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Poaceae type specimens of Herbarium Carpato-Pannonicum I. (Erianthus-Agrostis)

By

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Abstract: Author begins to discuss the type specimens of Poaceae - at first from the genera of Erianthus, Sorghum, Chrysopogon, Panicum, Setaria, Stipa, Crypsis, Heleochloa, Phleum, Agrostis - which are to be found in the "Herbarium Carpato-Pannonicum" of the Botanical Department, Hungarian Natural History Museum in Budapest even in the most valuable part of it, at The Herbarium Kitaibelianum.

I think it is not necessary to emphasize the importance of the data process of Herbaria (SOPER & PERRING 1967, CROVELLO & Mc DONALD 1970, HALL 1972, MEADOW 1973, SZUJKÓ-LACZA 1974). In this paper I continue to elaborate the type material in the Herbarium Carpato-Pannonicum (KOVÁTS 1975). Here I begin to discuss the type specimens of Poaceae, the genera of Erianthus, Sorghum, Chrysopogon, Panicum, Setaria, Stipa, Crypsis, Heleochloa, Phleum, Agrostis, according to Engler's system and Dalla Torre and Harms' (1900) number.

Our herbaria (BP) are the most outstanding and complete ones in Hungary and significant even in Europe (SZUJKÓ-LACZA 1973). One of the collections is the "Herbarium Carpato-Pannonicum", containing the flora of the Carpathian Basin, Great Hungarian Plain and the Carpathians (FEKETE & KOVÁTS 1974). Part of the Herbarium - among others - is the "Herbarium Kitaibelianum"; it has great scientific and historical value. Here the type specimens of Paul Kitaibel, "the Hungarian Linné", can be found.

The present paper dealing with 21 described type taxa (19 type specimens), of these 3 are P. KITAIBEL's types, while the others were described by J. HEUFFEL (1), F. Schur (1), V. BORBÁS (1), A. WAISBECKER (5), L. SIMONKAI (1), Á. DEGEN (2), J. BERNÁTSKY (1), S. JÁVORKA (4), Á. BOROS (1), D. KOVÁTS (1).

The sequence of the genera in our herbarium follows the Engler's system and Dalla Torre and Harms' number (1900) and within this the species are in alphabetical order, or they are according to the taxonomical rank. The genera and species, listed below are in the same system. The names are followed by the date of description, the kind of type, literature (Lit.), containing the first description of the plant, eventual synonyms (Syn.) the data of the label (or labels), the name of the collector (Leg.), and that of the identifier (det.) eventual revision (Revid.), chromosome data (Cytol.data), the locality of collection of the type-specimen (Locus classicus) based on either the label or on literature, insofar as data referring to the habitat could be discovered.

The labels of the herbarial sheets contain diverse information. In some cases the most important data (locality or habitat, collection date, the name of the collector) are incomplete, in other cases they are more or less in order, and in few cases a concise morphological description and other different notes can also be found on it. If the type specimen is deposited in the "Herbarium Kitaibelianum", its serial fascicle numbers are given, if it is in the general collection, the DALLA TORRE and HARMS' (1900) and the inventory numbers are submitted.

Finally the numbers of specimens or culms present on the type sheet, the life form of the plant according to Raunkiaer's classification (SOÓ 1973) and the phenophases of the type (Phen.) according to SZUJKÓ-LACZA & FEKETE (1973) are given.

Saccharum adpressum n.sp. Kit. 1825
Erianthus adpressus (Kit.) Jáv. 1925

Holotypus
Lit.: Kitaibel, P. in: SPRENGER, C. (1825, p. 282), JÁVORKA, S. (1925, I.p.62)
Syn.: Andropogon strictum Host., Saccharum strictum (Host.) Spr., Erianthus Hostii Griseb. in JÁVORKA (1925, I.p.62)
Leg. et det.: Kitaibel, P.: "Aliqui culmi, iique minores, jam sub finem Maji a. 1800 florere coeperunt".
Revid.: Jávorka, S.: Erianthus Hostii Griseb. = adpressus (Kit.) Jáv. in JÁVORKA (1936, 30:11)
Cytol. data: 2n: 30 (DARLINGTON & WYLIE 1955)
Locus classicus: "e.g. ad Illok, supra Kamenicz, inter monasterium Rákovácz et Boocsin" (Yugoslavia)
Habit.: "crescit in locis aridis inter vineas syrmienses".
In Herbar. Kitaibel 9789 Mus.nat.hung.fasc. XXXIX. No 277.
On the sheet there are 3 culms.
Phen.: 24, 33, 42

Sorghum vulgare Pers. var. technicum (Koern.) Jáv. 1925

Neotypus
Lit.: JÁVORKA, S. (1925, I.p. 63)
Syn.: Sorgum bicolor (L.) Mönch ssp. effusum Kcke. var.technicum (Kcke.) Jáv. in: SOO-JÁVORKA (1951, II.p.970-971), S. bicolor var. technicum Stapf, in: SOO (1973, V.p.448)
Leg. et det.: Jávorka, S.: Sorghum vulgare Pers. B technicum Koern. Seprőcirok, 24.IX.1921.
Locus: "Comit. Pest: cultum supra opp. Kunszentmiklós" (Hungary)
Dalla Torre et Harms' number: 134, inventory number: 2887 Flora Hungarica
On the sheet there is 1 culm, life form: Th.
Phen.: 24, 34, 42

Chrysopogon gryllus (L.) Trin. f. eriocaulis (Borb.) Jáv. 1925

Neotypus
Lit.: JÁVORKA, S. (1925, I.p.63)
Leg. et det.: Steinitz, W.: Andropogon Gryllus L.
Revid.: Jávorka, S.: "ad f. eriocaulis (Borb.) pertinens"
Locus: "Adlerberg bei Ofen, in Budapest" (Hungary)
Dalla Torre et Harms' number: 134, inventory number: 2924
Ex Herbario J. Márton, J. Dörfler Wr. Botan. Tauschverein, Wien, I. Burgring 7., Richter L. Budapest.
On the sheet there are 2 culms, life form: H.
Phen.: 24, 32

Panicum compactum (mihi) Kit. 1814

Holotypus
Lit.: KITAIBEL, P. in: SCHULTES, J. (1814, I.p.212)
Syn.: Setaria italica (L.) R. et Sch. var. compacta (Kit.) Beck. in JÁVORKA (1925, I.p.65)
Leg. et det.: Kitaibel, P.: "Forte viridis varietas, a quo differt vaginis, superiore parte culmi et rachi cano-pilosis, setis involucrorum brevioribus flosculis, ut nec videantur; spica compacta; seminibus laevibus, nec nervosis: haec nimirum alteo latere convexa laevia,

altero plana, utricue bisulcata sunt; sulcis vix visibilibus, sen striata. Est sine dubio P. germanicum B. involucellis flore brevioribus, Willdenowii (Spec.pl.), qui se idem saepius sub nomine P. indici ut sibirici accepisse dicit".
Revid.: Jávorka, S.: = Setariai italica B compacta (Kit.) Beck. Fl. Niederöst. p. 42 = S. italica (L.) R. et Sch. sec. Borbás Balaton fl. p.315.
Cytol. data: diploid, 2n:28 (DARLINGTON & WYLIE 1955)
Locus classicus: ?
In herbar. Kitaibel 416 Mus.nat.hung.fasc. II. No 43.
On the sheet there are 4 culms, life form: Th.
Phen.: 24, 34, 41

Setaria italica (L.) R. et Sch. var Metzgeri (Kcke.) Jáv. 1925

Neotypus
Lit.: JÁVORKA, S. (1925, l.p.65)
Leg.: Sztehlo, A. aug. 1875.
Det.: Jávorka, S.'s handwriting: Setaria italica var. Metzgeri (Kcke.)
Locus: "Ofen im Lhanséegraben der Budaörser Landstrasse" (Hungary)
Dalla Torre et Harms' number: 171, inventory number: 67258. collector's number: 16
Flora Hungarica
On the sheet there are 4 separated specimens and several culms, life form: Th.
Phen.: 24, 33

Stipa eriocaulis Borbás 1878

Neotypus
Lit.: BORBÁS, V. (1878, 15:311)
Syn.: S. pennata L. var. gallica Janka, ssp. mediterranea (Trin. et Rupr. p. var.) A. et G., prol. gallica A. et G., ssp. eriocaulis Martinovsky et Skalicky, S. gallica Celak, S. pulcherrima C. Koch, ssp. mediterranea Schwarz, ssp. gallica Jirasek ex Dost., Watzl, Podp. p. var., S. pennata L. s. str. ? according to Janchen, in SOO (1973, V.p.418)
Locus: "in monte Guger Budae" locis herbidis" (Hungary)
Habit.: in SOÓ (1973, V.p.428)
Dalla Torre et Harms' number: 209, inventory number: 242911
Flora Hungariae centralis
On the sheet there is 1 specimen, life form: H.
Phen.: 24, 33, 42

Stipa eriocaulis Borb. f. asperula Degen 1936

Holotypus
Lit.: DEGEN, Á. (1936, I.p.514)
Leg. et det.: Degen, Á.: "a typo culmo subinflorescentia asperulo differt" 2.VI.1902, Nr. 254.
Locus classicus and habit.: "croatia litoralis. In clivibus lapidosis aridis ad pagum Martinscica, sol.calc.alt.cca.10-40 m.s.m. (Yugoslavia)
Dalla Torre et Harms' number: 209, inventory number: 380889
Gramina Hungarica edita cura instituti sementi examin reg.hung.budapestinensis.
On the sheet there are 3 specimens with 1 culm, life form: H.
Phen.: 24, 34, 42

Stype villifolia Simk. 1895

Lectotypus
Lit.: SIMONKAI, L. (1895, 32: 44-46)

Syn.: Stipa Joannis Celak. ssp. villifolia Simk. in JÁVORKA (1925, I.p.69), St. dasyphylla (Czern. ex Lindem) Trautv. in MARTINVSKY (1967, 54: 49), St. dasyphylla Trautv. var. villifolia (Simk.) Dom. et Podp. in SOÓ (1973, V.p.415)

Leg. et det.: Simonkai, L.: "Stipa villifolia Simk. pro subspecie St. pennatae L."... (St. dasyphylla Borb. Természett. Közlöny 1895, p. 50, - non Czern. consp. pl. charkow p. 75 (1859) nomen nudum, et in Lindenam fl. cherson II (1882) p. 283, "Foliis vivis planis, demum convolutis pilosis" descrp.) 24.V.-9.VI.1894.

Revid.: Martinovsky, J.O.: St. dasyphylla Trautv. 1964

Locus classicus: ""Hungaria centralis. In apertis graminosis montis Hármashatár supra Buda-Ujlak, sociis St. aperta Janka et St. Austriaca (Beck) hinc-inde capiose. Solo calc. 300-350 m.s.m. Fructifera lecta..." (Hungary)

Habit.: "in monte Hármashatárhegy atque Táborhegy ad Budapestinum, unacum St. Austriaca et St. Tirsa"

Dalla Torre et Harms' number: 209, inventory number 3666, collector's number: 41
"Flora imperii hungarici ex herbario L. Simonkai"

On the sheet there are some specimens and several culms, life form: H.

Phen.: 24, 34, 42

Crypsis alopecuroides x schoenoides Bernátsky 1905
Crypsis Bernátskyana Degen 1905

Holotypus

Lit.: BERNÁTSKY J. (1905, 3:121-214., tab. 5), DEGEN, Á. (1905, 4:285-287)

Syn.: Heleochloa Bernátskyana (Degen) Boros nom. nudum 1917, Heleochloa Bernátskyana (Degen) Jáv. nom. nudum 1925, in JÁVORKA (1925, I.p.70)

Leg. et det.: Bernátsky, J.: Crypsis schonoides (L.) Lam. IX. 1902.

Revid.: S. Jávorka's handwriting: "Bernátskyana! in forme".

Locus classicus: Kunszentmiklós (Hungary)

Habit.: in SOÓ (1973, V.p.431-432)

Dalla Torre et Harms' number: 221, 222, inventory number: 4277, collector's number: 72
Flora Hungarica

On the sheet there are two specimens, but only on the right side specimen is the type, with several culms, life form: Th.

Phen.: 24, 33.

Phleum hubbardii D.Kov. 1977

Holotypus

Lit.: KOVÁTS, D. (1977, 23:119-142)

Syn.: Ph. nodosum L. pro. p., Ph. pratense L. ssp. (var.) nodosum (L.) Schreb. pro.p., Ph. bulbosum Host. pro.p., Ph. bertolonii DC. pro.p., Ph.pratense L. var (?) stoloniferum (Host.) Borbás pro.p., Ph. pratense ssp. nodosum (L.) Richt. pro.p. Ph. pratense var. nodosum Batt. et Trabut pro.p., Ph. pratense ssp. Ph. vulgare var. Bertolonii A. and G. pro.p., Ph. pratense var. pilisense Boros pro.p., in KOVÁTS (1977, 23:128-129), Ph. pratense L. ssp. Hubbardii (D.Kov.) Soó, in SOÓ (1973, VI.p.158, 185)

Leg.: Ujhelyi, J., Tóth, S., Kováts, D. 30.IX.1975.

Det.: Kováts, D.: Phleum hubbardii D.Kov. species nova Holotypus!

Cytol. data: diploid, 2n:14

Locus classicus: "Hungaria occidentalis. In pratis siccis montium "Bakony-hegység" ad pag Hárskut, prope opp. Veszprém, Alt. 400-450 m.s.m."

Dalla Torre et Harms' number: 223, inventory number: 484108
Flora Hungarica

On the sheet there are 9 culms, life form: H.

Phen.: 24, 33, 42

Phleum pratense L. var. pilisense Boros 1964

Lectotypus
Lit.: BOROS, Á. (1964, 5:286-287)
Syn.: Ph. hubbardii D.Kov., in KOVÁTS (1977, 23:129)
Leg. et det.: Boros, Á.: Ph. pratense L. var. pilisense Boros nov.var. 3.VIII.1952.
Revid.: Kováts, D.: Ph. hubbardii D.kov. 3.I.1977.
Cytol. data: diploid, 2n:14
Locus classicus: "Comit. Pest. In declivibus siccis supra pagum Pilisszentlászló. Alt.cca. 400 m.s.m." (Hungary)
Habit.: in BOROS (1964, 5:287)
Dalla Torre et Harms' number: 223, inventory number: 364500
Á.Boros Plantae Hungariae Exsiccatae
On the sheet there are 3 specimens, with 11 culms, life form: H.
Phen.: 24, 33, 42

Phleum pratense L. f. micranthum Waisb. 1897

Lectotypus
Lit.: WAISBECKER, A. (1897, 47:4)
Leg. et det.: Waisbecker, A. 15.VIII.1896.
Locus classicus: in fossis (árkokban), Kőszegen (Hungary)
Dalla Torre et Harms' number: 223, inventory number: 4850, collector's number: 127
Vasmegye Flórája
On the sheet there are 4 culms, life form: H.
Phen.: 24, 33, 42

Phleum pratense L. f. protuberans Waisb. 1905

Lectotypus
Lit.: WAISBECKER, A. (1905, 4:55)
Leg. et det.: Waisbecker, A. 5.VII.1903.
Locus classicus: ad fossas (árkok mentén), Kőszegen (Hungary)
Dalla Torre et Harms' number: 223, inventory number: 4851, collector's number: 127
Vasmegye Flórája
On the sheet there are 1 specimen with 4 panicles, life form: H.
Phen.: 24, 33, 42

Agrostis arenaris Schur 1859

Isotypus
Lit.: SCHUR, F. (1859, 9:50-51)
Syn.: A. arenosa, rigida Schur, Trichoclium arenarium Schur, A. vinealis (Schreb.) Bmg. in SCHUR (1859, 9:50-51)
Leg. et det.: Schur, F.
Revid.: Simonkai, L.: Agrostis vulgaris With.
Locus classicus: "Transsilvaniae: Hammersdorf" (Rumania).
Dalla Torre et Harms' number: 242, inventory number: 5485, revisers' number: 41
Herbar.Musei Nat.Hungar.Budapest
On the sheet there are 11 culms, life form: H.
Phen.: 24, 34, 42

Agrostis canina L. var. micrantha Waisb. 1905

Lectotypus
Lit.: WAISBECKER, A. (1905, 4:56,68)
Syn.: A. canina L. var. canina f. micrantha Waisb. in SOÓ (1973, 5:395)
Leg. et det.: Waisbecker, A. 25.VI.1893.
Revid.: Vertergren, T.: A. canina L. f. spiculis deminutis, 1928.
Locus classicus: ad margines sylvarum (erdei vágásokban), Kőszegen (Hungary)
Dalla Torre et Harms' number: 242, inventory number: 5299, collector's number: 127
Vasmegye Flórája
On the sheet there are 2 specimens with several culms, life form: H.
Phen.: 24, 33, 42

Agrostis canina L. var. setaceiformis Waisb. 1905

Lectotypus
Lit.: WAISBECKER, A. (1905, 4:56, 67-68)
Syn.: A canina L. var. canina f. caespitosa Waisb. in SOO (1973, V.p.395)
Leg. et det.: Waisbecker, A. 8.VIII.1898 (var. caespitosa m. in ÖBZ 1899 p.66.)
Revid.: Vertergren, T.: A canina L. "foliis innovationum convolutis teretibus" 1928.
Locus classicus: edge of a puddle (tócsa szélén), Tömördön (Hungary)
Dalla Torre et Harms' number: 242, inventory number: 5300, collector's number: 127
Vasmegye Flórája
On the sheet there are two separated specimens, life form: H.
Phen.: 24, 34, 42

Agrostis canina L. var. variiflora Waisb. 1895

Lectotypus
Lit.: WAISBECKER, A. (1895, 45:109)
Syn.: A canina L. var. canina f. variiflora Waisb. in SOÓ (1973, 5:395)
Leg. et det.: Waisbecker, A. 20.VI.1892.
Revid.: Vertergren, T.: A canina L. albino 1928
Locus classicus: ad margines sylvarum (erdei vágásokban), Kőszegen (Hungary)
Dalla Torre et Harms' number: 242, inventory number: 5303, collector's number: 127
Vasmegye Flórája
On the sheet there are 2 separated specimens with several culms, life form: H.
Phen.: 24, 34, 42

Agrostis gracilis (mihi) Kit. 1814

Holotypus
Lit.: Kitaibel, P. in: SCHULTES, J.A. (1814, I.p.180-181)
Syn.: Poa nemoralis f. uniflora M. et K. in JÁVORKA (1926, 24:461)
Leg. et det.: Kitaibel, P. "Schrad 10. - Schult. 6."
Revid.: Jávorka, S.: Poa nemoralis f. uniflora M. et K. XI.1907.
Cytol. data: poliploid, 2n:28-70, mostly 28 and 42, in SOÓ (1973, V.p.319)
Locus classicus: "In sylvis"?
Habit.: in SOÓ (1973, V.p.319)
In Herbar. Kitaibel 671 Mus.nat.hung.fasc. III. No 68
On the sheet there are 6 separated culms, life form: H.
Phen.: 24, 33

Agrostis stolonifera L. var. vaginata Heuff. 1858

Lectotypus
Lit.: HEUFFEL, J. (1858, 8:226)
Syn.: A. stolonifera L. var. stolonifera f. vaginata Heuff. in SOÓ (1973, V.p.398)
Leg. et det.: Heuffel, J. Jul.1834.
Locus classicus: "In arenosis fluvii Nera ad Szászka Cottus Krassó" (Yugoslavia)
Habit.: in SOÓ (1973, V.p.400)
Dalla Torre et Harms" number: 242, inventory number: 5218
Ex Herbario Dris Heuffel, and Herbarium Archiepiscopi Dris Ludovici Haynald
On the sheet there are 6 culms, life form: H.
Phen.: 24, 33, 42

There are some Kitaibel's Agrostis species, appear in literature, which are not to be found at Herbarium Kitaibelianum in Budapest (JÁVORKA 1925, p.458). On the other hand Kitaibel's 5 Agrostis taxa are found at his herbarium, unfortunately without descriptions. The species are the following: Agrostis conferta Kit.; Agrostis divaricata (nobis) Hoffm. et Kit.; Agrostis diversiflora v. heteromala (mihi) Kit.; Agrostis pallida (mihi) Kit.; Agrostis trichotoma (mihi) Kit.

The Poaceae type taxa of the Herbarium Carpato-Pannonicum, listid in this paper, in taxonomical and alphabetical order, are divided by the authors:
Kitaibel's type species: Agrostis gracilis, Panicum compactum, Saccharum adpressum
Heuffel's variety: Agrostis stolonifera L. var. vaginata
Schur's type species: Agrostis arenaria
Borbás' type species: Stipa eriocaulis
Waisbecker's varieties: Agrostis canina L. var. micrantha, Agrostis canina L. var. setaceiformis, Agrostis canina L. var. variiflora and forms: Phleum pratense L. f. micranthum, Phleum pratense L. f. protuberans
Simonkai's type species: Stipa villifolia
Degen's type species: Crypsis Bernatskyana and form: Stipa eriocaulis Borb.f. aspera
Bernátsky's hybrid: Crypsis alopecuroides x schoenoides
Jávorka's type species: Erianthus adpressus and varieties: Setaria italica (L.) R. et Sch. var. Metzgeri (Kcke.), Sorgum vulgare Pers. var. technicum (Koern.) and form: Chrysopogon gryllus (L.) Trin. f. eriocaulis (Borb.)
Boros' variety: Phleum pratense L. var. pilisense
Kováts' type species: Phleum hubbardii

The Poaceae type taxa of the Herbarium Carpato-Pannonicum, listed in this paper, in chronological order: 1814: Agrostis gracilis Kit. and Panicum compactum Kit.; 1825: Saccharum adpressum Kit.; 1858: Agrostis stolonifera L. var. vaginata Heuff.; 1859: Agrostis arenaria Schur.; 1878: Stipa eriocaulis Borb.; 1895: Agrostis canina L. var. variiflora Waisb. and Stipa villifolia Simk.; 1897: Phleum pratense L. f. micranthum Waisb.; 1902: Stipa eriocaulis Borb. f. asperula Dégen; 1905: Agrostis canina L. var. micrantha Waisb. and Agrostis canina L. var. setaceiformis Waisb. and Phleum pratense L. f. protuberans Waisb. and Crypsis alopecuroides x schoenoides Bernátsky and Crypsis Bernátskyana Dégen; 1925: Crysopogon gryllus (L.) Trin. f. eriocaulis (Borb.) Jávorka and Erianthus adpressus (Kit.) Jáv. and Setaria italica (L.) R. et. Sch. var. Metzgeri (Kcke.) Jáv. and Sorgum vulgare Pers. var. technicum (Koern.) Jávorka; 1964: Phleum pratense L. var. pilisense Boros; 1977: Phleum hubbardii D.Kov.

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