

## Finding the Lost *Iris sofarana* Foster

*A first-hand look at the problems of the survival of Oncocyclus in their native habitats, as part of a quest for a historic population of plants.*

By Layla Saad

Lebanon, well known as the land of the cedar tree, is also home to many *Oncocyclus* irises. Unfortunately, we could soon mourn the “mourning irises” (as they are known for their dark colour) because these fascinating flowers are becoming very rare in the wild. Some, as *I. westii* Dinsmore, are even thought to be extinct; as for the others, they are all highly threatened in nature. Among wild Lebanese oncos, *Iris sofarana* (subsp. *sofarana*) Foster is undoubtedly the rarest.

*Iris sofarana* was the first botanically described *Oncocyclus* species of Lebanon. It was presumably first found at the end of the 19<sup>th</sup> century by Mr. Hartmann in the village of Sofar (Mount Lebanon ~1300-1400 m). At about the same time, it was introduced into cultivation in Europe by Messrs. Van Tubergen of Haarlem, from rhizomes apparently coming from the same location (collected by Mr. A. Kronenburg). Who saw it first is not really important as it was named “sofarana” after the location (Foster, 1899). However, this first location was soon said to have disappeared, (Mouterde, 1963) and presently no historical clue can be found regarding the size of this original population or the causes of its depletion. Fortunately *Iris sofarana* was not completely lost: other sites were found later and are mentioned in travelogues and on herbarium specimens<sup>1</sup>, but no one ever reported it again in Sofar.

This fact is not really surprising. In Lebanon, natural areas are being eaten up by human activities: agriculture, industry and mostly a rushing urbanization. As all around the Mediterranean, the coast is being colonized by hotels, restaurants and private beaches, but mountainous regions are not being spared. Because of the Lebanese habit of “summering”, many residences exist throughout the mountains. This is coupled with winter skiing activities, around which huge infrastructures have been developed. The area around the village of Sofar is thus heavily invaded by concrete and development; a new larger road sharply cuts the surrounding hills, giving very little chance for the local flora to survive.

With all this in mind, I was not really expecting to find *I. sofarana* when I went to Sofar in the spring 2002. However, I felt that I had to pass by this symbolic location. Contacts with local people showed that “sawsanat saoufar” (the iris of Sofar) is a well known concept even though no one could give a thorough description of it. The Arabic word “zambak” meaning “lily” is also largely used to define the iris, creating even more confusion when referring to it. Some well intentioned people showed me cultivated irises (tall bearded irises) in their gardens. At this point, I could say that the memory was not lost but that it remains as an old legend or even a myth. However, there was more: I was also told of a wild *Iris* growing in the mountains... It took me some time to understand that locals had been warned by previous cautious and preservative botanists not to reveal its location, and, therefore, they kept it very vague, giving as a pretext the difficulty of access. It was thus with no further directions but being highly motivated that I spent two full days hiking in the mountains, spotting and visiting potential locations. This research turned out to be unfruitful... It was like searching

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<sup>1</sup> Two locations: Zahleh pass and Falougha; numerous collectors: Trolt, 1955 (K); Edgecombe 1963 (BEY A-1280); Sloane, 1964 (BEY B-295); Hodgkin, 1965 (K 32645.000); Chaudhary, 1972 (BEY 794).

for a needle in a haystack, and I had to come back empty handed. This was terrible! It took me one more year to gain people's trust in Sofar and to finally discover, with their help, the famous location. I am now indebted to them and I also promised to keep the secret. I will just say that I was taken to a small remnant of a hill where the last specimens of Sofar's *Iris sofarana* survive. This was a great moment to me!

The Sofar population is a very small iris population, which does not include more than 20 clumps, covering an area of less than 1000 m<sup>2</sup>. It grows on a south facing rocky slope surrounded by a diversity of human activity: roads, buildings, dumps,... The population flowered this year (April 2003), but it did not produce any seeds (June 2003). This can be explained by the presence of small beetles that were observed eating the petals of the flower, and thus inhibiting potential pollination and seed production. Moreover, no new regeneration (i.e. small plantlets) could be recorded in the population. The remaining clumps are therefore the last representatives of the species in Sofar. The extinction of the population can thus be directly linked to the survival of these last clumps.

In Lebanon, with the exception of a few trees and medicinal plants, there are no regulations regarding the protection of rare plants. There is thus an urgent need to preserve this national heritage by developing conservation strategies for the local flora in general and for irises in particular. With this aim in view, an assessment of the distribution, population viability and genetic diversity of Lebanese *Oncocyclus* irises is actually being undertaken.

#### **Botanical description**

*Iris sofarana* n. sp.

"A large simple flower, with very long, narrow spathes-valves, is borne on a scape about 10 inches high. The nearly elliptical fall, convex laterally, is of a dark purple, almost black colour, brought about by very thick-set, reticulate, blotched veins of very dark purple colour on a creamy-white ground, very little of which, however, is visible. Over the claw, and running over the hinder part of the blade is a straggling beard of scattered, long, dark purple hairs; in front of these the netted veins are fused together into a very distinct "signal". Standards almost orbicular, with a groundwork nearly white; marked with thin, dark purple veins, most conspicuous near the margin, interspersed all over with dark purple dots. The dots are scattered, and the veins thin, so that the whole surface is much lighter in colour than that of the fall. About a dozen dark purple, almost black, long hairs are scattered along the claw. The styles, placed horizontally, are large, broad, concave, dark purple almost black, with large quadrate, crenate, not serrate crests, marked with branching blotched purple veins on a yellow ground. The ovary, with a short tube, is of the ordinary *Oncocyclus* type. The rhizome is large and compact, and the leaves relatively broad, 10 inches by nearly 1 inch, so broad as to seem, when young, those of an ordinary bearded *Iris*"

(Foster, 1899)

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