Findings to the flora of Russia and adjacent countries: New national and regional vascular plant records, 4

Alta V. Verkhovzina1,2, Andrey V. Anisimov2, Natalya Yu. Beshko1, Roman Yu. Biryukov3, Victoria V. Bondareva3, Dmitry V. Chernykh4, Nikolay V. Dorofeev1, Vladimir I. Dorofeev6, Alexandr L. Ebel5, Andrey N. Efremov2, Andrey S. Erst7, Husniddin K. Eshanov10, Irina G. Esina4, Alexander V. Fateryga12, Valentina V. Fateryga2, Valeria A. Fomenko5, Natalia S. Gannova4,13, Alim D. Gaziyev4, Valerii A. Glazunov16, Alisa E. Grabovskaya-Borodina21, Vladislav N. Grigorenko17, Anvarbek M. Jamborov2, Olga G. Kalmykova19, Olga A. Kapitonova13, Alexey V. Kechaykin1, Anatoliy A. Khabugin3,10, Oleg N. Kholodov11, Maria G. Khoreva2, Natalia O. Kin15, Andrey Yu. Korolyuk4, Elena A. Korolyuk4, Yuri N. Korotkov8, Petr A. Kosachev23, Irina V. Kozyr15, Mariia A. Kulagina34, Nina V. Kulakova1, Igor V. Kuzmin20, Nikolay N. Lashchinskii2, Georgii A. Lazkov22, Alexander N. Luferov13, Dmitrii N. Malov8, Elena A. Marchuk26, Ramazan A. Murzataliev13, Marina V. Olsonova2, Svetlana V. Ovchinnikova1, Yuri V. Ovchinnikov12, Dmitry K. Pershin4, Valeria A. Peskova18, Evgenii P. Priluchno20, Elena V. Priukhina17, Andrei I. Pyak30, Elizaveta A. Puzanova19, Sergey A. Senyakin19,56, Stepan A. Senator31, Dmitry N. Shaule4, Alexander I. Shmakov2, Sergei V. Shumilov13, Sergey V. Smirnov2, Vladimir A. Sorokin13, Nadezhda V. Stepanova32, Sergey A. Svirin33,34, Dilarom M. Tajeditina5, Natalia A. Tsarensko26, Vladimir M. Vasjukov4, Andriy V. Vena35, Dmitry V. Yepikhin35, Pavel E. Yevseyenkov35, Wei Wang37,38, Dmitry V. Zolotov4, Elena Yu. Zykov4, Vladislav V. Murashko1, Denis A. Krivenko1.

ABSTRACT

With this paper we continue a new annual series, the main purpose of which is to make significant floristic findings from Russia and neighboring countries more visible in Russia and abroad. In total, this paper presents new records for 48 vascular plant species from 6 Eurasian countries, obtained during field explorations, as well as during taxonomic revisions of herbarium materials. For the first time, a new locality of *Leontopodium leiolepis* is recorded for Russia, *Rheum sphenantheroides* for China, *Rupippa prolifera* for Lithuania, *Lappula marginata* for Kyrgyzstan and Tajikistan, *Adonis x hybrida*, *Potamogeton fruticosus*, *Solidago x niger* for the Asian part of Russia, *Eulachnanthes exula*, *Potentilla petalochlora* for Siberia, *Aegilops sinica* for the Republic of Crimea, *Aegilops sylvestris* for the Republic of Ingushetia, *Berberis thunbergii*, *Crataegus mosconii* for the Republic of Moldovia, *Onosperma villosa* for the Republic of Tatarstan, *Astragalus sulphureus* for the Republic of Tyva, *Phragmites alismoides* for the Chelyabinsk Region, *Seneio dubitabilis* for the Magadan Region, *Asparagus sylvestris*, *Galatella villosa*, *Potentilla retica* for the Novosibirsk Region, *Diarthea orientalis* for the Omsk Region, *Ulua balsamica* for the Sakhalin Region, *Phragmites australis* for the Samara Region and the Middle Volga, *Jasione ferganensis* for the Samara Region, *Carex media*, *Impatiens parviflora* for the Tyumen Region. There are some more findings which are not new for the region but they contribute significantly to the understanding of species distribution.

Keywords: floristic findings, taxonomy, Russia, China, Kyrgyzstan, Lithuania, Tajikistan, Uzbekistan

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Adonis × hybrida G. Wolff ex Simon. (Ranunculaceae)

Contributors: Andrey S. Erst, Sergey V. Smirnov & Wei Wang

Distribution and habitat. *A. × hybrida* (A. vernalis L. × *A. volgensis Stev. ex DC*) is currently known to occur only at five locations in Central Europe, two in Romania, and three in Hungary (Jakab 2003, Jakab & Sallaine Kapocshi 2005). By contrast, recent molecular data showed that this species is absent in Hungary (Sramkó et al. 2012). The classic habitat of *A. × hybrida* is Chaj Napoca (Szénafülek), Romania (Szabo 1977, 1978). According to Luferov (2020), hybridogenic species is present in some areas of the Central Black Earth Economic Region (Russia: Voronezh, Lipetsk, and Kursk Regions); Ukraine and Bulgaria. In Russia, it has been also reported in the Volga River basin (Rakov et al. 2014, Vasjukov & Saksonov 2020).

Taxonomic notes. *A. × hybrida* is a hybridogenic species of *A. vernalis* × *A. volgensis*. *A. vernalis* is characterized by flliform-lanceolate, barely leaves (the sheath and rachis of the leaf may be pubescent), a bright green color of young shoots, pubescent sepals, golden-yellow flowers, 4–5 cm in diameter, oval multiachenes, and hook-shaped bent down persistent stylodia. *A. volgensis* characters linear-lanceolate, sometimes almost lanceolate, naked under the edge, pubescent leaf lobes, grayish-green and densely pubescent young shoots, pubescent sepals; pale yellow flowers 3.5–4.5 cm in diameter; rounded multiachenes directly bent down and pressed by persistent stylodia. *A. × hybrida* has intermediate characteristics. It should be noted that the apex of petals in *A. vernalis* is rounded, whereas in *A. volgensis*, it is acute. In *A. × hybrida*, the petal apex is most often acute, and the pubescence of the stems is scattered not dense.

Examined specimen (new record). RUSSIA: Altai Territory, Pavlovsky District, village Silbirskije Ogni, 53°19'32.7" N 83°02'28.9" E, forest steppe with shrubs, 182 m a.s.l., 23.05.2021, coll. A.S. Erst & V.V. Smirnov (NS).

Aldrovanda vesiculosa L. (Droseraceae)

Contributor: Andrey N. Efremov

Distribution and habitat. *A. vesiculosa* is a polyanthous species with a range covering Europe, Central and East Asia, Central Africa, Australia and North America (introduced). It occurs sporadically throughout its range (GBIF Secretariat 2021a). The total world range (EOO) is 25,1219 million sq km, the Palaeartic range area is 12,5382 million sq km (Murphy et al. 2019). In Russia, the area is disjunctive. The species grows within the European part, the Ciscaucasia (Leningrad, Pskov, Voronezh, Kursk, Lipetsk, Astrakhan, Volgograd, Tambov Regions, Krasnodar Territory), and the south of the Far East to the basin of the Amur River − the estuarine areas of the Ussuri, Zeya and Bureya Rivers (Amur Region, Primorsky and Khabarovsky territories). The protection status is “rare
A. vesiculosa inhabits shallow (0.2–0.6 m) stagnant, well-warmed and illuminated water bodies (lakes, oxbows, in river creeks, overgrown reclamation canals, usually in areas with weak flowing or stagnant water, often at the edge of floating mats). This species prefers slightly mineralized, soft water, with an acidic or neutral reaction (pH 4.5–7.0), and a high content of humic and fulvic acids. It is not restricted to any particular depth because of its submerged habit, whereby it grows just beneath the water surface. It can form floating masses, especially among thickets of helophytes (Adamec 1997, Geltman 2008, Les 2018, Kryukova 2019a). Isolated from the main range, the new habitat limits the northern boundaries of the distribution of this species in the Far East. The habitat features are given in the description of the Brasenia schreberi below. Taxonomic notes. While the genus Aldrovanda is monotypic, there are up to 19 extinct species in the fossil record. Though the species displays some degree of morphological plasticity between populations, genetic studies, using a variety of different markers have shown little variation to exist within the two haplotypes detected. The Eurasiian populations are essentially distinguished from the exist worldwide, with only two haplotypes detected. The variety of different markers have shown little variation to plasticity between populations, genetic studies, using a Distribution and habitat. A. canaliculata was described from Europe as Saposch skovia L. (Spalik 1987). Its native range includes Europe, Mediterranean, north-western Africa, Asia Minor and Caucasus, and the species is introduced to North and South America, Australia, New Zealand, Japan, Korea and Central Asia (Schischkin 1950, Spalik 1997, GBIF Secretariat 2021b, POWO 2022). In Central Asia, A. canaliculata has been recorded for the first time in 2004 from Bishkek, Kyrgyzstan (Lazkov & Redina 2007). In 2021, it has been found in the Almaty Region of Kazakhstan (nNaturalist contributors, iNaturalist 2022a). Pimenov (1983) reported for Central Asia following three representatives of the genus Anthriscus Pers. – annual A. cerefolium (L.) Hoffm. and two perennial species, A. glaucus Lipsky and A. sylvestris (L.) Hoffm. In the first edition of the “Flora of Uzbekistan” (Korovin 1959), two species of the genus Anthriscus, A. sylvestris and A. glaucus, have been cited as “probably present”. Later, the occurrence of A. cerefolium, A. glaucus and A. sylvestris in Uzbekistan has been confirmed by herbarium specimens (Tojibbaev 2010). A. canaliculata is a weed which grows mostly in ruderal places and other secondary habitats, but in mountainous regions of Italy, Spain, southern France and Caucasus, it also can be found in natural habitats as calcareous screes, rocks, ravines, stony slopes, shrublands and entrances to caves (Schischkin 1950, Spalik 1997). In Central Asia, A. canaliculata occurs in urban areas and inhabits front gardens, wastelands, ruderal places along sidewalks and roads. According to the classification of alien plants used in Russia and other countries of the former USSR (Vinogradova et al. 2009, Baranova et al. 2018), in Uzbekistan, this species is xenophyte by the mode of introduction and colonophyte by the invasive status, i.e. unintentionally introduced and naturalized species that grows mostly in secondary habitats. In accordance with the IUCN Environmental Impact Classification for Alien Taxa (EICAT) Categories and Criteria (IUCN 2020), status A. canaliculata can be assessed as Minimal Concern (MC). Another annual representative of the genus Central Asia, A. cerefolium, occurs in shady gorges, among riparian woodlands in Western Tien Shan, Pamir-Alay and Kopet-Dag, and as a weed in gardens, ruderal places and Along roads. Both perennial species, A. sylvestris and A. sylvestris, grow in natural habitats in mountain areas, in middle and upper altitudinal zones, up to 3200–3300 m a.s.l. (Pimenov 1983). Taxonomic notes. A. canaliculata has been recorded for the first time in 2004 from Bishkek, Kyrgyzstan (Lazkov & Redina 2007). A. cerufolium is poisonous annual herb up to 75–80 cm tall. This species well differs from A. cerufolium by glabrous (not hispid) rays of umbels and umbellules, pedicels distinctly thickened at fruits, a crown of bristles at the base of the flowers and fruits, and ovate or pyriform fruits 2.5–3.5 × 1.2 mm with a beak about 0.5–0.7 mm long, covered with tuberculate hooked bristles, rarely smooth (not oblong to linear, 7–10 × 1.5 mm with a beak 1.8–2 mm long, smooth or covered with antrorse bristles). In addition, fresh leaves of A. cerufolium have a characteristic anise smell, while leaves of A. canaliculata are odorless (Schischkin 1950, Spalik 1997). Examined specimens (new records). UZBEKISTAN: II-2 Middle-Syrdary district. II-2 a Chizav region: the city of Tashkent, Mixmst, ruderal place [41°17′52″N 69°12′54″E], 27.04.2014, coll. A.D. Gaziev (TASH); Tashkent, Chilanzar-7, along sidewalks and roads [41°17′43″N 69°12′41″E], 10.04.2019, coll. A.D. Gaziev (TASH); Tashkent, Yunusobod-2, [41°21′40″N 69°17′08″E], 27.04.2019, coll. A.D. Gaziev (TASH); Tashkent, Yashnobod District, Sulola St., in the front garden [41°18′48″N 69°12′41″E], 04.05.2021, coll. N.Yu. Beshko (TASH). Herbarium specimens cited here and below are arranged according to the scheme of phytocenosis of Uzbekistan used in the second edition of the national “Flora” (Sennikov et al. 2016, Tojbaev et al. 2017). Artemisia scoparia Waldst. & Kit. (Asteraceae) Contributors: Sergei V. Shumilov, Alexander N. Luferov, Irina M. Peskova, Valeria A. Fomenko & Vladimir A. Sorokin Distribution and habitat. A. scoparia is an Eurasian species distributed from Atlantic and Northern Europe, the Mediterranean region (the Balkan Peninsula), Asia Minor, Iran and Central Asia to the Pacific Ocean. In Russia it can be found in the European part, in the Caucasus, in the south of Western and Eastern Siberia and the Far East (Primorje Territory and Amur Region), predominantly in floodplain meadows of steppe zones, in river valleys, on fine earth, limestone, sandy or stony substrates, on roadsides and wastelands (Korobkov 1992, Leonova 1994, Krasnovorobov 1997). A. scoparia was stated for Prioksky, South-Eastern, Zaoksky, Eastern botany-geographical districts as well as adventitious along railways (Voroshilov 1966) and in valleys of the Oka, the Moskva, the Klyazma rivers and their major tributaries (Tikhomirov & Chichev 1987). Herbarium collections are known only from the Serpukhov and Kolomna Districts. Our study of the flora of Moscow and Kaluga Regions in 2020–2021 resulted in finding the new locations of A. scoparia in the Oka valley and adjacent territories. The plants were found in natural communities on sandy substrate on the margins of pine (Pinus sylvestris L.) forests in foots and steppe meadows with Alopecurus pratensis L., Phleum phleoides (L.) Karst., Dianthus fischeri Spreng., Astragalus daniou Rzet., Cytisus ruthenicus Fisch ex Woloszkcz, Phleum tuberosum L. The specimens from aboriginal populations from the south of the Moscow Region collected in the Last Time, the northern boundary of the range of A. scoparia in the Moscow and Kaluga Regions passes along the valley of the Oka River.
Taxonomic notes. *A. scoparia* (subgenus *Dracocephalus* (Bess.) Pet., section *Campestres* Korshov) is the most closely related to *A. campestris* L. These species are well distinguished by the life form (*A. scoparia* is an annual, biennial, or sometimes perennial herb (Fedoskin 1974)), *A. campestris* is a subshrub, rarely a shrub (achenes herb), by the scale of aboveground shoots where *A. scoparia* shoots are 50–130 cm tall, in *A. campestris* – 20–70 cm tall), by the stem colour (reddish-purple in *A. scoparia* stems, green in *A. campestris*), by the shape and diameter of the capitula (spheric or broadly ovoid, 1.5–2 mm in diameter in *A. scoparia*, ovoid, 2.2–3 mm in diameter in *A. campestris*).

Examined specimens (new records). RUSSIA: Kaluga Region, Tarusa District, 7 km south of the Tarusa River, barrier beach on the first riverine terrace on the left bank of the Okla River, 54°69'19.4″N 37°21'97.8″E, 18.10.2020, coll. S.V. Shumilov & A.N. Luferov (MHA); Moscow Region, Lukhovitsky urban district, the settlement of Kadanok, 54°99'53.8″N 39°33'49.1″E, a copious population in the forest plantations on the northern outskirts of the settlement, 54°99'53.8″N 39°33'49.1″E, 08.08.2021, coll. S.V. Shumilov & A.N. Luferov (MHA); Moscow Region, Lukhovitsky urban district, the settlement of Belomourov, a copious population in the forest plantations on the northern outskirts of the settlement, 54°99'53.8″N 39°33'49.1″E, 08.08.2021, coll. S.V. Shumilov & A.N. Luferov (MHA); Moscow Region, Serebryanye Prudy urban district, MOS@40°73.6″N 38°52'50.0″E, sparse plants in the high bank of the Polosnya River in the vicinity of the village of Lishnya, 10.10.2021, coll. S.V. Shumilov & A.N. Luferov (MHA).

**Asclepias syriaca** L. (Apocynaceae)

**Contributors:** Elena Yu. Zykova & Aleksandr L. Ebel

**Distribution and habitat.** The native area of *A. syriaca* covers North America and adjacent areas of Canada (Hartlzer & Buhler 2000, USDA, NRS, 2022). This was experimentally cultivated as a rubbery species, and now it is cultivated as ornamental and melliferous plant. The species has wide distribution, especially in British Columbia and New Zealand. It is a hardy perennial herb, producing stout stems up to 2 m high, opposite leaves 10–20 cm long (vs 10–13 mm long), which are arranged in elongated loose raceme inflorescences (vs shortened round-ovate racemose inflorescences).

Examined specimens (new records). RUSSIA: Republic of Tyva, Mongun-Tayginsky District, 20 km SE from the village Mugur-Akhy, basin of Lake Urgunur, terrace above the floodplain on the right bank of the Kargy River, reclaimed land on a floodplain terrace, [50°15’53.18”N 90°40’03.55”E], 1635 m a.s.l., 24.07.2021, coll. A.I. Pyak & E.A. Pyak (TK).

**Berberis thunbergii** DC. (Berberidaceae)

**Contributors:** Irina G. Esina & Anatoly I. Khabugin

**Distribution and habitat.** *B. thunbergii* is native to Central and Southern Japan (POWO 2022). It is widely cultivated as an ornamental plant that contributes to its distribution outside of the native range. This species is occurring non-frequently in Australia, Asia, South America, Africa, while the majority of *B. thunbergii* records is from Europe and North America (GBIF Secretariat 2021c). In North America, *B. thunbergii* is recognized as an invasive species (Berberis spp. in Europe, Klepeis 1999). This East Asian species is widely cultivated in urban gardens, especially in the cooler months of the year. The species is quite attractive to bees, butterflies, and other pollinators. It is a hardy perennial herb, producing stout stems up to 2 m high, opposite leaves 10–20 cm long, which are arranged in elongated loose raceme inflorescences (vs shortened round-ovate racemose inflorescences).

Examined specimens (new records). RUSSIA: Republic of Mordovia, Ternikov District, former nursery weeds.
in the quarter 445 of the Mordovia State Nature Reserve, 54°43′16.7″N 43°12′22.0″E, 08.07.2021, coll. I.G. Esina & A.A. Kapitonova (HMNR).

**Braenia schreberi** J. Gmel. (Cabombaceae)

**Contributor:** Andrey N. Efremov

**Distribution and habitat.** **B. schreberi** is a polar-temperate-tropical species with a range covering southern Asia, Africa, North America, South America, and Australia and some natural habitats. In accordance with the IUCN Red List, it is classified as "Vulnerable." The available data shows that this species has a rather low invasive potential, and it is not considered endangered in the IUCN Red List.

**Examined specimens (new records).** RUSSIA: Khabarovsk Territory, Verkhneyurensky District, 5.3 km north-east of Novy Urgal, left side of the valley of the Bureya River, an unnamed oxbow near reserve road of the Bakal-Amur Road, 51°05′48.7″N 132°59′46.7″E, 270 m a.s.l., depth 0.5–2.5 m, fine silt on a sandy bottom, pteridophytes Brasenia schreberi and B. schreberi + Nymphaea tetragona, 13.07.2020, ibo. 17.07.2020, coll. A.A. Efremov (IBIW, MW).

**Carex media** R. Br. (Cyperaceae)

**Contributor:** Olga A. Kapitonova

**Distribution and habitat.** **C. media** is a Holarctic montane and hypoarctic species. It is quite widespread in Siberia (Shchukovskaya 2012). In Western Siberia, it is indicated for the Yamalo-Nenets Autonomous Okrug, Khanty-Mansi Autonomous Okrug – Yugra, Novosibirsk, Kemerovo Regions, Altai Territory (Malyshiev 1990, Egorova 1999), Republic of Altai (Krasnaborov 2012), Tomsk Region (Vysstan 1994). In the Urals, it is reported for the Sverdlovsk (Knyazev 1994, Knyazev et al. 2017) and Chelyabinsk (Kulkov 2010) Regions. Despite the extensive range, the species is found in all plant regions of Siberia belongs to rare taxa (Krasnaborov 2003, 2006, Knyazev et al. 2017). It is more common in the mountains of the forest zone (Egorova 1999). This species has not been previously recorded for the territory of the Tyumen Region (Glazunov et al. 2017).

Typical habitats of **C. media** are damp, swampy, often flood-plain forests and shrubs, swampy meadows, river and stream banks (Egorova 1999). In the cited locality, the species was found in a swampy dark coniferous forest on the second terrace above the floodplain of the Irtysh River.

**Taxonomic notes.** The species belongs to the section *Macronympha* Drey ex L.H. Bailey (Egorova 1999). This is a turf sedge with purple-brown scaly and leaf-bearing sheaths at the base of the shoots. **C. media** is distinguished from a closely related arctoalpine species *C. norvegica* Retz. by taller stems up to 75 cm, larger size of saccules (2.6–3.3 mm, versus 1.8–2.6 mm in *C. norvegica*), scales are dark brown, with a purple tint and narrow light edges that are 1/3–1/2 shorter than the saccule (in *C. norvegica*, scales are entirely brown or black, ¼ shorter than saccule). In addition, in contrast to **C. media**, the saccule has clearly distinguished veins and smooth short (about 0.3 mm) beak (veins are absent in *C. norvegica*, beak is rough) (Malyshiev 1990, Egorova 1999, Kulkov 2010).

**Examined specimen (new record).** RUSSIA: Tyumen Region, Tobolsk District, 165 km NW from the village Mikhailovsky, 58°16′16″N 68°22′56″E, site “Clean swamp” (**Chitoe boloto**), swampy dark coniferous forest at the base of the root terrace of the Irtysh River, 22.06.2022, coll. O.A. Kapitonova (TOB, IBIW).

**Chenopodium ficifolium** Sm. (Amaranthaceae)

**Contributors:** Husniiddin K. Esanov, Dilarom M. Tajdintinova & Anvar M. Jabbarov

**Distribution and habitat.** **Ch. ficifolium** was described from wastelands and ruderal places in surroundings of London, United Kingdom (Sukhorukov et al. 2019, Mosyakin & de Lange 2020), the type material is probably lost. Although the species was described from England, it is an archaeophyte, non-native to this region. The primary range of this species is tropical areas of south and south-eastern Asia. The species is introduced to temperate and subtropical regions of Eurasia, Japan, northwestern Africa, New Zealand, North and South America (Sukhorukov et al. 2019, Mosyakin & de Lange 2020, GBIF Secretariat 2022e, POWO 2022).

**Ch. ficifolium** is a weed growing in disturbed areas – wastelands, storage dumps, roadsides, croplands, etc. (Sukhorukov et al. 2019, Mosyakin & de Lange 2020). It also occurs in some natural habitats, as river valleys and lakeshores (Nobis et al. 2018). The available data shows that this species has a rather low invasive potential (Nobis et al. 2018, Mosyakin & de Lange 2020).

In Uzbekistan, it is xerophyte and epiphyte, unintentionally introduced and naturalized species that grows in secondary and some natural habitats. In accordance with the UCN
Environmental Impact Classification for Alien Taxa (EICAT) Categories and Criteria (IUCN 2020), *Ch. ficiifolium* can be assessed as alien species of minor impact (MN category).

**Taxonomic notes.** *Ch. ficiifolium* is annual herb, erect, 20–50 cm tall. According to “Conspectus Florae Asiaticae Medicae” (Pratov 1972), the flora of Central Asia includes 19 species of *Chimon rhododendron* L. s.l., and 10 species are recorded in Uzbekistan (Botschantzev 1953). Among them, the closest species to *Ch. ficiifolium* is *Ch. album* L., a common weed widely spread in Uzbekistan. *Ch. ficiifolium* differs by bright green, long-petiole, clearly trifoliate leaves with elongated apical lobe, two to four times as long as the lateral ones, with almost parallel midrib and veins, dentate or lobe slightly or not larger than the lateral ones (Sukhorukov et al. 2019). The historical herbarium specimens from TASH cited below and two specimens from MW (MW0821202, MW0821204) were previously identified as *Ch. album* L. These materials show that *Ch. ficiifolium* was introduced into the territory of Uzbekistan and naturalized in the valleys of large rivers at least in the first half of the 20th century, but due to misidentification was not included in the first edition of the “Flora of Uzbekistan” (Botschantzev 1953).

**Examined specimens (new records).** UZBEKISTAN: 1-3 Fergana-Altay district. 1-3b Eastern Altay region: Western part of Altay region. surroundings of the village Vuadi [40°11′20″N 71°4′25″E], 15.06.1965, coll. R. Shonazarov 1916 (TASH). 1-1 Central Fergana district. 1-1a Kayrakum-Yazayan region: Kokand, [40°27′40″N 70°54′5″E], 23.05.1919, coll. G.K. Werner (MW0821204); 1-1b East Fergana region: surroundings of the station Tentaekul, Kokan-kishlak [40°5′47″N 72°24′8″E], 08.07.1934, coll. V.S. Titov 24 (TASH). 1-3 Kyzylkum district. 1-3b Kyzylkum Relic Mountains: Sultan-Uiz-Dag, a hollow near the tomb of Sultan-bobo, near the spring [42°00′35″N 60°38′40″E], 25.05.1934, coll. E.T. Arsenieva & Sidonov 174 (MW0821202). II-4 Bukhara district. II-4a Middle Zeravshan region: surroundings of the city of Samarkand, Karasu [39°37′10″N 67°05′46″E], 08.07.1940, coll. M.G. Popov (TASH); northern outskirts of Samarkand, the right bank of the river Zeravshan River [39°40′37″N 67°19′37″E], 09.05.2002, coll. A.P. Sukhorukov (MW0821203); II-4b Lower Zeravshan region: Kyzylkum, Kerimekhchul, surroundings of the Lake Shor [40°19′08″N 64°54′42″E], 22.05.1936, coll. A.I. Puggassova (TASH); Bukhara, Arohon St., 39°40′58″N 64°23′12″E, 24.04.2019, coll. F. Thiebault (TASH); Bukhara, southern part of 5th microdistrict, surroundings of croplands, 39°43′56″N 64°25′26″E, 02.03.2022, coll. H.K. Esanov (TASH); Bukhara, 5th microdistrict, Piridagstir St., roadsides and wastelands, 39°45′57″N 64°25′36″E, 03.03.2022, coll. H.K. Esanov (TASH); Bukhara, Anduvdonov St., roadsides and wastelands, 39°45′53″N 64°23′29″E, 03.03.2022, coll. H.K. Esanov (TASH); Bukhara, K. Murtazaev St., surroundings of alfalfa field, 39°45′53″N 64°24′10″E, 03.03.2022, coll. H.K. Esanov (TASH); Bukhara, K. Murtazaev St., Bukhara, Bukhovahudin Nakshibandi and Gazzi streets, 39°46′10″N 64°27′45″E, 04.03.2022, coll. H.K. Esa- 

**Cirsium alatum** (S.G. Gmel.) Bobrov (Asteraceae)

**Contributors.** Sergeya A. Svirin, Pavel E. Yevseyenkov, Vladislav N. Grigorinok & Andry V. Yena

**Distribution and habitat.** This species is distributed in Eastern Europe (Bulgaria, Romania, Moldova, Ukraine), South of European Russia, South of Western Siberia to Kazakhstan and Central Asia (Tzvelev 1994a). Throughout its range, *C. alatum* prefers open wet ecotopes like saline meadows and saline marshes. Though *C. alatum* range covers area around Crimea, this species was not been found there previously. We revealed this species in the very north of the Crimean Peninsula in its typical ecotope. Such a late finding could be explained by the fact that this part of the region is considered to be of little botanical attraction in comparison with the Crimean Mountains and therefore still remains sparsely explored.

**Taxonomic notes.** The species *C. alatum* has enigmatic synonymy (> 20) but it is accepted in the most complete expert floristic sources (e.g. Tzvelev 1994a, Kadereit & Jeffrey 2007, Greuter & Raab-Straube 2008, WFO 2022). In Turkey, the name *C. alatum* was revealed to be misapplied for *C. elodes* M. Bieb. (Yıldız et al. 2016). Aside from *C. alatum*, four more long known species of the genus are distributed in Crimea, namely, *C. arenus* (L.) Scop., *C. linthorum* (M. Bieb.) Fisch., *C. serrulatum* (M. Bieb.) Fisch., and *C. vulgare* (Sav. Ten. (Yena 2012).

**Examined specimen (new record).** RUSSIA: Republic of Crimea, Krasnopereskop District, 2.3 km to the north of Krasnoarmeyskoye village, western coast of Lake Aygulskoye, 46°01′00″N 34°20′58″E, 2 m a.s.l., saline meadow, 07.07.2020, coll. S.A. Svirin & P.E. Yevseyenkov (CSAU, LE, MW, YALT).

**Crataegus maximowiczii** C.K.Schneid. (Rosaceae)

**Contributors.** Irina G. Esina & Anatoly A. Khapugin

**Distribution and habitat.** *C. maximowiczii* is a shrub or small tree native to East Siberia and East Asia. Within the natural range it inhabits floodplain meadows, among forest understory and forest edges of mountain slopes (Polozhij & Malyshev 2004). Outside native range, it is used as an ornamental plant. According to Maevskii (2014), this species is rarely cultivated in the central part of European Russia, although it was found in the wild only in Moscow and Tver Regions. In the Republic of Moldova (Siliva et al. 2010), *C. maximowiczii* has never been noticed previously, like in the Moldova State Nature Reserve (Vargot et al. 2016). Despite these data, while surveying the area of the Moldova State Nature Reserve, we found numerous individuals escaped into the wild from both former nursery woody plants and natural forest communities around the nursery. Some of the found plants had a height of 1.0–1.5 m. We expect the further distribution of *C. maximowiczii* through the surrounding forest communities, as well as along adjacent forest roads.

**Taxonomic notes.** The genus *Crataegus* L. consists of 215 accepted species (POWO 2022). In the central part of European Russia, it could be confused with native *C. sanguinea* Pall.
and alien East Asian (C. dahurica (Dieck) Kochne, C. chloroarea Maxim.) and Middle Asian (C. chloroarpa Lenné & K.Koch) species (Maevskii 2014).

Examined specimen (new record). RUSSIA: Republic of Mordovia, Temnikov District, former nursery woody plants in the quarter 445 of the Mordovia State Nature Reserve, 54°31′7.7″N 43°12′22.0″E, 08.07.2021, coll. I.G. Esina & A.A. Khapugin (HMMR).

Cystopteris dickieana R. Sim (Cystopteridaceae)

Contributors: Svetlana V. Ovchinnikova & Yuri V. Ovchinnikov

Distribution and habitat. C. dickieana was described by R. Sim from Aberdeen (Scotland) by collections of Knight (lectotype – BM001066217). Sporadically distributed in the mountains of the Northern Hemisphere and was found in the Republic of Khakassia only from the Monysh ridge (Fomin 1934, Danilov 1988, Shmakov 1999, 2005, Ebel 2012). C. dickieana grows on rocks, scree, stony slopes on carbonate rocks.

Taxonomic notes. C. dickieana belongs to subgenus Cysto-
teris, which included plants with short thick rhizomes and crowded fronds (Shmakov 2005). From the related species C. fragilis (L.) Bernh. it is distinguished by lanceolate or narrow-lanceolate leaf blades covered with jointed hairs and brown glands, as well as spores with smoothly-bossedel surface (Danilov 1988, Shmakov 1999, 2005). It was first collected by Yu.V. Ovchinnikov on the southeastern slope of the Joysky ridge, among the stones in the summer of 2021. Revision of the specimens currently containing that species NSK and literature data confirmed that the Joysky Ridge is the second location in the Republic of Khakassia for C. dickieana from the territory of Khakassia.

Examined specimens (new record). RUSSIA: Republic of Khakassia, Sayanogorsk District, 6 km from the village of Maina, southeastern slope of the Joysky ridge, kurumniks, among the stones, 53°00′9″N 91°29′7″E, 02.08.2021, coll. Yu.V. Ovchinnikov (NSK0027157).

Dodartia orientalis L. (Mazaceae)

Contributors: Andrey N. Efremov, Nataliya V. Pikina & Oleg N. Kholodov

Distribution and habitat. D. orientalis range includes steppes and semi-deserts of southeastern of Eastern Europe, the Cau-
casus, the south of Western Siberia, Altai, the north of Centr-
al Asia, Iran, Afghanistan, Pakistan, Northern China, Mongol-
a (Tsagolova 1965, Kurbatsky 1996, Hong et al. 1998, Kosachev 2010). The nearest habitats are known in the Altai Territory and Kazakhstan (Tsagolova 1965, Kurbatsky 1996, Kosachev 2010, GBIF Secretariat 2022b). It grows on rocky slopes and sands, salt-marsh steppe meadows, along the edge of pine forests, along river valleys. Sometimes it grows crops, is found on deposits, along roads, along irrigators, in gardens, along the sides of roads (Tsagolova 1965, Kurbatsky 1996, Sokolova 2008). As an adventitious species it is known in the Moscow Region (Mayorov et al. 2012).

For the Omsk Region D. orientalis is indicated for the first time. A known habitat limits the northern boundary of the species almost to 30 individuals, covers an area of about 100–150 m². Confined to the slope of the indigenous coast of the Akhmin River, within the valley of the Irtysh River, in the deserted fescue (Festuca pseudovina) – sagebrush (Artemisia nitrosum) steppe.

Taxonomic notes. Dodartia L. is a monotypic genus of semi-parasitic plants (Tsagolova 1965, Kosachev 2010) of the Mazaceae family (APG IV 2016). It is a small herbaeous family in the large tribe currently containing two genera: Dodartia L., Lancea Hook.f. & Thomson and Mazus Lour. (APG IV 2016). Dodartia, Lancea and Mazus were once placed in the traditionally circumscribed Scrophulariaceae but variously affili-
ted with tribe Geraniaceae or Mimulaceae (Xiang et al. 2021). The genus Dodartia is characterized by having scale-like leaves and much-branched stems.

Examined specimen (new record). RUSSIA: Omsk Region, Omsk, Novovarshavsky District, the suburbs of the village Bogdanovka, slope along the valley of the Akhmin River, deserted fescue (Festuca pseudovina) – sagebrush (Artemisia nitrosum) steppe, 54°04′19″N 74°49′20″E, 19.08.2020, coll. O.N. Kholodov (OMSK).

Echinocloa esculenta (A. Braun) H. Scholz (= Echinocloa utilis Ohwi & Yabuno ≡ E. crus-galli subsp. utilis (Ohwi & Yabuno) T. Koyama, E. fromentacea subsp. utilis (Ohwi & Yabuno) Tzvelev) (Poaceae)

Contributor: Aleksandr L. Ebel

Distribution and habitat. E. esculenta is widely cultivated in many non-tropical regions of China, Japan, Korea, USA, Canada, Australia, etc. as a fodder and food plant, and sometimes found as a weed, mainly in waste places, and in the fields of other crops (Probatorva 1985, Michael 2003, Malyshev 2008). As an experimental crop it is also grown in the southwestern European region of the former USSR, the Cau-
casus, and Central Asian countries (Tzvelev 1976, Probatorva 1985, Malyshev 2008). In European countries, the species is known as a weed plant in Germany, Austria, Belgium, Great Britain, Poland, Czech Republic, Belarus, Ukraine, where is distributed mainly with feed mixtures for domestic and cage birds, and with imported sorghum seeds (Hanson & Mason 1985, Dzhus 2012, Englmaier & Wilhalm 2018). In European countries, E. esculenta is usually an ephemeroephyte (rarely persistent), since the flowering and ripening of seeds occurs only at the end of the growing season. Within Russia this species was first found as an alien plant in the Far East, however, in 1998, Probatorva 1985, Tzvelev & Probatorva 2019), and in last two decades in the European part of the country, from the Smo-
lenks Region in the west to the Udmurt Republic in the east (Tzvelev & Probatorva 2019, GBIF Secretariat 2022a). It was also reported for Western Siberia from Altay (Zolotukhin 1983, Probatorva 1985, Probatorva & Tzvelev 2019) but not listed for Siberia nor for Russian Altay in the recent treatments (Lomorosova 2003, Krasnoorobov et al. 2012, Vlasova 2012). Specimen from Altay collected by N. Zolotukhin in 1980 and determined by him as E. utilis (LE 0119716) does not fit perfectly to this species. This specimen has mostly green spikelets and some lower lemmas with conspicuous awn, so probably it belongs to E. crus-galli s.s. var.

Taxonomic notes. The genus Echinocloa comprises about 35 species occurring mainly in tropical and warm-temperate regions of the world. E. esculenta is thought to be a cultivated derivative of widespread and natural weed E. crus-galli and E. frumentacea (Ohwi & Yabuno 1965, Japan, and Korea (Shou-liang & Phillips 2006). As seen from the above synonyms, E. esculenta is close to E. crus-galli, and to another crop plant E. fromentacea Link. It differs from the first one by dense, usually erect inflorescences and persist-
ing grain at maturity. E. esculenta can be distinguished from E. fromentacea by very dense racemes with blackish-brown to pur-
plish brown broad ovate spikelets, whereas E. fromentacea has rather spaced racemes with ovate green or yellowish spikelets (Shou-liang & Phillips 2006, Probatorva & Tzvelev 2019).

Examined specimen (new record). RUSSIA: Tomsk Region, the city of Tomsk, pebble bank of the Tom River, 56°28′08″N 84°55′55″E, 29.09.2021, coll. A.L. Ebel (TK).

Euphorbia prostrata Aiton (Euphorbiaceae)

Contributors: Natalya Yu. Beshko & Alim D. Gaziév

Distribution and habitat. E. prostrata was described from Richmond, Surrey (United Kingdom), but this species is alien in Europe. Its native range is tropical and subtropical areas of North and South America, and secondary range in-
cludes Western Europe, Africa, Mediterranean, western and southern Asia, Japan and Australia (Radcliffe-Smith 1968, Platevan & Riina 2011, GBIF Secretariat 2022b, POWO 2022). According to the data of Plantarium web-site, in Central Asia, E. prostrata was recorded for the first time from the Almaty Region of Kazakhstan in 2012 (Epiketov 2016). E. prostrata is a weed which grows mainly in anthropogenic habitats, as wastelands, lawns, parks, gardens, fields, fallow lands, sidewalks, railway embankments, etc. But it
also occurs in natural habitats, on pebbles, stony banks and dry beds of rivers and streams, stony and stony-clayey slopes of foothills and low mountains. In Uzbekistan, it is xerophytic and epeiphytic. In accordance with the IUCN Red List of Threatened Species Categories and Criteria (2020), E. prostrata can be assessed as alien species of minor impact (MN category).

Taxonomic notes. *E. prostrata* is annual herb with procumbent, usually branched stems 10–25 cm long. Among 4 species of *Euphorbia* subg. *Chamaesyce* Raf. recorded in Central Asia and Uzbekistan (Pazij 1959, Nasimova 1983), the closest species is *E. chamaesyce* L., which is widely spread in Central Asia and along the same habitats. *E. prostrata* has glands with small ovate or oblong pinkish appendages and a capsule pilose along keels only, while a capsule of *E. chamaesyce* is uniformly pubescent to glabrous, and glands with large, lobate, whitish appendages (Radcliff-Smith & Tutin 1968, Pahlevani & Rina 2011).

Examined specimens (new records). UZBEKISTAN: I-1 Western Tian Shan district. I-1e Chorkotas region: Namangan region, Pap District, surroundings of the village Chadak, foothills of Kurama Range, 40°58′21″ N 70°45′55″E, 14.07.2021, coll. T.S. Tillav (TASH, Tillav 2021). I-4 Nuratau district. I-4a Nuratau region: Dzhizak Region, Nuratau Nature Reserve, Khlavatgay, 1000 m a.s.l., stony-clayey soil, 40°31′31″ N 66°45′37″E, 25.06.2012, coll. N.Yu. Beshko (TASH). II-2 Middle-Syrdaya district. II-2a Chinaz region: Tashkent Region, Yangiyul district, 41°8′23″ N 69°15′8″E, 15.07.2013, coll. A.D. Gaziev (TASH, Gaziev 2013); Tashkent Region, Pakent District, surroundings of the village Arbakulak, stony bed of the river Akhangaran, 40°54′41″ N 69°33′29″E, 01.08.2019, coll. T.S. Tillav (TASH, Tillav 2019).

*Galatella villosa* (L.) Reichenb. fil. (≡ *Cinaria villosa* (L.) Grossh. ex Czer., *Linaria villosa* (L.) DC.) (Asteraceae).

**Contributors:** Andrey Yu. Korolyuk & Elena A. Korolyuk.

**Distribution and habitat.** *G. villosa* is a species that is widespread in the steppe biome in Europe and the Caucasus (Tzvelev 1994b, 2008). In Kazakhstan and the Southern Ural it grows in desert and typical steppes as well as in petrophytic and xerophytic communities. In Northern Xinjiang (China) it is distributed in salt marshes, steppe zones and rocky slopes (Yilin & Brouillet 2011). In Siberia it was found in the Altai Territory, Kurgan and Omsk Regions (Korolyuk 2007) where the species is confined to zonal bunchgrass steppes and xeric meadows on solonetz soils. In many xerophytic plant communities *G. villosa* is characterized by high constancy or abundance, especially in dry and desert steppes, in habitats on rocky or salted soils. The desertification process associated with climate aridization and a high anthropogenic pressure on ecosystems causes the species abundance reduction (Gorshkova 1954). In the Novosibirsk Region *G. villosa* was observed in steppe on solonetz soil where the species co-occurs with such common steppe bunegrasses as *Stipa capillata* and *Festuca valesiaca*.

**Taxonomic notes.** *Galatella villosa* belongs to sect. Chrysocolla Novopokr. ex. Tzvelev that comprises two Eurasian perennial caespitose herbs, 10–35 cm tall. This section is often distinguished as a separate genus – *Cinaria* Cassini, *Linaria* Cassini, *Cinrina* Sojak. *G. villosa* differs from the most similar *G. tatarica* (Less.) Novopokr. ex. Tzvelev that has greyish tomentose oblong to linear-oblong leaves and involucres. The dense pubescence of the leaves makes their color gray, and also hides numerous, dotted glands. These features make it possible to distinguish two species in a non-flowering state.

Examined specimens (new record). RUSSIA: Novosibirsk Region, Kupino District, to the west from Lake Vishnevoe, steppe, 53°51′76″22′′ E, 05.07.2013, coll. A.Yu. Korolyuk (NS).

*Galium mollugo* L. (Rubiaceae).

**Contributor:** Dmitry N. Shaulo.

**Distribution and habitat.** *G. mollugo* is a boreal–European–North American species spreading into western regions of Asia. In Russia, it occurs in the European part, Ciscaucasia, Siberia, and the Far East. The species grows in forests, meadows, and along roads and sometimes railways. In the Asian part of Russia, it is possibly alien (Balde 2012, Shaulo et al. 2020). The closest to *G. mollugo* species possibly lies in the Gis-Ural part of the Western Siberian Plain (Naumenko 2008). *G. mollugo* occurs in southernmost regions of Siberia and the Far East (Petelin 1991, Balde 2012, Ebel 2012, Shaulo et al. 2020). In the Republic of Tyva, *G. mollugo* is registered for the first time.

**Taxonomic notes.** *G. mollugo* is the only representative of the section *Longicalyx* (DC.) Ledeb. in the Asian part of Russia (Balde 2012). It has a creeping dark-brown woody rhizome. Stems are ascending, tetraедral, and branched. Leaves are linear-oblong or lanceolate with a pointed tip. Flowers are white and arranged into numerous apical spreading inflorescences.

Examined specimens (new records). RUSSIA: Republic of Tyva, the city of Kyzyl, International’naya St., near the stadium, on the lawn, 560 m a.s.l., 51°07′25.8″N 94°33′30.0″E, 18.08.2020, coll. D.N. Shaulo (NS); Republic of Tyva, Tandsinsky District, 35 km from the Bai-Khak–Balgazyin road, roadside, 1090 m a.s.l., 51°01′48″N 94°51′37″E, 23.08.2020, coll. D.N. ShaULO (NS).

**Impatiens parviflora** DC. (Balsaminaceae).

**Contributor:** Igor V. Kuzmin.

**Distribution and habitat.** *I. parviflora* is a species native to areas from Central Asia (Afghanistan, Altay, Kazakhstan, Kyrgyzstan, Tadjikistan, Turkmenistan, Uzbekistan) to Mongolia and Manchuria. Since 1831, this species is being cultivated in European botanical gardens. From 1848, *I. parviflora* started to escape into the wild, while from half of the XX century, its invaded range actively expanded (Vinogradova et al. 2009). At present, the easternmost records in the European-Ural part of its invaded range are known in the cities of Irbit, Yekaterinburg and Chelyabinsk. The Siberian part of its invaded range lies at 1300 km to the east from the European one (the cities of Novosibirsk, Barnaul and others). Finally, the third part of its invaded range is located in the Far East (GBIF Secretariat 2022). *I. parviflora* grow in wet and shaded habitats: flower beds, gardens and parks, garbage places, wet willow thickets and alder groves, forest parks, and disturbed deciduous forests (Vinogradova et al. 2009).

We found *I. parviflora* in nine sites within the city of Tyumen. These sites are located at 150–300 km to the east out of the previously known border of its invaded range (European part), i.e. Irbit and Yekaterinburg. The space between cities of the Urals and Western Siberia, where *I. parviflora* is known, is reduced to 1000 km. In almost all locations in Tyumen, the presence of *I. parviflora* was associated with the activities of gardening and planting flower beds. However, in two cases, this species has spread far beyond the site of its original introduction in gardens by colonizing a wet forbs birch forest and *Acer negundo* L. thickets at the riverbank. In all sites, *I. parviflora* occurs with high abundance by forming a full coverage. In Tyumen, we observe this species each year since 2018, and its abundance is annually increased in each site. *I. parviflora* is a new alien species to the flora of the Tyumen Region.

**Taxonomic notes.** *I. parviflora* may grow nearby of populations of another alien species, *I. glandulifera* Royle. The second mentioned alien species is easily distinguished by a larger habitus of plants and red (instead of yellow in *I. parviflora*) flowers. Also, in West Europe, the close species, *I. alba* (Hooft & Hooftwijn) Hook.f., has been introduced (Weiss 2020). This species has curved spurs, while *I. parviflora* has straight ones.

Examined specimens (new records). RUSSIA: Tyumen Region, Tyumen, Tarkskaya St. near house with number 89, 57°08′13.6″ N 65°33′03.9″ E, 80 m a.s.l., near the front garden of a wooden house, 18.07.2018, coll. I.V. Kuzmin; Tyumen Region, Tarkskaya St. near house with number 89, 57°10′36.3″ N 65°27′35.3″ E, 82 m a.s.l., small street of wooden houses, next to a fence around a firewood storage.
area, 05.08.2019, coll. I.V. Kuzmin; Yurii Semovskikh St. near houses with numbers 1 and 4, 57°06′15.7″N 65°31′40.3″E, 86 m a.s.l., garbage places around garden center fence, 05.08.2019, coll. I.V. Kuzmin & N.S. Drachiev; Strofoprovskaya St. near houses 13 and 14, 57°07′2.4″N 65°31′19.0″E, 90 m a.s.l., an abandoned flower garden near the entrances of a nine-storey building, 01.10.2018, coll. I.V. Kuzmin; Permyakova St. near houses with numbers 58 and 60, 57°06′59.3″N 65°34′21.1″E, 78 m a.s.l., heaps of soil brought for making lawns, 27.06.2019, coll. I.V. Kuzmin; Severnaya St. near house with number 6 and Profsoyuznaya St. near house with number 17, 57°09′18.6″N 65°33′51.8″E, 73 m a.s.l., an abandoned flower garden near the entrances of a nine-storey buildings, 23.08.2021, coll. I.V. Kuzmin; Pavlovskaya St. with an abandoned flower garden near the entrances of a five-storey building, 01.10.2019, coll. I.V. Kuzmin; Severnaya St. near house with number 6 and Profsoyuznaya St. near house with number 17, 57°09′18.6″N 65°33′51.8″E, 73 m a.s.l., an abandoned flower garden near the entrances of a nine-storey buildings, 23.08.2021, coll. I.V. Kuzmin; Pavlovskaya St. with an abandoned flower garden near the entrances of a five-storey building, 01.10.2019, coll. I.V. Kuzmin; Gosparskaya St. near houses with numbers 41, 45 and 28, 57°09′40.7″N 65°34′12.7″E, 55 m a.s.l., Aser negundo thickets on the banks of the river Tur, 23.06.2021, coll. I.V. Kuzmin. All plant specimens are stored at the XBIO Institute of Tyumen State University.

**Jacobsenia ferganensis** (Schischk.) B. Nord. & Greuter (≡ Seneio ferganensis Schischk.) Asteraceae

**Contributors:** Vladimir M. Vasyukov & Dmitri N. Malov

**Distribution and habitat.** *J. ferganensis* was described from the Alai Range in Kyrgyzstan by B.K. Schischkin (1961) and found in southernmost European Russian Federation, eastern Ukraine, and Central Asia (Konechnaya 1994). The species is first reported for the Samara Region. It grows in the stepspe and steppe forest clearings.

**Taxonomic notes.** Perennial plant with a creeping rhizome, without a rosette of basal leaves. A stem is straight, branched above, with upward directed branches, cobwebby pubescent together with leaves, 20–75 cm tall. Middle stem leaves are twice pinnatisected, numerous, narrowly ovate in outline, sessile, 6–15 cm long and 1.5–3 cm wide. Inflorescence corymbose, subcapitate, with 10–25 heads. Pseudolingual flowers are yellow, 17–20 mm long; involucres at base 6–7 mm wide, involucral leaflets 6–7 mm long, sharply narrowed in upper quarter, 3–5 of them outer, 2–3 times shorter than inner, cobwebby and almost glabrous. The closest species is *Jacobsenia marginata* Nakai of the natural monument "Topolya", 57°06′09.7″N 65°31′40.7″E, 96 m a.s.l., roadsides and clearings in damb grass-forb forest, 19.07.2019, coll. I.V. Kuzmin; Kharkovskaya St. near house with number 58, 57°08′52.6″N 65°33′05.3″E, 72 m a.s.l., a flower garden near the entrances of a five-storey building, 01.10.2019, coll. I.V. Kuzmin; Gosparskaya St. near houses with numbers 41, 45 and 28, 57°09′40.7″N 65°34′12.7″E, 55 m a.s.l., Aser negundo thickets on the banks of the river Tur, 23.06.2021, coll. I.V. Kuzmin. All plant specimens are stored at the XBIO Institute of Tyumen State University.

**Examined specimens (new records).** TADJIKISTAN: [Murghab Region, 38°20′N 74°03′E], Eastern Pamir, Chechekty tract, 07.1940, coll. I.A. Raikova (TASH). KYRGYZSTAN: Issyk-Kul basin, Issyk-Kul (Balykchait Design), village Donta, rocky steps, 42°22′21.6″N 76°17′44.9″E, 17.09.1932, coll. V.I. Sobolev & Kharchenko 185 (TK).

**Leontopodium leiolepis Nakai (Asteraceae)**

**Contributor:** Elena A. Marchuk

**Distribution and habitat.** This species was considered as endemic of high mountains of northern and central Korea (Lee et al. 2016). New locality of *L. leiolepis* was recorded for the first time for Russia in the Primorye Territory. Some individuals of edelweiss were discovered in the south-west of the Primorye Territory, on the rocks in the upper reaches of the Amga River in June 2020 by V. Storozhuk an employee of the Land of the Leopard National Park. He took several photographs, which he subsequently sent to specialists from the Botanical Garden-Institute FEB RAS, who carried out the inventory of the flora of the national park. When revising herbarium (VBGI, VLA) and literature (Koźheńko & Koźheńko 2014, Koźheńko et al. 2015, 2019), no indications of the growth of edelweiss in the Primorye Primorye Territory were found. The only species previously reported for the coastal part of this area is *L. leontopodoides* (Wild.) Beauverd – steppe Asian species. But the plants in the photographs clearly did not correspond to this species. Using guides for the flora of the Far East of Russia (Voroshilov 2016), which has been considered as endemic for Korea (Lee et al. 2016), this species has been included but with question mark. In June 2021, V. Storozhuk handed us a living edelweiss plant from a locality discovered in 2020. From this sample, it was established that this is indeed *L. leiolepis*. This species grows on rocky slopes of mountains, among shrub-herbaceous vegetation, at an altitude of 200–300 meters above sea level in the south-west of the Primorye Territory. In Korea, this species is widespread in the high mountains; the type sample was collected at an altitude of 2200 m a.s.l. (Lee et al. 2016), other samples from the Herbarium WU (GBIF.org 2021) – at an altitude of 790 and 1382 m a.s.l.

**Taxonomic notes.** According to the POWO database (2022) *L. leiolepis* is a synonym of *L. cornum* Nakai. However, following Lee et al. (2016) we consider *L. leiolepis* as a separate
Examined specimen (new record). RUSSIA: Primorye Territory, Khasan District, The Land of the Leopard National Park, upper reaches of the Amba River, Marammy Settlement, 203 m a.s.l., 43°20′40″N 131°23′39″E, 233 m a.s.l., 01.06.2021, coll. V.B. Storozhuk, VBGI121574.

**Oenothera villosa** Thunb. (Onagraceae)

**Contributor:** Denis A. Krivenko

**Distribution and habitat.** The original natural range of this species was presumably in Great Plains region, widely naturalized in eastern North America, Asia, Europe, South America, and South Africa (from where it was described). Occurring in seasonally moist open or disturbed sites, such as streams or ditch banks, meadows, bottom lands, fields, and road sides (Skvortsov 1994, Dietrich et al. 1997). In Northern Eurasia, there are at least four main foci of distribution of the species: a wide strip from Kyiv to Rostov-on-Don, a strip from Ulyanovsk to Kalach-on-Don, the foothills of Altai, and the south Primorye (Skvortsov 1994). *O. villosa* was not previously known in the flora of the Republic of Tatarstan (Bakin et al. 2000). However, its locations in the Republic of Tatarstan are documented on the site iNaturalist.org in 2019–2021 in the Volga River valley: Zelenodolsky (iNaturalist contributors, iNaturalist 2022c,d), Verkhneuslonsky (iNaturalist contributors, iNaturalist 2022e), Laishhevsky (iNaturalist contributors, iNaturalist 2022f,g,h, etc) districts as well as in the city of Kazan (iNaturalist contributors, iNaturalist 2022, etc) and in the Kama River valley: Nizhnekamsky District (iNaturalist contributors, iNaturalist 2022,j,k).

**Taxonomic notes.** Skvortsov (1994, 1996), who understood the species of the genus *Oenothera* L. more broadly than Rostanski et al. (2004, Rostanski & Verloove 2015), notes that with all the diversity of *O. villosa*, it has fairly constant signs: these are low, slightly branched plants, with narrow grayish leaves; the whole plant is appressed-pubescent, with small twisted hairs, so it looks matte – grayish or diffuse reddish. In other species alien to Eastern Europe, twisted hairs sit on tubercles (Skvortsov 1994). In other species of other sections, which bloom later than *O. villosa*, bracts somewhat smaller and its yellowish colour, mostly more different segments of flower cup, and by the filaments almost glabrous or significantly less pubescent at their base (Novopokrovsky 1950). In the general appearance, however, the two named species are unmistakably distinguished by the colour of the living plants, which is bluish-violet for *O. coerulescens* and light-yellowish for *O. korshinskyi*. Some resources consider *O. korshinskyi* as a form of *O. coerulescens* (*O. coerulescens f. alliflora* Korsh.) and include it in the latter species (Kurbatsky 1996; Chepinoga et al. 2008). The Key to plants of the Buryatia (Anenkhonov et al. 2001) has no references of *O. korshinskyi* (as the synonym of *O. coerulescens* or not).

Examined specimen (new record). RUSSIA: Republic of Buryatia, Selenginsky District, Baikalsky State Nature Reserve, 51°14′11.2″N 105°25′28.5″E, 997 m a.s.l., southern macrocosm of the Khamar-Daban Range, valley of the Temnik River, steppe plant community on the rocky steep southern slope, a group of three flowering plants, 10.07.2021, coll. N.S. Gamova (MW).

**Phragmites alismatis** (Benth.) Mabile (Poaceae)

**Contributors:** Valery A. Glazunov, Olga G. Kalmykova, Natalia O. Kin & Stepan A. Senator

**Distribution and habitat.** *Ph. alismatis* is a species of the Eurasian-North African, Iranian-Turanian origin. In Russia, the natural part of the range includes the delta the Volga River and the lower reaches of the Don River, Crimea, Ciscaucasia, the south of Eastern Siberia and the Far East (Tzvelev 1976, Probabota 1985, Nikiforova, 2012, Tzvelev & Probabota 2019). As an alien species, it extends northward through the European part (Papchenkov 2008, Kapitnova & Lyseenko 2020), noted in the Southern Urals – in the Orenburg Region (Golovanov et al. 2019); in Western Siberia – in Kurgan (Nau menko 2008) and Tyumen regions, in Khanty-Mansiysk Autonomous Okrug (Chepinoga et al. 2020), Verkhneuslonsky (iNaturalist contributors, iNaturalist 2020). For the Sverdlovsk (Knazyev et al 2017) and Chelyabinsk (Kulkov 2010) regions are not specified.

**Taxonomic notes.** In many sources it is considered as a varieg or subspecies of *Ph. australis* (Kapitnova, Lyseenko 2020). The species independence of the taxon is confirmed by molecular phylogenetic data (Nosov et al. 2020). *Ph. alismatis* is a perennial herbaceous plant up to 5–7 m in height, with 20(25) or more internodes. The leaves are linear-lanceolate or lanceolate, from 2.5 to 7–8 cm wide. Panicles are large, thick and wide, 20–40 cm long, usually with a pinkish-purple hue. Outside the natural range, it usually has underdeveloped spikelets, which develop 2–3 weeks later than in *Ph. australis* (Cav.) Trin. ex Steud. The lemma are more than 2 times larger than the upper glume, at the tip with a thin awnlike cusp, which easily breaks off and the flowering glume become short and obtuse.

Examined specimens (new records). RUSSIA: Chelyabinsk Region, Budyanskii District, 3 km north of the settlement Pavlovskiy, 52°01′11.783″N, 60°01′57.682″E, along the bank of the oxbow on the Uyvakhlin Dol River, clumps of 10–20 m² among the tangle of *Ph. australis*, 5.06.2021, coll. Valery A. Glazunov, Olga G. Kalmykova, Natalia O. Kin & Stepan A. Senator (ORIS, TMN).

**Phragmites tzeleevii** Val. N. Tikhom. (Poaceae)

**Contributors:** Vladimir M. Vasyukov & Victoria V. Bondareva

**Distribution and habitat.** *P. tzeleevii* is a hybridogenic species described by Tikhomirov (2021) from Belarus originating from Kazakhstan, Mongolia and China (Novopokrovsky 1950). It is a plant parasitic growing on several *Artemisia* species (on *A. sibirica* Weber ex Stechm. and on *A. tanacetifolia* L. in the Republic of Buryatia). The close species *Orobanche coerulescens* Steph. is widespread in the steppe plant community. The abovementioned determination Pavlovskiy and the middle reaches in the Republic of Buryatia (Anenkonov et al. 2001) and is known from the Baikal Nature Reserve as well (Abramova & Volkova 2011). *O. korshinskyi* is a new species to the Republic of Buryatia.
from the hybridization of *P. nigrians* and *P. altissimus*. The general distribution has not been well studied, the species is recorded in the western and northern regions of Belarus, and in the Pskov Region of Russia. We have shown it for the first time for the flora of the Samara Region and the Middle Volga Region, near the settlements near species and is confined to secondary habitats.

**Taxonomic notes.** There are currently 4 species of the genus *Phragmites* known in the Samara Region: 1) *P. nigrians* (Mérat) E.S. Marshall et Shoolbred [known in the Samara Region: 1) such key characters, as ligule length and rachilla pubescence.

**Examined specimens (new record).** RUSSIA: Samara Region, Stavropol District, the city of Zhigulevsk, near the railway station, 53°23′32.16″N 49°30′39.78″E, 03.09.2020, coll. V.M. Vepsjakov.

**Poa jalaminensis** Probat. (Poaceae)

**Contributors:** Marina V. Olonova & Nadezhda V. Stepantsova

**Distribution and habitat.** *P. jalaminensis* was considered an endemic species of the south of the Russian Far East (Probatova 2006, Tzvelev & Probatova 2019). Until now, it has only been recorded from its locus classicus “Amur Region, Selendzhinsky District, western offshore of Yam-Alin Ridge, head of the Selendzhda River, the small pebbly island in the middle reach of the Sorukan River, with elevation – 1050 m a.s.l. 1.08.1984, V.V. Yakubov” (isotype – LE 0111199) (Probatova 2006). It occurs on the high and middle mountain belt, on the pebbly banks of the rivers (Tzvelev & Probatova 2019).

**Taxonomic notes.** *P. jalaminensis* was described by Probatova in 2006 from the Amur Region of the Russian Far East and it was proposed to be alpine race of *P. palustris* L. *P. jalaminensis* which can be distinguished from its close relative species *P. altissimus* (Bercht.) Malmb. is adventitious, sporadically distributed species in the territory, mainly in secondary habitats; 4) *P. tzelevoi* Val. N. Tikhom. – evidently, a rare species, with an insufficiently studied stems, very small – 2.5–3.3(3.5) mm and numerous spikelets ven

**Examined specimens (new record).** RUSSIA: Irkutsk Region, Okolinsky District, Lake Baikal, Olkhon Island, Yrgentey ecozone, bed of desiccated lake, among sedge, 859 m a.s.l., 53°11′19.06″N 107°35′25.82″E, 26.07.2014, coll. N.V. Stepantsova (IRKU017329, IRKU017330); Irkut Region, Zalanskinski District, the foothills of the Eastern Sayan, on bank of the Khor-Tagna River (Khorka), near the mouth of the Maruzhin River, the pleby river bank, 53°13′24″N 101°20′14″E, 18.07.1999, coll. V.V. Chepinoga & N.V. Yakubenko, № 927 (IRKU017199).

**Poa sphyndylodes** Trin. (Poaceae)

**Contributors:** Marina V. Olonova & Nadezhda V. Stepantsova

**Distribution and habitat.** *P. sphyndylodes*, the common species of Eastern China, Korea and Japan, was described from Chinese province Hubei in 1833. Up to 2013 it was known only in secondary habitats. It is recorded for the territory of Buryatia and the Republic of Buryatia is re

**Taxonomic notes.** Because *P. sphyndylodes* is a widely distributed species in adjacent territory of Eastern China, and recently it was found twice in the territory of Southern Siberia, its finding in other part of this area was highly likely. Since *P. sphyndylodes* was synonymized with *P. ochotensis* (Tzvelev 1976, Tzvelev & Probatova 2019), in collections it is identified as the similar species *P. teippouca* or *P. ochotensis*. Nevertheless, *P. sphyndylodes* differs from both these species in very characteristic, lobed (laciniate) panicale and long (3.5)3.5–10 (mm) ligule. The sample from the IRKU herbarium, collected in Buryatia, had laciniate panicale, and long ligule (3.5 mm and longer), and other character, inherent for *P. sphyndylodes*. Ecological and geographical features are typical for this species as well. Thereby this sample can be attributed to *P. sphyndylodes*.

**Examined specimen (new record).** RUSSIA: Republic of Buryatia, southern footslopes of the Zagsanka Ridge, 7 km to the North from the settlement Petropavlovka, Altacheysky Reservoir, on the Yuzhnuy Alachey River (the right tributary of the Khilok River), alt. 1070–3071″E, 09.07.2006, coll. V.V. Chepinoga & B. Voges № 16872 (IRKU018014).

**Potamogoton × francoicicus** G. Fisch. (Potamogotonaceae)

**Contributor:** Olga A. Kapitonova

**Distribution and habitat.** This *Potamogoton*-hybrid is a rare European taxon. It is recorded for the territory of Germany (Wiegleb et al. 2008) and the European part of Russia (Papchenkov 2001, Lisitsyna et al. 2009, Kapitonova 2021). In Russia, it is considered a very rare hybrid, and its findings are known from the Vologa and Ulyanovsk regions, the Repub of Mari El (Papchenkov 2001, Lisitsyna et al. 2009) and the Udmurt Republic (Kapitonova 2021). The finding of this pondweed in the Tuimen Region significantly expands our knowledge about its distribution, which makes it possible to classify it as a species with a European-West Siberian boreo-temperate range. It grows in stagnant and slow-flowing wa

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ter bodies. It is found in the bays of rivers and reservoirs, ponds, in disturbed floodplain lakes, and reclamation canals. In the cited locality, the plants were collected in a flooded sandy quarry and an oxbow lake of the Irtish River, which is affected by recreation and pollution from roads.

**Taxonomic notes.** *P. × franconicum* is a hybrid between *P. berchtoldii* Fisch. and *P. trichoides* Cham. et Schlcht. and belongs to the *P. trifoliolata* Fries section. It has intermediate characteristics between the parent species. The leaves of this hybrid are similar to those of *P. trichoides*, they are long, narrow, gradually pointed at the top, and have a thick central vein. However, there are well developed glandules at the base of the leaf blade, as in *P. berchtoldii* (Kurtto 2009). In addition, gaps are clearly visible in the lower part of the leaves, but they are not as wide as in *P. berchtoldii*.

**Examined specimens (new records).** RUSSIA: Tyumen Region, Tobolsk District, village Bizino, 58°08′16″N 68°15′32″E, oxbow of the Irtish River, shallow water near the coast, the mass, 03.08.2021, coll. O.A. Kapitonova (TOB, IBIW); Tyumen Region, Tobolsk District, 1.8 km south of the village Isenovskaya, 58°08′45″N 68°18′57″E, watered sand quarry, shallow water near the coast, 03.08.2021, coll. O.A. Kapitonova (TOB, IBIW).

**Potentilla intermedia** L. (Rosaceae)

**Contributors:** Ramazan A. Murtazaliev & Alexey A. Kechaykin

**Distribution and habitat.** In the European part of the continent, *P. intermedia* is endemic from France to the Ural Mountains, with the exception of Austria and Hungary, as well as the countries of the Balkan Peninsula and Moldova (Kurtto 2009). East of the Ural Mountains, the species is distributed to the Russian Far East, but solely in the North Asia (Soják 2004, Kurabtisky 2016, Motorylina 2020). *P. intermedia* is non-native to some provinces in the eastern part of North America (Ertter & Reavel 2014). The species has not been recorded in the Caucasus (Grossheim 1952, Sojak 2004, 2012a, Ivanov 2019). This species is ubiquitous in secondary anthropogenic habitats. It also grows on the shores of reservoirs (rivers, lakes, storage lakes and ponds), on the edges of forests and fields, along roads, on lawns and flower beds, and in vegetable gardens. *P. intermedia* actively spreads along roads and in natural forest communities.

**Taxonomic notes.** The species belongs to sect. *Sapinae* (Lehm.) A. Nelson, of which only two species are recognized for the flora of the Caucasus: *P. norvegica* L. and *P. supina* L. s. l. (Grossheim 1952). *P. norvegica* is characterized by ternate leaves, whereas *P. supina* has pinnate leaves. For *P. intermedia*, leaves appear palmate or ternate. Experimental cross-pollination showed that *P. intermedia* most likely is the result of hybridization between *P. argentea* L. and *P. norvegica* (Soják 2012b). The habitus of *P. berchtoldii* Zimmeter is most similar to that of *P. intermedia*, being distinguished by a slight perianth on the underside of the leaflets (Kamelin 2001). This species is sometimes considered synonymous with *P. intermedia* (Soják 2004, 2009, Kurabtisky 2009, Ertter & Reavel 2014). The independence of *P. berchtoldii* is still disputable due to the lack of molecular data.

**Examined specimen (new record).** RUSSIA: Republic of Dagestan, the city of Makhachkala, central park, along the paths, 42°59′02.2″N 47°29′23.1″E, 20.08.2020, coll. R.A. Murtaزaliev (LENUD) (INaturalist contributors, INaturalist 2022).

**Potentilla recta** L. (Rosaceae)

**Contributors:** Alexey A. Kechaykin, Andrey V. Anisimov & Alexander I. Shmakov

**Distribution and habitat.** *P. recta* is mainly confined to the steppe regions of Eurasia (from the Iberian Peninsula to Altai) in temperate latitudes and North Africa (Morocco, Algeria). The species is identified as adventive in the Americas, Australia, and New Zealand, where it is known as an escapee actively spreading in anthropogenic habitats (Kechaykin et al. 2021, P. recta 2020). *P. recta* is widespread in Europe (Koch from Apscheron (Azerbaijan) from his own collections (lectotype – GOET006910). Later it was found in the European part of Russia in Udmurtia and the Stavropol Territory, South-Western (Iran) and Central Asia (Kazakhstan, Turkmenistan). *P. recta* is widespread in Europe (Koch from Apscheron (Azerbaijan) from his own collections (lectotype – GOET006910). Later it was found in the European part of Russia in Udmurtia and the Stavropol Territory, South-Western (Iran) and Central Asia (Kazakhstan, Turkmenistan). *P. recta* is widespread in Europe (Koch from Apscheron (Azerbaijan) from his own collections (lectotype – GOET006910). Later it was found in the European part of Russia in Udmurtia and the Stavropol Territory, South-Western (Iran) and Central Asia (Kazakhstan, Turkmenistan). This species is sometimes considered synonymous with *P. argentea* L., while we treat this species according to the internationally accepted databases (POWO 2022, GBIF Secretariat 2022). Within *P. serotina* many authors recognize infraspecific taxa. So, according to McVaugh (1952), *P. serotina* complex consists of five sub-species: subsp. *capulii* (Cav.) McVaugh, subsp. *eximia* (Small) Little, ss. *hirsuta* (Elliot) McVaugh, subsp. *serotina* (Ehrh.) McVaugh, and subsp. *virens* (Wooton et Standl.) McVaugh, while Rohrer (2014) proposed four varieties of *P. serotina* (i.e. *alabamensis*, *capula*, *rufula*, and *serotina*) instead of five mentioned above.

**Examined specimen (new record).** RUSSIA: Republic of Mordovia, Temnikov District, former nursery woody plants in the quarter 445 of the Mordovia State Nature Reserve. 54°43′18.1″N 43°12′21.3″E, 08.07.2021, coll. I.G. Esina & A.A. Khapugin (HMNR).

**Puccinellia poecilanthra** (K. Koch) Grossh. (Poaceae)

**Contributor:** Svetlana V. Ovchinnikova

**Distribution and habitat.** *P. poecilanthra* was described by Koch from Asperchen (Azerbaijan) from his own collections (lectotype – GOET006910). Later it was found in the European part of Russia in Udmurtia and the Stavropol Territory, South-Western (Iran) and Central Asia (Kazakhstan, Turkmenistan). *P. poecilanthra* is widespread in Europe (Koch from Apscheron (Azerbaijan) from his own collections (lectotype – GOET006910). Later it was found in the European part of Russia in Udmurtia and the Stavropol Territory, South-Western (Iran) and Central Asia (Kazakhstan, Turkmenistan). It was first identified by us from 18 locations in the Voronezh, Tambob and Saratov Regions (Gudina & Volodchenko 2020, addition to the new locality from the Novosibirsk Region cited below, *P. recta* has been repeatedly found in this region. Photos from these localities are uploaded to the INaturalist website (INaturalist contributors, INaturalist 2022m,n,o). The distance between all the given locations is less than 1500 m.

**Taxonomic notes.** The species is actively involved in hybridization processes. In case of intersection with *P. argentea* populations, it often forms hybrids referred to as *P. inclinata* Vill. No species close to *P. recta* have yet been found on the territory of Asian Russia. However, Kamelin (2001) reports *P. obscura* Willd. as occurring in Western Siberia. This species differs from *P. recta* in significantly smaller petals (1.5-fold and more than the calyx) with a slightly yellow tint. We have not yet found herbarium specimens of *P. obscura* from Siberia.

**Examined specimen (new record).** RUSSIA: Novosibirsk Region, Iskitimsky District, 2 km North-East of the village Barabka, rare bird forest and glades, 54°40′26.3″N 83°53′36.6″E, 227 m a.s.l., 02.06.2021, coll. A.I. Shmakov, A.A. Kechaykin & A.V. Anisimov (ALTB).

**Prunus serotina** Ehrh. (Rosaceae)

**Contributors:** Irina G. Esina & Anatoly A. Khapugin

**Distribution and habitat.** *P. serotina* is a tree native to North America that was introduced in Europe in XVII century for ornamental and forestry purposes. It is currently considered as an invasive species in several countries (e.g. Belgium, France, Germany, Netherlands, Italy) (Starfinger et al. 2003). In European forests, *P. serotina* can rapidly colonize shrub and woody layers gradually displacing native species (Aerts et al. 2017, Kvaletz et al. 2013). However, in European Russia, this species is not recognized as an invasive plant (Vinogradova et al. 2009). Moreover, *P. serotina* is rarely cultivated in the central part of European Russia without escaping into the wild (Maevskii 2014). Similarly, until now *P. serotina* was known only as introduced plant in the Republic of Mordovia (Silaceva et al. 2010) and the Mordovia State Nature Reserve (Vargas et al. 2016). However, we found escaped into the wild numerous vegetative individuals of 1.0–1.5 m high in both former nursery woody plants and natural forest communities around the nursery in the Mordovia State Nature Reserve. Some of the naturalized individuals were registered along the forest roads nearby the nursery. We propose the further dispersal of *P. serotina* through the surrounding forest communities in the Mordovia State Nature Reserve.
Taxonomic notes. *P. poeci­lantha* belongs to section Xeretropis (V.L. Krecz.) Bor ex Tzvelev and subsection Festucaformes Ovchinnikova, which included tall, solidly plants of tall-fruiting and solonchak and solonchak meadows with compressed or spreading large panicles, on which spikelets are arranged in bunches of (3)5–10 at the ends and at the base of the branches. Panicle branches are strongly rough, the lower lemmas and notches are hairy, anthers are large 0.9–2.0 mm length (Ovez­innikova 1989, Tzvelev & Probata­bova 2019). From the related species *P. gijanta* (Grossh.) Grossh. it is distinguished by abundant pubescence of larger lower lemmas, larger anthers and very long lanceolate tongues 4–5 mm long, number of chromosomes 2n = 28 (Ovez­innikova 2014, Ov­chinnikova & Probatova 2015). Related species *P. gijanta, P. dulicholepis* (V.L. Krecz.) Pavlov, *P. vaginata* Bub­nova are widely distributed in Western Siberia (Bub­nova 2001).

Examined specimens (new records). RUSSIA: Kurgan Region, Petukhovsky District, shore of Lake Medvezhye, reed site, saline meadow, [53°12′N 68°01′E], 30.06.1984, coll. M.N. Lomonosova & S.V. Bubnova. Rhynchospora *uzengukuushi* (Kovtonyuk 2003, Ebel 2012), in the Far Eastern Russia (Rozhevits 1935, Ebel 2012), in Eastern Asia, where most of the findings are concentrated in Japan. The species was not found before for the Republic of Altai (Krasnoborov 2012) and the Russian part of the Altai Mountains as a whole (Krylov 1929, Rozhevits 1935, Timokhina & Bondareva 1990, Ebel 2012, Kovtonyuk 2012). Some findings were made in the Neo­tropical Flora­al Kingdom (Puerto Rico and Venezuela) (GBIF Secretariat 2022k). Everywhere the species is confined to peat moss bogs (mainly sphagnum bogs, less often hynnum bogs), edges of overgrown lakes and wet peatland forests. The latter is also observed in the localities which we cited, where the species was first found for the Republic of Altai.

Taxonomic notes. *Rhynchospora vahl* is distinguished by a few or numerous spikelets from the genera *Trichophorum* Pers. & *Elocharis* R. Br., which have only one spikelet. The most characteristic features of the genus *Rhynchospora* are few-flow­ered (1–3 flowers) spikelets at the base with 2–3 sterile floral glumes (scales) shorter than the rest of the fertile ones; perianth bristles in number 5–13, biconvex fruit with the remaining strongly widened base of style. Whereas in closely related genera *Sorpus* Tourn. ex L., *Schoenoplectus* (Roth.) Pall & *Bolboschoenus* (Arch.) Pall are multiformed spikelets with lower floral glume (scales) equal or larger than the rest ones; there are 1–6 perianth bristles or they are absent; the style is not expanded at the base. In Siberia, the genus *Rhynchospora Vahl* is represented by the only species *Rh. alba* (Kovtonyuk 2012, Rozhevits 1935, Timokhina & Bondareva 1990).

Examined specimens (new records). RUSSIA: Republic of Altai, Turochaksky District, Lake Teletskoye, surroundings of the village Atybash, upper reaches of the Kuatang River, low­ridge­hollow transitional (mesotrophic) sphagnum peat bog, point No. 34, 51°48′50.22″N 87°19′6.20″E, 637 m a.s.l., 19.07.2007, coll. D.V. Zotolov, D.V. Chernykh & R.Yu. Biryukov (KUZ); Republic of Altai, Turochaksky District, Lake Teletskoye, upper reaches of the Karasu River, low­ridge­hollow­ridge­hollow transitional (mesotrophic) sphagnum peat bog, point No. 33, 51°39′56.0″N 62°44′42″E, 60.97.1990, coll. N.I. Naumenko 261 (NSK0052530). Rhus *uzengukuishi* (Kovtonyuk 2012, Rozhevits 1935, Timokhina & Bondareva 1990).
Bess. However, R. proreta is well distinguished by longer fruits, which can reach 15 mm. In R. sylvestris, the length of the silique varies about 10 mm. The origin and main distribution of this species is associated with the North-Eastern area of Central and Eastern Europe as a drift plant. That is the existence of this species became apparent to researchers was noticed in the middle of the 19th century. However, the presence of this species became apparent to researchers much later, when this species was noticed in a number of areas of Central and Eastern Europe as a drift plant. That is the existence of this species became apparent to researchers was noticed in the middle of the 19th century. However, the presence of this species became apparent to researchers much later, when this species was noticed in a number of areas of Central and Eastern Europe as a drift plant.

Examined specimens (new records). LITHUANIA: Telšiai District, Upynas Subdistrict, village Bežė, [55°55′N 22°35′E], 01.07.1967. coll. V. Masiutis, n 4016. [BILAS]; Kaunas District, Vilkiškiai, Panemune, [54°51′45″N 23°57′47″E], 10.08.1965, coll. E. Masiutis, n 4921 [BILAS]; Kretinga District, Kulupenai, in the ravine of Salanta valley, [54°51′45″N 23°57′47″E], 20.07.1966, coll. A. Levakavičius, n 4009 [BILAS]; Shaki District, Gelgaudelis Subdistrict, village Dabišta, ‘olobišu laužu pakuliuose neliko lilu’o, [55°03′32″N 22°59′53″E], 05.07.1958, coll. R. Māzilansháčiai, n 4917 [BILAS].

Senecio dubitabilis C. Jeffrey & Y.L. Chen (Asteraceae)

Contributor: Mariia G. Khoreva

Distribution and habitat. This species was described from Kazakhstan. Its natural range is Asian deserts. It is currently known to be distributed in Russia, South Siberia, Baikal Region, Far East, Belorussia, Kazakhstan, Kirgizstan, Uzbekistan, Tadzhikistan, Mongolia, China, Tibet, West Himalaya (POWO 2022). In Russia it occurs as a native species in Siberia, where it grows in salt marshes, rocky river banks, meadows (Vibe 1983). It is known to be at least partly adventive one species in the Far East (Barkalov 1992). S. dubitabilis is recently new invasive species for many parts of European Russia, and the main way of its distribution is the railroads (Sukhorukov 2012, Seregin 2014, Leostrof & Efimova 2020). The locations, nearest to the Magadan Region, are in the north of Sakhalin island (Barkalov & Taran 2004, Seregin & Bochkov 2022), approx. 800 km to southwest; in Petrovskiy-Kamchatskiy (iNaturalist contributories, iNaturalist 2022p), approx. 900 km to south-east; in Sakhal (Yakutia): Maya (iNaturalist contributories, iNaturalist 2022q), Vulkus (iNaturalist contributories, iNaturalist 2022q) and Lensk (Chulanova 2016, Manual… 2020), approx. 1000–1800 km to west. In the Magadan Region, S. dubitabilis is definitely adventive plant, which occurs on seashore dry slope in recreational zone, on wastelands and roadsides. S. dubitabilis was identified by D. Bochkov from a photograph of a flowering plant on Plantarium website, Magadan region, environs of the city of Magadan, coast of Gertner Bay, rocky seaside slope, 08.12.2017, M.V. Voroshilova (Voroshilova 2018). Later M.V. Voroshilova collected the samples and annotated them in MAG. In 2021 this species was observed by E. Andriyanova in Magadan (iNaturalist contributories, iNaturalist 2022a). We also found this species far from the Sea of Okhotsk, in the environs of the city of Susuman that year. Another sample of 2007 from Madaun was found due to revision at MAG. Possibly, coastal and mainland localities mark different ways of invasion. Probably the species is more widespread and requires attention.

Taxonomic notes. S. dubitabilis is an annual 5–30 cm high, it belongs to sect. Senecio. It is similar to S. vulgaris L., but has longer dentate or lobate (not pinnate) leaves, and trough pubescent achenes of 3–4 mm long (Sukhorukov 2005). The similarity to S. vulgaris was probably the reason why the taxon was not previously indicated for the Magadan Region.

Examined specimens (new records). RUSSIA: Magadan Region, Tenkinsky District, Madaun, near the boiler house, 60°36′23″N 150°48′44″E, 01.08.2007, coll. D.S. Lysenko (MAG0007151); Magadan Region, Susumansky District, Federal highway "B" not far from town Susuman, turn to Bur- kandy, on the side of the road, 62°49′20.6″N 148°10′45.1″E, 29.08.2021, coll. M.G. Khoreva (MAG0011436); Magadan Region, Magadan, seacoast of Gaertner bay, dry slope, 59°34′15″N 150°35′1E, 27.08.2020, coll. M.V. Voroshilova (MAG0013911–MAG0013913); ih. 22.08.2021, M.V. Voroshilova (MAG0013908–MAG0013910). [iNaturalist website observation. RUSSIA: Magadan, Karl Marx St., 59°33′41″N 150°48′34″E, 01.08.2021, E.A. Andriyanova (iNaturalist contributors, iNaturalist 2022s).]
Distribution and habitat. This species is native to the South-Eastern Alps, Carpathians, Balkan Peninsula, Asia Minor and the Caucasus. In Hungary and in Bosnia and Herzegovina (Király 2007, Cirvena lista 2013) it is listed as an endangered species. *T. speciosa* is widely cultivated as an ornamental plant and nowadays locally naturalized in Central and Eastern Europe escape from cultivation. Its native habitats are tall-herbaceous mountain meadows but in Central Europe it occurs on low elevations in wet habitats along streams, forest edges, in sparse floodplain forests and thickets. It can also invade into natural plant communities, especially wet nitrophilous woodlands and form dense, nearly monospecific stands. According to GBIF data (GBIF Secretariat 2022m) it occurs now in 34 European countries, in northern part of continental USA, South Korea, Turkey and Canada. In Russian Federation it is known from the European part of Russia, from the Caucasus and Sakhalin Island. *T. speciosa* was found in natural forest inside university campus in openings along forest trails. Local population was about one hundred plants on an area of few hundred square meters. There were plants of different age and size successively reproduced by seeds. Until now there were no other findings of this species from Siberia in the wild.

Taxonomic notes. The genus *Teleka* Baumg. belongs to tribe *Inulaceae* Cass. and subtribe *Inulinae* Dumort. This genus includes one species. Previously there were two species of *Teleka* but now *T. speciosa* (L.) Less. – endemic of Northern Italy — considered in genus *Baphtildium* L., or in genus *Xerolekia* Anderb. (Anderberg et al. 2005). Gutiérrez-Larruscain et al. (2018) based on molecular research showed close relationships between *T. speciosa* and *Inula helmlinii* L.

Examined specimen (new record). RUSSIA: Novosibirsk Region, Novosibirsk, Akademgorodok, University campus, along the forest trail, [54°50′43.5″N 83°05′37.0″E], 21.08.2009, coll. N.N. Lashchinskiy (NS).

*Thalictrum simplex* L. (Ranunculaceae)

**Contributors:** Andriy V. Yena, Sergey A. Svirin, Valentina V. Fateryga, Dmitry V. Yepikhin, Pavel E. Yevseyenkov & Alexander V. Fateryga

**Distribution and habitat.** This species is widely distributed in Europe (excluding Iceland, Great Britain, Benelux and Portugal) and temperate Asia through the Asia Minor, Caucasus, Siberia to Mongolia, China and Japan (Jalas & Suominen 1989). However, this species has not been found in Crimea till now. Within its range, *T. simplex* occurs in various ecotopes like rocky ledges, grasslands, dry and wet meadows, bushy thickets, forest edges from lowland up to 2000 m a.s.l. (Fu & Zhu 2001, Krukpin 2001). We revealed this species for the first time in the very north point of the Crimean Peninsula, on a shrubby meadow. *T. simplex* was previously given for Crimea by the authors of the Flora Europsiae (Tutin et al. 1964), and a set of later floristic works reproduced this data from it (Tutin et al. 1993, Hand 2014). In fact, no evidence of the presence of *T. simplex* in Crimea exists in any Soviet and post-Soviet floristic literature, so Flora Europsiae reported this species for Crimea erroneously. No wonder, that *T. simplex* was not listed in the Atlas Flora Europaea (Jalas & Suominen 1989) because this monograph was based on the data of a great team of national contributors who deals directly with herbaria in their countries.

**Taxonomic notes.** *T. simplex* is rather well recognized species in the genus. Crimean plants belong to the subsp. *simplex*. Aside from *T. simplex*, two more long known species of the genus are distributed in Crimea, namely, *T. lucidum* L. and *T. minus* L. (Yena 2012).

Examined specimens (new records). RUSSIA: Republic of Crimea, Krasnopereskops District, 2.3 km to the north of the village Vurmakova, western slope, 46°01′00.0″N 34°12′08.5″E, 2 m a.s.l., shrubby meadow, 28.05.2018, coll. A.V. Yena, S.A. Svirin, D.V. Yepikhin, A.V. Fateryga & V.V. Fateryga (CSAU, MW, YALT); ib., 01.07.2020, coll. S.A. Svirin & PE. Yevseyenkov (CSAU, LE, MW, YALT).

*Thymus rariflorus* K. Koch (Lamiaceae)

**Contributors:** Vladimir M. Vasjukov & Denis A. Krivenko

**Distribution and habitat.** *Tb. rariflorus* was described by K. Koch in 1848 from Transcaucasia; type: “Im Tschaban- tzhale des Gaues Sber auf Porphyr, c. 5000 hoch” (W). General distribution: mountains of the Lesser Caucasus and the northern part of Asia Minor. In Russia it was reliably known only in the Republic of Dagestan: Mt. Shalbulzadag, and between Isauli and Akvali (LE, Klokov 1973, Vasjukov 2019a). The species grows on mountain slopes in high mountain belts. *Tb. rariflorus* is a new species for the territory Republic of Ingushetia.

**Taxonomic notes.** *Tb. rariflorus* belongs to the section *Kot­sebymi* (Klokov et Des.-Shost.) Klokov. From the closely related *Tb. arietites* Vasjukov (Nor Ossetia), this species can be distinguished by short, half-appressed, recurved trichomes throughout the stem, and scattered, longer (about 1 mm), spreading trichomes. Both sides of leaves of *Tb. rariflorus* are covered with scattered long hairs and teeth of the upper lip of calyx are ciliated, while in *Tb. arietites* stems are very shortly pubescent (hairs recurved, up to 0.1 mm long) and leaves are glabrous (*Tb. rariflorus* var. *dzawacheticus* Rominger has shortly pubescent leaves and non-ciliate calyx teeth (Vasjukov 2019b).

Examined specimens (new records). RUSSIA: Republic of Ingushetia, Dzheyrakhsky District, Greater Caucasus, Ska­listy Ridge, right bank of the Armkhi River, 2.5 km SSW of Gul village, 1400 m a.s.l., schist slope, 42°47′47″N 44°47′10″E, 16.08.2021, coll. D.A. Krivenko 65945 (IRK), 65946 (PVB).

*Thymus terekensis* Klokov (Lamiaceae)

**Contributors:** Vladimir M. Vasjukov & Denis A. Krivenko

**Distribution and habitat.** *Tb. terekensis* was described by Klokov in 1973 from the Eastern Caucasus; type: “Caucasus, near Kazbek (= Stepanstminda) village, on the rocks (Paleozoic schist), on a steep slope (about 30–35°), places or more on the left bank of the Terek River, near Nazran, at an altitude of 1750–1950 m, not infrequently, 28 VI 1924, S. Dzexanosvsky” (LE). It is an endemic of the Eastern Caucasus: Georgia and Russia (Kabardino-Balkarian Republic, Republic of Dagestan and Republic of North Ossetia–Alania) (LE, Klokov 1973, Vasjukov 2019a). *Tb. terekensis* is a new species for the flora of the Republic of Ingushetia. The species grows on rocks and steep slopes in the subalpine and alpine belts.

**Taxonomic notes.** *Tb. terekensis* belongs to the section *Kot­sebymi* (Klokov et Des.-Shost.) Klokov. Its habitat is similar to *Tb. rariflorus* K. Koch, but stands closer to *Tb. biebersteinii* Vasjukov (≡ *Tb. olivina* M. Bieb.). It differs from both species in larger calyces and inconspicuous dot glands on the leaves.

Examined specimens (new records). RUSSIA: Republic of Ingushetia, Dzheyrakhsky District, Greater Caucasus, Ska­listy Ridge, right bank of the Armkhi River, foot of Mt. Stolovaya Gora, near Beini village, 1660 m a.s.l., steeppefied meadow, at outcrops of bedrocks, 42°50′23″N 44°43′29″E, 16.08.2021, coll. D.A. Krivenko 65943 (IRK), 65944 (PVB).

*Veronica beccabunga* L. s.str. (Plantaginaceae)

**Contributors:** Petr A. Kosachev, Alla V. Verkhohozia, N.V. Dorofeev & N.V. Kulakova

**Distribution and habitat.** The type subspecies has a disjunc­tive range. The largest population is widely represented in Europe, and also in Africa, the Caucasus, Western Siberia, including the northeastern regions of Kazakhstan, and the northwestern part of Mongolia. Also this subspecies is natu­ralized in North (east and west) and South America (Ele­nchuk Fischer 1998, Al. Chumacev, 1999) in Siberia, and until today the most extreme eastern locations were observed in the Republic of Khakassia and the western part of
the Krasnoyarsk Territory (Polozhij 1997, Ankipovich 1999). Plants grow along banks of streams, rivers, lakes, canals, and on spring swamps. The species was first discovered in July 2020 thanks to the observation of N.V. Dorofov (Naturalist contributors, iNaturalist, 2022a, 2022b). It is a widespread plant species of the boreal and arctic regions of the Northern Hemisphere. It is also recorded from most of the regions of Siberia (Polozhij, 1996) but was not found in the Republic of Buryatia until our record. It occurs in various wet and moist habitats, i.e., river banks, marshes etc. \textit{V. sambucifolia} is a new species for the Republic of Buryatia.

**Taxonomic notes.** \textit{V. sambucifolia} L. includes three subspecies: subsp. \textit{beccabunga}, subsp. \textit{sambucifolia} Korsinsky, Elemenov, and subsp. \textit{vulgaris} M. Fisch. \textit{V. beccabunga} differs well from the closely related species \textit{V. angulata} L.: leaves have petioles, and obuse round tipped tips. In addition, inflorescence is short raceme. Stems are dense, without a cavity. Unlike other subspecies, all parts of the type subspecies are larger, leaf blades about 3 cm long, racemes with 10–20 flowers, 5–5.5 mm long lower peduncles, corolla up to 9 mm in diameter, and capsules are 3–4 mm long and wide. There are two cytotypes $2n = 18$ and 36 (Elenevsky 1978, Altschuh, 2008), but tetraploids are found only in Western Europe (Albacht 2008).

**Examined specimens (new record).** RUSSIA: Republic of Buryatia, Kabansky District, vicinity of the village Ivanovka, near the mouth of the Khlueva River, at the railway bridge, collected in water close to the river bank, 051°33′58.64″N 105°55′27.92″E, 20.06.2021, coll. A.V. Verkhozina & P.A. Koshcheev, 67607 (IRK) (Naturalist contributors, iNaturalist 2022w).

**Veronica scutellata L. (Plantaginaceae)**

**Contributors:** Natalia S. Gamova & Yuri N. Korotkov

**Distribution and habitat.** \textit{V. scutellata} is a widespread plant species of the boreal and arctic regions of the Northern Hemisphere. It is also recorded from most of the regions of Siberia (Polozhij, 1996) but was not found in the Republic of Buryatia until our record. It occurs in various wet and moist habitats, i.e., river banks, marshes etc. \textit{V. scutellata} is a new species for the Republic of Buryatia.

**Taxonomic notes.** \textit{V. scutellata} is one of the 44 species belonging to section \textit{Veronica}, genus \textit{Veronica}, of the plant family Plantaginaceae (POWO 2022). It is a perennial glabrous herb with stem creeping at its base, with long narrow leaves and a very lax inflorescence with small light-bluish or light-pinkish flowers. \textit{V. scutellata} is distinguished from the other wetland species of \textit{Veronica} by the alternate branches of inflorescence (only one pedicel out of the leaf axil in the pair of opposite leaves) while the other pale-flowered species have opposite branches of inflorescence (two pedicels from both the leaf axils of the pair of opposite leaves).

**Examined specimen (new record).** RUSSIA: Republic of Buryatia, Kabansky District, vicinity of village Tankhov, the buffer zone of the Baikalsky State Nature Reserve, 51°32′43.4″N 105°07′52.1″E, 525 m a.s.l., on the bank of the small creek at the edge of the coniferous forest (Pinus sibirica, Abies sibirica, Picea obovata) in the Dzhuchekha and Solv shrub thickets, 27.08.2021, coll. N.S. Gamova & Y.N. Korotkov (MW).

**Viola hultenii Wecker (Violaceae)**

**Contributors:** Alexey V. Salokhin & Natalia A. Tsarenko

**Distribution and habitat.** The range of \textit{V. hultenii} includes Japan, the Korean Peninsula and the Russian Far East: Kamchatka Peninsula and Kuril Islands (Ohwi 1965, Voroshilov 1982, Bezdeleva 1987, Park 2007, Takahashi 2015). The plant grows in damp and occasionally swampy areas of the forest belt (mixed and coniferous forests) (Ohwi 1965, Bezdeleva 1987, Yakubov & Cheryginaya 2004).

\textit{V. hultenii} was not previously mentioned in flora inventories of the Sakhalin Island. It was first discovered there in 2016 in the Makarovsk District, in the vicinity of the Tikhaya Station in the fir forest with Manchurian alder and Asian white birch. The tree-layer species are represented by \textit{Alnus sibirica} (Senticov) Mast., \textit{Alnus hirsuta} (Spach) Rupr. and \textit{Betula potyoides} Sukaczev. The shrub layer is poorly developed, cover is 10–25 %, represented by \textit{Doryphorum sambucifolia} (Cham. et Schlecht.) M. Roem. The herb layer has cover 50–75 % and includes two sublayers, is dominated by \textit{Osmunda regalis} L. with a mix of \textit{Ligusticum sibiricum} (L.) Schott, \textit{Calamagrostis purpurea} (Trin.) Trin., \textit{Caucalis camtschatcensis} (Maxim.) Kudo and \textit{Veratum gramineum} (Maxim. ex Max) O.E. Love, \textit{Maianthemum dilatatum} (Alp. Wood) A. Nelson & J. M. March, \textit{Hemerocallis excelsa} Koidz., \textit{Allium ochotense} Prokh., \textit{Trillium camtschatcense} Ker Gawl., \textit{Symphoricarpos renifolius} Schott ex Tzvel and \textit{Sorbus sambucifolia} (L.) Pamp. (Schott ex Carr., \textit{Salix caprea} L. and \textit{S. schernitzii} E. Woll.). The shrub stratum comprises \textit{Sorbus sambucifolia} and \textit{Spiraea betulifolia} var. \textit{amabilis} (C.K.Schmidt) Koidz. Herb layer cover is 25–50 %, is represented by \textit{Arctium minus} (Nakai) (Fisch. et C.A. Mey.), \textit{Cornus mas} L., \textit{Maianthemum dilatatum}, \textit{Penstemon wyethii} (F. Schmidt) H. Gross, \textit{Heracleum lanatum} Michx., \textit{Caucalis camtschatcensis}, \textit{Lilium debile} Kittlitz, \textit{Anaphalis margaritacea} (L.) Benth. & Hook.f., \textit{Carpesium kamtschaticum} Ledeb. ex DC., \textit{Arnea sutchuca} (Regel) A.Gray, \textit{Calamagrostis purpurea} (Trin.) Trin., \textit{Equisetum arvense} L., \textit{Ranunculus repens} L., \textit{Heracleum umbellatum} L., \textit{Pilosella aurantiaca} (L.) E.W. Schultz & Sch. Bip., \textit{Osmunda regalis} asiatium, \textit{Neodendrya camtschatcensis} (Cham.) Nevski and \textit{Amorium debile} Fisch. ex Turcz. The population of \textit{Viola hultenii} included more than 150 individuals. They were in excellent condition. During the study period, \textit{V. hultenii} in both locations were in their "blooming end" and "fructification start" phases.

**Taxonomic notes.** Some authors specify the species name as \textit{V. blandfordii} Nakai (Ohwi 1965, Voroshilov 1982, Masashi 1996, Yamada 2010) or \textit{V. blandfordii} Nakai (Flora of Korea), Espeut (2020) assigned this species as \textit{V. poleni} subsp. \textit{hultenii} (W. Becker & Hule) Espeut, while \textit{V. blandfordii} is referred to synonyms for \textit{V. brevipetala} Turcz. We follow Bezdeleva (1987) and consider \textit{V. hultenii} as the taxon of the species level. \textit{V. hultenii} is a perennial herbaceous perennial plant which is up to 70 cm tall. Its rhizome is light and firmamentous and bears black petioles and long thin branching roots in its nodes. The rosette contains up to 3–4 leaves on long petioles. Leaves are lamellate up to 2.5 cm long and 2.3 cm wide, mostly kidney-shaped or oblong and kidney-shaped with feature long narrow cavity at the base and a rounded tip, leaf margin are flat-crenate, sparingly downy bracts are 1 to 1.50 mm long in the middle part and lanceolate. Sepals are wide and egg-shaped, up to 3.2 mm long and up to 1.5 mm wide with 1 mm long and 1.2 mm wide appendages. Petals are white, oblong, and obovate, with the lower featuring cut tip and being shorter and wider than others, and also with developed network of violet veins and a very short and thin spur. Capsules are broadly egg-shaped or elliptic, 5–6 mm long and up to 3 mm thick (Bezdeleva 1987).

**Examined specimens (new records).** RUSSIA: Sakhalin Region, Makarov District, vicinity of Tikhaya Station, 48°01′17″N 142°29′55″E, fir forest with alder and birch trees, 27.06.2016, coll. A.V. Salokhin (VBGI); Sakhalin Region, Tymovskoe District, on the North-Eastern slope of the Mezhdurechney Ridge, 51°05′00″N 142°49′47″E, 27.06.2016, coll. A.V. Salokhin 38448 (VBGI).

**Viola prionantha Bunge (Violaceae)**

**Contributor:** Svetlana V. Ovchinnikova

**Distribution and habitat.** \textit{V. prionantha} was described by Bunge from Northern China by his own collections (lectotype – LE, synotype – P02141148). Later it was found in many
provinces of China, in Korea, in the south of the Russian Far East (Juzepchuk 1949, Boyko & Starchenkov 1982, Yousheng et al. 2007, Kryukova et al. 2010, Zuev 2012), it was introduced to Kyrgyzstan (Lazkov et al. 2011). From the kinship of V. prionantha, the species V. praeae Zolot. have been described from the Republic of Altai (Zolotukhin 1984) and V. jenniszenii Zuev from the Krasnoyarsk Territory (Zuev 1993). Their names were later referred to synonyms of V. prionantha in Western Siberia. We also collected the species in a man-made locality on a lawn near a residential building. The population includes more than 100 individuals. However, earlier on the site of this microdistrict there was a village and a river flowed, and the modern lawn is located on its former bank. The second location in the Novosibirsk Region is quite remote from the first. The question about the relict or adventitious nature of this species remains open. V. prionantha grows on grasslands on mountain slopes, stream sides, near houses.

**Taxonomic notes.** V. prionantha belongs to the section V. subtulatum (K. Koch) Luz. of subgenus V. tuberculata which included stemless plants without creeping shoots with stipules half adhering to the petiole, articulated stalks and bent at an angle at the apex, whole leaves and large seeds (Nikitin & Silantjeva 2006). From the related species V. macroceras Bunge it can be distinguished by leaf blade at anthesis is oblong-ovate, ovate-lanceolate, or narrowly ovate, 1–4.5 cm × 6–20 mm, both surfaces are glabrous or puberulous, sometimes hairy only along veins, and base is slightly cordate, truncate, or broadly cuneate, slightly decurrent, margins are usually involute when young, densely crenulate, apex obtuse or ± acute; leaf blade conspicuously enlarged at fruiting, to 10 × 4 cm, it has triangular-ovate, broadest near middle, base is usually broadly cordate. Flowers are purple-violet, 1.2–2 cm in diam., seeds numerous, deep brown, ovoid-globose, ca. 2 mm, ca. 1.5 mm in diam, often brown-punctate (Nikitin & Silantjeva 2006, Yousheng et al. 2007).

**Examined specimens (new record).** RUSSIA: Novosibirsk Region, Novosibirsk, Akademgorodok, “Sheh” microdistrict, Demakova St., 13, south side, on a lawn with meadow and weed vegetation, with gravel elements, [54°51′48″ 83°6′33″E], 27.04.2021, coll. S.V. Ovchinnikov, Yu.V. Ovchinnikov (NSKS0085729–NSK0085731).

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