

A New Population of the Rare *Iris westii* from Mount Hermon

Ori Fragman-Sapir

For the past 35 years, the identity of *Oncocyclus* irises in Mount Hermon and its adjacent areas has confused botanists. All these local irises belong to the Nazarena group, which is characterized by bi-coloured huge flowers with dark, heavily spotted/striped falls and much paler standards.

The populations occurring in the lower areas around the village of Majdal Shams (altitude 1150-1250 m) were identified as *Iris bismarckiana*, a species that also occurs in the Galilee and southern Lebanon and was recently found even in northern Jordan. This species has long stolons that produce large carpets. The leaves are lightly falcate, blunt and more than 15 mm broad and shows low flowering rates and low fruitset. A trait that deters horticulturists from using it in ornamental hybrids (Shahak, personal communication).

Iris hermona is very similar in flower traits, but has small, flower-rich clumps, no stolons and tall scapes. Its populations are known mainly from the central and eastern Golan Heights. For years some of the higher Mount Hermon populations were mistakenly treated as *Iris hermona*.

In the past 35 years, populations from Mount Hermon's higher areas were known in Mount Shalhavit at 1600-1700 m. A special population was known by Micha Livne (a teacher and researcher) even higher in Mount Duvdevan, altitude 2020 m, located within the tragacanth vegetation belt. But these plants were known until now only in leaf or fruit. Livne missed the short blooming season several times. During May 2006, Livne, the author and several other people climbed to see this population in bloom. We were all astonished to see these huge flowers in this remote and exposed location. Blooming took place during early to mid May; peak blooming persisted for about 1 week. Fruits developed quite quickly during June and dried in late June-July. We collected plant materials, measured

them and showed pictures to experts. Everybody agreed that, superficially, one can identify it as *Iris bismarckiana*. But, as soon as other traits were observed, it was clear to us that this was a different species, later identified by Dr Michael Avishai as the Lebanese *Iris westii* – an extremely rare species known only from southern Lebanon and described by Dinsmore.

The plant

Growing in small or large clumps. Rhizomes rather thick, not stoloniferous (as in *Iris bismarckiana*). The leaves are typically flat, narrow, pointed, prominently falcate. Flower is rather large 8-10 cm across. Standards erect, rounded, delicately striped, with few hairs on lower parts (as observed in *Iris hermona*), falls heavily purple marked. Unlike *Iris bismarckiana*, the flower has a pinkish (and not yellowish) hue. Flower bracts distinctly pinkish (sometimes seen also in *Iris hermona*). Fruits elongated, 7-8 cm long capsules.

Discussion

This finding is of great importance, since this species is on the verge of extinction. The new population located in remote, inaccessible area inside a nature reserve. Luckily it is protected by law in Israel, since the whole genus is protected.

The identity of the oncocyclis irises is often difficult since they are all very close genetically and sometimes morphologically almost identical. In the Levant *Iris hermona*, *Iris bismarckiana* and *Iris westii* are extremely close, and one might suggest treating them as a subspecies within one species. Such a change can be made only after a molecular study that will show whether they really belong to one group within the section. Unfortunately I failed in my molecular checks some years ago; all showed again and again that all Oncos are molecularly identical. One should find the right markers to separate them, probably markers that are useful under the

species level in other plants.

Another issue that was made clear in our checks is that *Iris hermona* does not grow at all in Mount Hermon. Dinsmore described it from the Golan Heights and named it after the snowy mountain that he saw in this vicinity – Mt Hermon. Only later were new populations found on the mountain itself and proved to be different.

Iris bismarckiana was found in the lower parts of Mount Hermon near the village of Majdal Shams. The origin of this poorly fertile species is interesting, since all other local *Oncos* are much more fertile. One can postulate that this is an ancient cultivar with strong vegetative reproduction, forming large leafy carpets, although it is found in primary, natural habitats.

About the Author:

Ori Fragman-Sapir is one of the leading botanists in the eastern Mediterranean. He is a Doctor of Philosophy and the head scientist of the Jerusalem Botanical Gardens in Israel. Ori is involved in various projects dealing with plant preservation, systematics, plant ecology and horticulture. He has worked on different groups of desert and Mediterranean bulbs and other plant groups, and has published dozens of papers on the Mediterranean and Israeli flora. He is also a talented photographer and a tour guide, leading professional botanical excursions. Ori is the author of "Flowers of the Eastern Mediterranean", "Protected Plants of Israel" and the forthcoming "Flowers of the Transcaucasus".



Iris westii Photos (see article pg. 61)



Micha Livne inspecting a habitat of *Iris westii*.



The habitat at Duvdevan ['Cherry'] ridge of Mount Hermon



all photos: Ori Fragman-Sapir