

SCHUR'S *CYTISUS* TAXA

D. PIFKÓ

*Department of Botany, Hungarian Natural History Museum
H-1476 Budapest, Pf. 222, Hungary; pifko@bot.nhmus.hu*

During a taxonomic revision on the higher plant collection of Ferdinand Schur (1799–1878), deposited in Lviv (Herbarium of Ivan Franko National University of Lviv (LW)), more than 100 specimens of *Cytisus* were identified and annotated with the names used by Schur in his publications or on his specimens. In addition, 10 lectotypes of taxa, described by Schur, were selected and designated (*C. aggregatus*, *C. alpestris*, *C. ambiguus*, *C. atratus*, *C. leucotrichus*, *C. obvallatus*, *C. propinquus*, *C. ratisbonensis* var. *collina minor*, *C. supinus* var. *lateriflorus*, *C. supinus* var. *subcapitatus*). Two new combinations, i.e. *Chamaecytisus rochelii* subsp. *ambiguus* (Schur) Pifkó and *Chamaecytisus supinus* subsp. *alpestris* (Schur) Pifkó are hereby proposed.

Key words: *Chamaecytisus*, *Laburnum*, lectotypification, Leguminosae, *Lembotropis*, Lviv (LW), new combination, Romania, Transylvania

INTRODUCTION

Ferdinand Schur was working as the director of the sulphuric acid factory in Sibiu from 1845 until 1853. In 1854 he became a professor in a gymnasium in Braşov, then he moved to Vienna. He could explore the Transylvanian flora during these 9 years (SIMONKAI 1886). His records of *Cytisus* were published in several short articles (SCHUR 1858, 1859*a*, *b*, *c*, 1860, 1877), in a checklist (SCHUR 1853), as well as in a flora work “Enumeratio plantarum Transsilvaniae” (as “Enumeratio” in the following) (SCHUR 1866).

A considerable part of his herbarium is deposited in Lviv (LW), smaller amounts are in Linz (LI) and in Vienna (W), and additional specimens are in Budapest (BP) as part of the herbarium of Simonkai (cf. PIFKÓ 2005*a*).

10 new *Cytisus* taxa were described in his papers, but additionally he also treated several other names, incl. 17 (invalidly published) nomen nudums and 20 unpublished (ined.) names, which appear on his herbarium sheets. Altogether more than 100 names of various *Cytisus* taxa were used

(in several cases as alternative names) in his works and herbarium including his own and those names described by others. The taxonomic revision of his specimens was necessary for the correct clarification of Schur's nomenclatural concept; the revision here described resulted in the reduction of his 100 names to ca 12 (accepted) taxa.

Schur was criticised by other botanists (SIMONKAI 1886), since the overwhelming amount of his new names and the inconsistent application of those names by him or others caused serious difficulties for subsequent botanists when working with his taxonomy.

This paper is part of the ongoing taxonomic revision by the author of the *Chamaecytisus* taxa of the Carpathian Basin (cf. PIFKÓ 2004, 2005*a, b*, 2007, 2008, PIFKÓ and PAPP 2006). The clarification of Schur's *Cytisus* names has resulted in the designation of lectotypes where it seemed necessary.

MATERIAL AND METHODS

The taxonomic revision on the higher plant collection of Ferdinand Schur, deposited in Lviv, was performed on two occasions. A certain amount of specimens was checked in Budapest in May 2007, then the whole collection was revised in Uzhhorod in September 2007. Later, the final revision and designation of lectotypes were done based on photos of herbarium specimens, on Schur's papers, and on the comparative material of the Budapest herbarium (BP), which is quite rich in Transylvanian specimens.

Following the revision, all locality data, specimen data, names in the publications and the results of the revision were compared and sorted out. Eventually it was possible to find out that in reality what specimens with what names can be matched in Schur's taxonomy. His handwriting in Gothic (sometimes illegible) letters caused much difficulty but the most important information was revealed in each case.

ENUMERATION

As shown in earlier works (PIFKÓ 2004, 2005*a, b*, 2007, 2008, PIFKÓ and PAPP 2006) the revision of the broadly treated *Cytisus* has to deal with a taxonomy that recognises *Chamaecytisus*, *Lembotropis*, and *Laburnum* (genus *Corothamnus* was mentioned as *Genista* by Schur) as separate genera. Full list of the taxa in use by the present author is given in PIFKÓ (2007).

Taxa are listed in alphabetic order based on the current nomenclature, following by a brief discussion of the taxonomic problems related to the

given name and by listing of further names used by Schur in his publications or in his herbarium sheets. Specimen data (name of taxa used by Schur, text on the label, the date of collecting) from the Lviv herbarium are also given. Origins of specimens from other herbaria are clearly indicated. Label texts of the specimens are arranged alphabetically according to current Romanian locality names. Corresponding Hungarian place names are also given in brackets, since in most cases these names were used in the botanical literature in the 19th century. Schur preferred to write the place names on his labels in German language.

Unambiguously corresponding names are given in square brackets in cases where originally it is not clear, which taxonomic rank is represented by the given taxon. Very often there are more than one alternative taxon names on the same specimen. These names are separated by commas in the text (instead of the original "or").

It is also indicated if the specimen clearly corresponds with records published by SCHUR (1853, 1858, 1859*a, b, c*, 1860, 1866, 1877) or SIMONKAI (1886, 1888).

Abbreviations used in the text: **cf.** = to be compared; **cit.** = citation of specimen; **coll.** = name of collector; **date** = the date of collecting; **rev.** = revised by; **s.n.** = names of taxa used by Schur on the label of the herbarium sheet; **t.s.** = text on the label of the herbarium sheet.

Chamaecytisus albus (Hacq.) Rothm.

Chamaecytisus albus records are usually published by SCHUR (1858: 24, 1859*a*:73, 1859*b*: 97, 1877: 168) as *C. leucanthus*. In one of his early publications SCHUR (1853: 17) listed five varieties of *C. leucanthus* from Transylvania, which correspond well with different varieties of *Ch. albus* or transitional forms between *Ch. albus* and *Ch. rochelii*.

Most probably his "*C. heuffelii* (*C. leucanthus* var. *capitatus*)" record (SCHUR 1866: 147) also refers to *Ch. albus*, which is cited by SIMONKAI (1886: 171) as *C. pallidus* [*C. pallidus* Simonkai non Schrad = *Ch. virescens*].

Since *Ch. albus* specimens with yellow flowers were published by SCHUR (1866: 147) as *C. banaticus*, and *C. obvallatus* described in the "Enumeratio" is also identical with *Ch. albus*, thus records of *Ch. albus* in the "Enumeratio"

(SCHUR 1866) are dispersed under four species: *i.e.* *C. banaticus*, *C. leucanthus*, *C. obvallatus*, and *C. rochelli*. The last of these names is also inconsistently applied by him for other taxa.

Although voucher specimens are missing, the *C. leucanthus* and *C. banaticus* records from Kronstadt (Braşov) (SCHUR 1866: 147, *cf.* SIMONKAI 1886: 171, 1888: 370) refer most probably also to *Ch. albus*.

All *C. obscurus* [*C. leucanthus* var. *obscurus* Rochel = *Ch. rochellii*] specimens in his herbarium turned to be *Ch. albus*. In his “Enumeratio” (SCHUR 1866: 147) he used the name *C. obscurus* (as a synonym of *C. rochellii*) for all *Chamaecytisus* with pale yellow flowers, consequently both *Ch. albus*, and *Ch. rochellii* data are published also as “*C. rochellii* (*C. obscurus*)”.

Bărăbañ (Borbánd); **s.n.:** *C. banaticus* Heuff., *C. obscurus*; **t.s.:** in collibus herbaceus Transsilv. monte Bilak.

Ocna Sibiului (Vizakna), **s.n.:** *C. rochellii*, *C. leucanthus* [var.] *obscurus*; **t.s.:** In collibus arenosis apris Transsilvan. Salzburg bei Hermannstadt; **date:** May; **rev.:** Simonkai as *C. banaticus*.

Sibiu (Nagyszeben); **s.n.:** *C. leucanthus* “var. *microphylla*”, “*parvifolia*”; **t.s.:** In collibus herbidas prope Cibiniam...; **date:** July, **cit.:** SCHUR (1866: 147) as *C. leucanthus* and *C. banaticus*.

Sibiu: Guşteriţa (Nagyszeben: Szenterzsébet); **s.n.:** *C. leucanthus* var. *flaviflora*, *C. leucanthus* var. *obscurus* Roch.; **t.s.:** In collibus graminosis Transsilv. Hammersdorf; **date:** July, **cit.:** SCHUR (1866: 147) as *C. leucanthus* and *C. banaticus*; **cf.** SCHUR 1853: 17.

Sibiu: Guşteriţa (Nagyszeben: Szenterzsébet); **s.n.:** *C. leucanthus* var. *stenophyllus* Schur; **t.s.:** In collibus arenosis et viniaetis Transsilvan. prope pagum Hammersdorf; **date:** July, **cit.:** SCHUR (1866: 147) as *C. leucanthus* and *C. banaticus*.

Sibiu: Guşteriţa (Nagyszeben: Szenterzsébet); **s.n.:** *C. leucanthus* W. et K.; **t.s.:** In collibus gram. Transsilv. ubique Hermannstadt; **date:** June, **cit.:** SCHUR (1866: 147) as *C. leucanthus* and *C. banaticus*.

Sibiu: Guşteriţa (Nagyszeben: Szenterzsébet); **s.n.:** *C. leucanthus* var. *obtusifolius*; **t.s.:** “Hammersdorf bei Hermannstadt”; **date:** 07.1847, **cit.:** SCHUR (1866: 147) as *C. leucanthus* and *C. banaticus*.

Sibiu: Guşteriţa (Nagyszeben: Szenterzsébet); **s.n.:** *C. obvallatus* Schur, “*C. rochellii*?”; **t.s.:** in collibus herbidis supra pagum Hammersdorf auf dem Onosmahüggel; **date:** July; **rev.:** Simonkai as *C. leucanthus* (*C. obvallatus* Schur); **cit.:** SCHUR (1866: 147–148) as *C. obvallatus*; **cf.** SCHUR (1866: 147) *C. leucanthus* and *C. banaticus*. **Here designated as the lectotype of *Cytisus obvallatus*.** Protologue: SCHUR (1866): 148.

Chamaecytisus elongatus (W. et K.) Link

The *C. elongatus* records from “Öcsém teteje” (SCHUR 1858: 23, 1859c: 168) most probably refer to *Ch. supinus* subsp. *alpestris*.

Masivul Făgăraşului (Fogarasi-havasok); **s.n.:** *C. elongatus* W. et K.; **t.s.:** In collibus graminosis... Arpaser Gebirge; **date:** July 12; **rev.:** Simonkai as *C. elongatus*.

Mintia, (Marosnémeti); **s.n.:** *C. elongatus* W. et K., “*Cytisus biflorus* L’Herit ?”; **t.s.:** In elatioribus sylvat. Transilvan. in Hunyader Com. bei Máro-Németti, Herb. Baumgarten trans.; **date:** June; **rev.:** Simonkai as *C. elongatus*.

Chamaecytisus ratisbonensis (Schäffer) Rothm.

Probably all varieties (of “*C. ratisbonensis*”) mentioned in SCHUR (1853, 1877) refer to the *Ch. ratisbonensis* sensu stricto.

Braşov (Brassó); **s.n.:** *C. biflorus* L’Herit (*collinus*); **t.s.:** In rupestribus calcareis Kronstadt; **date:** 06.1854; **rev.:** Simonkai as *C. ratisbonensis*; **cit.:** SCHUR (1877: 169) as *C. ratisbonensis* var. *collina minor* Schur, SIMONKAI 1886: 174 as *C. ratisbonensis*; **cf.** SCHUR 1853: 17. **Here designated as the lectotype of *Cytisus ratisbonensis* var. *collina minor* Schur. Protologue: SCHUR (1877): 169.**

Ruşi (Rüsz); **s.n.:** *C. ratisbonensis* Schaeff. (var. *virgatus*), *C. biflorus* L’Herit, *C. elongatus* W. et K.; **t.s.:** ...bei Reussen; **date:** 26.05.1847.

Chamaecytisus rochelii (Wierzb. in Griseb. et Schenk) Rothm.

Although all the specimens with *C. rochelii* and its synonyms on their labels were revised (by present author) as *Ch. albus*, this name is used for all *Cytisus* taxa with pale yellow flowers (incl. also *Ch. rochelii*) in the “Enumeratio” (SCHUR 1866: 147).

Recent records of *Ch. austriacus* (DRĂGULESCU 2003, cf. OPREA 2005) from the Sibiu region can probably be referred to *C. rochelii*, as *Ch. austriacus* s.s. is regarded to be absent in Transylvania.

Bărăbanţ (Borbánd); **s.n.:** *C. capitatus* Jacq., *C. capitatus* Heuff., *C. confertus* Schur, *C. capitatus* (L.), *C. rochelii* Heuff., *C. villosus* Presl.; **t.s.:** in fruticosis elatioribus in monte Billak prope Borband; **date:** 07.1853; **rev.:** Simonkai as *C. capitatus* Grab.

Tălmăciu (Talmács); **s.n.:** *C. propinquus* Schur “flaviflorus”; **t.s.:** Inter virgulta Transsilyv Talmats; **date:** June, July; **rev.:** Simonkai as *C. rochelii* Wierzb.; **cit.:** SCHUR

(1866: 147) as *C. rochelii*, Simonkai (1886: 172) as *C. rochelii*, SIMONKAI (1888: 368) as *C. pallidus*. Here designated as the lectotype of *Cytisus propinquus*. Protologue: SCHUR (1866): 147.

Chamaecytisus rochelii (Wierzb. in Griseb. et Schenk)

Rothm. subsp. *ambiguus* (Schur) Pifkó

comb. nov. (= *C. virescens* auct. non Kovács in Neilr.)

Basionym: *Cytisus ambiguus* Schur, Enum. Plant. Trans.: 147 (1866)

Ch. rochelii subsp. *ambiguus* might be a transitional form between *Ch. rochelii* and *Ch. albus*, which is not synonymous with *Ch. virescens* as it is declared by KLÁSKOVÁ (1958) and PIFKÓ (2005a), although it is difficult to differentiate the two species. Both *Ch. rochelii* and *Ch. virescens* clearly differ from *Ch. albus* by the patent hairs on the branches (*Ch. albus* always has appressed hairs). The calyx of *Ch. rochelii* subsp. *rochelii* is covered by mainly long, sparsely patent hairs or sparse hairs, while that of subsp. *ambiguus* is covered by mainly short, densely patent or semi-patent hairs. *Ch. virescens*, a supposed transitional taxon between *Ch. rochelii* and *Ch. austriacus* being characteristic in the NW and central part of the Carpathian Basin, differs with its leaf surface with short hairs or almost hairless (cf. PIFKÓ 2004, PIFKÓ and PAPP 2006).

Records of *Ch. rochelii* subsp. *ambiguus* correspond with SCHUR's (1853: 17) *C. austriacus* var. *latifolus* data. The *C. obscurus* record from Grosspold (Apoldu de Sus, Nagyapold) (SCHUR 1859a: 59) was cited by SIMONKAI (1886: 172) as *C. rochelii*, but later (SIMONKAI 1888: 368) as *C. pallidus*. Similarly, *C. ambiguus* is cited by SIMONKAI (1886) as *C. rochelii* and then as *C. pallidus* (SIMONKAI 1888).

In the "Enumeratio" (SCHUR 1866: 147) the records of *Ch. rochelii* subsp. *ambiguus* are shared between *C. ambiguus* and *C. rochelii*. The names (*C. austriacus* var. *aureus*, *C. austriacus* var. *argenteus*) published later by SCHUR (1877) also refer to this taxon.

Ruși (Rüsz); **s.n.:** *C. cinereus* Schur, *C. austriacus* var. *cinereus* Host, *C. austriacus* var. *virescens* Kovács; **t.s.:** In collibus herbidis prope pagum Reussen versus Mundra; **date:** 1847; **rev.:** Simonkai as *C. ambiguus* (*C. banaticus* × *capitatus* Simk.); **cit.:** SCHUR (1866: 147) as *C. ambiguus*; SIMONKAI (1886: 172) as *C. rochelii*, SIMONKAI (1888: 368) as *C. pallidus*, syntype of *C. ambiguus*.

Ruși (Rüsz); **i.n.:** 94994 (BP); **t.s.:** “Transsilvania: in collibus herbis prope pagum Reussen (locus classicus)”; **date:** 08.1847; **rev.:** L. SIMONKAI as *C. pallidus* SCHRAD.; A. SKALICKÁ as *Ch. virescens* (NEILR.) DOSTÁL; **cit.:** SCHUR (1866: 147) as *C. ambiguus*; SIMONKAI (1886: 172) as *C. rochelii*, SIMONKAI (1888: 368) as *C. pallidus*, Pifkó (2005a) as *Ch. virescens*. **Here designated as the lectotype of *Cytisus ambiguus*.** Protologue: SCHUR (1866): 147.

Sibiu: Gușterița (Nagyszeben: Szenterzsébet); **s.n.:** *C. austriacus* L., *C. stenophyllus* Schur; **t.s.:** Hammersdorf bei Hermannstadt; **date:** June; **rev.:** Simonkai as *C. pallidus* Schrad.; **cit.:** SCHUR (1866: 147) as *C. austriacus*, SIMONKAI (1886: 172) as *C. rochelii*; **cf.** SCHUR 1853.

Sibiu: Gușterița (Nagyszeben: Szenterzsébet); **s.n.:** *C. austriacus* L.; **t.s.:** In collibus herbaceis Transsilvan. prope pagum Hammersdorf; **date:** July; **cit.:** SCHUR (1866: 147) as *C. austriacus* and *C. rochelii*; **cf.** SCHUR 1853.

Slimnic (Szelindek); **s.n.:** *C. austriacus* var. *canescens*; **t.s.:** ...bei Holzenburg; **date:** 06.1847; **rev.:** Simonkai as *C. pallidus* Schrad.; **cit.:** SCHUR (1866: 147) from Stolzenburg as *C. ambiguus* and *C. rochelii*; SCHUR (1877: 168) as *C. austriacus* var. *aureus* and *C. capitatus* L.; SIMONKAI (1886: 172) as *C. rochelii*; SIMONKAI (1888: 373) as *C. aggregatus*; SIMONKAI (1888: 378) as *C. leucotrichus*; **cf.** SCHUR 1866: 147 (*C. austriacus* var. *latifolius* sub *C. ambiguus*), SCHUR 1853: 17 (*C. austriacus* var. *latifolius*).

Chamaecytisus supinus (L.) Link
subsp. *aggregatus* (Schur) Löve et Löve

The occurrence of this taxon in Transylvania is very surprising, since the centre of its distribution is in the western part of Hungary (Transdanubia). Toward west and north from here (W Hungary, Austria, Slovakia) this taxon is replaced by *Ch. supinus* subsp. *supinus*. Its distribution shows a sporadic, mosaic-like pattern in the Northern Mountain Range (NE Hungary) (cf. PIFKÓ 2005b), similarly to its habitat in the surroundings of Sibiu (Romania). Based on the studied characters the Hungarian specimens and those collected by Schur turned to be identical (PIFKÓ 2005b).

Recent Romanian floras (DRĂGULESCU 2003, OPREA 2005) do not regard it as independent taxon, although it differs from subsp. *supinus* (which also occurs in Sibiu county) with its thicker, densely pubescent branches (the hairs shorter than the diameter of branches), and with the larger leaves.

It was published as *C. capitatus* Jacq. by SCHUR (1853: 17, 1866: 148) but later, in the “Enumeratio”, he described it as *C. aggregatus* (SCHUR 1866: 149). It is not mentioned in Schur’s subsequent publications.

Sadu (Cód); **s.n.:** *C. aggregatus* Schur; **t.s.:** In sylvaticis umbros. Transilv. Mumma oberhalb ...thal; **date:** June; **rev.:** Simonkai as *C. capitatus*; **cit.:** SCHUR (1866: 148, 149) as *C. capitatus* and *C. aggregatus*; SIMONKAI (1886: 172, 1888: 373) as *C. aggregatus*. Syntype of *C. aggregatus*.

Sadu (Cód); **s.n.:** *C. bisfloreus* Host f. *hyemalis*, *C. aggregatus* Schur; **t.s.:** In sylvis montanis Transilv. Preschbe; **date:** August–September; **rev.:** Simonkai as *C. capitatus* Grab.

Sadu: Măgura Cisnădiei (Cód); **s.n.:** *C. aggregatus* Schur, *C. bisfloreus* “var. *prostratus* Scop?”; **t.s.:** Auf dem Götzenberg bei Heltau 4000’ Glimmerschiefer; **date:** August; **cit.:** SCHUR (1866: 149) as *C. aggregatus*. **Here designated as the lectotype of *Cytisus aggregatus*.** Protologue: SCHUR (1866): 149.

Sadu: Măgura Cisnădiei (Cód); **s.n.:** *C. aggregatus* Schur, *C. bisfloreus* Host f. *australis*; **t.s.:** In sylvis montanis Transilv. Götzenberg; **date:** August; **rev.:** Simonkai as *C. capitatus*; **cit.:** SCHUR (1866: 149) as *C. aggregatus*. Syntype of *C. aggregatus*.

Sadu: Măgura Cisnădiei (Cód); **s.n.:** *C. prostratus* f. *vernalis lateriflorus* Schur; **t.s.:** In sylvaticis Transsilv... Götzenberg; **date:** sine date; **rev.:** Simonkai as *C. falcatum* W. et K. (*C. politrichus* Schur).

Sibiu (Nagyszeben); **s.n.:** *C. aggregatus*, “*C. bisflorus* Host?”; **t.s.:** im Jungenwald bei Hermannstadt...; **date:** July; **rev.:** Simonkai as *C. capitatus* Grab.

Zizin (Zajzon); **s.n.:** *Cytisus*; **t.s.:** ...Zaison; **date:** 17.05.1854.

Chamaecytisus supinus (L.) Link

subsp. *alpestris* (Schur) Pifkó, comb. nov.

Basionym: *Cytisus alpestris* Schur, Enum. Plant. Trans.: 148 (1866).

Since in the original description (SCHUR 1866) there is no information on the hairs on the surface of the legume, the description also fits with the spring form of *C. supinus* subsp. *supinus*, which was also collected at “Keresztény-havas” (Schulergebirge). On the label of the latter specimen the name “*C. prostratus* – *alpinus*” is also given, which gave reasons for present author to revise it at first – mistakenly – as the lectotype of *C. alpestris* in May 2007. According to SIMONKAI (1886, 1888) *C. alpestris* differs from the similar taxa with the hairless surface of its legume, as it is well observable on the *C. alpestris* specimens in Schur’s herbaria (LW, BP).

Due to the blooming date and the hairless flat side of the legume, *C. alpestris* has been misidentified as *Ch. hirsutus* (*C. hirsutus* var. *alpestris* (Schur) Beck) or *Ch. ciliatus* (*Ch. ciliatus* subsp. *alpestris* (Schur) Soó) in later studies (GRIUȚESCU 1957, OPREA 2005).

Based on the mainly sparsely patent hairs on its calyx, *C. alpestris* seems to be rather similar and closely related to the taxa of the *Ch. supinus* agg. From the spring form of *Ch. supinus* subsp. *supinus* (which also occurs at the same habitat) it differs by the hairless fruits only. Further studies are required to clarify if it can bloom both in spring and summer, similarly to other taxa of this aggregatum.

The calyx of *Ch. triflorus* agg. (subsp. *ciliatus*, subsp. *falcatus*) – contrary to that of *C. alpestris* – is covered by mainly short, densely patent or semi-patent hairs. In addition, branches of *Ch. triflorus* agg. usually have short dense hairs or are more or less hairless; while the sparse, patent hairs on the branches (the characteristic feature of *Ch. supinus* subsp. *supinus*) are absent.

The *C. elongatus* record from “Öcsém teteje” (SCHUR 1858: 23, 1859c: 168) should refer to *C. alpestris* (cf. SCHUR 1958a). It is cited by SIMONKAI (1888: 375) as *C. haynaldi* subsp. *polytrichus* var. *alpestris*.

Braşov: Postăvaru (Brassó: Keresztényhavas); s.n.: “*C. nova spec.*”, *C. supinus* L. var. *hirsutus*, *C. alpestris* Schur; t.s.: Auf der... Schulergebirges bei Kronstadt 5000' kalk.; date: 08.07.1854; rev.: Simonkai as *C. alpestris* Schur; cit.: SCHUR (1866: 148) and SIMONKAI (1886: 173) as *C. alpestris*. **Here designated as the lectotype of *Cytisus alpestris* Schur.** Protologue: SCHUR (1866): 148.

Masivul Făgăraşului (Fogarasi-havasok); s.n.: *C. supinus* L. var. *lateriflorus* Schur; t.s.: In sylvis monte frondosis prope Kerz; date: 07.1847; cit.: SCHUR (1866: 148) as *C. supinus* var. *lateriflorus*; SIMONKAI (1886: 174) as *C. haynaldi* var. *perhirsutus* Simk. **Here designated as the lectotype of *Cytisus supinus* var. *lateriflorus* Schur.** Protologue: SCHUR (1866): 147.

Chamaecytisus supinus (L.) Link subsp. *supinus*

The mosaic-like occurrence of this taxon in Transylvania (Sibiu county) is similarly interesting as that of subsp. *aggregatus*. Based on the studied morphological characters, the western Hungarian and the Austrian populations, and the Transylvanian specimens, seem to be identical.

SCHUR (1853: 17, 1866: 148, 1877: 168) published it as *C. supinus*, and later as “*Cytisus hirsutus* L.? an *Cytisus ruthenicus* Fisch.?” SCHUR (1859c: 154). SIMONKAI (1886) revised it as *C. haynaldi*.

Borsec (Borszék); **s.n.:** *C. supinus* L.; **t.s.:** Auf kalksubstrat zwischen... bei Borszék; **date:** 25.07.1853; **cf.** SCHUR 1859c: 154 (“*Cytisus hirsutus* L. ? an *Cytisus ruthenicus* Fisch. ?”), SIMONKAI 1886: 173, 1888: 378 (*C. leucotrichus*).

Braşov (Brassó); **s.n.:** *C. supinus* (Koch) L., *C. capitatus* Jacq.; **t.s.:** in sylvis mont. prope Coronam; **date:** 06.1854; **rev.:** Simonkai as *C. supinus*.

Braşov: Pietra Craiului (Brassó: Királykö-hegység); **s.n.:** *C. capitatus* Jacq., “n. sp. ?”, “var. *microphylla foliolis acuminates*”, *C. supinus* L. [var.] *microphyllus* Schur; **t.s.:** In sylvaticis subalpinis in rupis calcar. prope Coronam Koenigstein l. Zernesd; **date:** June; **rev.:** Simonkai as *C. supinus*; **cit.:** SCHUR (1866: 148) as *C. supinus* var. *subcapitatus*; SIMONKAI (1888: 375) as *C. haynaldi* subsp. *polytrichus*. **Here designated as the lectotype of *Cytisus supinus* var. *subcapitatus* Schur.** Protologue: SCHUR (1866): 148.

Braşov: Postăvaru (Brassó: Keresztényhavas); **s.n.:** “*C. supinus* L. ?”, “*C. prostratus – alpinus*”; **t.s.:** Auf dem Schulergebirges; **date:** 08.07.1854; **rev.:** Pifkó as lectotype of *C. alpestre*, but this specimen is not type.

without locality; **s.n.:** *C. supinus* L.; **t.s.:** ...kalksubstrat...; **date:** sine date.

Chamaecytisus triflorus (Lam.) Skalicka
subsp. *ciliatus* (Wahlenb.) J. Holub

SCHUR (1866) published it as *C. ciliatus* and he used two names on the label in his herbarium (*C. ciliatus* and *C. falcatus*).

Alba Iulia (Gyulafehérvár); **s.n.:** *C. ciliatus*, *C. falcatus* W. et K.; **t.s.:** in monte calcarea Ketskeko Carlsburg; **date:** 07.1853; **rev.:** Simonkai as *C. ciliatus*; **cit.:** SCHUR (1866: 149) as *C. ciliatus*, SIMONKAI (1886: 174) as *C. falcatus*, SIMONKAI (1888: 376) as *C. hirsutus* subsp. *ciliatus*.

Chamaecytisus triflorus (Lam.) Skalicka
subsp. *leucotrichus* (Schur) J. Holub

Its records appear either *C. hirsutus* or *C. prostratus* in the publications of SCHUR (1853, 1859a, 1866).

Aiud (Nagyenyed); **s.n.:** *C. hirsutus* L.; **t.s.:** In herbidis elationibus Transylv. N. Enyed...; **date:** 1851.

Alba Iulia (Gyulafehérvár); **s.n.:** *C. prostratus* Scop.; **t.s.:** Albae Carolinae ad margines sylvarum; **coll.:** L. Haynald; **date:** 05.1860; **det.:** Haynald as *C. elongatus*; **rev.:** Simonkai L. as *C. falcatus* Simonkai.

Braşov (Brassó); **s.n.:** “*C. elongatus* W. et K. ?”, “novus species”, “*C. prostratus* Scop. ?”; **t.s.:** ...bei Kronstadt Sibenburgén kalkkonglomerat; **date:** 10.08.1854; **rev.:** Simonkai

as *C. falcatus* W. et K.; **cit.:** SCHUR (1866: 148) as *C. hirsutus*; SIMONKAI (1886: 173, 1888: 378) as *C. leucotrichus*.

Braşov (Brassó); **s.n.:** *C. hirsutus* L.; **t.s.:** ...bei Kronstadt; **date:** 14.05.1854; **rev.:** Simonkai as *C. falcatus* W. et K. (*C. hirsutus* Schur); **cit.:** SCHUR (1866: 148) as *C. hirsutus*; SIMONKAI (1886: 173, 1888: 378) as *C. leucotrichus*.

Braşov (Brassó); **s.n.:** *C. polytrichus*, *C. hirsutus* L.; **t.s.:** In monte calc. Transilvan. in monte Hangenstein prope Coronam.; **date:** July; **rev.:** Simonkai as *C. falcatus* W. et K. (*C. politrichus* Schur); **cit.:** SCHUR (1866: 148) as *C. hirsutus*, SIMONKAI (1886: 173, 1888: 378) as *C. leucotrichus*.

Braşov (Brassó); **s.n.:** *C. prostratus* Scop. var. *aestivalis*, *C. biformis* Schur; **t.s.:** ...Kronstadt; **date:** 24.05.1854; **rev.:** Simonkai as *C. falcatus* W. et K.; **cit.:** SCHUR 1866: 148 as *C. hirsutus*; SIMONKAI (1886: 173, 1888: 378) as *C. leucotrichus*.

Cisnădie (Nagydisznód); **s.n.:** *C. polymorphus* f. *vernalis*; **t.s.:** In elatioribus graminosis Transsilv. prope Heltau; **date:** May; **rev.:** Simonkai as *C. falcatus* W. et K.

Domneşti (Bilak); **s.n.:** *C. polytrichus* M. B., "var. *argenteo-hirsuta*", *C. hirsuta* L.; **t.s.:** Bilak fructibus brevioribus...; **date:** 07.1853; **rev.:** Simonkai as *C. falcatus* W. et K.; **cit.:** SCHUR (1859a: 64, 1866: 148) as *C. hirsutus*, SCHUR 1860: 179 as *C. leucotrichus*.

Sebeş (Szászsebes); **s.n.:** *C. hirsutus* L.; **t.s.:** Rothen Berg bei Mühlenbach; **date:** 07.1853; **rev.:** Simonkai as *C. polytrichus* (*C. supinus* var. *lateriflorus* Schur); **cit.:** SCHUR (1859a: 60) as "*C. hirsutus* L. ? vel novas species an *C. polytrichus* M. B.", SCHUR (1860: 179) as *C. leucotrichus* SCHUR (1866: 149) as *C. hirsutus*, Simonkai (1888: 378) as *C. leucotrichus*. Syntype of *C. leucotrichus*.

Sebeş (Szászsebes); **s.n.:** *C. polytrichus* M. B., *C. leucotrichus* Schur, "*C. hirsutus* L. ?"; **t.s.:** Rothen Berg bei Muhlbach; **date:** 07.1851; **cit.:** SCHUR (1859a: 60) as "*C. hirsutus* L. ? vel novas species an *C. polytrichus* M. B.", SCHUR (1860: 179) as *C. leucotrichus* SCHUR (1866: 149) as *C. hirsutus*, SIMONKAI (1888: 378) as *C. leucotrichus*. **Here designated as the lectotype of *Cytisus leucotrichus*.** Protologue: SCHUR (1860): 179.

Sibiu: Guşteriţa (Nagyszeben: Szentersébet); **s.n.:** *C. hirsutus* L.; **t.s.:** Hammersdorf bei Hermannstadt; **date:** 05.1850.

Sibiu: Guşteriţa (Nagyszeben: Szentersébet); **s.n.:** *C. polymorphus*, "*C. prostratus praecox* ?"; **t.s.:** In collibus graminosis Transsilv. prope pagum Hammersdorf; **date:** June; **rev.:** Simonkai as *C. falcatus* W. et K.; **cit.:** SCHUR (1866: 149) as *C. prostratus*.

without locality; **s.n.:** *C. prostratus*; **t.s.:** ...; **date:** 06.05.1854.

Laburnum alpinus (Mill.) Bercht. et J. Presl

Its records appear either *C. laburnum* or *C. alpinus* in the publication of SCHUR (1866).

Braşov (Brassó); **s.n.:** *C. laburnum* L., *Laburnum subalpinus* Schur; **t.s.:** In mont. sylvat. Transsilv. bei Kronstadt. Auf dem Kapellenberg; **date:** May; **cit.:** SCHUR (1866: 146) as *C. laburnum*.

Braşov (Brassó); **s.n.:** *C. laburnum* L., *Laburnum vulgare* Schur [var.] *macrophyllum*; **t.s.:** Kronstadt; **date:** 08.1853; **cit.:** SCHUR (1866: 146) as *C. laburnum*.

Hunedoara (Hunyad); **s.n.:** *C. alpinus* Mill., *Laburnum alpinus* Schur; **t.s.:** In sylvaticis subalpinis Hunyadensibus Transsilvaniae; **date:** June; **cit.:** SCHUR (1866: 146) as *C. alpinus*.

Masivul Făgăraşului (Fogarasi-havasok); **s.n.:** *C. alpinus* Mill. var. *stenophyllus* Schur, *C. angustifolius* Mönch; **t.s.:** In subalpinis montis Arpás; **date:** July; **cit.:** SCHUR as *C. alpinus* (1866: 146), SIMONKAI (1886: 171, 1888: 366).

Sibiu (Nagyszeben); **s.n.:** *C. laburnum* L., *Laburnum subalpinus* Schur; **t.s.:** Hermannstadt; **date:** June.

Sibiu (Nagyszeben); **s.n.:** *C. laburnum* L., *Laburnum vulgare* Schur; **t.s.:** ...prope Cibinium; **date:** 05.1850.

Lembotropis nigricans (L.) Griseb.

It was published as “*C. nigricans* L. var. *gracilis*, *parvifolia* = *C. parvifolia* Schur” by SCHUR (1859b: 111), and cited by SIMONKAI (1886: 171) as *C. nigricans*.

SKALICKÁ (1969) considered it as a doubtful synonym of *Lembotropis nigricans* subsp. *australis* (Freyn ex Wohlfarth) Holub var. *nana* (Favrat in Gmelin) Skalická. The type specimens of *C. atratus* were revised as *C. nigricans* subsp. *sericeus* by the present author.

Braşov (Brassó); **s.n.:** *C. pseudoniger* Schur, *Laburnum pseudoniger* Schur; **t.s.:** In rupestribus calcareis prope Coronaea Kapellenberg; **date:** 06.1854; **cit.:** SCHUR (1866: 147) as *C. atratus*. Here designated as the lectotype of *Cytisus atratus*. Protologue: SCHUR (1866): 147.

Braşov (Brassó); **s.n.:** *C. pseudoniger* Schur, *Laburnum pseudoniger* Schur, *C. nigricans* var. *parvifolius* Schur; **t.s.:** Auf kalksubstrat Kronstadt; **date:** 07.1854; **cit.:** SCHUR (1866: 147) as *C. atratus*; **cf.** SCHUR 1853: 17 (*C. nigricans* var. *parvifolius* Schur) Schur. Syntype of *C. atratus*.

Sibiu (Nagyszeben); **s.n.:** *C. nigricans* L. [var.] *grandifolia*, *Laburnum nigricans* Schur; **t.s.:** Hermannstadt ... inter Hammersdorf; **date:** 30.07.1853; **rev.:** Simonkai as *C. atratus*.

without locality; **s.n.:** *C. nigricans* L. [var.] *transsilvanicus*, *Laburnum nigricans* Schur; **t.s.:** in lapidosis...; **date:** 11.06.1846.

CONCLUSIONS

In the mid-1850s Ferdinand Schur was one of the pioneers who surveyed the flora of Transylvania. While earlier botanists (*e.g.* Baumgarten) attempted to correspond the Transylvanian *Cytisus* taxa with those described from other regions in the days of Linnaeus and Kitaibel, Schur described and published many new taxa (partly identical partly different from previously described ones). This might be the reason why *Ch. supinus* subsp. *aggregatus*, a common plant in Transdanubia and well studied at that time and before, was actually described from Transylvania. In addition, he described a number of other taxa from Transylvania.

However, Schur did not make critical revisions, have not compared his own results with those of other authors, not even with his own previous works, thus the correct evaluation and understanding of his taxonomic concept (of *Cytisus* taxa) was made only possible through the full revision of his whole herbarium crosschecked with his publications. The first critical evaluation of Schur's taxa was attempted by SIMONKAI (1886, 1888). His results were probably known to and accepted by JÁVORKA (1925), and by later Romanian works (GRIUȚESCU 1957) regarding the evaluation of Schur's taxa.

In recent studies by present author Schur's *Cytisus* taxa were successfully and unambiguously clarified in accordance with the present author's former studies on *Cytisus* of the Carpathian Basin, and through another revision on Schur's herbarium, and the lectotypification of critical taxa. After all it is considerably easier to understand and interpret the names Schur used in his publications and on his herbarium specimens.

All *Cytisus* names (including *Laburnum* taxon names) from Schur's publications and herbarium are listed below, followed by the name reflecting the present author's taxonomic concept. Name(s) of author(s) is given in square brackets if Schur did not publish it originally. It is indicated directly if Schur used the name as a synonym of another taxon. When used as a synonym of another taxon, those names described by Schur are regarded and indicated as illegitimate.

C. aggregatus Schur, 1866 (herb., SCHUR 1866: 149) = *Ch. supinus* subsp. *aggregatus*

C. albus Hacq. 1790 (used by Schur as the synonym of *C. leucanthus*) (SCHUR 1866: 147, 1877: 168) = *Ch. albus*

C. alpestris Schur, 1866 (herb., SCHUR 1866: 148) = *Ch. supinus* subsp. *alpestris*

- C. alpinus* Mill., 1768 (SCHUR 1866: 146) = *Laburnum alpinus*
- C. alpinus* Mill. var. *stenophyllus* Schur, in herb. (herb.) = *Laburnum alpinus*
- C. ambiguus* Schur, 1866 (SCHUR 1866: 147) = *Ch. rochelii* subsp. *ambiguus*
- C. angustifolius* Moench., 1794 (used by Schur as the synonym of *C. alpinus*) (herb., SCHUR 1866) = *Laburnum alpinus*
- C. argenteus* [Neilr., 1846] Schur, 1877 (SCHUR 1877: 167) = *Ch. rochelii* subsp. *ambiguus*
- C. atratus* Schur, 1866 (SCHUR 1866: 147) = *Lembotropis nigricans* subsp. *sericeus*
- C. austriacus* L., 1763 (herb., SCHUR 1866: 147) = *Ch. rochelii*
- C. austriacus* var. *argenteus* [Neilr., 1846] (SCHUR 1877: 167) = *Ch. rochelii* subsp. *ambiguus*
- C. austriacus* var. *aureus* [Rchb. f., 1869] (SCHUR 1877: 168) = *Ch. rochelii* subsp. *ambiguus*
- C. austriacus* var. *canescens* [(J. Presl et C. Presl, 1822) Schur in herb.] (herb.) = *Ch. rochelii* subsp. *ambiguus*
- C. austriacus* var. *cinereus* (Host, 1831) Schur in herb. (herb.) = *Ch. rochelii* subsp. *ambiguus*
- C. austriacus* var. *latifolius* Schur, 1853, nom. nud. (used by SCHUR (1866) as the synonym of *C. ambiguus*) (SCHUR 1853: 17, SCHUR 1866: 147) = *Ch. rochelii* subsp. *ambiguus*
- C. austriacus* var. *leucanthus* Ledeb., 1842 (used by Schur as the synonym of *C. leucanthus*) (SCHUR 1866: 147) = *Ch. albus*
- C. austriacus* var. *virescens* Kováts in Neilr., 1846 (herb.) = *Ch. rochelii*
- C. austriacus* var. *virescens* Kováts in Neilr., 1846 (used by SCHUR (1877) as the synonym of *C. capitatus*) (SCHUR 1877: 168) = *Ch. rochelii* and *Ch. virescens*
- C. banaticus* Heuff. [non Wierb., 1840] (herb.) = *Ch. albus*
- C. banaticus* Wierb., 1840 (SCHUR 1866: 147) = *Ch. albus*
- C. biflorus* L'Hér., 1785 (herb.) = *Ch. ratisbonensis* and *Ch. elongatus*
- C. biflorus* L'Hér., 1785 (SCHUR 1853: 17, SCHUR 1866: 149, SCHUR 1877: 169) = *Ch. ratisbonensis*
- C. biflorus* var. *collinus* Neilr., 1846 (used by Schur as the synonym of *C. ratisbonensis* var. *collina minor*) (SCHUR 1877: 169) = *Ch. ratisbonensis*
- C. biflorus* Schur, in herb. (herb.) = *Ch. triflorus* subsp. *leucotrichus*
- C. bisflorens* Host, 1831 (used by Schur as the synonym of *C. prostratus*) (SCHUR 1866: 149) = *Ch. triflorus* subsp. *leucotrichus*
- C. bisflorens* Host f. *australis* [Schur, in herb.] (*C. australis* Kerner, 1879 = *Lembotropis nigricans*) (herb.) = *Ch. supinus* subsp. *aggregatus*
- C. bisflorens* Host f. *hyemalis* [Schur, in herb.] (herb.) = *Ch. supinus* subsp. *aggregatus*
- C. bisflorens* var. *prostratus* [(Scop., 1772) Schur, in herb.] (herb.) = *Ch. supinus* subsp. *aggregatus*
- C. capitatus* Gimpl., non Jacq. [non Scop., 1772] (used by Schur as the synonym of *C. supinus*) (SCHUR 1866: 148) = *Ch. supinus* subsp. *supinus*
- C. capitatus* L. [non Scop., 1772] (herb.) = *Ch. rochelii*
- C. capitatus* L. [non Scop., 1772] (SCHUR 1877: 168) = *Ch. rochelii* and *Ch. virescens*
- C. capitatus* Heuff. [non Scop., 1772] (herb.) = *Ch. rochelii*
- C. capitatus* (L.) Jacq. [non Scop., 1772] (herb.) = *Ch. rochelii* and *Ch. supinus* subsp. *supinus*

- C. capitatus* (L.) Jacq. [non Scop., 1772] (SCHUR 1853: 17, 1866: 148) = *Ch. supinus* subsp. *aggregatus*
- C. capitatus* Jacq. [non Scop., 1772] var. *microphylla* Schur, in herb.] (herb.) = *Ch. supinus* subsp. *supinus*
- C. capitato-austriacus* Schur, 1866, nom. illeg. (used by SCHUR (1866) as the synonym of *C. ambiguus*) (SCHUR 1866: 147) = *Ch. rochelii* subsp. *ambiguus*
- C. capitato-leucanthus* Schur, 1853, nom. nud. (SCHUR 1853: 17) = *Ch. albus* or *Ch. rochelii*
- C. ciliatus* Wahlenb., 1814 (herb., SCHUR 1866: 149) = *Ch. triflorus* subsp. *ciliatus*
- C. cinereus* Host, 1831 (used by Schur as the synonym of *C. ratisbonensis* var. *collina minor*) (SCHUR 1877: 169) = *Ch. ratisbonensis*
- C. cinereus* Schur, in herb. [non Host 1831] (herb.) = *Ch. rochelii* subsp. *ambiguus*
- C. confertus* Schur, 1866, nom. illeg. (used by Schur as the synonym of *C. capitatus* (L.) Jacq.) (SCHUR 1866: 148) = *Ch. supinus* subsp. *aggregatus*
- C. collinus* (Neilr.) Schur, 1877 (used by Schur as the synonym of *C. ratisbonensis* var. *collina minor*) (herb., SCHUR 1877: 169) = *Ch. ratisbonensis*
- C. coronensis* Schur, 1866, nom. illeg. (used by Schur as the synonym of *C. alpestris*) (SCHUR 1866: 148) = *Ch. alpestris*
- C. elongatus* W. et K., 1805 (herb.) = *Ch. elongatus*, *Ch. ratisbonensis* and *Ch. triflorus* subsp. *leucotrichus*
- C. elongatus* W. et K., 1805 (SCHUR 1853: 17, 1858: 23, 1859c: 168) = *Ch. supinus* subsp. *alpestris*
- C. falcatus* W. et K., 1812 (used by SCHUR (1866) as the synonym of *C. ciliatus*) (herb., SCHUR 1866: 149) = *Ch. triflorus* subsp. *ciliatus*
- C. heuffelii* Wierb., 1840 (SCHUR 1866: 147) = *Ch. albus*
- C. hirsutus* Jacq., non L., 1753 (used by Schur as the synonym of *C. supinus*) (SCHUR 1866: 148) = *Ch. supinus* subsp. *supinus*
- C. hirsutus* L., 1753 (herb., SCHUR 1853: 17, 1859a: 60, 64, 1866: 148) = *Ch. triflorus* subsp. *leucotrichus*
- C. hirsutus* var. *leucotrichus* Schur, 1860 (SCHUR 1860: 179) = *Ch. supinus* subsp. *leucotrichus*
- C. laburnum* L., 1753 (herb., SCHUR 1853: 17, 1866: 146) = *Laburnum alpinus*
- C. leucanthus* W. et K., 1805 (herb., SCHUR 1853: 17, 1858: 24, 1859a: 73, 1859b: 97, 1877: 168) = *Ch. albus*
- C. leucanthus* var. *aurantiacus* Schur, 1877, nom. illeg. (used by Schur as the synonym of *C. austriacus* var. *aureus*) (SCHUR 1877: 168) = *Ch. rochelii* and *Ch. virescens*
- C. leucanthus* var. *aurantiaca glabriuscula* Schur, 1853, nom. nud. (used by SCHUR (1866) as the synonym of *C. rochelii*) (SCHUR 1853: 17, 1866: 147) = *Ch. albus* and *Ch. rochelii*
- C. leucanthus* var. *capitatus* Schur, 1853, nom. nud. [non Scop., 1772] (used by SCHUR (1866) as the synonym of *C. heuffelii*) (SCHUR 1853: 17, 1866: 147) = *Ch. albus*
- C. leucanthus* var. *flaviflora* Schur, 1853, nom. nud. (herb., SCHUR 1853: 17) = *Ch. albus*

- C. leucanthus* var. *latifolia capitata* Schur, 1853, nom. nud. (SCHUR 1853: 17) = *Ch. albus* or *Ch. rochelii*
- C. leucanthus* var. *obscurus* Roch., 1828 (herb.) = *Ch. albus*
- C. leucanthus* var. *obscurus* Roch., 1828 (used by SCHUR (1866) as the synonym of *C. rochelii*) (SCHUR 1866: 147) = *Ch. albus* and *Ch. rochelii*
- C. leucanthus* (var. *microphylla*) *parvifolias* Schur, in herb. (herb.) = *Ch. albus*
- C. leucanthus* var. *obtusifolius* Schur, in herb. (herb.) = *Ch. albus*
- C. leucanthus* var. *pallidus* Schrad., 1825 (used by SCHUR (1866) as the synonym of *C. banaticus* and used by SCHUR (1877) as the synonym of *C. leucanthus*) (SCHUR 1866: 147, 1877: 168) = *Ch. albus*
- C. leucanthus* var. *sparsiflora* Schur, 1853, nom. nud. (SCHUR 1853: 17) = *Ch. albus* or *Ch. rochelii*
- C. leucanthus* var. *stenophyllus* Schur, in herb. (herb.) = *Ch. albus*
- C. leucanto-austriacus* Schur, 1853, nom. nud. (used by SCHUR (1866) as the synonym of *C. banaticus*) (SCHUR 1853: 17, 1866: 147) = *Ch. albus*
- C. leucotrichus* Schur, 1860 (herb., SCHUR 1860: 179) = *Ch. triflorus* subsp. *leucotrichus*
- C. nigricans* L. 1753 (SCHUR 1853: 17, 1866: 146) = *Lembotropis nigricans*
- C. nigricans* var. *gracilis* Schur, 1859 (SCHUR 1859b: 111) = *Lembotropis nigricans* subsp. *sericeus*
- C. nigricans* L. var. *grandifolia* Schur, in herb. (herb.) = *Lembotropis nigricans*
- C. nigricans* L. var. *transsilvanicus* Schur, in herb. (herb.) = *Lembotropis nigricans*
- C. nigricans* var. *parvifolius* Schur, 1853, nom. nud. (used by SCHUR (1866) as the synonym of *C. atratus*) (herb., SCHUR 1853: 17, 1859b: 111, 1866: 147) = *Lembotropis nigricans* subsp. *sericeus*
- C. obscurus* (Roch.) Schur, 1853 (herb.) = *Ch. albus*
- C. obscurus* (Roch.) Schur, 1853 (used by SCHUR (1866) as the synonym of *C. rochelii* and SCHUR (1877) as synonym of *C. austriacus* var. *aureus*) (SCHUR 1853: 17, 1866: 147) = *Ch. albus* and *Ch. rochelii*
- C. obscurus* (Roch.) Schur, 1853 (SCHUR 1859a: 59, 1877: 168) = *Ch. rochelii*
- C. obvallatus* Schur, 1866 (SCHUR 1866: 148) = *Ch. albus*
- C. parvifolia* (Schur) Schur, 1859 (SCHUR 1859b: 111) = *Lembotropis nigricans*
- C. pallidus* (Schrad.) Kerner, 1869 (used by Schur as the synonym of *C. leucanthus*) (SCHUR 1877: 168) = *Ch. albus*
- C. polymorphus* Schur, in herb. f. *vernalis* Schur, in herb. (herb.) = *Ch. triflorus* subsp. *leucotrichus*
- C. polytrichus* M. B., 1819 (used by SCHUR (1866) as the synonym of *C. hirsutus*) (herb., SCHUR 1853: 17, 1859a: 60, 1866: 148) = *Ch. triflorus* subsp. *leucotrichus*
- C. polytrichus* var. *argenteo-hirsuta* Schur, in herb. (herb.) = *Ch. triflorus* subsp. *leucotrichus*
- C. propinquus* Schur, 1866, nom. illeg. (herb., SCHUR 1866: 147) = *Ch. rochelii*
- C. prostratus* Scop., 1772 (herb., SCHUR 1853: 17, 1859c: 158, 1866: 149) = *Ch. triflorus* subsp. *leucotrichus*
- C. prostratus* – *alpinus* Schur, in herb. (herb.) = *Ch. supinus* subsp. *supinus*
- C. prostratus* f. *vernalis lateriflorus* Schur, in herb. (herb.) = *Ch. triflorus* subsp. *leucotrichus*

- C. prostratus* [var.] *praecox* Schur, in herb. (herb.) = *Ch. triflorus* subsp. *leucotrichus*
C. prostratus Scop. var. *aestivalis* Schur, in herb. (herb.) = *Ch. triflorus* subsp. *leucotrichus*
C. pseudoniger Schur, in herb. (herb.) = *Lembotropis nigricans*
C. pseudo-nigricans Schur, 1866, nom. illeg. (used by Schur as the synonym of *C. atratus*)
 (SCHUR 1866: 147) = *Lembotropis nigricans* subsp. *sericeus*
C. ratisbonensis Schaeff., 1760 (used by SCHUR (1866) as the synonym of *C. biflorus*)
 (SCHUR 1853: 17, 1866: 149) = *Ch. ratisbonensis*
C. ratisbonensis Schaeff. var. *collina minor* Schur, 1877 (SCHUR 1877: 169) = *Ch. ratisbo-*
nensis
C. ratisbonensis Schaeff. var. *depressus* Schur, 1853, nom. nud. (SCHUR 1853: 17) = *Ch. ra-*
tisbonensis
C. ratisbonensis Schaeff. var. *legitimus major* Schur, 1877 (SCHUR 1877: 169) = *Ch. ratisbo-*
nensis
C. ratisbonensis Schaeff. var. *minor* Schur, 1853, nom. nud. (SCHUR 1853: 17) = *Ch. ratis-*
bonensis
C. ratisbonensis Schaeff. var. *virgatus* (Heuffel) Schur, in herb. (herb.) = *Ch. ratisbonensis*
C. rochelii Wierb., 1840 (SCHUR 1866: 147) = *Ch. albus* and *Ch. rochelii*
C. ruthenicus Fisch., 1824 (SCHUR 1859c: 154) = *Ch. supinus* subsp. *supinus*
C. stenophyllus Schur, in herb. (herb.) = *Ch. rochelii* subsp. *ambiguus*
C. supinus Host, non L. (SCHUR 1853: 17) = *Ch. ratisbonensis*
C. supinus L., 1753 (herb., SCHUR 1853: 17, 1866: 148, 1877: 168) = *Ch. supinus* subsp. *su-*
pinus
C. supinus L. [var.] *hirsutus* (L.) Schur, in herb. (herb.) = *Ch. alpestris*
C. supinus L. [var.] *microphyllus* Schur, in herb. (herb.) = *Ch. supinus* subsp. *supinus*
C. supinus L. var. *lateriflorus* Schur, 1866 (herb., SCHUR 1866: 148) = *Ch. alpestris*
C. supinus L. var. *subcapitatus* Schur, 1866 (SCHUR 1866: 148) = *Ch. supinus* subsp. *supinus*
C. supinus Jacq. (used by Schur as the synonym of *C. ratisbonensis* var. *collina minor*)
 (SCHUR 1877: 169) = *Ch. ratisbonensis*
C. villosus Presl., 1822 (herb.) = *Ch. rochelii*
C. virgatus Vest., 1824 (used by Schur as the synonym of *C. ciliatus*) (SCHUR 1866: 149) =
Ch. triflorus subsp. *ciliatus*
Laburnum alpinus Schur [= (Mill.) Griseb., 1843] (herb.) = *Laburnum alpinus*
Laburnum nigricans Schur [= (L.) J. Presl] (herb.) = *Lembotropis nigricans*
Laburnum pseudoniger Schur, in herb. (herb.) = *Lembotropis nigricans* subsp. *sericeus*
Laburnum subalpinus Schur, in herb. (herb.) = *Laburnum alpinus*
Laburnum vulgare Schur [= J. Presl] [var.] *macrophyllum* in herb. (herb.) = *Laburnum*
alpinus

* * *

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