

## Notes on Colchicum

BY

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The reference point for the following notes is the Monograph of *Colchicum* published by the Bulgarian botanist Boris Stefanoff in 1926 (*Sbornik na B'lgarskata Akademiya na Naukitye, Sofiya*, xxii). Probably no monograph written then (or now) could be satisfactory, and certainly Stefanoff failed to achieve the almost impossible. Nevertheless he does bring together the literature and he does present a system which is generally useful and we can do no better to-day than to work away steadily at trying to correct Stefanoff's mistakes. The names given as the headings of the notes are those used by Stefanoff.

### I. COLCHICUM NIVALE

Stefanoff (*Mon. Colch.* 35 : 1926) maintains a species which he calls *C. nivale* Boiss. & Huet. This name was, however, only used in MSS and in synonymy by Boissier and Huet du Pavillon; when they published it with a description it was as *C. Szovitsii* var. *nivale* Boiss. & Huet. The specific combination *C. nivale* (Boiss. & Huet) must therefore be attributed to Stefanoff himself and dates from 1926.

Stefanoff was guilty of a further mistake. In his view the genus *Merendera* was not to be kept separate from *Colchicum*, and its species were accordingly transferred to the latter genus. Now Stapf (*in Denkschr. Akad. Wien Math.-Nat.* 1, 18 : 1885) had described a plant from Northern Persia as *Merendera nivalis*, and there is no doubt from his description, as well as from examination of an isotype in the Kew Herbarium, that this is a true *Merendera*, with tepals characteristically free to the base. Stefanoff, however, determined the Kew sheet as "*C. nivale* Boiss. & Huet" and in his published work cites *Merendera nivalis* Stapf as a synonym thereof, thus confusing two entirely different plants.

In the synonymy of *C. nivale* given by Stefanoff there is another species, *C. bifolium* Freyn & Sint., and, once *Merendera nivalis* Stapf is removed, this provides the earliest specific name. It is by this name that *C. nivale* (Boiss. & Huet) Stefanoff must accordingly be known.

*COLCHICUM BIFOLIUM* Freyn et Sintenis in *Bull. Herb. Boiss.* iv, 198 (1896).

Syn. : *C. Szovitsii* var. *nivale* Boiss. et Huet in *Boiss. Diagn. Pl. Or.* ii, fasc. 4, 122 (1859).

*C. Szovitsii* var. *bifolium* (Freyn. et Sint.) Bordz. in *Acta Hort. Tiflis*, xviii, 489 (1919)—fide Czerniakowska (not seen).

*C. nivale* (Boiss. et Huet) Stefanoff, *Mon. Colch.* 35 (1926); Czerniakowska in Komarov, *Fl. U.R.S.S.* iv, 26 (1935)—syn. *Merendera nivalis* Stapf *excluso*.

*Asia Minor*.—Armenia turcica, Szanschak Gümüşkane, Koesoedagh, in *pratis alpinis*, 3 May 1894, Sintenis 5467 (syntype E, K, BM). Armenia.

Calvert & Zohrab (E). Armenia, inter Trapezuntem et Baibout, May 1853, H. du Pavillon (BM).

*Persia*.—In monte Tefresik (Hamadan), May 1898, Strauss (E, BM). Prope Sultanabad, 20 Apr. 1895, Strauss 55 (BM). Kuh Elwend, 3600 m., 28 May 1932, Balls 97 (E).

## 2. COLCHICUM SERPENTINUM

*C. serpentinum* (Woronow ex) Misczenko (in Kuznetzow, Bush & Fomin, Fl. Cauc. Crit. ii, fasc. 4, 114: 1912) was based on Caucasian material from Artvin, but also included certain Cilician specimens collected by Siehe. When Stefanoff revised the genus (Mon. Colch. 32: 1926) he restricted the name *C. serpentinum* to the Cilician plant. It is clear that such a course is questionable, and Czerniakowska (in Komarov, Fl. U.R.S.S. iv, 25: 1936) has not followed Stefanoff in this. Czerniakowska's action was clearly deliberate, for *C. serpentinum* is the only species under which she does not cite Stefanoff's monograph and she adds a note "type at Leningrad" which is not given for other species. In view of the fact that *C. serpentinum* was proposed in a Caucasian flora and that a Caucasian specimen was cited, it is proposed to follow Czerniakowska in regarding that specimen as the type of the species.

It has been important to make this decision as a duplicate of one of Siehe's specimens quoted under *C. serpentinum* by Stefanoff is treated below under *C. Biebersteinii*—it should be noted however that this particular specimen does not agree, in having scabrid leaf-margins, with Stefanoff's key-characters for *C. serpentinum*. One important difference between Misczenko's and Stefanoff's description of *C. serpentinum* lies in the breadth of the leaves: 3-4 mm. wide according to Misczenko, 4-7 mm. according to Stefanoff.

## 3. COLCHICUM BIEBERSTEINII

In an area roughly comprising Bulgaria, the Crimea and Turkey, there grows a small-flowered spring colchicum which has been known to botanists for nearly 150 years. Marschall von Bieberstein was the first to name and describe it in the year 1808, but unfortunately the epithet he chose, *bulbocodioides*, had already been used in the genus *Colchicum* by the Portuguese botanist Brotero.

For a long time von Bieberstein's plant was entangled in the general taxonomic and nomenclatural confusion which surrounded *Colchicum montanum* L. and it was illustrated under this name in Curtis's Botanical Magazine (tab. 6443: 1879). Thanks to the painstaking work of C. C. Lacaita (see Journ. Linn. Soc. Lond., Bot. xlvii, 172: 1925) it has been shown that Linnaeus's *Colchicum montanum* was the Spanish species of *Merendera* and we now know it as *M. montanum* (L.) Lange (syn. *M. Bulbocodium* Ram.).

It was not until nearly 100 years after its original publication that the French botanist Rouy (in Bull. Soc. Bot. France, lii, 644) provided Bieberstein's *C. bulbocodioides* with a new name, *C. Biebersteinii*: but still it was dogged by faulty nomenclature. Rouy included *C. hungaricum* Janka as a synonym of *C. Biebersteinii*: *C. hungaricum* is therefore the name he should have used. His new name, *C. Biebersteinii*, was superfluous. Even though

we now accept *C. hungaricum* and *C. Biebersteinii* as distinct species (see Stefanoff, Mon. Colch. 36, 39: 1926; W. T. Stearn in Journ. Roy. Hort. Soc. lix, 67-70: 1934) the name *C. Biebersteinii* Rouy is nomenclaturally illegitimate and must be abandoned.

A change being inevitable it might seem best to rename once more *C. bulbocodioides* M. Bieb. non Brot.—as Rouy tried to do. But Bieberstein's description is very brief, the origin of his plant not more precise than "in the Crimea" and his specimens seem never to have been re-examined. In so difficult a genus as *Colchicum* such a basis for a species is very unsatisfactory. I therefore propose to re-describe this species, using as type material well preserved herbarium specimens collected in Turkey near Ankara by Mr. E. K. Balls and Dr. W. Balfour Gourlay (No. 2052). Their plant is undoubtedly conspecific with the one found by George Maw on the Nymph Dag and illustrated in the Botanical Magazine (tab. 6443: 1879) under the name *C. montanum* L. The name I have chosen for this species is *Colchicum ancyrense* B. L. Burtt; although it extends far outside the immediate neighbourhood of Ankara, a precisely localised epithet is useful in indicating the type-locality.

In addition to the material cited below as *C. ancyrense* there is another group of specimens which has previously been included under *C. Biebersteinii* in the herbarium. These are all from western Asia Minor and are distinguished by their narrower leaves with ciliate (not merely scabrous) margins, somewhat more slender-looking flowers and above all by their dark, thick and persistent corm-tunics. This last feature is very noticeable on herbarium material as every specimen of *C. ancyrense* has lost the outer corm-tunic. The correlation of these characters of leaves and corm-tunics through a dozen specimens is beyond mere chance and it is highly probable that this group of specimens represents an undescribed species. Caution is dictated however by the presence of one sheet with somewhat broader leaves and in that sheet there is one plant whose leaves are quite glabrous. For the time being, therefore, this material is being left as *Colchicum* sp. near *C. ancyrense*.

*Colchicum ancyrense* B. L. Burtt, sp. nov., ad huc sub nomine vel *C. bulbocodioides* M. Bieb. (non Brot.) vel *C. montano* auctt. (non L.) vel *C. Biebersteinii* Rouy (nom. illegit.) cognita. A *C. bifolio* Freyn et Sint. foliis 3-4 marginibus basin versus scabris, antheris viridi-purpureis vel atropurpureis distinguitur.

Syn.: *C. bulbocodioides* M. Bieb. Fl. Taur. Cauc. i, 293 (1808)—non Brotero (1804).

*C. Biebersteinii* Rouy in Bull. Soc. Bot. France, lii, 646 (1906)—syn. *C. hungarico* Janka excl.; nomen illegitimum; Stefanoff, Mon. Colch. 36 (1926); Wulf, Fl. Krim, i, fasc. 3, 5 (1930); W. T. Stearn in J. Roy. Hort. Soc. lxiv, 69 (1934).

*C. montanum* auctt. non L.; Baker in Bot. Mag. tab. 6443 (1879), quoad tab. excl. syn. p.p.; Misczenko in Kuznetzow, Bush & Fomin, Fl. Cauc. Crit. ii, fasc. 4, 111 (1912).

*Cormus* circiter 2 cm. longus, tunicis exterioribus facile caducis. *Cataphyllum* longe tubulosum, ore obliquum, apice cucullato-mucronatum

*Folia* 3, synanthia, floribus plerumque brevia, subrecurva, anguste lanceolata, anthesi ultra cataphyllum circiter 3-4 cm. longa, canaliculata (et igitur in sicco plerumque plicata), 4-6 mm. lata, marginibus praecipue ad basin scabris. *Flores* 1-3, plerumque pallide lilacini, perigonii segmentis exterioribus 2-3 cm. longis 8 mm. latis obtusiusculis, interioribus fere aequilongis 6 mm. latis acutiusculis. *Stamina* 6; filamenta basi segmentorum inserta supra basibus aurantiaco-incrassatis, superne angustata, 7 mm. longa; antherae 2.5 mm. longae, atropurpureae vel viridi-purpureae, polline flavo. *Styli* antheras superantes, stigmatibus punctiformibus terminalibus.

*Asia Minor*.—Ankara, Chan Kaya, 900 m., sandy open slopes wet from melting snow, non-lime, 1 March 1935, Balls & Gourlay 2052 (*holotype* E, K, BM). Ankara, 900 m., flowers pale mauve varying in shade, gold at base of stamens, anthers green and yellow, 1-6 blooms at once, leaves only partially developed at flowering, 14 March 1933, Balls 150 (E, K). Ankara, road to Culuk dam near Lavacik water Spring, 900 m., 28 Feb. 1951, Kasaplilgil 345 (E). Portae Ciliciae, 1896, Siehe 31 (E). Without localities, Lady Liston (E); March 1898, F. R. Maunsell (E). *Crimea*.—Sudak, 9 March 1896, Callier 214 (E). *Bulgaria*.—Stanimaka, March 1899, Stribny (E).

COLCHICUM SP. NEAR C. ANCYRENSE B. L. Burt

*Asia Minor*.—Dardanelles, Renkoei, heights above the hospital, March 1856, Kirk (E). Dardanelles, in montosis, 15 March 1883, Sintenis, Iter trojanum 229 (E, K, BM). Vourla, mountain summits in rocky places, Dec. & Jan., P. Somerville 20 (E).

*Chios*.—Shady slopes, Campoehera, and sunny slopes South of Thalamopotami; white, rarely pink; 2 ins.; 3 Jan. 1940, Platt 368 (E, K).

#### 4. COLCHICUM HIRSUTUM

*C. hirsutum* was a new species described by Stefanoff (Mon. Colch. 34: 1926) from material collected in Turkish Armenia by Sintenis. All the three specimens cited are in the Botanical Museum, Lund, and I am greatly indebted to the Curator of the Museum, Dr. Tycho Norlindh, for their loan.

The specimens are:—

(1) An unnumbered specimen from Egin; this sheet holds a single 3-leaved plant, the leaves being 14 cm. long and 7 mm. broad, clad with short, thick, blunt, deflexed hairs on both surfaces towards the base, glabrescent towards the tips; the flowers are over, though withered corollas persist on the specimens; the young fruits are 2 cm. long and are densely papillose-pubescent all over:

(2) No. 271 from Kharput; this sheet bears four plants, all of them 3-leaved, the leaves being 10-14 cm. long but only 4-5 mm. broad, with stiff but slender deflexed hairs; again the flowers are all withered; young fruits are up to 16 mm. long and glabrous:

(3) No. 272b from Kharput; this sheet also bears 4 plants, all of them 3-leaved, with hairs as on No. 271, towards the base or subglabrous, about 14 cm. long and 5-6 mm. broad; flowers withered; young fruits on 3 plants about 15 mm. long (on the fourth plant 12 mm. long and already almost as

wide), glabrous. The fourth plant on this last sheet has a more mature, rounder fruit and the tips of the leaves broken off: it may well belong to No. 272 identified by Stefanoff as *C. tauri* Siehe, the leaves of which are up to 20 cm. long and the fruits short and roundish, only 12 mm. long.

In considering which of these specimens is to form the basis for our future concept of *C. hirsutum* it is necessary to pay attention to the format of Stefanoff's publication. Immediately under the name appears the entry "Exs.: P. Sintenis Iter orientale 1890"; then follows the latin description and after that the herbarium specimens are cited in full under the heading "*Arr. Geogr.*" Now only one of the three specimens cited was collected in 1890 (that from Egin), the others belonging to the *Iter orientale* 1889. However, as Stefanoff erroneously cites them all as 1890 it would presumably be wrong to suggest that the entry at the head of the description is intended to refer especially to the Egin plant and to single it out as the type of the species. I therefore assume that the three cited specimens are equally eligible for choice as lectotype.

It will be seen from the notes given above that the first sheet differs from the other two in having shorter thicker hairs on the somewhat wider leaves and in its hairy fruits. In his latin description Stefanoff has "folio . . . post anthesin ad 15 cm. longa et 6-7 mm. lata, planiuscula undique papilloso-hirsuta; . . . fructus elliptico-oblongus, ad 20 cm. (sic!) longus, glabrus vel densissime papilloso-glandulosus." It is clear that while both glabrous and hairy fruited plants are covered, the leaf characters given agree far better with those of the first sheet—the unnumbered specimen of 1890 from Egin. I therefore take this as the lectotype of the species. The only emendation necessary in Stefanoff's description will be to delete the word "*glabrus*" in the description of the fruit.