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TYPE SPECIMENS IN THE HERBARIUM OF THE UNIVERSITY OF TARTU (TU). 1. DICOTYLEDONES

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Abstract. This article provides information on the collections of dicotyledons kept at the Herbarium of the University of Tartu (TU), 29 of which are types for 21 taxa, 25 are presumably types for 19 taxa, 11 are nomina provisoria for 6 taxa, and 4 were collected in locus classicus of 2 taxa.

Key words: types of plants taxa; Herbarium of the University of Tartu.

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INTRODUCTION

Aside from the total amount of collections, the number of type specimens is one of the most important characteristics of the scientific value of the herbarium (Skvortsov, 1977). The Herbarium of University of Tartu (previously known as Derpt or Yuriev) was founded in 1802 (Botanical…, 2022), thus being the oldest herbarium of Eastern Europe. It contains collections made by C.F. von Ledebour, A.G. von Bunge, N.I. Kuznetsov, N.A. Bush and other botanists of the XIX century and the early XX century, as well as various flora exsiccatum. In 2013 its funds contained more than 290,000 specimens of vascular plants, 90,000 of which were part of the Estonian Herbarium, and 200,000 were part of the Herbarium Generale (Botanical…, 2022). Unfortunately, due to various reasons the type specimens had never been intentionally separated from those collections, and by 2014 only some of them were allocated for 71 taxa (Botanical…, 2021).

First of all, the collections were disjuncted from 1915 to 1955, with 75—80% of them remaining in Tartu (Yuryev) (Eichwald, 1933), while the rest of collections were travelling along the following route: Yuryev – Voronezh – Berlin – Leningrad – Tartu (Shcherbakov et al., 2017).

Secondly, once the funds were combined, the Soviet and foreign taxonomists did not pay enough attention to these collections, working mainly with the larger herbaria of Leningrad, Moscow and other cities.

Thirdly, the Estonian botanists were mostly interested with the specimens collected in Estonia.

Therefore, taking all of this into account, we began a purposeful search for the type specimens in the funds of the Herbarium of the University of Tartu. The following materials were collected during the first stage of our research.

This article is divided into 4 sections. The first one contains taxa with an accurately determined status of the type specimens. The second one contains taxa, which specimens are pro-

visionally considered as types, although we could not determine this status for sure. The reason for this is that in the first half of the XIX century it was common to replace herbarium labels upon receiving materials from other collectors or upon assembling collections (Skvortsov, 1977). After that the original labels were removed, while the new ones sometimes had wrong or insufficient information written on them. For example, many labels of the collections received by the Herbarium of the Derpt University from the heirs of F.E.L. von Fischer, who was the first director of the Imperial Botanical Garden of Saint-Petersburg, have the dates on them indicating the period when von Fischer obtained the herbaria, instead of those denoting the collection time. This is also indirectly evidenced by the same handwriting and ink on the labels that came from different collectors. Moreover, there are no original labels and many specimens from the "Flora Altaica" of C.F. von Ledebour (Fig. 1–5).

The third section contains information on the specimens that were labelled as types ones for the further description of the new taxa, which had never been completed. We hope that the taxonomists working with the mentioned taxa will take interest in the information from the sections 2 and 3 of this article.

And finally, the fourth section contains topotypes, i.e. the specimens collected in "locus classicus".

In each section, the plant names are listed alphabetically in the following order: families, genera, species, infraspecific taxa. Each specimen has its collection number (barcode). For every label in Russian a translation is provided and denoted as [In Rus.].

TYPI

Ceratophyllaceae

Ceratophyllum tanaiticum Sapjegin, 1902, Trav. Soc. Nat. Kharkow, 37: 315.

Isolectotypus (TU321010): Don Oblast, 1st Don Okrug, lake Vodyanoe (Utkino) near farm Utkino Nizhne-Kurmoyarski stanitsa, 19.VII.1902, coll. V. Sukachev, det. A. Sapegin. [In Rus.].

Protologue: in Don.

Note: In contrast to the lectotype chosen by D.H. Les (LE), the label of the isolectotype has a record of the determination of the specimen by A. Sapjegin. Unlike the Latin protologue of A. Sapjegin, the Russian protologue lists 4 different sites, which is why D.H. Les had to choose the lectotype. Locus classicus of the species was destroyed during the creation of the Tsimlyansk reservoir.

Ericaceae

Rhododendron burjaticum Malyschev, 1961, Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR, 21: 455.

Isotypus (TU285863): Herbarium of flora of the USSR. [In Rus.]. 4600. *Rhododendron burjaticum* Malysch. Sajanensis Orientalis, jugum Kitojense, fl. Saghan-Sajr, prope ostium fontis Zmeevikovyj, circa limitem superiorem silvae, alt. 2000 m s.m., in lariceto paludoso collucato. L. Malyschev, 1958 VI 27, fl.

Protologue: the same.

Gentianaceae

Gentiana carpatica Wettst., 1892, Oesterr. Bot. Z., 42(1): 4.

Isotypus (TU285864): I. Transsilvania. In pratis silvaticis et ad margines silvarum in convallibus oppidi Rodna; 800—900 mt. s.m. Porcius. II. Hungaria orientalis. In pratis elatis Menscö prope Raho in comitatu Marmaros. Janka.

Protologue: in motibus prope Rodna (Porcius), in montibus prope Raho, com. Marmaros (Janka).

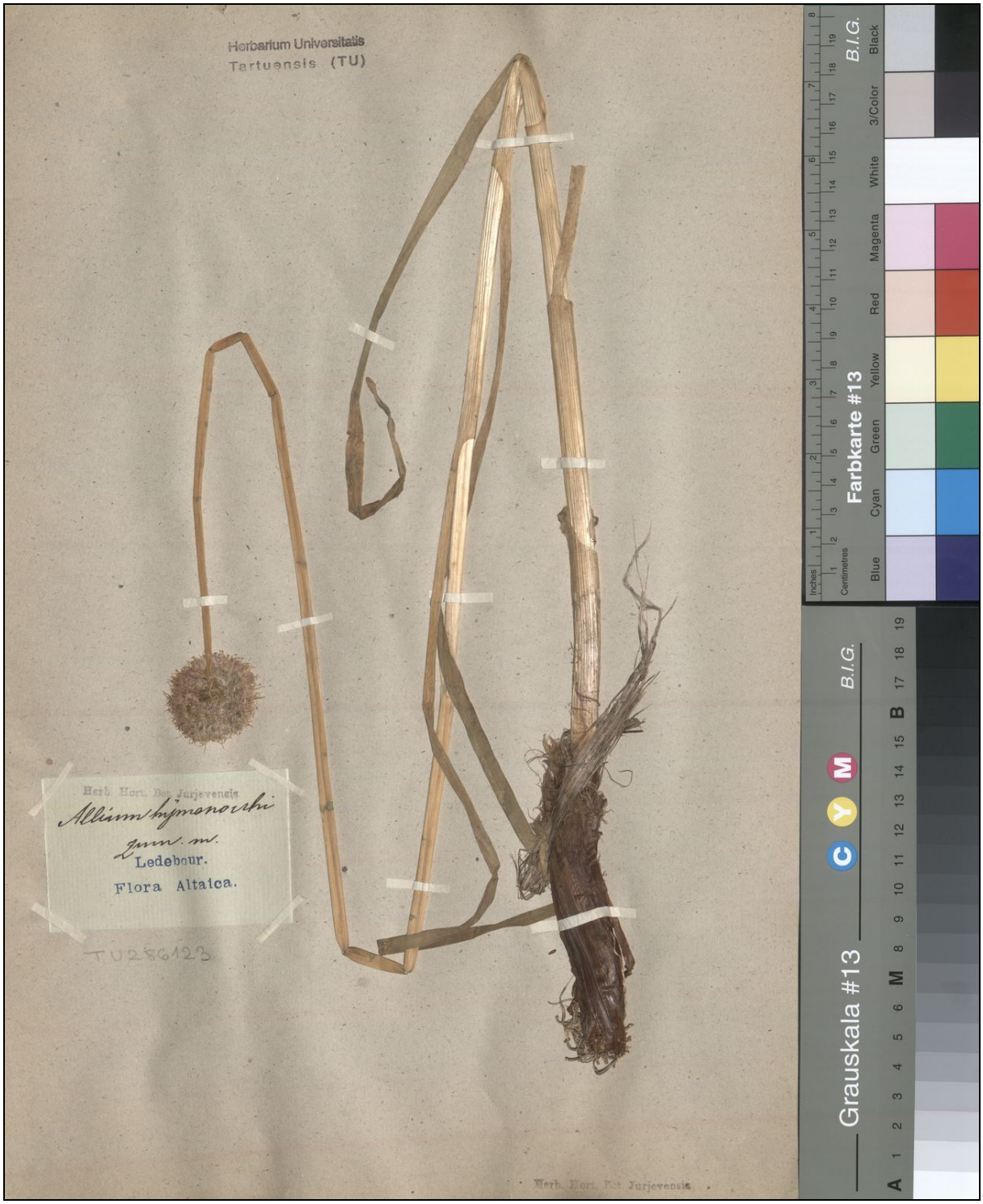

Fig. 1. Herbarium specimen from the “Flora Altaica” C.F. von Ledebour from the Herbarium of the Tartu University. There is no primary label indicating the place and date of collection.

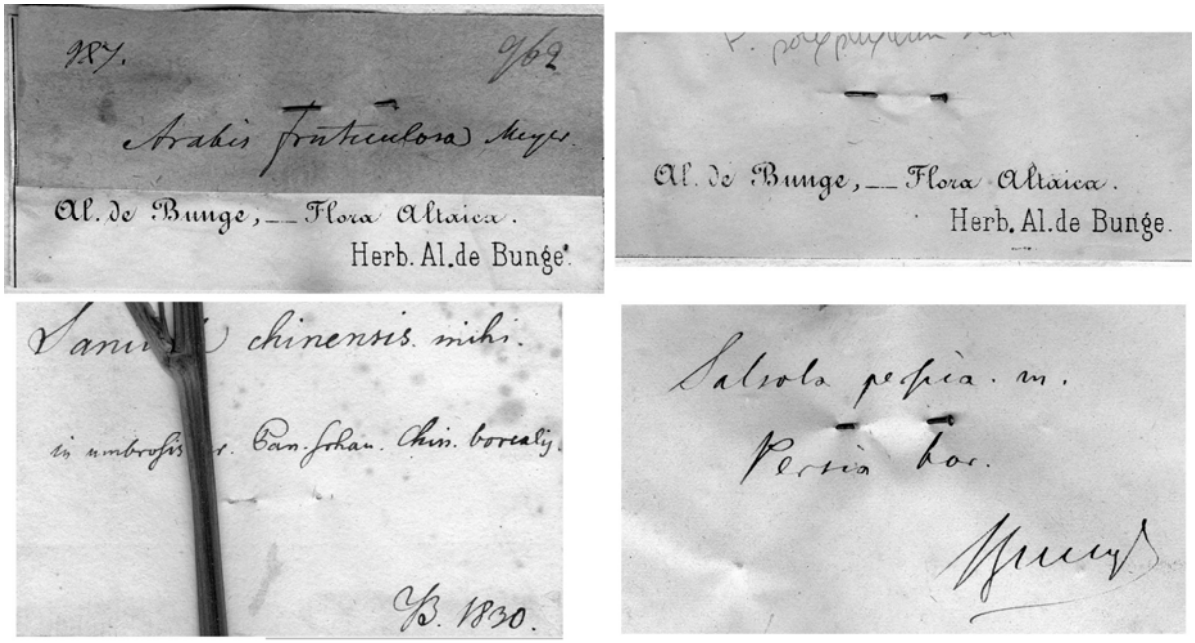

Fig. 2. Labels from A.G. von Bunge Herbarium specimens. The lower labels are written by Bunge, the upper ones are rewritten.

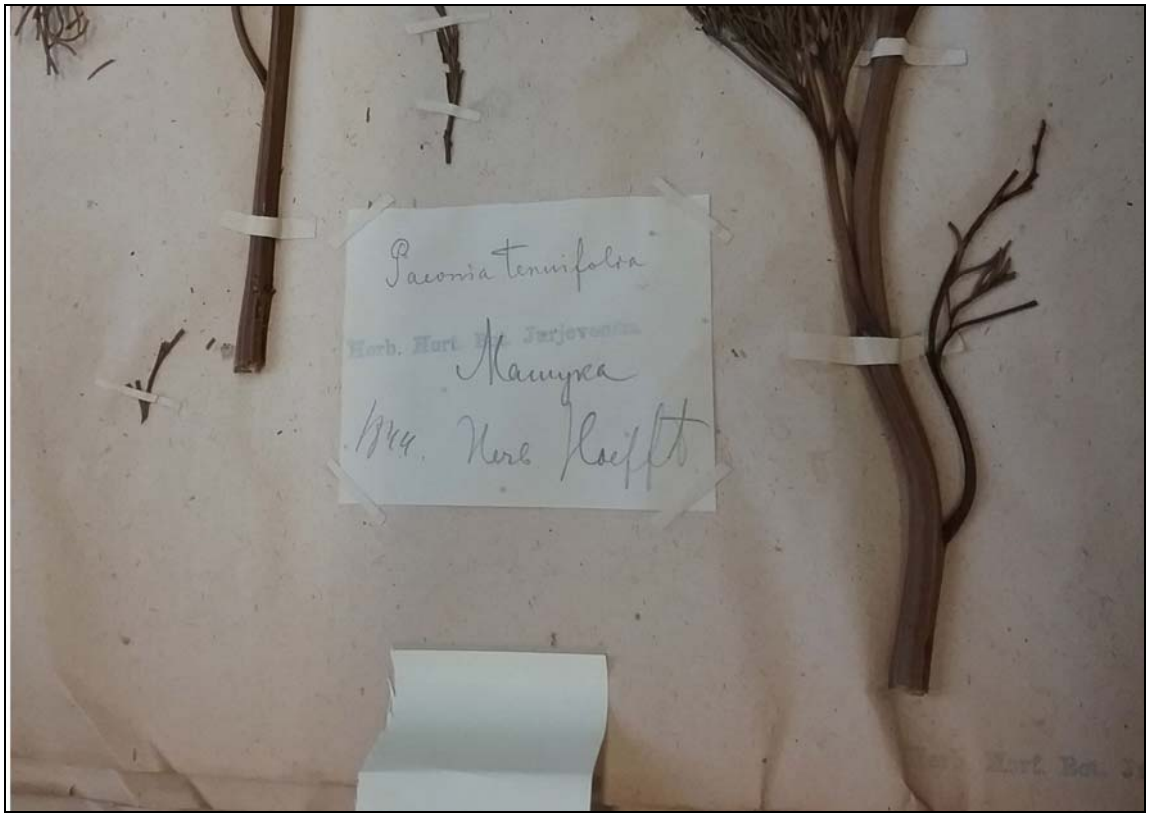

Fig. 3. A rewritten label from a specimen from the Caucasian herbarium of F.A. von Hoefft. On Mount Mashuk, Hoefft collected herbarium in 1826, 1827 and 1842 (Shcherbakov et al., 2020).

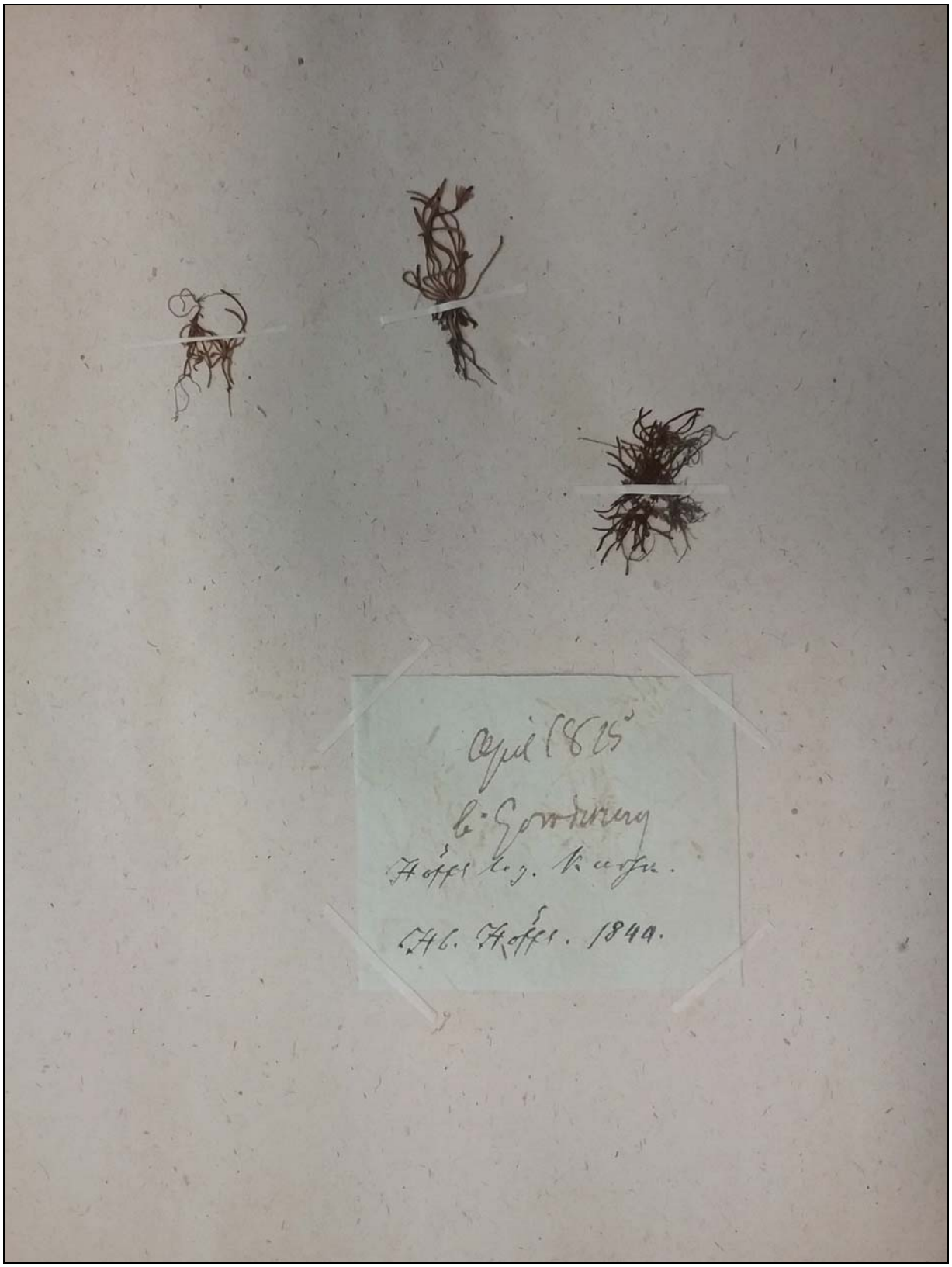

Fig. 4. The label from the herbarium specimen of F.A. von Hoefft. The date and place of the gathering are written by Hoefft, the bottom two lines are written by F.E.L. von Fischer's assistant.

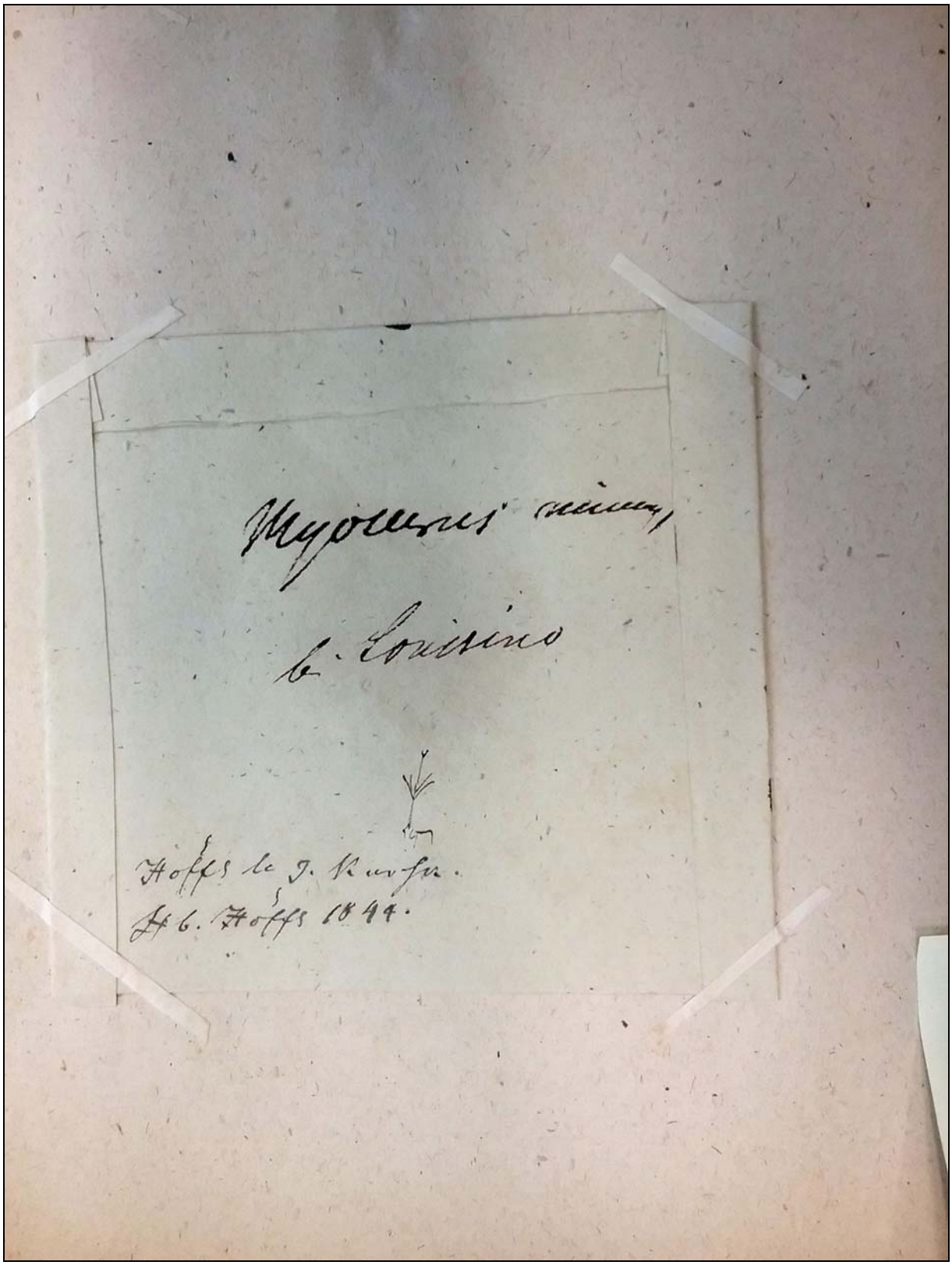

Fig. 5. A rewritten label from a specimen from the Kursk herbarium of F.A. von Hoefft. Initially, Hoefft's surname was misspelled, the letter “e” was omitted. The error has been fixed. 1844 – the year of Hoefft's death. In the Kursk Governorate, Hoefft collected a herbarium in the 1820s.

Gentiana markowiczii Kusn., 1899, Uchenye Zap. Imp. Yur'evsk. Univ., 7(2), suppl. [2]: 41.

Isotypi: (TU285872, TU285873): *Gentiana markowiczii* n. sp. Caucasus, Digoria, 20–26.IX.1898, Marcowicz, teste: Prof. N. Kusnzov; TU285874: *G. caucasica* var. *Marcowiczii* Kusnez., teste: Prof. N. Kusnezov, Digoria (Kaucasus), in pratis subalpinis. 26.IX.98, Macrowicz.

Protologue: Caucasus, Digoria, in pratis subalpinus nomina Surch, 26.IX.98, leg. B. Marcowich.

Gentiana murbeckii Wettst., 1896, Sched. Fl. Exs. Austro-Hung. [Kerner], 7: 73—74.

Isotypus (TU285862): Tirolia austro-occidentalis. In glareosis graminosis circa Franzenshöhe haud procul a Trafoi ad pedem montis Ortler solo schistaceo ca 2200 mt s.m.

Schedae ad Floram Exsiccatam Austro-Hungaricum.

Protologue: 2660. *Gentiana Murbeckii* Wettstein spec. nov. ... Tirolia austro-occidentalis. In glareosis graminosis circa Franzenshöhe haud procul a Trafoi ad pedem montis Ortler solo schistaceo ca 2200 mt s.m. Wettstein.

Leguminosae

Trigonella turkmena Popov, 1937, Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR, 7: 17.

Isotypus (TU321292): Herbarium of flora of the USSR. [In Rus.]. 6248. *Trigonella turkmena* M. Pop. Turcomania, Kopetdag, prope urb. Kara-Kala, in collibis siccissimis, leg. M. Popov. — Isotypus. 1931 V 14.

Protologue: in montibus Kopet-dagh occidentalis, prope urb. Kara-Kala, in collibis siccissimis, 14.V.1931, M.G. Popov.

Vicia amurensis Oett., 1906, Trudy Bot. Sada Imp. Yur'evsk. Univ., 6: 143.

Holotypus (TU321256): Khabarovsk, on the hills, 21.VII.1902, № 246, legit: N. Desoulavy, teste: *** [unintelligible] Oettingen. [In Rus.].

Protologue: Hab. in collibus, 21.VII.

Vicia elegans Guss. var. ***asiatica*** Freyn, 1895, Bulletin de l'Herbier Boissier, 3: 192.

Syntypus (TU321266): P. Sintenis: Iter oriente 1894. No. 6210. *Vicia elegans* Guss. var. *asiatica* Freyn. Armenia turcica, Szandschak Gümüschkhane, Stadodopi, in campis, 10.VII, determ. J. Freyn.

Protologue: β *asiatica* ... Armenia turcica, Gümüschkhane: in campis ad Stadodopi (Sintenis exs. 6210) ...

Vicia hololasia Woronow, 1910, Trudy Imp. S.-Peterburgsk. Bot. Sada. xxviii (3): 449.

Isotypus (TU321260): Prov. Baku, distr. Schemaha, in dumetis et ad margines sylvae inter pagos Ach-Su et Scharodil, in regione submontana cum V. bithynica L., 2/15.V.1908, leg. A. Schelkownikow et G. Woronow, descriptis G. Woronow.

Protologue: the same.

Vicia larissae Prima, 1974, Novosti Sist. Vyssh. Rast., 11: 225.

Isotypus (TU321259): Caucasus orientalis, Azerbaidzhania, ad fontes fl. Karatschaj in 5—6 km a summitate montis Babadag, in declivibus schistoso-glareosis, 3050—3010 m s.m., leg. V. Prima, 1971 VI 19.

Protologue: the same.

Polygonaceae

Polygonum acerosum Ledeb. ex Meisn., 1856, Prodr. [A.P. de Candolle], 14(1): 92.

Isotypus (TU321284): *Polygonum acerosum*. 106. Saryssu [?unintelligible], 1844, Schrenk.

Protologue: In Surgessa (n. 106!).

Polygonum aschersonianum H. Gross, 1913. Bot. Jahrb. Syst., 49(2): 341.

Isotypi: (TU321287) *Polygonum salsugineum* MB. Sarepta, Hb. Bogdo, 1840; (TU321288) *Polygonum salsugineum*. Sept 14, Fl. Sarept., Becker; (TU321289) *Polygonum salsugineum* MB. Saratov Gov., Sarepta, 14.IX.1885, coll. Becker. [In Rus.].

Protologue: Hab. Rossia: ad Wolgam flumen inferiorem (A. Becker als *P. salsugineum* M.B.).

Polygonum samarense H. Gross, 1913, Bot. Jahrb. Syst. 49(2): 340.

Isotypus (TU321290): Herbarium Florae Rossicae, ... fasc. XVI. 787. *Polygonum salsugineum* MB. Prov. Samara, distr. Nowo-Usen, in prato subsalso pr. Walujka, 9.VIII.1899, legit W. Bogdan.

Protologue: Hab. Rossia, prope Wolgam flum: in provincia Samara, distr. Nowo-Usen: in prato subsalso prope Walujka, 9. Aug. 1899, fl., fr. W. Bogdan.

Pterococcus leucocladus Schrenk, 1845, Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Pétersbourg, 3: 211.

Isotypus (TU321282): № 246. Balkhash. *** [unintelligible]. [In Rus.].

Protologue: Hab. ad lacum Balchasch...

Ranunculaceae

Delphinium paphlagonicum Huth, 1893, Bull. Herb. Boissier, I(6): 328.

Isotypus (TU285838): P. Sintenis: Iter orientale, № 4547, *Delphinium paphlagonicum* Huth, n. sp. Paphlagonia, Wilajet Kastambuli, Tossia, in montosis, 7/8, determ. Huth.

Protologue: Asia Minor, Paphlagonia: Wilajet Kastambuli, in montosis pr. Tossia (Sintenis, 1892, HEH).

Delphinium speciosum M. Bieb. var. ***dasycarpa*** (Stev.) Rupr. f. ***archysu*** N. Busch, 1903, Flora caucasica critica, III(3): 64.

Holotypus (TU285848): Kuban Oblast, along the Bolshoy Zelenchuk River between the mouth of the Arkhyz River and the monastery, 9.VII.1896, N. Bush. [In Rus.].

Paratypus (TU285847): Kuban Oblast, along the Bolshoy Zelenchuk River between the mouth of the Arkhyz River and the monastery, 9.VII.1896, N. Bush. [In Rus.].

Original material (TU285849): caule pubescente, flexuoso, sepals atque intus parce pubescentibus. Archys (Caucasus), N. Busch.

Protologue: The valley of the Bolshoy Zelenchuk River, between the Alexander-Athos Monastery and the mouth of the Arkhyz River (Rechepsta), the upper part of the beech belt and the lower part of the fir-spruce belt, 9.VII, N. Bush. [In Rus.].

Delphinium speciosum M. Bieb. var. ***dasycarpa*** (Stev.) Rupr. f. ***latifolia*** N. Busch, 1903, Flora caucasica critica, III(3): 64.

Holotypus (TU285841): № 235. Kuban Oblast, subalpine meadows in the upper reaches of the r. Boguncha, between the m. Markopidzh and range Magisho, 3.VII.1899, N.A. Bush. [In Rus.].

Paratypi: (TU285842) Kuban Oblast, subalpine meadows in the upper reaches of the r. Boguncha, between Markopidzh and range Magisho, 3.VII.1899, N.A. Bush. [In Rus.]; (TU285843) Kuban Oblast, in the upper reaches of the r. Boguncha, 3.VII.1899, N. Bush. [In

Rus.]; (TU285844) Kuban Oblast, meadows in the upper reaches of the r. Boguncha, 3.VII.1899, N. Bush. [In Rus.].

Original material (TU285845): Herbarium of Countess E.P. Sheremetyeva [In Rus.]. In regione subalpina montis Fischt., 23.VIII.1901/5.VIII, legit. B. Hryniewiecki, teste N. Busch.

Protologue: Kuban Oblast, subalpine meadows in the upper reaches of the r. Boguncha, between the m. Markopidzh and range Magisho, 3.VII.1899, Bush. [In Rus.].

Delphinium tomentellum N. Busch. var. ***angustibracteata*** N. Busch, 1903, Flora caucasica critica, III(4): 64.

Holotypus (TU285853): Merinya, subalpine stripe mount. Godarebi, 23.VII.1900, N. Kusnezow. [In Rus.].

Isotypus (TU285852): Merinya, subalpine stripe mount. Godarebi, 23.VII.1900, N. Kusnezow. [In Rus.].

Protologue: Merinya, subalpine stripe mount. Godarebi. 23.VII.00. Kznets. [In Rus.].

Ranunculus kopetdaghensis Litv., 1902, Trav. Mus. Bot. Acad. Petersb., 1: 26.

Syntypus (TU321246): Turcomania, in montibus pr. Cheirabad, ca. 6700, 1898 VI 27, cal. Jul., D. Litwinow.

Protologue: Near Kheyrabad in the under alpine part of mountains, about 6700'; June 27, fl. and fr. (248). – At the top of Rizarash near the well of Bir, about 9000'; July 11 fl. (429).

Ranunculus pulsatillifolius Litv., 1902, Trav. Mus. Bot. Acad. Petersb., 1: 25.

Isotypus (TU321297): *Ranunculus pulsatillifolius* Litv. sp. n. Turcomania, ad radices montrum ps. Ashabad (Ssuokly), 1897 IV 23, cal. Jul., D. Litwinow.

Protologue: In the mountains near Askhabad, near the village of Suokli, on Apr. 23, fl., unripe fr. (427).

Ranunculus subcorymbosus Kom., 1914, Repert. Spec. Nov. Regni Veg., 13: 234.

Syntypus (TU321295): Kamchatka, the bank of the Sukhaya Topolevaya River, from the city of Petropavlovsk to the Kamchatka peak of Koryaka, zone, 9.VI.1909, coll. V. Komarov. [In Rus.].

Protologue: Legi multis (9) in locis peninsulae Kamtschatka, annis 1908—1909.

PERHARS, TYPI

Gentianaceae

Erythraea meyeri Bunge, 1829, in Ledeb. Fl. Alt. 1: 220.

Original materials: (TU285867) *Erythraea Meyeri* Bge, Sibi. Alt. Bge (left); Erythraea Meyeri, 421, [unintelligible] (right); (TU285868) *Erythraea Meyeri* Bunge. Ledebour, Flora Altaica.

Protologue: Hab. in pratis humidiusculis ad fl. Irtysch prope Ablaikit et alibi.

Gentiana atrata Bunge ex Griseb., 1845, Prodr. [A.P. de Candolle], 9: 98.

Original material (TU285870): Gentiana atrata Bge Tschuja *** [unintelligible].

Protologue: in M. Altaicus orientalibus (Bunge!).

Leguminosae

Trifolium grandiflorum Ledeb., 1831, Fl. Altaic. [Ledebour], 3: 257.

Original material (TU321250): *Trifolium grandiflorum* Ledeb. Ledebour, Flora Altaica.

Vicia costata Ledeb., 1831, Fl. Altaic. [Ledebour], 3: 346.

Original material (TU321258): *Vicia costata* Ledeb. Ledebour, Flora Altaica.

Vicia multicaulis Ledeb., 1831, Fl. Altaic. [Ledebour], 3: 345.
Original material (TU321257): *Vicia multicaulis* Ledeb. Ledebour, Flora Altaica.

Polygonaceae

Atraphaxis compacta Ledeb., 1830, Fl. Altaic. [Ledebour], 2: 55.
Original material (TU321298): *Atraphaxis compacta* m. Ledebour, Flora Altaica.

Tragopyrum laetevirens Ledeb., 1830, Flora Altaica [Ledebour], 2: 75.
Original material (TU321299): *Tragopyrum laetevirens* m. Ledebour, Flora Altaica.

Tragopyrum pungens M. Bieb. Flora Taurico-Caucasica, 3: 285. 1819. (basyonum of *Atraphaxis pungens* (M. Bieb.) Jaub. & Spach).
Original material (TU321300): *Tragopyrum pungens* M.B. Ledebour, Flora Altaica.

Ranunculaceae

Delphinium speciosum M. Bieb. var. ***dasycarpa*** (Stev.) Rupr. f. ***leiocarpa*** N. Busch, 1903, Flora caucasica critica, III(3): 64.
Original materials (TU285839, TU285840): Kuban Oblast, steep Krutoy of the extreme western source of the river Malaya Laba, 22.VI.1899, N.A. Bush. [In Rus.].
Protologue: S.K. Fir-spruce forests along the Malaya Laba River, between the Zatishye tract (3rd company) and the Umpyr tract, 21.VI.[18]99, Bush!! [In Rus.]. – S.T. On the wat to Bermamut, 6200′, 25.VII. [18]89, Akinf.! [In Rus.] – A.W. Kuban Oblast, subalpine meadows in the upper reaches of the Kurdzhips, 29.VI. [18]88, Kznts.! [In Rus.]. Subalpine meadows, ascent from Urushten to the Bambak range, to the upper reaches of Chilipsi, 26.VI. [18]99, Bush!! [In Rus.].

Ranunculus grandifolius C.A. Mey., 1829, Fl. Altaica [Ledebour], 2: 330.
Original material (TU321241): *Ranunculus grandifolius* C.A. Mey. Ledebour, Flora Altaica.

Ranunculus lasiocarpus C.A. Mey., 1830, Fl. Altaica [Ledebour], 2: 323.
Original material (TU321244): *Ranunculus lasiocarpus* C.A. Mey. Ledebour, Flora Altaica.

Ranunculus lomatocarpus Fisch. et C.A.Mey., 1835, Index Seminum [St. Petersburg (Petropolitanus)] 1: 36.
Original material (TU321296): *Ranunculus lomatocarpus* Fisch., Mey. Lenkoran, C.A. Meyer.
Protologue: original locality is not indicated.

Thalictrum baicalense Turcz., 1838, Bull. Soc. Imp. Naturalistes Moscou, 11(1): 85.
Original material (TU321293): *Thalictrum baicalense*. In pratis sylvaticis cisbaicalensibus, **** [unintelligible], Fischer, Turcz.: Dahuria.
Note: A similar specimen is available in the Kew (K): K000694066 (same hand!).

Thalictrum exaltatum C.A. Mey., 1830, Fl. Altaica [Ledebour], 2: 352.
Original materials: (TU321279) *Thalictrum exaltatum* C.A.Mey. Ledebour, Flora Altaica; (TU321280) *Thalictrum exaltatum* C.A.M. Altai, Hb. Bnge, 1840.

Thalictrum gracile C.A. Mey., 1830, Fl. Altaica [Ledebour], 2: 348.
Original material (TU321274): *Thalictrum gracile* C.A. Mey. Ledebour, Flora Altaica.

Thalictrum isopyroides C.A. Mey., 1830, Fl. Altaica [Ledebour], 2: 346—347.

Original material (TU321273): *Thalictrum isopyroides* C.A. Mey. Ledebour, Flora Altaica.

Trollius lilacinus Bunge, 1835, Mém. Acad. Imp. Sci. St.-Pétersbourg Divers Savans, 2: 555.

Original materials: (TU321275) *Hegemone lilacinus* Bge. Bge, Fl. or.-Altaica; (TU321276) 1841. Herb. Acad. Petr. *Trollius lilacinu*s Bnge. Ex alpibus altaicis. (Tschuja.); (TU321277): *Hegemone lilacina* Bge. Tschuja. Hb. Bnge, 1841; (TU321278) *Hegemone lilacina* Bge. Altai.

Protologue: Hab. in summis alpibus Sailughem, Kuraicis aliisqne ad fluvium Tschuja jacentibus ad scaturigines prope nives aeternas.

NOMINA PROVISORIA

Leguminosae

Trifolium stellatum L. var. ***caspicum*** N. Busch

TU321267: Flora caucasica exiccata. 68. *Trifolium stellatum* L. var. *caspicum* N. Busch. Daghestan, distr. Kaitagh-Tabassaran, prope Derbent, ad viam versus p. Sabnova, in decliv. orientali, 30/13.IV/V.1902, leg. Th. Alexeenko, det. N. Busch.

Note: Authentic material. The variety, apparently, is not described validly.

Trigonella persica Boiss. var. ***late-alata*** Bornm., 1897, Österr. Bot. Z., 47 (7): 244.

TU321263, TU321264, TU321265: J. Bornmüller. Iter Persico-turcicum 1892–93, № 3664b, *Trigonella persica* (J. et Sp.) β *late-alata* var. nov. Persiae austro-orient., prov. Kerman: in regione inferiore montis Kuh Lalesar prope pagum Lalesar, c 3000 m s.m., 1892. VII. 22, legit et determ.: J. Bornmüller; J. Bornmüller. Iter Persico-turcicum 1892–93. № *** [the number is hidden!]. *Trigonella persica* (J. et Sp.) β *late-alata* var. nov. Persiae austro-orient., prov. Kerman: in regione inferiore montis Kuh Lalesar prope pagum Lalesar, c 3000 m s.m., 1892. VII. 11, legit et determ.: J. Bornmüller; *Trigonella persica* (J. et Sp.) β *late-alata* var. nov. Persiae austro-orient., prov. Kerman, VII. 11. 22. 1892, J. Bornmüller.

Ranunculaceae

Delphinium orientale J. Gay var. ***laxissima*** N. Busch

TU321249: Caucasus, Prov. Kars, prope p. Stavka-Mazra, 1.VII.1900, Leg. N. Gorain, teste N. Busch.

Delphinium speciosum M. Bieb. var. ***subuniflora*** N. Busch

TU285846: Caucase, Ossétie, prés de la région subalpine, 5.VII.1897, N. Desoulavy, teste N. Busch, 1.XI.1900.

Delphinium szowitsianum Boiss. var. ***glabrescens*** N. Busch

TU321248: 1844. Herb Acad. Petrop. *Delphinium ochroleucum* Stev. var. *iberia caucasica*. Hohenacer. – *Delphinium Szowitsianum* Boiss. var. *** [unintelligible] forma *glabrescens* N. Busch, 30.X.1900.

Delphinium tomentellum N. Busch. var. ***longibracteata*** N. Busch

TU285854, TU285855, TU285856, TU285857: Merenya, subalpine band Gadarebi mount. (Caucasus), 23.VII.1900, leg. Prof. N. Kusnezow, teste N. Busch. [In Rus.].

SPECIMENS COLLECTED IN LOCUS CLASSICUS (TOPOTYPI)

Leguminosae

Vicia fedtschenkoana V.A. Nikitin, 1948, Fl. URSS, 13: 555.

Topotypi (TU321261, TU321262): USSR. Turkmenistan, Kara-Kala district, Southwest Kopet-Dag, Kese-Iol mountain steppe, 7 km southwest of the state farm "Saivan", 9.VI.1972, V.V. Nikitin. [In Rus.].

Protologue: In decliviis ad septentrionem spectantibus jugis Kesse-Dagh, prope Ssajvan, alt. 1400—1600 m s.m., leg. V.V. Nikitin.

Ranunculaceae

Delphinium tiroliense Kern. ex Dalla Torre, 1882, Atlas Alpenfl.: 57.

Topotypi: TU285850: Flora Exiccata Flora Austro-Hungaria. 2906. *Delphinium tiroliense*. Tirolia septentrionalis. In graminosis rupestribus vallis Volderthal prope Hall, 1600–1800 m, solo schistoso. (Locus classicus hucusque unicus). Gremblich; TU285851: Herbarium Normale editum ab I. Dörfler. 4472. *Delphinium tiroliense*. Austria. Tirolia septentrionalis. In rupestribus fruticosis vallis alpini "Volderthal" prope "Hall"; solo schist. 1900 m s.m. (Locus classicus!) Septembri 1898. Leg. M. Hellweger.

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REFERENCES

Botanical collections. 2021. — University of Tartu. Natural History Museum. [Electronic Resource]. Mode of access: https://www.natmuseum.ut.ee/en/content/botanical-collections (Date: 18.10.2021).

Eichwald K. 1933. Collections of the Botanical Museum of the University of Tartu. Eesti Loodus. 1 (2): 52–54. (In Est.).

Shcherbakov A.V., Agafonov V.A., Reier Ü, Negrobov V.V., Bedenko A.B. 2017. History of the Herbarium of the Voronezh State University (VOR) in the first half of the XX century. — Bull. of the Voronezh State Univ. Ser.: Chemistry. Biol. Pharmacy: 2: 43–47. (In Russ.).

Skvortsov A.K. 1977. Herbarium. Manual of methods and techniques. Moscow. 198 p. (In Russ.).