context of beauty, tranquility and perhaps strength. Some refer to architectural motifs (1 Kings 7:19, 22, 26; 2 Chronicles 4:5) and others to natural or human beauty (Song of Songs 2:1, 2, 16; 4:5; 5:13; 6:3; 7:2; Hosea 14:5). These references were found in an Arabic language Bible, where the term *sawsan* is used. In the English language Bible that was referred to, however, the names used were not iris, but *lily of the valley*, *lily* and *lilies*. The authors wonder whether the misnomer in English began with the *Fleur de Louis* of the 11<sup>th</sup> century, which was an iris motif adopted by the French military of the time. The name has since been shortened to *Fleur de Lis*, or simply the lily. Hence we suggest that this is the same name as *Susan* in English, *Suzanne* in French, and *Azucena* in Spanish.

In fact, there is a horticultural taxon of oncocyclus irises called *Iris susiana* which was the first to be cultivated in Europe. It was brought from Istanbul in 1573, where it was already in cultivation. *Iris susiana* is thought to have originated in Syria, which in the 16<sup>th</sup> century included the lands of Lebanon. Since there are no records of any populations in

the wild, some experts think it is a domesticated variant of *I. sofarana*. Nevertheless, its name is a further indication of the prevalent common name of the plant in that area.

### **Conclusions**

The oncocyclus irises are some of Lebanon's most interesting and most threatened plants. A thorough assessment of the distribution, population viability and genetic diversity is being undertaken in order to protect these beautiful, rare plants and the habitats in which they live.

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