

Taxonomic revision and typification of *Cytisus* (Leguminosae) in the Herbarium Carpato-Pannonicum in Budapest (BP)

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Abstract – Eighty type specimens of 30 *Cytisus* taxa, described from the Carpathian Basin, have been localised and designated by the author: one holotype, 22 lectotypes, 19 isolectotypes, 36 syntypes, and two topotypes. A taxonomic revision was also carried out. *Cytisus prolifer* was synonymized with *Chamaecytisus albus*; *Cytisus pannonicus* with *Chamaecytisus supinus* ssp. *aggregatus*; *Cytisus albus* var. *kisii* and *Cytisus propinquus* with *Chamaecytisus virescens*.

Key words – BORBÁS, *Chamaecytisus*, *Corothisamnus*, flowering plants, GRISEBACH, herbarium, JÁVORKA, KITAIBEL, lectotype, *Lembotropis*, ROCHEL, SCHENK, SCHUR, SIMONKAI, WAGNER, WAISBECKER, WALDSTEIN, WIERZBICKI.

INTRODUCTION

In the Department of Botany of the Hungarian Natural History Museum, Budapest (BP) an inventory was started within the family Leguminosae in 2004 by the author. This process includes the following steps: 1) revision of the material, 2) arranging the specimens according to collecting localities, and 3) designation of type material.

The genus *Cytisus* is treated here in a wide sense: the recently separated genera (*Chamaecytisus*, *Corothisamnus*, *Lembotropis*) are discussed as well, with the exception of the genus *Sarothamnus*, which is traditionally separated in the collection of “Herbarium Carpato-Pannonicum” in BP.

The revision and typification involved all the materials held in the “Herbarium Carpato-Pannonicum” and in the related parts of the “Herbarium Generale” and “Collectio Historica” (also parts of BP).

Lectotypes were designated when the main collection of the given author is found at BP (but duplicates may be deposited in other herbaria too), i.e. in the case of the following authors: VINCE BORBÁS, LAJOS SIMONKAI, SÁNDOR JÁVORKA, PÁL KITAIBEL, GYULA KOVÁTS, ANTAL WAISBECKER and JÁNOS WAGNER. Des-

ignation of types was not made if the main collection of the given author was kept in another institute even if duplicates can be found at BP as well. It concerns the taxa described by AUGUST GRISEBACH, AUGUST SCHENK, PETER WIERZBICKI, ANTON ROCHEL and FERDINAND SCHUR.

If more than one syntype were available for a taxon, duplicates of the lectotype were treated as isolectotypes and the others as syntypes.

All the former revisions on the same sheet are listed following a chronological order. Herbaria, where certain sheets had been kept earlier, are also mentioned in chronological order.

Abbreviations used in the text: **i.n.** = inventory number of the herbarium sheet (BP), in some cases followed by former unused inventory numbers being in brackets; **coll.** = name of the collector and the date of collecting; **det.** = identified by; **rev.** = revised by; **herb.** = names of herbaria where the specimen was kept earlier along with the previous inventory number; **exsicc.** = the name of the exsiccate; **rem.** = remark of the author; **t.s.** = the text of the label of the herbarium sheet; “...” = illegible parts of the text of the labels are replaced by dots.

ENUMERATION OF *CYTISUS* TYPE SPECIMENS IN BP

Cytisus albus HACQ. var. *kissi* JÁVORKA ex KISS, 1939

Protologue – KISS (1939): 227.

Lectotype – Hereby designated. **i.n.**: 94991; **coll.**: Á. KISS (12.07.1938); **t.s.**: “Bodrogkisfalud, Medve-hegy, füves réten”; **herb.**: herbarium of Á. KISS; **rem.**: It is a transitional form between *Cytisus albus* and *C. virescens*. In my opinion it belongs to *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL.

Isolectotype – **i.n.**: 94990.

Cytisus ambiguus SCHUR, 1866

Protologue – SCHUR (1866): 147.

Syntype – **i.n.**: 94994; **coll.**: F. SCHUR (08.1847) com. M. FUSS; **t.s.**: “Transsilvania: in collibus herbidis prope pagum Reussen (locus classicus)”; **rev.**: L. SIMONKAI as *C. pallidus* SCHRAD.; A. SKALICKÁ as *Chamaecytisus virescens* (NEILR.) DOSTÁL; **herb.**: herbarium of L. SIMONKAI; **rem.**: *C. pallidus* SIMK. non SCHRAD. = *Ch. virescens*. I accept the opinion of SKALICKÁ, it belongs to *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL.

Cytisus arenarius SIMONKAI, 1888

Protologue – SIMONKAI (1888): 361, 372.

Lectotype – Hereby designated. **i.n.:** 95124; **coll.:** L. SIMONKAI (08.08.1875); **t.s.:** “Hungaria centralis: in silvarum arenosarum apertis inter Pilis et Alberti”; **herb.:** herbarium of L. SIMONKAI; **rem.:** In my opinion it belongs to *Ch. austriacus* (L.) LINK.

Cytisus austriacus L. var. *umbrosus* BORBÁS, 1879

Protologue – BORBÁS (1879): 166.

Lectotype – Hereby designated. **i.n.:** 583100; **coll.:** V. BORBÁS (09.07.1873); **t.s.:** “in silvis umbrosis sub Johannisberg ad Budam”; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 48941; **rem.:** In my opinion it belongs to *Ch. austriacus* (L.) LINK.

Cytisus austriacus L. var. *virescens* KOVÁCS ex NEILREICH, 1846

Protologue – NEILREICH (1846): 640.

Lectotype – Hereby designated. **i.n.:** 207000; **coll.:** J. KOVÁTS; **t.s.:** “Laa b. Wien. Inter frutices”; **exsicc.:** J. v. KOVÁTS Flora exsicc. Vindobon. 126; **rem.:** In my opinion it belongs to *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL.

Isolectotypes – 1. **i.n.:** 207001; **rev.:** *C. austriacus* × *capitatus* (unknown handwriting); **herb.:** herbarium of N. BOHÁTSCH.

2. **i.n.:** 207002.

3. **i.n.:** 207003; **herb.:** herbarium of GY. SZÉPLIGETI.

Cytisus banaticus GRISEBACH et SCHENK, 1852

Protologue – GRISEBACH & SCHENK (1852): 292.

Syntypes – 1. **i.n.:** 583169; **coll.:** P. WIERZBICKI; **t.s.:** “Banat, Oravicza”; **det.:** P. WIERZBICKI as *Cytisus austriacus* L. var. *banaticus*; **rev.:** L. SIMONKAI as *Cytisus heuffelii* WIERZB.; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 196257; **rem.:** In my opinion it belongs to *Ch. albus* (HACQ.) ROTHM.

2. **i.n.:** 622875 (207426); **coll.:** J. HEUFFEL; **t.s.:** “In collibus ad Vetus Orsova in Banatu”; **det.:** J. HEUFFEL as *Cytisus austriacus* L. var. *dubius* HEUFFEL, also as *Cytisus leucanthus* W. et K. var. *obscurus* ROCHEL; **rev.:** L. SIMONKAI as *Cytisus albus* HACQ.; **herb.:** herbarium of L. HAYNALD.

3. **i.n.:** 622884; **coll.:** HEUFFEL (07.1834); **t.s.:** “In collibus graminosis ad Vetus Orsova legionis Vallachico-Illyricae”; **det.:** J. HEUFFEL as *Cytisus austriacus* L. var. *dubius* HEUFFEL; **rev.:** L. SIMONKAI as *Cytisus albus* HACQ.; **herb.:** herbarium of L. HAYNALD.

Cytisus bucovinensis SIMONKAI, 1888

Protologue – SIMONKAI (1888): 361, 369.

Lectotype – Hereby designated. **i.n.:** 207305; **coll.:** F. HERBICH (07.1836); **t.s.:** “Bucovina. Ad viam caesaream prope Sereth”; **det.:** L. SIMONKAI as *Cytisus Bucovinensis*; **herb.:** herbarium of L.

SIMONKAI; **rem.**: a note of L. SIMONKAI on the label: “*Cytisus capitatus* HERBICH exs!”. In my opinion it belongs to *Ch. supinus* (L.) LINK ssp. *aggregatus* (SCHUR) LÖVE et LÖVE.

Cytisus ciliatus WAHLENBERG var. *monostichus* BORBÁS, 1898

Protologue – BORBÁS (1898): 162.

Lectotype – Hereby designated. **i.n.**: 95185; **coll.**: J. CZAKÓ (25.05.1890); **t.s.**: “In silvis caeduis ad Poprád”; **det.**: as *Cytisus ciliatus* WAHLENB. var. *semiciliatus* (unknown handwriting); **herb.**: herbarium of GY. SZÉPLIGETI; **rem.**: *Cytisus ciliatus* WAHLENB. var. *semiciliatus* is a herbarium name. In my opinion it belongs to *Ch. ciliatus* (WAHLENB.) ROTHM.

Isolectotypes – 1. **i.n.**: 95184; **coll.**: J. CZAKÓ (25.05.1890); **t.s.**: “In silvis caeduis ad Poprád (Schlösschen)”; **det.**: as *Cytisus ciliatus* WAHLENB.; **herb.**: herbarium of GY. SZÉPLIGETI; **rem.**: Two individuals at the margins of the sheet designated as isolectotype.

2. **i.n.**: 95186; **coll.**: J. CZAKÓ (25.05.1890); **t.s.**: “In silvis caeduis ad Poprád”; **det.**: as *Cytisus ciliatus* WAHLENB. var. *semiciliatus*; **herb.**: herbarium of L. SIMONKAI.

Cytisus ciliatus WAHLENBERG var. *pleurotrichus* BORBÁS, 1898

Protologue – BORBÁS (1898): 162.

Lectotype – Hereby designated. **i.n.**: 95184; **coll.**: J. CZAKÓ (25.05.1890); **t.s.**: “In silvis caeduis ad Poprád (Schlösschen)”; **det.**: as *Cytisus ciliatus* WAHLENB.; **herb.**: herbarium of GY. SZÉPLIGETI; **rem.**: The type specimens represent a gradual transition concerning the hairs of their legume between *C. triflorus* ssp. *leucotrichus* and *C. ciliatus*. The lectotype was selected from them according to the text of the protologue “legumine utroque angulo ciliato, ad latera sparse piloso”, which fits well the individual in the middle of the sheet. In my opinion it belongs to *Ch. ciliatus* (WAHLENB.) ROTHM.

Isolectotypes – 1. **i.n.**: 95181; **coll.**: J. CZAKÓ (25.05.1890); **t.s.**: “In silvis caeduis ad Poprád”; **det.**: as *Cytisus hirsutus* L. (?); **herb.**: herbarium of GY. SZÉPLIGETI.

2. **i.n.**: 95182; **coll.**: J. CZAKÓ (25.05.1890); **t.s.**: “In silvis caeduis ad Poprád (Schlösschen)”; **det.**: as *Cytisus hirsutus* L. (?); **rev.**: L. SIMONKAI as *C. ciliatus* WAHLENB.; **herb.**: herbarium of L. SIMONKAI.

Syntype – **i.n.**: 591084; **coll.**: V. BORBÁS (30.07.1890); **t.s.**: “in Baba monte ad Lucsvina”; **det.**: V. BORBÁS as *Cytisus ciliatus* WAHLENB.; **herb.**: herbarium of V. BORBÁS, Herbarium Reg. Scient. Univ. Hung. Budapest 48953.

Cytisus elongatus WALDSTEIN et KITAIBEL, 1805

Protologue – WALDSTEIN & KITAIBEL (1805): 2: 200, tab. 183.

Lectotype – Designated by CHRTEK & SKOČDOPOLOVÁ (1982) in PR.

Syntypes – 1. **coll.**: P. KITAIBEL; **t.s.**: “E sylvis Banatus”; **herb.**: herbarium of P. KITAIBEL XXIV. No. 160; **rem.**: This specimen also belongs to *Ch. elongatus* (WALDST. et KIT.) LINK.

2. **coll.**: P. KITAIBEL; **t.s.**: “ad Oraviczam”; **herb.**: herbarium of P. KITAIBEL XXIV. No. 161.

Cytisus falcatus WALDSTEIN et KITAIBEL, 1812

Protologue – WALDSTEIN & KITAIBEL (1812): 264, tab. 238.

Lectotype – Designated by KOVÁTS (1992: 40); **coll.**: P. KITAIBEL; **t.s.**: “a pl. rar. Hung. In alpe Plissivicza et in monte Merszin lectus”; **rev.**: D. KOVÁTS as *Chamaecytisus ciliatus* (WAHLENB.) ROTHM. (16.01.1992); **herb.**: herbarium of P. KITAIBEL XXIV. No. 170; **rem.**: In my opinion it belongs to *Ch. ciliatus* (WAHLENB.) ROTHM.

Cytisus haynaldi SIMONKAI, 1886

Protologue – SIMONKAI (1886): 173–174.

Lectotype – Hereby designated. **i.n.**: 657520 (207279); **coll.**: SIMONKAI (01.05.1886); **t.s.**: “Transsilvania: in montibus fruticosis supra Váralja et Kovrágy vallis Hátszegiensis”; **rem.**: The original text written by SIMONKAI as a name on the label: “*Cytisus Haynaldi* SIMONKAI var. germinibus sutura ciliatis”. In my opinion it belongs to *Ch. ciliatus* (WAHLENB.) ROTHM. ssp. *alpestris* (SCHUR) SOÓ.

Isolectotype – **i.n.**: 94780; **t.s.**: “Transsilvania: in montibus fruticosis supra Váralja et Kovrágy”; **det.**: SIMONKAI as *Cytisus Haynaldi*; **herb.**: herbarium of L. SIMONKAI; **rem.**: The original text written by SIMONKAI as a name on the label: “SIMONKAI var. germinibus sutura ... ciliatis Hátszegiensis”.

Syntypes – 1. **i.n.**: 94784; **coll.**: L. SIMONKAI (14.08.1872); **t.s.**: “Transsilvaniae australis: in locis umbrosis vallis Lepusnik supra pagum Gurény montium Retyezát”; **det.**: L. SIMONKAI as *Cytisus Hátszegensis* SIMONKAI; **rev.**: L. SIMONKAI as *Cytisus Haynaldi* SIMK.; **herb.**: herbarium of L. SIMONKAI.

2. **i.n.**: 622847 (207125); **coll.**: L. HAYNALD (16.06.1859); **t.s.**: “Öcsémteteje”; **herb.**: herbarium of L. HAYNALD.

Topotypes – 1. **i.n.**: 94779; **coll.**: L. SIMONKAI (12.06.1902); **t.s.**: “Habitat in cacumine (Dantiás tető) montis Öcsém saxoso, calcereo”; **herb.**: herbarium of L. SIMONKAI.

2. **i.n.**: 94778; **coll.**: Á. DEGEN (17.06.1901); **t.s.**: “Com. Csík. In saxosis montis, Öcsém teteje pr. Balánbánya”; **det.**: Á. DEGEN as *Cytisus Haynaldi* SIMONKAI; **rev.**: L. SIMONKAI as *Cytisus Haynaldi*; **herb.**: herbarium of L. SIMONKAI.

Cytisus haynaldi SIMONKAI var. *perhirsutus* SIMONKAI, 1886

Protologue – SIMONKAI (1886): 173–174.

Lectotype – Hereby designated. **i.n.**: 94787; **coll.**: L. SIMONKAI (02.05.1886); **t.s.**: “Transsilvania australis, in valle Bisztrae supra pagum Bukova versus Vrva-Petri”; **herb.**: herbarium of L. SIMONKAI; **rem.**: In my opinion it belongs to *Ch. ciliatus* (WAHLENB.) ROTHM. ssp. *alpestris* (SCHUR) SOÓ.

Cytisus heuffelii WIERZBICKI ex GRISEBACH et SCHENK, 1852

Protologue – GRISEBACH & SCHENK (1852): 292–293.

Syntypes – 1. **i.n.:** 622908 (206969); **coll.:** P. WIERZBICKI (26.06.1839); **t.s.:** “... bei Gaytasol”; **det.:** P. WIERZBICKI as *Cytisus Heuffelii* WIERZB. (*Cytisus austriacus* var. *cinereus*); **herb.:** herbarium of J. HEUFFEL, herbarium of L. HAYNALD; **rem.:** In my opinion it belongs to *Ch. heuffelii* (WIERZB. ex GRISEB. et SCHENK) ROTHM.

2. **i.n.:** 622909 (206968); **coll.:** P. WIERZBICKI (26.06.1839); **t.s.:** “... bei Gaytasol”; **herb.:** herbarium of J. HEUFFEL, herbarium of L. HAYNALD.

3. **i.n.:** 622909 (206968); **coll.:** P. WIERZBICKI (05.07.1845); **t.s.:** “Drenkova, Svinicza und Berszaszka”; **herb.:** herbarium of J. HEUFFEL, herbarium of L. HAYNALD.

4. **i.n.:** 622911 (206970); **coll.:** P. WIERZBICKI (1843); **t.s.:** “Auf sonnigen Anhöhen bei Drenkova. Flora Banat”; **exsicc.:** Flora Banat 23.

Cytisus horniflorus BORBÁS, 1900

Protologue – BORBÁS (1900): 299.

Lectotype – Hereby designated. **i.n.:** 581457; **coll.:** V. BORBÁS (08.06.1887); **t.s.:** “in arenosis silvaticis ad Monor in Hung. centrali”; **herb.:** herbarium of V. BORBÁS, Herbarium Reg. Scient. Univ. Hung. Budapest 50154; **rem.:** In my opinion it belongs to *Ch. ratisbonensis* (SCHAEFFER) ROTHM.

Syntypes – 1. **i.n.:** 585300; **coll.:** L. RICHTER (13.07.1897); **t.s.:** “Bucsa Királyhágó Bihar megye”; **det.:** D. PIFKÓ as *Cytisus ratisbonensis* SCHÄFFER ssp. *horniflorus* (BORBÁS) JÁV. (2001); **herb.:** herbarium of BORBÁS, Herbarium Reg. Scient. Univ. Hung. Budapest 50156.

2. **i.n.:** 585354; **coll.:** L. RICHTER (13.07.1897); **t.s.:** “Bucsa Királyhágó Bihar megye”; **det.:** D. PIFKÓ as *Cytisus ratisbonensis* SCHÄFFER ssp. *horniflorus* (BORBÁS) JÁV. (2001); **herb.:** herbarium of V. BORBÁS, Herbarium Reg. Scient. Univ. Hung. Budapest 50157.

3. **i.n.:** 585356; **coll.:** V. BORBÁS (09.06.1887); **t.s.:** “in arenosis silvarum inter Monor et Pilis”; **det.:** D. PIFKÓ as *Cytisus ratisbonensis* SCHÄFFER ssp. *horniflorus* (BORBÁS) JÁV. (2001); **herb.:** herbarium of V. BORBÁS, Herbarium Reg. Scient. Univ. Hung. Budapest 50155.

Cytisus leucanthus WALDSTEIN et KITAIABEL, 1805

Protologue – WALDSTEIN & KITAIABEL (1805): 141, tab. 132.

Lectotype – Designated by CHRTEK & SKOČDOPOLOVÁ (1982): 221, in PR.

Syntypes – 1. **coll.:** P. KITAIABEL; **t.s.:** “Etiam Wildenow pro novo habet. Crescit in dumetis et sylvis qui inde Aradino, juxta Marusium, versus Lippam et inde versus Temesvarium exenduntur Floret 7-bri”; **herb.:** herbarium of P. KITAIABEL XXIV. No. 194; **rem.:** In my opinion it belongs to *Ch. albus* (HACQ.) ROTHM.

2. **coll.:** P. KITAIABEL; **t.s.:** “a thermas Herculis versus Topletz eundo inventum”; **herb.:** herbarium of P. KITAIABEL XXIV. No. 198.

3. **coll.:** P. KITAIABEL; **t.s.:** “E sylvis Banatus”; rev.: S. JÁVORKA as *C. heuffelii*; **herb.:** herbarium of P. KITAIABEL XXIV. No. 205.

Cytisus millennii BORBÁS, 1897

Protologue – BORBÁS (1897): 433.

Lectotype – Hereby designated. **i.n.:** 382010; **coll.:** V. BORBÁS (24.05.1896); **t.s.:** “in herbis collium ad Békás-Megyér (Krotendorf), solo calcar.”; **rem.:** In my opinion it belongs to *Ch. austriacus* (L.) LINK × *Ch. ratisbonensis* (SCHÄFF.) ROTHM.

Syntype – **i.n.:** 658927; **coll.:** V. BORBÁS (07.07.1897); **t.s.:** “in cacumine montis ad Békás-Megyér”; **rem.:** According to his note on the label as “(*C. Austriacus* × *Ratisbonensis*)” BORBÁS regarded this specimen as a hybrid, which is not mentioned in the protologue.

Cytisus nigricans L. var. *angustifolius* WAISBECKER, 1908

Protologue – WAISBECKER (1908): 49.

Lectotype – Hereby designated. **i.n.:** 95497; **coll.:** A. WAISBECKER (24.06.1907.); **t.s.:** “Sárd Magyar botan. Lapok 1908 évf. 49. lapja Kőbányánál Kőszegen”; **herb.:** herbarium of A. WAISBECKER; **rem.:** In my opinion it belongs to *Lembotropis nigricans* (L.) GRISEB.

Cytisus nigricans L. var. *macrophyllus* WAISBECKER, 1908

Protologue – WAISBECKER (1908): 49.

Lectotype – Hereby designated. **i.n.:** 95498; **coll.:** A. WAISBECKER (24.06.1907.); **t.s.:** “Magy. bot. lap 1908 évf 49-es lapja és Kőfejtőnél Rohonc”; **herb.:** herbarium of A. WAISBECKER; **rem.:** In my opinion it belongs to *Lembotropis nigricans* (L.) GRISEB.

Cytisus nigricans L. var. *macrophyllus* WAISBECKER
f. *bifurcatus* WAISBECKER, 1908

Protologue – WAISBECKER (1908): 49.

Lectotype – Hereby designated. **i.n.:** 95498; **coll.:** A. WAISBECKER (18.07.1907.); **t.s.:** “Rohonc”; **herb.:** herbarium of A. WAISBECKER; **rem.:** In my opinion it belongs to *Lembotropis nigricans* (L.) GRISEB.

Cytisus nigricans L. var. *sericeus* ROCHEL ex ANDRÄ, 1853

Protologue – ANDRÄ (1853): 440.

Lectotype – Designated by SKALICKÁ (1969): 270–271. **i.n.:** 647935 (207592); **coll.:** C. ANDRÄ (06.1851.); **t.s.:** “Drennova am Donauthale”; **rev.:** A. SKALICKÁ as *Lembotropis nigricans* (L.) GRISEB. ssp. *sericea* (ROCHEL ex ANDRÄ) SKALICKÁ; **herb.:** herbarium of L. HAYNALD; **rem.:** The name published by ROCHEL (1828) was nomen nudum. In my opinion it belongs to *Lembotropis nigricans* (L.) GRISEB. ssp. *sericea* (ROCHEL ex ANDRÄ) SKALICKÁ.

Syntype – **i.n.:** 207613; **coll.:** I. FRIVALDSZKY; **t.s.:** “Rumelia”; **det.:** I. FRIVALDSZKY as *Cytisus nigricans* var. *sericeus* ROCHEL; **rev.:** A. SKALICKÁ as *Lembotropis nigricans* (L.) GRISEB. ssp. *australis* (FREYN ex WOHLFART) HOLUB; **herb.:** herbarium of J. SADLER; **rem.:** Further text on the label (handwriting of GYULA KOVÁTS): “Fivaldszky herb. turc. 291”, “Sadler herbarium 27481”.

Cytisus pannonicus SIMONKAI, 1888

Protologue – SIMONKAI (1888): 361, 368–369.

Lectotype – Hereby designated. **i.n.:** 196926; **coll.:** GY. TAUSCHER (27.09.1871); **t.s.:** “Hungaria in silva “Nyerges” ad Simontornya com. Tolna”; **det.:** L. SIMONKAI as *Cytisus pannonicus*; **herb.:** herbarium of L. SIMONKAI; **rem.:** There is an additional text “(sub *aggregato* x *pallidus*) *Cytisus virescens* TAUSCHER exs., non KOVÁCS” below the name of the species on the handwritten label of L. SIMONKAI. In my opinion it belongs to *Ch. supinus* (L.) LINK ssp. *aggregatus* (SCHUR) LÖVE et LÖVE.

Isolectotypes – 1. **i.n.:** 196925; **t.s.:** “Cottus Tolna: E silvaticis Nyerges prope oppidum Simontornya”; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **rev.:** V. BORBÁS as *Cytisus pannonicus* SIMK.

2. **i.n.:** 197043; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **herb.:** herbarium of J. CSATÓ.

3. **i.n.:** 591305; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 84757.

4. **i.n.:** 591306; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 03682.

5. **i.n.:** 197044; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **herb.:** herbarium J. BARTH; **rem.:** one of the individuals is *Cytisus ratisbonensis*.

Syntypes – 1. **i.n.:** 196924; **coll.:** GY. TAUSCHER (21.09.1870); **t.s.:** “Cottus tolnensis e montanis inter frutices “Homok fő” prope Simontornya”; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS.

2. **i.n.:** 196927; **coll.:** GY. TAUSCHER (21.09.1870); **t.s.:** “Cottus tolnensis e montanis inter frutices “Homok fő” prope Simontornya”; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS.

3. **i.n.:** 197042; **coll.:** GY. TAUSCHER (06.1871); **t.s.:** “Cottus tolnensis E arenosis montanis Homok fő prope oppidum Simontornya”; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **herb.:** herbarium of J. CSATÓ.

4. **i.n.:** 231567; **coll.:** GY. TAUSCHER (21.09.1870); **t.s.:** “Cottus tolnensis e montanis inter frutices “Homok fő” prope oppidum Simontornya”; **det.:** GY. TAUSCHER as *Cytisus virescens* KOVÁCS; **herb.:** herbarium of J. DORNER.

Cytisus prolifer KITAIBEL, 1863 = *Cytisus pullulans* KITAIBEL, 1863

Protologue – KANITZ (1863): 611.

Lectotype – Hereby designated. 1. **coll.:** P. KITAIBEL; **t.s.:** “In fruticetis Banatus; **rev.:** V. BORBÁS as *Cytisus heuffelii*; **herb.:** herbarium of P. KITAIBEL XXIV. No. 207”; **rem.:** The name *C. pullulans* is mentioned under the name *C. prolifer* KIT. in the protologue, which was published here

for the first time. Both names are in the same label in the herbarium of P. KITAIBEL. In my opinion it belongs to *Ch. albus* (HACQ.) ROTHM.

Cytisus propinquus SCHUR, 1866

Protologue – SCHUR (1866): 147.

Syntype – **i.n.:** 94992; **coll.:** SCHUR (07.1847); **t.s.:** “In collibus herb. prope Hammersdorf”; **det.:** F. SCHUR as *Cytisus propinquus* SCHUR; **rev.:** L. SIMONKAI as *Cytisus pallidus* SCHRAD., A. SKALICKÁ as *Chamaecytisus albus* (HACQ.) ROTHM.; **herb.:** herbarium of L. SIMONKAI; **rem.:** *C. pallidus* SIMK. non SCHRAD. = *Ch. virescens*. It is a transitional form between *Ch. albus* and *Ch. virescens*. SCHUR mentions another name on the label: “*Cytisus leucanthus* W. et K. var. *rigidus* denseque capitatus”. In my opinion it belongs to *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL.

Cytisus pseudorochelii SIMONKAI, 1897

Protologue – SIMONKAI (1897): 232.

Lectotype – Hereby designated. **i.n.:** 196913; **coll.:** L. SIMONKAI (28.08.1896); **t.s.:** “Hungaria. Budapestina in silvis caeduis montis Állatkert”; **herb.:** herbarium of L. SIMONKAI; **rem.:** In my opinion it belongs to *Ch. austriacus* (L.) LINK × *Ch. supinus* (L.) *aggregatus* (SCHUR) LÖVE et LÖVE.

Isolectotypes – 1. **i.n.:** 196914; **coll.:** L. SIMONKAI; **t.s.:** “Hungaria media. In ditone Budapestina in silvis caeduis “Állatkert” dictis copiose inter parentes, *Cytisum Austriacum* L. et *C. aggregatum* SCHUR.”; **exsicc.:** Flora Exsiccata Austro-Hungarica 2821; **herb.:** herbarium of L. SIMONKAI.

2. **i.n.:** 196915; **herb.:** herbarium of BARTH JÓZSEF.

3. **i.n.:** 196916; **herb.:** herbarium of A. KERNER.

4. **i.n.:** 237074.

5. **i.n.:** 603129; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 03682.

Cytisus rochelii WIERZBICKI ex GRISEBACH et SCHENK, 1852

Protologue – GRISEBACH & SCHENK (1852): 293.

Syntypes – 1. **i.n.:** 94986; **coll.:** P. WIERZBICKI; **t.s.:** “Bannat, bei Illadia”; **exsicc.:** RCHB. Fl. Germ. Novit. 1724; **rem.:** In my opinion it belongs to *Ch. rochelii* (WIERZB. ex GRISEB. et SCHENK) ROTHM.

2. **i.n.:** 231566; **coll.:** P. WIERZBICKI (07.1835); **t.s.:** “Ad viarum agrorumq̄e margines inter Val. Csiklova et Illida”; **herb.:** herbarium of J. DORNER.

3. **i.n.:** 360560; **coll.:** P. WIERZBICKI (06.–07.1840); **t.s.:** “Auf Thonhügeln und Wegen bey Illadia in Banat”; **exsicc.:** WIERZBICKI 59.

4. **i.n.:** 603120; **coll.:** A. ROCHEL (1835); **t.s.:** “vall. Schnpanek. Rochlitban”; **det.:** A. ROCHEL as *Cytisus capitatus* L., *Cytisus leucanthus* W. et K. var. *obscurus* ROCHEL; **rev.:** L. SIMONKAI as *Cytisus Rochelii* WIERZB.; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 198242.

5. **i.n.:** 647896 (207960); **coll.:** P. WIERZBICKI (05.07.1835); **t.s.:** “Ad agrorum margines prope Illadia”; **rev.:** A. SKALICKÁ as *Chamaecytisus virescens* (NEILR.) DOSTÁL; **herb.:** herbarium of L. HAYNALD.

6. **i.n.:** 647900 (207956); **coll.:** P. WIERZBICKI (1839); **t.s.:** "... bei Illadia und Basias"; **rev.:** A. SKALICKÁ as *Chamaecytisus virescens* (NEILR.) DOSTÁL; **herb.:** herbarium of L. HAYNALD.

7. **i.n.:** 658926 (207065); **coll.:** A. ROCHEL (1835); **t.s.:** "vall. Schnpanek. Rochlitban"; **det.:** A. ROCHEL as *Cytisus capitatus* JACQ., *Cytisus leucanthus* L. var. *obscurus* ROCHEL; **rev.:** L. SIMONKAI as *Cytisus Rochelii* WIERZB.; **herb.:** Herbarium Reg. Scient. Univ. Hung. Budapest 198242.

Cytisus scepusiensis KITAIBEL, 1863

Protologue – KANITZ (1863): 609.

Lectotype – Hereby designated. **coll.:** P. KITAIBEL; **t.s.:** "a Mauksch sub nomine supini missus e sylva episcopali"; **herb.:** herbarium of P. KITAIBEL No. XXIV. 178; **rem.:** In my opinion it belongs to *Ch. ciliatus* (WAHLENB.) ROTHM.

Cytisus serotinus KITAIBEL ex DE CANDOLLE, 1825

Protologue – DE CANDOLLE (1825): II. 156.

Lectotype – Hereby designated. **coll.:** P. KITAIBEL; **t.s.:** "ad pedem montis Nagy-hegy non procul Munkács"; **rev.:** S. JÁVORKA as *C. leucotrichus* SCHUR f. *serotinus* KIT.; **herb.:** herbarium of P. KITAIBEL XXIV. No. 176.; **rem.:** There are three sheets in the herbarium of P. KITAIBEL. Two of them belong to *C. supinus* ssp. *aggregatus* and the third one to *C. virescens*. SIMONKAI (1888: 376–377) designated as *C. ciliatus*. BORBÁS (1898: 162) designated as *C. leucotrichus*. JÁVORKA (1929: 105) designated as *C. capitatus* var. *serotinus* (KIT.) JÁVORKA. In my opinion it belongs to *Ch. supinus* (L.) LINK ssp. *aggregatus* (SCHUR) LÖVE et LÖVE.

Syntypes – 1. **coll.:** P. KITAIBEL; **t.s.:** "In sylva Gödöllőensis"; **herb.:** herbarium of P. KITAIBEL XXIV. No. 177.; **rev.:** D. PIFKÓ as *Ch. virescens* (2005.03.01.).

2. **coll.:** P. KITAIBEL; **t.s.:** "Von Nagy-hegy Muncatsch"; **rev.:** S. JÁVORKA as *C. leucotrichus* SCHUR f. *serotinus* KIT.; **herb.:** herbarium of P. KITAIBEL LIII. No. 61.

Cytisus vadasii J. WAGNER, 1915

Protologue – WAGNER (1915): 78–80.

Lectotype – Hereby designated. **i.n.:** 393478; **coll.:** J. WAGNER (05.1911); **t.s.:** "Deliblát. Kincstári homokpuszta"; **det.:** as *Cytisus virgatus* HEUFF. × *austriacus* L. f. *noëanus* RB.; **rem.:** WAGNER (1915) regarded it as a hybrid: *C. austriacus* L. var. *noëanus* RB. × *C. ratisbonensis* SCHÄFF. f. *virgatus* HEUFF. In my opinion it belongs to *Ch. austriacus* (L.) LINK × *Ch. ratisbonensis* (SCHÄFF.) ROTHM.

Genista procumbens WALDSTEIN et KITAIBEL, 1805

Protologue – WALDSTEIN & KITAIBEL (1805): 197, tab. 183.

Holotype: – Designated by SKALICKÁ (1967: 17); **coll.**: P. KITAIBEL; **t.s.**: “ad lapidinam Gyöngyösiensem in Sár-hegy”; **herb.**: herbarium of KITAIBEL XXIII. No. 231; **rem.**: In my opinion it belongs to *Corothamnus procumbens* (WALDST. et KIT.) C. B. PRESL.

Syntype – **coll.**: P. KITAIBEL; **t.s.**: “e Matra, G. sylvestris Scop. carn. 2. n. 875 ab hac nostra est diversa”; **herb.**: herbarium of P. KITAIBEL XXIII. No. 230.

APPENDIX

A short account of the taxonomic revision is given. Basionym names of the recently selected types are followed by the correct names accepted here.

- C. albus* HACQ. var. *kissi* JÁV. = *Chamaecytisus virescens* (KOVÁCS ex NEILR.) DOSTÁL
C. ambiguus SCHUR = *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL
C. arenarius SIMONKAI = *Ch. austriacus* (L.) LINK
C. austriacus L. var. *umbrosus* BORBÁS = *Ch. austriacus* (L.) LINK
C. austriacus L. var. *virescens* KOVÁCS ex NEILR. = *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL
C. banaticus GRISEB. et SCHENK = *Ch. albus* (HACQ.) ROTHM.
C. bucovinensis SIMONKAI = *Ch. supinus* (L.) LINK ssp. *aggregatus* (SCHUR) LÖVE et LÖVE
C. ciliatus WAHLENB. var. *monostichus* BORBÁS = *Ch. ciliatus* (WAHLENB.) ROTHM.
C. ciliatus WAHLENB. var. *pleurotrichus* BORBÁS = *Ch. ciliatus* (WAHLENB.) ROTHM.
C. elongatus WALDST. et KIT. = *Ch. elongatus* (WALDST. et KIT.) LINK
C. falcatus WALDST. et KIT. = *Ch. ciliatus* (WAHLENB.) ROTHM.
C. haynaldi SIMONKAI = *Ch. ciliatus* (WAHLENB.) ROTHM. subsp. *alpestris* (SCHUR) SOÓ
C. haynaldi SIMONKAI var. *perhirsutus* SIMONKAI = *Ch. ciliatus* (WAHLENB.) ROTHM. ssp. *alpestris* (SCHUR) SOÓ
C. heuffelii WIERZB. ex GRISEB. et SCHENK = *Ch. heuffelii* (WIERZB. ex GRISEB. et SCHENK) ROTHM.
C. horniflorus BORBÁS = *Ch. ratisbonensis* (SCHÄFF.) ROTHM.
C. leucanthus WALDST. et KIT. = *Ch. albus* (HACQ.) ROTHM.
C. millennii BORBÁS = *Ch. austriacus* (L.) LINK × *Ch. ratisbonensis* (SCHÄFF.) ROTHM.
C. nigricans L. var. *angustifolius* WAISB. = *Lembotropis nigricans* (L.) GRISEB.
C. nigricans L. var. *macrophyllus* WAISB. = *L. nigricans* (L.) GRISEB.
C. nigricans L. var. *macrophyllus* WAISB. f. *bifurcatus* WAIS. = *L. nigricans* (L.) GRISEB.
C. nigricans L. var. *sericeus* ROCHEL ex ANDRÄ = *L. nigricans* (L.) GRISEB. ssp. *sericea* (ROCHEL ex ANDRÄ) SKALICKÁ
C. pannonicus SIMONKAI = *Ch. supinus* (L.) LINK ssp. *aggregatus* (SCHUR) LÖVE et LÖVE
C. prolifer KIT. = *Ch. albus* (HACQ.) ROTHM.
C. propinquus SCHUR = *Ch. virescens* (KOVÁCS ex NEILR.) DOSTÁL
C. pseudorocheii SIMONKAI = *Ch. austriacus* (L.) LINK × *Ch. supinus* (L.) *aggregatus* (SCHUR) LÖVE et LÖVE
C. pullulans KIT. = *Ch. albus* (HACQ.) ROTHM.
C. rocheii WIERZB. ex GRISEB. et SCHENK = *Ch. rocheii* (WIERZB. ex GRISEB. et SCHENK) ROTHM.
C. scepusiensis KIT. = *Ch. ciliatus* (WAHLENB.) ROTHM.
C. serotinus KIT. ex DC. = *Ch. supinus* (L.) LINK ssp. *aggregatus* (SCHUR) LÖVE et LÖVE
C. vadasii J. WAGNER = *Ch. austriacus* (L.) LINK × *Ch. ratisbonensis* (SCHÄFF.) ROTHM.
G. procumbens WALDST. et KIT. = *Corothamnus procumbens* (WALDST. et KIT.) C. B. PRESL.

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