

Seven new species of *Taraxacum* (Asteraceae) to the flora of the North-West European Russia (*Taraxacum* Notulae Rossiae Boreali Europeae IV)

Семь новых видов одуванчиков (*Taraxacum*, Asteraceae) для флоры северо-запада европейской части России (*Taraxacum* Notulae Rossiae Boreali Europeae IV)

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Abstract. The article reports 7 species of *Taraxacum* F. H. Wigg. new to Russia: *T. atrox* Kirschner et Štěpánek, *T. bellum* H. Øllg., *T. crassum* H. Øllg. et Trávn., *T. gesticulans* H. Øllg., *T. melanostigma* H. Lindb., *T. praestabile* Rail., and *T. tanyphyllum* Dahlst. All these taxa were recorded in North-West European Russia (within the Leningrad Region, the Pskov Region, the Novgorod Region, and the city of Saint-Petersburg), some of them occurring in neighboring regions as well. These taxa mostly belong to section *Taraxacum*, although some authors include *T. melanostigma* and *T. atrox* into closely related section *Borea* Sahlin ex A. J. Richards.

Keywords: *Taraxacum*, Asteraceae, Flora of Russia, European Russia, apomixis, hidden biodiversity.

Аннотация. Приводятся сведения о 7 видах рода *Taraxacum* F. H. Wigg., ранее не указывавшихся для России: *T. atrox* Kirschner et Štěpánek, *T. bellum* H. Øllg., *T. crassum* H. Øllg. et Trávn., *T. gesticulans* H. Øllg., *T. melanostigma* H. Lindb., *T. praestabile* Rail., *T. tanyphyllum* Dahlst. Все виды обнаружены на Северо-Западе России (в границах Ленинградской, Псковской и Новгородской областей и г. Санкт-Петербурга) и частично в сопредельных регионах. Большая часть приводимых таксонов относится к секции *Taraxacum*, хотя *T. melanostigma* и *T. atrox* некоторые авторы относят к близкой секции *Borea* Sahlin ex A. J. Richards.

Ключевые слова: *Taraxacum*, Asteraceae, флора России, европейская часть России, апомиксис, скрытое биологическое разнообразие.

Since 2016, the first author has been investigating the diversity of *Taraxacum* F. H. Wigg. in North European Russia. This genus, along with *Hieracium* L. and *Ranunculus* L., is one of the most species-rich genera in this area, and earlier it was studied only slatternly (Tzvelev, 2000, etc.) and requires further investigation (e. g. Efimov, Trávníček, 2022). Collecting of representative number of herbarium specimens is critically important for the success of biodiversity studies in taxonomically complicated vascular plant groups with numerous species like *Taraxacum*. During 2016–2023, 4372 herbarium specimens of this genus were collected, ca. 2/3 of them originating from North-West European Russia, i. e. from the Leningrad, Pskov, Novgorod Regions and the city

of Saint-Petersburg (hereinafter as NW Russia), which makes this territory substantially better investigated than the other parts of European Russia. In this article, we report 7 species newly recorded for Russia and found in this area. This is an important addition to 126 *Taraxacum* species reliably reported from NW Russia earlier (Efimov, Trávníček, 2022).

Material and methods

The new records were made during fieldwork in 2020–2023. The voucher specimens are deposited in LE. If the species occurs in the areas neighboring to NW Russia, such records are also included in the list of specimens.

The images of herbarium specimens cited in the text can be downloaded from <https://herbariumle.ru/> (to be searched by barcode number). Herbarium labels written in Russian are given below in English translation.

Results

Taraxacum atrox Kirschner et Štěpánek (Fig. 1).

The species was described in 1997 from Central Europe (Kirschner et al., 1997), as a notable apolline early flowering plant, preferably occurring in dry urban habitats. Besides the protologue, its morphology was described in detail by Trávníček et al. (2007) and Uhlemann (2003). Plants matching *T. atrox* and flowering in April – May were found in Saint-Petersburg and the Pskov Region.

Saint-Petersburg. Krasnosel'skii District: along Avangardnaya street, 59°50' N, 30°11' E, 13 V 2021, P. G. Efimov, № 2021/143 (LE 01149283); *ibidem*, a lawn in the park, 18 V 2021, *idem*, № 2021/280 (LE 01149430); *ibidem*, 18 V 2021, *idem*, № 2021/283 (LE 01149433).

Petrogradskii District: Botanical Garden of the Komarov Botanical Institute (Professora Popova street, 2), weedy in the crevice near the building, 59°58' N, 30°19' E, 20 IV 2021, *idem*, № 2021/005 (LE 01149138); *ibidem*, weedy on the lawn or in the crevice, 59°58' N, 30°19' E, 29 IV 2021, *idem*, № 2021/062 (LE 01149197). **Frunzenskii District:** near the intersection between Zagrebskii Bul'var and Dimitrova streets, a crevice near a building, 59°51' N, 30°24' E, 30 IV 2016, *idem*, № 22 (LE 01086965); near the intersection between Dunaiskii Prospekt street and Kupchinskaya street, a lawn near a wall, 59°50' N, 30°23' E, 23 IV 2022, *idem*, № 2022/023 (LE 01206418); along Sofiiskaya street near the house no. 44A, a lawn, 59°52' N, 30°24' E, 17 V 2021, *idem*, № 2021/264 (LE 01149413); *ibidem*, 17 V 2021, *idem*, № 2021/265 (LE 01149414); near the intersection between Dimitrova and Bukharestskaya streets, crevice near a building, 59°51' N, 30°24' E, 22 IV 2022, *idem*, № 2022/018 (LE 01206423); near the intersection of Al'piiskii Pereulok and Bukharestskaya street, near the Internatsionalistov Park, a crevice near a building, 59°51' N, 30°24' E, 23 IV 2021, *idem*, № 2021/024 (LE 01149158).

Pskov Region, Ostrov District: Zan'kovo, sandpit E from the Kiyevskoye Highway, roadside, 57°18'31,2" N, 28°22'55,5" E, 12 V 2021, G. Yu. Konechnaya (LE 01149054).

Taraxacum bellum H. Øllg. (Fig. 2).

This relatively recently described species, has originally been recorded in several provinces of Denmark, where it was “common where it occurs” (Øllgaard, 1978); later also recorded from several localities in Czech Republic and Germany, and from one locality in Poland (Trávníček et al., 2007, 2010). We have found it

in a single macro-locality only, where it occurs in several places.

The species belongs to a group of taxa with linear processes of sidelobes, but it has very numerous teeth of different size along the interlobes and in the basal part of sidelobes. It is recognizable also by leaf color, which is light green, contrasting with purple petiole and midrib. Outer phyllaries are broad (4–5 mm), bordered, ±patent to arching.

Leningrad Region, Gatchina District: Vyritsa, an area not more than 1–2 km far from “Vtoraya Platforma” railroad station, roadsides, 59°23' N, 30°19' E, 18 V 2022, P. G. Efimov, № 2022/372 (LE 01205696); *ibidem*, 18 V 2022, *idem*, № 2022/371 (LE 01205695); Vyritsa, Vinnitskyi Prospekt street, roadside, 59°24' N, 30°18' E, 1 VI 2022, *idem*, № 2022/701 (LE 01202964); Vyritsa, along Vinnitskii Prospekt street, near house № 42, a lawn, 59°24' N, 30°18' E, 23 V 2020, *idem*, № 2020/021 (LE 01086916); *ibidem*, 21 V 2020, *idem*, № 2020/013 (LE 01229549).

Taraxacum crassum H. Øllg. et Trávn. (Fig. 3).

This species was described in 2003 (Øllgaard, 2003) and reported from many localities in Central Europe and from a single locality in Sweden.

Taraxacum crassum belongs to a group of species with narrowly triangular sidelobes, which are ±patent or only slightly directed downwards, and in the same time rather closely situated to each other, with rather short interlobes in-between; margins of sidelobes and interlobes entire or with very few and small teeth. *T. crassum* is most similar to *T. hepaticum* Rail. and *T. praestabile* Rail., from which it may be distinguished by a complex of traits: light green, relatively short and straight leaves and emarginate outer phyllaries. As material goes, it seems that *T. hepaticum* Rail. and *T. praestabile* Rail. are more common in the studied area than *T. crassum*.

Pskov Region, Ostrov District: Dulovka village, at the railroad crossing, near “O.p. 308 km” railroad station, ruderal place on the sunny roadside adjacent to the railroad, 57°30' N, 28°20' E, 7 V 2023, P. G. Efimov, T. N. Smal', № 2023/123 (LE 01257313). **Sebezhs District:** Nishcha village, meadow, 56°08' N, 28°46' E, 16 V 2022, P. G. Efimov, G. Yu. Konechnaya, T. N. Smal', № 2022/080 (LE 01257358).

Taraxacum gesticulans H. Øllg. (Fig. 4).

Taraxacum gesticulans was described relatively recently (Øllgaard, 1978), and later several times was discussed again and illustrated (Uhlemann, 2003; Trávníček et al., 2010, 2012). It was reported from Central Europe and Sweden. In NW Russia it seems to be common where it occurs.

Fig. 1. Representative specimen of *Taraxacum atrox* (LE 01149283).



Fig. 2. Representative specimen of *Taraxacum bellum* (LE 01086916).

Fig. 3. Representative specimen of *Taraxacum crassum* (LE 01257358).



Fig. 4. Representative specimen of *Taraxacum gesticulans* (LE 01149247).

Morphologically rather characteristic plant, with three-dimensional structure of the leaf. Leaf lobes are obtuse, crisped, usually entire, rather narrow but proximally with semi-circular upper margin; petioles greenish, but midrib may sometimes be purplish or brownish.

Leningrad Region, Gatchina District: *Semrino*, NE part of the village near to the forest, meadow on the roadside, 59°30' N, 30°22' E, 27 V 2020, P. G. Efimov, № 2020/063(1) (LE 01209314); *ibidem*, 27 V 2020, *idem*, № 2020/063(2) (LE 01209315); Vyritsa, near “Vtoraya Platforma” railroad station, roadside, 59°23' N, 30°19' E, 25 V 2022, *idem*, № 2022/546 (LE 01203158); Vyritsa, near the intersection of Podol'skaya street and Siverskoye highway, roadside, 59°24' N, 30°18' E, 22 V 2017, P. G. Efimov, K. N. Efimova (LE 01086814).

Pskov Region. Pechory District: Staryi Izborsk, wet lawn along the road, 57°43' N, 27°52' E, 19 V 2022, P. G. Efimov, № 2022/383 (LE 01205709). **Pskov District:** between Logozovichy and Dubrovo, pillbox, 57.8137° N, 28.1470° E, 5 V 2022, M. B. Sheludyakova (LE 01209313); between Vybuty and Babayevo villages, near the old Ilya Prorok Church, limestone outcrops, the coastal slope of the Velikaya River on the soil rich with lime, 57°43' N, 28°17' E, 10 V 2021, P. G. Efimov, № 2021/110 (LE 01149247). **Plyussa District:** Zapol'ye, near the church, roadside near the old park, 58°22' N, 29°41' E, 21 V 2022, *idem*, № 2022/470 (LE 01202519). **Sebezh District:** Osyno village, southern part of the village, private garden, 56°13' N, 28°31' E, 6 V 2023, P. G. Efimov, G. Yu. Konechnaya, T. N. Smal', № 2023/068 (LE 01257370); Osyno village, southern part of the village, an old rural road, mostly covered with herbs, 56°13' N, 28°31' E, 15 V 2021, P. G. Efimov, № 2021/203 (LE 01149347).

Novgorod Region, Okulovka District: near Nezd-rinskoye Lake, meadow near the shore, 58°29' N, 32°59' E, 30 V 2022, P. G. Efimov, № 2022/668 (LE 01202999).

Taraxacum melanostigma H. Lindb. (Fig. 5).

This species is known since 1930th and frequently reported in *Taraxacum* accounts for both Scandinavia and Central Europe, including recent publications (Uhlemann, 2003; Räsänen et al., 2010; Räsänen, 2013; Trávníček et al., 2010, 2012). Some authors (Räsänen et al., 2010; Räsänen, 2013) consider it as belonging to a northern segregate of *Taraxacum officinale* F. G. Wigg. s. latiss., section *Borea*, despite the fact that this species is not rare not only in Scandinavia, but in Central Europe as well. Others (Uhlemann, 2003; Trávníček et al., 2010, 2012) doubt that it may belong to this group, and prefer to treat it within section *Taraxacum* in a special species group consisting of taxa with missing or minimal

pollen, dark stigmas and more simple leaf lobation, such as *T. atrox*, *T. baeckii*forme Sahlin, and others. According to our data, *T. melanostigma* occurs throughout NW Russia, but is especially common in Saint-Petersburg. The set of *Taraxacum* species in Saint-Petersburg significantly differs from that in rural areas, and *T. melanostigma* is a prominent example.

Taraxacum melanostigma is characterized by relatively small size, purplish petioles, usually rather short falcate sidelobes, brought closely in the apical part of the leaf; terminal lobe with a distinct apex; blackish stigmas; missing (or minimal) pollen.

Saint-Petersburg. Frunzenskii District: at Bukharetskaya street near the Prospekt Slavy underground station, a lawn (badly managed), 59°51' N, 30°24' E, 20 V 2021, P. G. Efimov, № 2021/332 (LE 01149487); *ibidem*, 20 V 2021, *idem*, № 2021/334 (LE 01149489); *ibidem*, 20 V 2021, *idem*, № 2021/324 (LE 01149479); Geroyev-Pozharnykh Park, a lawn, 59°51' N, 30°25' E, 26 V 2023, *idem*, № 2023/459 (LE 01256950); *ibidem*, “Sofiya” blockhouses near the Geroyev-Pozharnykh Park, a lawn, 59°51' N, 30°25' E, 20 IV 2021, *idem*, № 2021/011 (LE 01149144); along Bukharetskaya street, near the house № 114, near the sewer hatch on the lawn, 59°51' N, 30°24' E, 1 IV 2022, *idem*, № 2022/001 (LE 01206434); along Dimitrova street, near the house № 22/2, weedy in the flower bed, 59°51' N, 30°24' E, 21 IV 2022, *idem*, № 2022/006 (LE 01206439); along Bukharetskaya street, near the house № 110, a lawn, 59°51' N, 30°24' E, 28 IV 2022, *idem*, № 2022/043 (LE 01205799); along Al'piiskii Pereulok street between Belgradskaya and Budapeshtskaya streets, a lawn, 59°51' N, 30°22' E, 11 V 2022, *idem*, 2022/250 (LE 01204902); near the intersection of Dunayskii Prospekt street and Sofiiskaya street, a lawn, 59°51' N, 30°26' E, 26 V 2022, *idem*, № 2022/558 (LE 01203086). **Krasnosel'skii District:** along Avangardnaya street, 59°50' N, 30°11' E, 13 V 2021, P. G. Efimov, № 2021/141 (LE 01149281); *ibidem*, 18 V 2021, *idem*, № 2021/281 (LE 01149431); *ibidem*, 18 V 2021, *idem*, № 2021/282 (LE 01149432). **Petrogradskii District:** Botanical Garden of the Komarov Botanical Institute (Professora Popova street 2), weedy in the crevice near the building, 59°58' N, 30°19' E, 20 IV 2021, P. G. Efimov, № 2021/005 (LE 01149186); *ibidem*, 27 IV 2021, *idem*, № 2021/033 (LE 01149167); *ibidem*, 27 IV 2021, *idem*, № 2021/036 (LE 01149170); *ibidem*, 27 IV 2021, *idem*, № 2021/038 (LE 01149172); *ibidem*, 27 IV 2021, *idem*, № 2021/039 (LE 01149173); Botanical Garden of the Komarov Botanical Institute (Professora Popova street 2), weedy on the lawn or in the crevice, 59°58' N, 30°19' E, 29 IV 2021, *idem*, № 2021/054 (LE 01149189); *ibidem*, weedy on the



Fig. 5. Representative specimen of *Taraxacum melanostigma* (LE 01257201).

lawn or in the crevice, 59°58' N, 30°19' E, 29 IV 2021, *idem*, № 2021/063 (LE 01149198); *ibidem*, abandoned lawn (semi-ruderal place) in the “south yard” (“yuzhnyi dvor”), 59°58' N, 30°19' E, 11 V 2022, *idem*, № 2022/226 (LE 01206394); *ibidem*, lawn, 59°58' N, 30°19' E, 18 V 2023, *idem*, № 2023/226 (LE 01257201).

Leningrad Region, Gatchina District: Vyritsa, near the intersection of Ushakovskii Prospekt and Komarova streets, roadside, 59°24' N, 30°18' E, 26 V 2020, P. G. Efimov, № 2020/055 (LE 01086912). **Kingisepp District:** southern part of the Kurgal'skiy Peninsula, ca. 2 km N from Strupovo village, near the highway crossing point, roadside, 59°38' N, 28°09' E, 19 V 2021, *idem*, № 2021/305 (LE 01149458). **Slantsy District:** near the bridge over Plyussa River approximately between the villages Podporozhek and Peleshi, shady place along the forest road near the old bridge, 59°03' N, 28°03' E, 28 V 2021, *idem*, № 2021/452 (LE 01149610).

Novgorod Region, Batetskii District: Ivnya village, al'var meadow (low-grass dry meadow with *Juniperus* shrubs), 58°36' N, 30°08' E, 24 V 2022, P. G. Efimov, № 2022/520 (LE 01203137).

Pskov Region, Ostrov District: Zan'kovo, sand quarry E of Kiyevskoye highway, roadside, 57°18'31,2" N, 28°22'55,5" E, 12 V 2021, G. Yu. Konechnaya (LE 01149091). **Pechory District:** Staryi Izborsk, a lawn, 57°43' N, 27°52' E, 19 V 2022, P. G. Efimov, № 2022/379 (LE 01205702); *ibidem*, limestone slope next to the fortress, 57°43' N, 27°52' E, 19 V 2022, *idem*, № 2022/406 (LE 01202529); *ibidem*, inside the medieval fortress, 57°42' N, 27°52' E, 9 V 2021, *idem*, № 2021/090 (LE 01149227). **Plyussa District:** Zapol'ye, near the church, roadside near the old park, 58°22' N, 29°41' E, 21 V 2022, *idem*, № 2022/464 (LE 01202511). **Pustoshkinskii District:** ca. 5 km NW from Pustoshka, ruderal place, 56°22' N, 29°17' E, 16 V 2022, P. G. Efimov, T. G. Ivchenko, № 2022/274 (LE 01202103); *ibidem*, 16 V 2022, *idem*, № 2022/272 (LE 01202101). **Sebezh District:** Kuz'mino village, meadow, 56°13' N, 28°31' E, 15 V 2021, P. G. Efimov, № 2021/195 (LE 01149338).

Tver' Region, Bologoye District: Kuzhenkino, ruderal place in the village, 57°44' N, 33°59' E, 4 V 2023, P. G. Efimov, G. Yu. Konechnaya, T. N. Smal', № 2023/010b (LE 01257435).

Taraxacum praestabile Rail. (Fig. 6).

This species most likely belongs to the same group as *T. crassum* and *T. hepaticum*. Its detailed descriptions were recently provided by Trávníček et al. (2010) and Uhlemann et al. (2015); it is widely distributed in Central Europe and was also found in Scandinavia.

Saint-Petersburg, Kurortnyi District: area adjacent to the Gulf of Finland ca. 1.5 km SW from the

Sestroretsk railway station, sparse woodland or ruderal place along the trail, 60°05' N, 29°56' E, 21 V 2021, P. G. Efimov, № 2021/380 (LE 01149535).

Leningrad Region. Gatchina District: ca. 3 km N of Virkino village, near the highway intersection, roadside, 59°30' N, 30°17' E, 22 V 2020, P. G. Efimov, № 2020/017 (LE 01086857). **Lomonosov District:** Sista-Palkino village, roadside, sandy soil under pine-trees, 59°48' N, 28°55' E, 19 V 2021, *idem*, № 2021/315 (LE 01149468); outskirts of Glyadino village, meadows and along trails, 59°43' N, 29°46' E, 4 VI 2022, *idem*, № 2022/720 (LE 01202944). **Luga District:** near Saralog village, edge of the forest near the forest road to the clearing, very near to the highway, 58°59' N, 29°10' E, 29 V 2021, *idem*, № 2021/499 (LE 01149662); between Vitovo and Mokrovo villages, roadside, 58°32' N, 29°43' E, 21 V 2022, *idem*, № 2022/439 (LE 01202486). **Volkhov District:** Volkhov town, near the mouth of Siglinka River, ruderal meadow, 59°46' N, 32°20' E, 29 V 2022, *idem*, № 2022/624 (LE 01203078). **Volosovo District:** Goritsy, meadow along the main road in the village, 59°23' N, 29°14' E, P. G. Efimov, T. N. Smal', 16 V 2023, № 2023/218 (LE 01257209); *at the boundary with Gatchina District*, ca. 1 km SW of Dylitsy village, disturbed ground on an electric transmission line in the forest, 59°28' N, 29°44' E, 19 V 2020, P. G. Efimov, № 2020/004 (LE 01301166); *ibidem*, 28 V 2020, *idem*, № 2020/079 (LE 01301165); *ibidem*, 28 V 2020, *idem*, № 2020/084 (LE 01301167). **Slantsy District:** ca. 3 km W from the Kologrivo village, roadside, 59°01' N, 28°27' E, 29 V 2021, *idem*, № 2021/494 (LE 01149657).

Novgorod Region. Batetskii District: Ivnya village, crevice near the wall of the chapel, 58°36' N, 30°08' E, 24 V 2022, P. G. Efimov, № 2022/537 (LE 01203150); Ivnya village, roadside, 58°36' N, 30°08' E, 24 V 2022, *idem*, № 2022/528 (LE 01203141); Ivnya village, crevice near the wall of the chapel, 58°36' N, 30°08' E, 24 V 2022, *idem*, № 2022/531 (LE 01203136). **Borovichy District:** Plyoso (W outskirts of Borovichy town), shady roadside, 58°24' N, 33°52' E, 30 V 2020, *idem*, № 2020/093 (LE 01086867). **Chudovo District:** coast of the Volkhov River opposite from Selishchi village, roadside, 58°54' N, 31°39' E, collected 25 V 2021 after cultivation in the Leningrad Region, *idem*, № 2021/412 (LE 01149568). **Okulovka District:** ca. 3 km SW from Maloye Borotno, ruderal place at the roadside of the road through the forest, 58°26' N, 32°55' E, 30 V 2022, *idem*, № 2022/679 (LE 01202987). **Shimsk District:** Shimsk town, central part of the town near the bridge over Shelon' River, a lawn, 7 V 2022, 58°13' N, 30°43' E, P. G. Efimov, G. Yu. Konechnaya, T. N. Smal', № 2022/196 (LE 01205835); *ibidem*, 58°13' N, 30°43' E, 7 V 2022, *idem*, № 2022/193 (LE 01205840). **Staraya**



Fig. 6. Representative specimen of *Taraxacum praestabile* (LE 01257209).

Russa District: Staraya Russa town, central part of the town, near the bridge over Polist' River, ruderal/lawn vegetation, 58°00' N, 31°21' E, 7 V 2022, *idem*, № 2022/186 (LE 01205841).

Pskov Region, Pechory District: Staryi Izborsk, a lawn within Izborsk fortress, 57°43' N, 27°52' E, 17 V 2016, P. G. Efimov, V. V. Kuropatkin, K. N. Efimova, M. V. Legchenko, № 43 (LE 01301168); Staryi Izborsk, slope along the trail to Slovenskiye Klyuchi springs, forest edge, 57°43' N, 27°52' E, P. G. Efimov, 19 V 2022, № 2022/399 (LE 01202522); *near Staryi Izborsk, Slovenskiye springs N from the fortress on the shore of Gorodishchenskoye Lake, wet place along the streams of water*, 57°43' N, 27°52' E, 9 V 2021, *idem*, № 2021/095 (LE 01149232); *ibidem*, 9 V 2021, *idem*, № 2021/096 (LE 01149233). **Novosokol'niki District:** Gushchino railway station, ruderal place just near to the railroad, 56°19' N, 30°18' E, 16 V 2022, P. G. Efimov, T. G. Ivchenko, № 2022/300 (LE 01202580). **Pustoshka District:** ca. 4 km NW from Pustoshka, forest edge near the highway, 56°22' N, 29°17' E, 16 V 2022, *idem*, № 2022/333 (LE 01202616).

***Taraxacum tanyphyllum* Dahlst. (Fig. 7).**

This species is accepted here in a broad sense, including *T. diastematicum* Markl. These species are usually treated as two closely related but different ones. *T. tanyphyllum* is a priority name, therefore it is used here for the species in a broad sense.

This species (mostly as *Taraxacum diastematicum*, however) is quite well-known and its morphology was described many times, e. g. by Trávníček et al. (2010). It was reported from a number of countries in Central Europe, British Isles and Scandinavia. In NW Russia and surrounding areas, it appears to occur throughout. Ecologically it is considered to be confined to less disturbed habitats such as old pastures, stable mesophilous forest edges, but probably avoids dry localities.

This species is well-distinguishable by its characteristic leaves: very narrow, with distally spaced side-lobes, their petioles are more or less purplish (the very base may be green) and with red and green stripes along the midvein; outer phyllaries are rather broad, ±patent or arching. The striate pattern of petiole and midrib is untypical of section *Taraxacum*, but it was reported in *T. diastematicum*, *T. interveniens* and some other taxa of this section by I. Uhlemann (2003). In the study area this trait seems to be present rather consistently, although somewhat less prominent as e. g. in section *Hamata* H. Øllg.

Republic of Karelia, Muyezeriskii District: Sukkozzero, roadside, 63°10' N, 32°21' E, 11 VI 2022, P. G. Efimov, G. Yu. Konechnaya, M. V. Legchenko,

№ 2022/870 (LE 01202228). **Suoyarvi District:** Vegarus village, ruderal roadside, 62°18' N, 32°05' E, 10 VI 2022, *idem*, № 2022/819 (LE 01202170).

Leningrad Region, Gatchina District: Vyritsa, near the intersection between Bratslavskii Prospekt and Komarova streets, meadow, 59°24' N, 30°18' E, 23 V 2020, P. G. Efimov, № 2020/024 (LE 01229538); Vyritsa, Lenina street near its intersection with Proletarskii Prospekt street, 0.5 km S from "Vtoraya platforma" railway station, wet meadow at the forest edge at the intersection, 59°23' N, 30°19' E, 25 V 2021, *idem*, № 2021/418 (LE 01149574); Vyritsa, Vinnitskii Prospekt street, roadside, 59°24' N, 30°18' E, 31 V 2022, *idem*, № 2022/687 (LE 01202978); *Siverskaya, ruderal place near the shop*, 59°22' N, 30°05' E, 14 V 2023, *idem*, № 2023/167, plant 1 (LE 01257262); *ibidem*, 14 V 2023, *idem*, № 2023/167, plant 2 (LE 01257261). **Lomonosov District:** outskirts of Glyadino village, meadows and along trails, 59°43' N, 29°46' E, 4 VI 2022, *idem*, № 2022/716 (LE 01202948).

Novgorod Region, Okulovka District: Pervomayskii village, near the private botanical garden of Vladislav V. Kuropatkin, meadow in the village, 58°11' N, 33°34' E, 30 V 2021, P. G. Efimov, № 2021/551, plant 2 (LE 01149719).

Pskov Region, Pechory District: Staryi Izborsk, ca. 1 km N of Izborsk Fortress, "Truvorovo gorodishche" place, 57°43' N, 27°52' E, 17 V 2016, P. G. Efimov, V. V. Kuropatkin, K. N. Efimova, M. V. Legchenko, № 50 (LE 01229539); Staryi Izborsk, slope along the trail to Slovenskiye Klyuchi springs, forest edge, 57°43' N, 27°52' E, 19 V 2022, P. G. Efimov, № 2022/397 (LE 01205720). **Pushkinskiye Gory District:** Issa village, Kiyevskoye highway, new ground poured along the roadside of the highway during its reconstruction, 56°54' N, 28°39' E, 16 V 2021, *idem*, № 2021/250 (LE 01149396). **Pustoshka District:** ca. 4 km NW from Pustoshka, forest edge near the highway, 56°22' N, 29°17' E, 16 V 2022, P. G. Efimov, T. G. Ivchenko, № 2022/336 (LE 01202620).

Tver' Region, Molokovo District: Novokotovo, roadside in the village, 58°03' N, 36°38' E, 23 V 2023, P. G. Efimov, A. V. Leostin, № 2023/400 (LE 01257014).

Discussion

All taxa discussed here are relatively well-known species, which were many times discussed and illustrated in modern literature (Kirschner, Štěpánek, 1997; Øllgaard, 2003; Räsänen et al., 2010; Trávníček et al. 2007, 2008, 2010, 2012, 2018; Uhlemann, 2003; Uhlemann et al., 2007, 2015, 2016; etc.). They are unanimously recognized by all contemporary researchers who deal with this genus.



Fig. 7. Representative specimen of *Taraxacum tanyphyllum* (LE 01257014).

The reported taxa have different distribution in the studied territory. *Taraxacum diastematicum*, *T. praestabile* and possibly *T. melanostigma* are not rare, and probably widely occur in NW Russia. In contrast, *T. bellum* was found in a single locality only. *Taraxacum atrox* and *T. melanostigma*, as material goes, are more common in the city of Saint-Petersburg than in rural areas, that, with regard to *T. atrox*, corresponds with earlier published data (Kirschner, Štěpánek, 1997). *Taraxacum crassum* was discovered in southern areas only, possibly representing Central European element. It is expected that the distribution of several *Taraxacum* species may be specific to certain areas within NW Russia and if studied in more detail, may serve as sensitive indicator determining the limits of smallest natural phytogeographic units.

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