

## Communication

# Type specimens of vascular plants at the M.M. Gryshko National Botanical Garden Herbarium in Kyiv, Ukraine

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Received: 26 September 2025. Accepted: 12 June 2026. Published online: 29 June 2026

### Abstract

Olshanskyi I., Shynder O., 2026: Type specimens of vascular plants at the M.M. Gryshko National Botanical Garden Herbarium in Kyiv, Ukraine. – *Botanica*, 32(2): 108–118. <https://doi.org/10.35513/Botlit.2026.2.3>

The Herbarium of M.M. Gryshko National Botanical Garden (KWAH) was founded in 1948. Currently, the KWAH Herbarium contains over 155 700 specimens representing 12 486 taxa. The herbarium houses 16 catalogued type specimens. Here, we designate a lectotype for one name (*Jurinea helenae* Sobko). The type specimens deposited at the KWAH Herbarium represent 11 families, 14 genera and 14 species, comprising 1 holotype, 1 lectotype, 2 syntypes, 9 isotypes, 2 isolectotypes, and 1 paratype. These type specimens were collected in seven countries (Armenia, France, Georgia, Russian Federation, Turkey, Turkmenistan, and Ukraine).

**Keywords:** authentic specimens, flora, Herbarium, *Jurinea helenae*, KWAH, lectotype, vascular plants.

## INTRODUCTION

As of 31 December 2025, there are 4 035 active herbaria worldwide, collectively housing more than 406 million specimens that document Earth's plant diversity over the past 400 years (Index Herbariorum, 2026). In this article, we emphasise the value of the Herbarium of the M.M. Gryshko National Botanical Garden, focusing on its most valuable holdings: the type specimens.

The Herbarium of the M.M. Gryshko National Botanical Garden of the National Academy of Sciences of Ukraine (KWAH), located in Kyiv, Ukraine, was established in 1948. The KWAH Herbarium was founded to provide a comprehensive representation of: 1) cultivated plants of Ukraine and Moldova, and 2) taxa of the natural flora from

the temperate zone of Eurasia. Geographically, the KWAH Herbarium focuses primarily on Eastern Europe, though it also holds significant collections from the Caucasus, Central Asia, Western Siberia, and the Russian Far East. Currently, the KWAH Herbarium contains over 155,700 specimens of 12,486 vascular plant taxa. Among Ukrainian herbaria, it ranks sixth in terms of total collection size (Kharkevich, 1973; Melnyk et al., 2011; Shynder & Bahatska, 2020). The principal collectors of the KWAH Herbarium include S. Kharkevich (S. Charkevicz), N. Antoniuk, R. Borodina, V. Chopyk, S. Didenko, O. Isaykina, V. Melnyk, V. Mitin, I. Moroz, M. Peregryn, O. Pyrozhenko, Z. Sarycheva, Y. Sikura, G. Smyk, V. Sobko, O. Sokolovskiy, V. Stopkan, V. Tkachyk, O. Tokarskyi, O. Shynder, and M. Voloshyn (Melnyk et al., 2011; Doiko & Shynder, 2023). Today,

the herbarium serves as a vital scientific resource for studying the taxonomic diversity of both cultivated and wild plants in Ukraine and abroad. Notably, its collections from certain regions, such as the Caucasus, are the largest in Ukraine and hold exceptional value given current mobility restrictions across Eurasia. Furthermore, the herbarium houses numerous specimens of species newly recorded in the flora of Ukraine (Chorna et al., 2022; Shynder et al., 2024a, 2024b).

To conduct taxonomic revisions of plant groups, it is first necessary to establish the nomenclatural types to avoid further misinterpretations and misuse of names (Leong-Škorničková et al., 2010). As Knapp et al. (2004) have emphasised: “Examination of type material is the single most reliable means to avoid misapplication of names and superfluous re-description of taxa already known to science. The checks and balances of the morphology of an actual specimen on which a taxonomist can examine additional characters are critical for the best taxonomic practice”. However, locating types can be challenging, as the repositories of type specimens are often unknown (Calabrese & Velayos, 2009). Data on type collections have been published for numerous herbaria worldwide (Sanchez et al., 2004; Calabrese & Velayos, 2009; Raptis et al., 2019; Jang et al., 2020; Palacios et al., 2025), providing invaluable resources for taxonomists.

Therefore, our study aimed to compile a list of type specimens housed at the Herbarium of M.M. Gryshko National Botanical Garden.

## MATERIALS AND METHODS

We searched the Herbarium of M.M. Gryshko National Botanical Garden (KWA) for specimens used by researchers to describe new taxa. First, we reviewed the protologues of the names of taxa described by the employees of this botanical garden. Our investigation revealed that the KWA Herbarium currently houses 16 catalogued type specimens of vascular plants, which are listed herein. For each specimen, we provide the taxon name and type category. Taxon names and bibliographic abbreviations used in nomenclatural citations follow the International Plant Names Index (IPNI, 2026). Herbarium acronyms follow the Index Herbariorum (2026). Names of taxa are listed alphabetically. For taxa that are not currently accepted at their designated rank or are treated as synonyms, the

currently accepted names following the Plants of the World Online database (POWO, 2025) are provided in square brackets. Herbarium labels originally written in Ukrainian or Russian were translated into English. Labels originally written in English or Latin are presented in their original wording, with supplementary explanations added in square brackets where necessary. A map of the *loci classici* for the type specimens deposited in the KWA Herbarium was generated using SimpleMappr (Shorthouse, 2010). Floristic regions of the Russian Far East are listed according to Charkevich (1985).

## RESULTS AND DISCUSSION

### Type specimens

*Anemone tamarae* Kharkev. in Bot. Zhurn. (Moscow & Leningrad), 66(11): 1631. 1981.

Paratype: Russian Federation, Khabarovsk Krai: Khabarovskiy territory, Ayano-Mayskiy District, to W of Kouroun-Oyryakh, Chelat range, left bank of the Gorbi River, podgolzoviy belt [subalpine zone], stony glade in *Pinus pumila* elfin-woodland, frequent. 20 June 1979, S. Kharkevich, T. Buch (KWA110725).

Holotype at LE, isotype at VLA (Kharkevitch, 1981) and in other herbaria worldwide (Kozhevnikov & Probatova, 2006).

This species is endemic to the Aldan floristic region of the Russian Far East, distributed within the Maya River basin (a tributary of the Aldan River, which flows into the Lena River basin) in Khabarovsk Krai and in the southeastern part of the Republic of Sakha (Yakutia). The distribution area of *Anemone tamarae* is also known as Western Okhotia (Kozhevnikov & Probatova, 2006; Voronov, 2008; Danilova, 2017).

*Chrysosplenium schagae* Kharkev. & Vyschin in Bot. Zhurn. (Moscow & Leningrad), 70(8): 1122. 1985. [*Chrysosplenium pilosum* subsp. *schagae* (Kharkev. & Vyschin) Vorosch.].

Isotype: Russian Federation, Khabarovsk Krai: Khabarovskiy territory, Nanayskiy District, basin of the Anyuy River, goltzoviy belt [alpine tundra zone] on Mountain Tardoki-Yani (2077 m), near 900 m above sea level, damp rocks in W and E circus

[cirque], deposit, frequent, 22 July 1983, S. Kharkevich, T. Buch, I. Vyshin (KWAH110711).

Holotype at VLA; isotypes at LE, MHA, NS.

There is an apparent typographical error on the isotype label at the KWAH Herbarium: it states '900 m' instead of '1900 meters above sea level'. We also note that the specimen KWAH110711 should be treated as an isotype rather than a holotype. *Chrysosplenium pilosum* subsp. *schagae* is a high-mountain subspecies of *Chrysosplenium pilosum* Maxim. It is a narrow endemic to the Ussuri floristic region of the Russian Far East, with its distribution restricted exclusively to the Tardoki-Yani mountain range in the southern part of Khabarovsk Krai (Kharkevich, 1989; Shlotgauer et al., 2001).

*Corylus* × *fominii* Kem.-Nath. in Trudy Tbilissk. Bot. Inst., 6: 15. 1938. Hybrid formula: *Corylus avellana* L. × *Corylus iberica* Wittm. ex Kem.-Nath. [*Corylus* × *colurnoides* C.K. Schneid.].

Syntype: Georgia: Hortus Botanicus Tbilisiensis (Sect. Silva Georgiae Orientalis) 16 August 1935, L. Kemularia-Nathadze (KWAH110728).

Syntypes at TBI (TBI1006368, TBI1024983, TBI1024984, TBI1024985).

Currently, *Corylus iberica* is treated as a synonym of *Corylus colurna* L.; therefore, *Corylus* × *fominii* is regarded as a synonym of the earlier-described *Corylus* × *colurnoides*, which is native to the Transcaucasus (POWO, 2025). However, because the geographic ranges of the parental species overlap in the Balkans and in Asia Minor, this nothospecies may occur in those regions as well. It is also cultivated in various European countries (Grubov, 1951; POWO, 2025).

*Fritillaria lagodechiana* Kharkev. in Novosti Sist. Vyssh. Rast., 3: 42. 1966.

Isotype: Georgia: [Georgian SSR, the Lagodekhi Nature Reserve, in subalpine tall-herb vegetation, at the upper forest limit, near the weather station, on the Khochal mountain massif, frequent, 24 May 1959, S.S. Kharkevich] [original label in Russian] (KWAH110722).

Holotype at LE (Charkevicz, 1966).

*Fritillaria lagodechiana* is a Caucasian endemic that grows in subalpine meadows and near the upper forest limit in Georgia and the Karachay-Cherkess Republic of the Russian Federation (Mordak, 2006).

*Galanthus bursanus* Zubov, Konca & A.P. Davis in Kew Bull., 74(2): 18. 2019.

Holotype: Turkey: Bursa province, Marmara Sea Region, limestone rocky outcrops near Bursa, the northern spurs of Korucak Dağı, c. 500 m, fl., 26 November 2016, Zubov & Konca (KWAH110721).

Paratype at K (Zubov et al., 2019).

*Galanthus bursanus* is an endemic species of western Turkey and is currently known exclusively from its *locus classicus* (Zubov et al., 2019).

*Iberis oschtenica* Kharkev. in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.S.R., 15: 81. 1953. [*Iberis simplex* DC.].

Isotypes: Russian Federation: [Krasnodar Krai, Tulsy District, the Caucasus State Reserve, on limestone screes in the alpine zone of Mt. Oshten, rare, 24 June 1950, S. Kharkevich] [original label in Ukrainian] (KWAH110714, KWAH110715).

Holotype at LE (Charkevicz, 1953).

*Iberis oschtenica* represents a local high-altitude population of the Euxine mountain species *Iberis taurica* DC. (Dorofeyev, 2012). Currently, *Iberis taurica* is treated as a synonym of *Iberis simplex* (Yena, 2012; POWO, 2025).

*Iris sisianica* Zubov & L. Bondarenko in Int. Rock Gard., 99: [23]. 2018.

Isotype: Armenia: border between cultivated field and dry steppe plots around Sisian, chestnut soils, ca. 1600 m, Sisian Basin, Syunik Region; coll. in fruits by Zubov & Bondarenko, 8 May 2013 (KWAH110713).

Holotype: WI-P33602 (Zubov & Bondarenko, 2018).

*Iris sisianica* is an endemic species of the Zangezur floristic region in the southwestern part of the Karabakh Highlands (South Transcaucasia), known exclusively from its *locus classicus* (Zubov & Bondarenko, 2018).

*Jurinea helenae* Sobko in Ukrayins'k. Bot. Zhurn., 29(6): 705. 1972. [*Jurinea cyanoides* (L.) Rchb.].

Lectotype (designated here): Ukraine: [Odesa Oblast, Savran Raion, Vilshanka village, on the sands, 27 July 1969, V. Sobko] [original label in Ukrainian] (KWAH110718).



Fig. 1. Lectotype of *Jurinea helenaе* Sobko (KWHHA110718).

Isolectotype: KWHA110717.

In the protologue, Sobko (1972) has indicated that the type material is deposited at the Herbarium of the M.G. Kholodny Institute of Botany (KW); however, the specimen has not been found in the herbarium (Shiyan et al., 2012).

*Jurinea helenae* is an overlooked species in the Ukrainian flora, omitted from subsequent floristic syntheses (Mosyakin & Fedoronchuk, 1999). One of the authors (O. Shynder) examined the specimens KWHA110717 and KWHA110718, alongside living plants from the locus classicus of *Jurinea helenae*, and found that they belong to *Jurinea cyanooides*. Some plants, particularly those represented by specimen KWHA110717, showed minor morphological differences, namely entire cauline leaves; however, these differences do not warrant recognition at any significant taxonomic rank. Consequently, *Jurinea helenae* is treated here as a heterotypic synonym of *J. cyanooides*.

*Rosa boullui* Gand. in Bull. Soc. Dauphin. Échange Pl., 1: 14. 1874. [*Rosa inodora* Fr.].

Syntype: France: Herbarium Generale Rosarum Europaeorum Exsiccatum № 299. Gdgr *Ros. nov. Gall fasc. 2 p. 36*. Hab. Rhône, Montmelas. VIII. 1873, M. Gandoger. – Nota critica: *Rosa inodora* Fr., 29 August 2025, O. Shynder (KWHA110735).

This is an authentic specimen of Gandoger's name, which is currently treated as a synonym of *Rosa inodora* Fr. (POWO, 2025). The morphological characters of specimen KWHA110735 correspond to *Rosa inodora* (= *Rosa elliptica* Tausch.) and are consistent with the taxonomic treatments of Keller & Gams (1923) and Buzunova (2001).

*Rumex × kioviensis* Rakhmetov, A.S. Mosyakin & Mosyakin in Phytotaxa, 663(1): 5. 2024. Hybrid formula: *Rumex patientia* L. × *Rumex tianschanicus* Losinsk.

Isotype: Ukraine: Kyiv, the M.M. Gryshko National Botanical Garden of the National Academy of Sciences of Ukraine, collections of the Department of Cultivated Flora in the northern part of the Botanical Garden, cultivated. Lat.: 50.419345 Lon.: 30.557248; 30 June 2023. Leg.: D. Rakhmetov, S. Rakhmetova & S. Mosyakin (KWHA110744 (1/3), KWHA110744 (2/3), KWHA110744 (3/3), one specimen mounted on three sheets).

Holotype at KW (KW001003516-KW001003520; one specimen mounted on five sheets); isotypes at KW.

*Rumex × kioviensis* is a high-yield fodder crop developed at the M.M. Gryshko National Botanical Garden through the hybridisation of related *Rumex* species, specifically between a locally introduced population of *Rumex patientia* and an accession of *Rumex tianschanicus* introduced from the Trans-Ili Alatau (Rakhmetov & Rakhmetova, 2006; Shynder & Negrash, 2022; Rakhmetov et al., 2024). Cultivars of *Rumex × kioviensis* are fertile and genetically homogeneous. Although individual cultivars may be morphologically variable and sometimes difficult to distinguish from the parental species, this taxon is treated as a hybridogenous species rather than as a simple hybrid (Rakhmetov et al., 2024).

*Salix sichotensis* Kharkev. & Vyschin in Bot. Zhurn. (Moscow & Leningrad), 70(8): 1120. 1985.

Isotype: Russian Federation, Khabarovsk Krai: Khabarovskiy territory, Nanayskiy District, North Sikhote-Alin, the Anyouy River, Mountain Tardoky-Yany (2077 m), golzovi belt [alpine tundra zone], among steep rocks on the north-facing slope, observed only once. 22 July 1983, S. Kharkevich, T. Buch, I. Vyshin (KWHA110724).

Holotype at VLA; isotypes at LE, MHA, NS (Vyshin & Kharkevitch, 1985).

*Salix sichotensis* is a high-mountain endemic of the Ussuri Floristic Region in the Russian Far East, locally distributed within the Tardoki-Yani mountain range in the southern part of Khabarovsk Krai (Vyshin & Kharkevitch, 1985). It is sometimes treated as part of the East Siberian alpine species *Salix nasaarovii* A.K. Skvortsov s.l. (Nedoluzhko, 1995), representing its easternmost isolated population.

*Senecio schistosus* Kharkev. in Bot. Zhurn. (Moscow & Leningrad), 64(4): 555. 1979. [*Tephroseris schistosa* (Kharkev.) Barkalov].

Isotype: Russian Federation, Kamchatka Krai: Kamchatskiy Region, Olyoutorskiy District, the upper part of Apoukvayam, W foot of Mountain Ledyanaya, about 1100 m above sea-level, mobile basalt talus, frequent, 12 July 1976, S. Kharkevich, T. Buch (KWHA110719).

Holotype at LE; isotype at VLA (Kharkevitch & Bolotnikova, 1979).

*Tephrosieris schistosa* is an endemic species of the Koryak floristic Region in the Russian Far East (Barkalov, 1992). Only three confirmed localities are known, all situated on Mt. Ledyanaya within the Koryak Upland in the northeastern part of Kamchatka Krai (Chernyagina, 2018).

*Serratula litwinowii* Iljin in Bot. Mater. Gerb. Glavn. Bot. Sada R.S.F.S.R., 5(7): 112. 1924. [*Klasea litwinowii* (Iljin) Ranjbar & Negaresh].

Isolectotype: Turkmenistan: Turcomania. Pr. [Kheirabad], 27 June 1898, № 1498. [D. Litwinow] (KWH110716).

Lectotype at LE (Ranjbar et al., 2015: 192).

*Klasea litwinowii* is an endemic species of northern Kopet Dag, occurring in the mountain steppes of southern Turkmenistan (Iljin, 1960).

*Taraxacum korjakense* Kharkev. & Tzvelev in Bot. Zhurn. (Moscow & Leningrad), 63(6): 837. 1978.

Isotype: Russian Federation, Kamchatka Krai: Kamchatskiy Region, Olyutorskiy District, the upper part of the Apoukvayam River, massif Ledyanaya, podgolzovyi belt [subalpine zone], basalt scree, near 1200 m above sea-level, frequent, 12 July 1976, T. Buch, S. Kharkevich (KWH110720).

Holotype at LE; isotype at VLA (Kharkevich & Tzvelev, 1978).

*Taraxacum korjakense* is an endemic species of the Anadyr-Penzhina and Koryak floristic regions of the Russian Far East. It occurs on mountain slopes, screes, and gravelly habitats within the Koryak Upland in the northern part of Kamchatka Krai and the southern part of the Chukotka Autonomous Okrug (Kharkevich & Tzvelev, 1978; Tzvelev, 1992; Chernyagina, 2018).

### Other specimens associated with protologues

Here we provide data on herbarium specimens that are not types, but were used by botanists to describe new plant taxa.

*Aetheopappus fedorovii* Kharkev. in Bot. Zhurn. (Moscow & Leningrad), 36(4): 400. 1951. [*Psephellus vvedenskii* Sosn.].

Herbarium specimens: Georgia: [Georgian SSR, region of Mount Elbrus, on Mount Cheget, once, quite

a lot. 12 August 1949. Leg.: S. Kharkevich] [original label in Ukrainian] (KWH110741, KWH110742, KWH110743).

Holotype at LE (Kharkevitch, 1951).

The collection dates of these specimens (KWH110741, KWH110742, KWH110743) differ from that of the holotype by one day. Kharkevich used these three specimens to describe *Aetheopappus fedorovii*. Although they were all collected from a single locality on Mount Cheget – which is located within the Kabardino-Balkarian Republic of the Russian Federation – we cite Georgia here following the original author's protologue (Kharkevitch, 1951).

*Aetheopappus fedorovii* was initially described as a Colchic endemic (Kharkevitch, 1951). It was later synonymised with *Aetheopappus vvedenskii* (Sosn.) Sosn. (= *Psephellus vvedenskii*), an endemic of the Western Caucasus (Sosnovskiy, 1963). Currently, the binomial *Aetheopappus fedorovii* is considered obsolete and is omitted from the synonymy of *Psephellus vvedenskii* in recent treatments (Gabrielian, 2009; Litvinovskaya, 2017).

*Eremurus azerbaijdzhanicus* Kharkev. in Novosti Sist. Vyssh. Rast., 3: 45. 1966.

Herbarium specimens: Ukraine: [Kyiv, Central Republican Botanical Garden of the Academy of Sciences of the Ukrainian SSR, section "Kavkaz", cultivated, 27 May 1963, Leg.: S.S. Kharkevich] [original label in Russian] (KWH110723).

Holotype at LE (Charkevicz, 1966).

Kharkevich's protologue stated that the isotype of *Eremurus azerbaijdzhanicus* was deposited in the KWH110723 Herbarium, and he apparently regarded specimen KWH110723 as having this status. However, because this specimen was collected in 1963 rather than 1959 (the year the type material was collected), it cannot be considered an isotype. Nevertheless, this specimen was evidently examined by Kharkevich and used in preparing the description of *Eremurus azerbaijdzhanicus*.

*Eremurus azerbaijdzhanicus* is endemic to eastern Transcaucasia, where it occurs naturally on the Sheki Upland in Azerbaijan (Charkevicz, 1966; Mordak & Tamanyan, 2006).

The KWH110723 Herbarium holds valuable material of the genus *Rosa*, likely including several authentic

specimens. However, their precise status remains to be verified through a dedicated revision.

Among these materials are numerous specimens of Michel Gandoger (1850–1926). While Gandoger has published around 150 000 binomial names for various microspecies, the vast majority are dismissed by modern taxonomists (Staffeu, 1970; Sennikov, 2005; Kovalenko et al., 2019; Sennikov, 2024). Furthermore, since many of Gandoger’s publications have been formally suppressed (Wiersema et al., 2025), the nomenclatural status of several associated names remains unresolved. A prime example is the following specimen:

*Rosa collieri* Gand., *Rosae novae Galliam austro-orientalem colentes* 1: 12 (1877).

Herbarium specimens: France: Herbarium Generale Rosarum Europaeorum Exsiccatum № 346. Gdgr *Ros. nov. Gall fasc. 1 p. 12. Hab. Arnas. VIII. 1877. Leg.: M. Gandoger* (KWAH110748).

Additionally, KWAH houses specimens bearing names that were never published (e.g. within the genera *Centaurea*, *Cotoneaster*, *Corydalis*, and *Sedum*). Although these names appear on the original labels or annotation slips, they lack validation through effective publication and hold no nomenclatural standing. Nevertheless, they document historical taxonomic workflows and remain highly relevant for future monographic revisions.

Thus, the KWAH Herbarium houses 16 type specimens of vascular plants, comprising one holotype, one lectotype, two syntypes, nine isotypes, two isolectotypes, and one paratype (Table 1).

The KWAH type collection represents 14 genera in 11 families (Table 2).

The type specimens originate from seven countries: Armenia, France, Georgia, the Russian Federation, Turkey, Turkmenistan and Ukraine (Table 3, Fig. 2). The collectors who contributed the largest number of type specimens are Kharkevich (8 specimens) and Buch (5 specimens).

Table 1. Representation of type specimens at the Herbarium of M.M. Gryshko National Botanical Garden (KWAH). \* – one specimen mounted on three sheets

Type	Specimens	Number of specimens
Holotype	KWAH110721	1
Lectotype	KWAH110718	1
Syntype	KWAH110728, KWAH110735	2
Isotype	KWAH110711, KWAH110713, KWAH110714, KWAH110715, KWAH110719, KWAH110720, KWAH110722, KWAH110724, KWAH110744 (1/3–3/3)*	9
Isolectotype	KWAH110716, KWAH110717	2
Paratype	KWAH110725	1
Total:		16

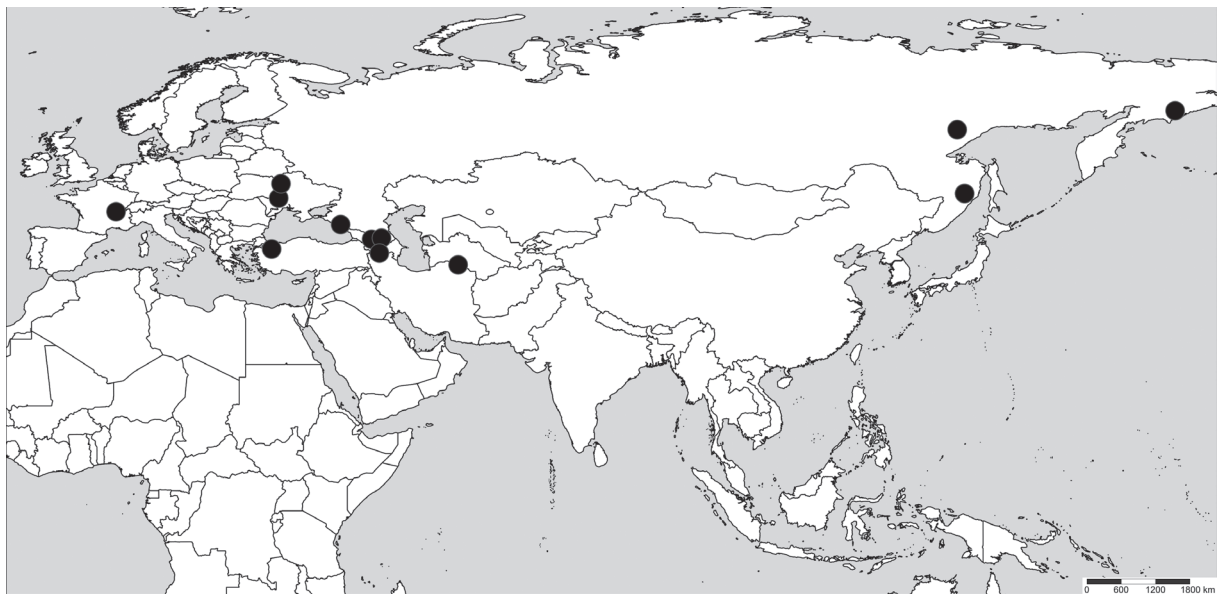


Fig. 2. Map of *loci classici* of the type specimens housed in KWAH.

Table 2. Taxonomic representation of type specimens at the Herbarium of M.M. Gryshko National Botanical Garden (KWAH)

Family	Genus	Taxa	Specimens
<i>Amaryllidaceae</i> J.St.-Hil.	<i>Galanthus</i> L.	<i>Galanthus bursanus</i> Zubov, Konca & A.P. Davis	KWAH110721
<i>Asteraceae</i> Bercht. & J. Presl	<i>Jurinea</i> Cass.	<i>Jurinea helenae</i> Sobko	KWAH110717, KWAH110718
	<i>Senecio</i> L.	<i>Senecio schistosus</i> Kharkev.	KWAH110719
	<i>Serratula</i> L.	<i>Serratula litwinowii</i> Iljin	KWAH110716
	<i>Taraxacum</i> F.H.Wigg.	<i>Taraxacum korjakense</i> Kharkev. & Tzvelev	KWAH110720
<i>Betulaceae</i> Gray	<i>Corylus</i> L.	<i>Corylus × fominii</i> Kem.-Nath.	KWAH110728
<i>Brassicaceae</i> Burnett	<i>Iberis</i> Dill. ex L.	<i>Iberis oschtenica</i> Kharkev.	KWAH110714, KWAH110715
<i>Iridaceae</i> Juss.	<i>Iris</i> Tourn. ex L.	<i>Iris sisanica</i> Zubov & L. Bondarenko	KWAH110713
<i>Liliaceae</i> Juss.	<i>Fritillaria</i> Tourn. ex L.	<i>Fritillaria lagodechiana</i> Kharkev.	KWAH110722
<i>Polygonaceae</i> Juss.	<i>Rumex</i> L.	<i>Rumex × kioviensis</i> Rakhmetov, A.S. Mosyakin & Mosyakin	KWAH110744 (1/3–3/3), one specimen mounted on 3 sheets
<i>Ranunculaceae</i> Juss.	<i>Anemone</i> L.	<i>Anemone tamarae</i> Kharkev.	KWAH110725
<i>Rosaceae</i> Juss.	<i>Rosa</i> L.	<i>Rosa boullui</i> Gand.	KWAH110735
<i>Salicaceae</i> Mirb.	<i>Salix</i> L.	<i>Salix sichotensis</i> Kharkev. & Vyschin	KWAH110724
<i>Saxifragaceae</i> Juss.	<i>Chrysosplenium</i> L.	<i>Chrysosplenium schagae</i> Kharkev. & Vyschin	KWAH110711
Total:			
11	14	14	

Table 3. Geographic representation of type specimens at the Herbarium of M.M. Gryshko National Botanical Garden (KWAH). \* – one specimen mounted on three sheets

Country	Specimens	Number of specimens
Armenia	KWAH110713	1
France	KWAH110735	1
Georgia	KWAH110722, KWAH110728	2
Russian Federation	KWAH110711, KWAH110714, KWAH110715, KWAH110719, KWAH110720, KWAH110724, KWAH110725	7
Turkey	KWAH110721	1
Turkmenistan	KWAH110716	1
Ukraine	KWAH110717, KWAH110718, KWAH110744 (1/3–3/3)*	3

## CONCLUSIONS

In summary, the KWAH Herbarium holds 16 type specimens of vascular plants, comprising one holotype, one lectotype, two syntypes, nine isotypes, two isolectotypes, and one paratype. The KWAH type collection represents 14 genera across 11 botanical families. Geographically, the specimens originate from seven countries: Armenia, France, Georgia,

the Russian Federation, Turkey, Turkmenistan, and Ukraine. The collectors who contributed the most type specimens to the collection are Kharkevich and Buch.

## ACKNOWLEDGEMENTS

The authors express their sincere gratitude to the anonymous reviewers for their valuable comments and recommendations. We are grateful to Dr Manana Khutsishvili for providing photographs of the *Corylus × fominii* type specimens from TBI.

**Author contributions.** Both authors contributed equally to this article. The authors read and approved the final version of the article.

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