



Crocus vernus subsp. *vernus* in Slovenia

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Spring crocus (*Crocus vernus* subsp. *vernus*) extends from the Pyrenees, eastern France, Italy, the Alps, a part of central Europe across Slovenia to Croatia, Bosnia-Herzegovina, Montenegro, Serbia as far as the Carpathian Mountains (Mathew 1982, Rukšans 2010). Herbert (1847) reports that *C. vernus* is the most widely spread species with the largest area within the genus. Maw (1886) states that while most of the species cover a certain compact area, spring crocus encompasses 27° longitudes from the Carpathians to the Pyrenees but it is absent in central France.

In Slovenia *C. vernus* subsp. *vernus* is widely spread. Predominantly is blue to blue-purple in the interior of Slovenia, in the warmer areas of Goriško and Karst white local populations can be more numerous (Bavcon 2010). White specimens stand out amid blue-purple surfaces, and the same is true of blue-purple specimens surrounded by white populations. In some growing sites we come upon very colourful intermediate transitions. We get plants with very dark blue-purple perianth segments whose tips are either V-shaped and almost black, crescent-shaped or a darker coloration appears in the middle of single perianth leaves in the central vein area. In some specimens the lower side along the central vein of the leaf has a broader part narrowing towards the top and splitting in the shape of a snake tongue. In other specimens the upper part has a somewhat darker V-shaped pattern against a light blue background. Others have a similar pattern against a darker background. In some the pattern breaks off but continues in the upper part of the segment. In others it continues from the throat upwards. In some habitats specimens can be entirely bright blue, with a faintly marked letter V at the tip of the perianth segments. Others are uniformly bright blue in colour. The throat is usually darker, but in some specimens it can be orange-yellow or its colour is the same as that of the perianth segments, meaning that its coloration does not stand out.

White specimens can in fact be entirely white. The throat is often still faintly bluish but this coloration gradually disappears so that the rest of the perianth segments is white coloured. Similarly as in the light blue specimens, some white ones have a yellow-orange throat but are otherwise entirely white or have a bluish shade at the top. On white perianth segments bluish to purple shades are either narrow and V-shaped or broad, looking as if a small coloured ginkgo leaf were positioned at the top of the perianth segment. A blue coloration or a purple-tinted blue spreads from the throat along the veins in the central part of the segment and along the sides, then develops a characteristic trifurcated shape that seemingly disappears or can still be traced in a faint striped shade, finally reappearing at the top of the perianth segment in a barely visible silhouette of a ginkgo leaf. Particularly striking specimens have a yellow throat, white stripes with an intensely purple ginkgo leaf. The pattern on the upper part of the white segment can look as if two fused leaves had a blue-purple outline with some white at the top. In the specimens standing out from the blue ones the blue coloration has lower and upper parts in a darker purple shade. Both parts are broader and in the middle, along the central vein, there is a barely noticeable splash of blueness. The upper part is cordate, with a white outline at the top, which emphasizes the intensity of the colour. These colour variations can be observed in specimens in which the outer perianth segments are in a darker and the middle segments in a pale shade, or they can be almost white. A faint blue pattern looking like a shadow can be distinguished on them.

All collected specimens in the more than 10 years observation in the Garden show that all the colour pattern of perianth segments is the most enduring character of crocuses which remains preserved in ex situ conditions and be vegetatively multiplied themselves.

Other abnormality on perianth leaves, the number of flower (two or three) are stable only in a few times.

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