

# New sites of *Taraxacum portentosum* Kirschner & Štěpánek and *Taraxacum vindobonense* Soest against a background of their distribution in Poland

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**Abstract:** In the paper the new sites of *Taraxacum portentosum* Kirschner & Štěpánek and *Taraxacum vindobonense* Soest are presented against a background of the current knowledge about the distribution of these species in Poland and Europe. A complete register of the sites is presented as well as the distribution maps of these species in the net of the ATPOL squares in Poland. The most important diagnostic characteristics distinguishing one species from the other are given.

**Key words:** chorology, *Taraxacum*, section *Palustria*, Asteraceae, Poland

The Polish flora of dandelions, which have been recognized so far, amounts to 369 species, belonging to 13 sections (Mirek *et al.* 2002). The knowledge about the distribution of individual species in the area of Poland is still incomplete and not sufficient (Głowacki 2004). Relatively the best-recognized group in this respect is the section *Palustria* (H. Lindb.) Dahlst., which is represented in Poland by 21 apomictic taxa. In

May 2003, the authors found new sites of two species with interesting geographical distribution pattern. These were *Taraxacum vindobonense* Soest and *T. portentosum* Kirschner & Štěpánek. *T. vindobonense* is a species from south-eastern Europe, present in the Czech Republic, Slovakia, Austria, Hungary, Poland, western Ukraine and border zone locations in Bulgaria, Croatia and eastern Germany. *T. portentosum* occurs mainly in Poland

**Table 1.** A comparison of the most important discriminating features of *Taraxacum vindobonense* and *T. portentosum* (by Kirschner & Štěpánek 1998)

Feature	<i>Taraxacum vindobonense</i>	<i>Taraxacum portentosum</i>
Outer bracts:		
number	usually 11-16	usually 16-21
shape	lanceolate to ovate-lanceolate	lanceolate or ovate-lanceolate
size	7-9 mm long x 2.8-4.5 mm wide	7.5-10 mm long x 2.0-3.5 mm wide
border	not distinct	distinct
Achenes:		
achenes size long	usually 4.0-4.3 mm	4.1-4.5 mm
cone long	0.7-0.9 mm	0.9-1.2 mm
rostrum long	6.5-8 mm	9-11 mm
Leaves	erecto-patent, linear-ob lanceolate to oblanceolate in outline, mid-green, usually deeply lobed, lateral lobes 2-5, triangular, terminal lobe medium-sized to elongated, triangular to subhastate; petioles narrow, usually purple	subprostrate vel suberect, mid-green, deeply divided, lateral lobes usually 3-4, deltoid or with a broad convex base abruptly contracted to a narrow terminal part, pointing irregularly upwards or downwards, interlobes very narrow, usually entire or sparsely denticulate, terminal lobe triangular, hastate or tripartite; petioles narrow, purple

and also on two sites in Slovakia and one in the Czech Republic (Kirschner & Štěpánek 1998). The last locality probably does not exist any more – the species is considered extinct in the Czech Republic (Holub & Procházka 2000).

In the paper, the distribution of the two species of the section *Palustria* (*Taraxacum portentosum* and *T. vindobonense*) in Poland is given, and the most important taxonomic characteristics distinguishing these species are presented.

In the paper, both the published and unpublished data on the species occurrence have been used. There is

a tabularized listing of the sites presented. Each site has been localized according to the nearest place name; additionally, the following data has been given: (1) a geographical mesoregion (Kondracki 2002), (2) the square ATPOL, (3) the collection date and the collecting author, (4) the name of the dandelion identifying person, (5) the source from which the data has been taken. To prepare distribution maps the GNOMON programme has been used (version 3.3, Desmodus).

Dandelions within one section are very alike and it can cause serious problems with their taxonomy. Thus it is essential to point out important traits that distin-



Fig. 1. *Taraxacum vindobonense* – habitus



Fig. 3. *Taraxacum portentosum* – habitus



Fig. 2. *Taraxacum vindobonense* – inflorescence



Fig. 4. *Taraxacum portentosum* – inflorescence

**Table 2.** Localities of *Taraxacum vindobonense* in Poland

Locality	ATPOL Square	Year of last collection, Author	Determination	Publication
New localities				
Czarnystok – Roztocze Zachodnie	GE90	14.05.2003, J. & P. Marciniuk	Štěpánek	unpublished
Lipowiec – Roztocze Zachodnie	GE90	14.05.2003, J. & P. Marciniuk	Štěpánek	unpublished
Published localities				
Noski – Podlaski Przełom Bugu	FC74	23.05.1996, Głowacki	Kirschner & Štěpánek	Øllgaard <i>et al.</i> 2002a
Kużawka – Podlaski Przełom Bugu	GD23	15.05.1997, Głowacki	Kirschner & Štěpánek	Øllgaard <i>et al.</i> 2002a
Krzydlina Mała – Wysoczyzna Rościsławicka	BE25	1970, Kozioł	Kirschner & Štěpánek	Kirschner & Štěpánek 1998
Kazimierza Wielka – Płaskowyż Proszowicki	EF23	1984, Štěpánek & Kirschner	Kirschner & Štěpánek	Kirschner & Štěpánek 1998
Owczary – Niecka Solecka	EF25	1984, Štěpánek & Kirschner	Kirschner & Štěpánek	Kirschner & Štěpánek 1998
Nowy Korczyn – Nizina Nadwiślańska	EF35	1984, Štěpánek & Kirschner	Kirschner & Štěpánek	Kirschner & Štěpánek 1998
Zabierzów – Rów Krzeszowicki	DF68	1976, Tacik	Kirschner & Štěpánek	Kirschner & Štěpánek 1998
Ustrzyki Górne – Bieszczady Zachodnie	GG70	1994, Krahulec	Kirschner & Štěpánek	Kirschner & Štěpánek 1998
Łabunie – Wyżyna Lubelska	GE93	Małecka	Van Soest	Małecka 1972
Janowice – Wyżyna Miechowska	EF30	Jasiewicz	Van Soest	Tacik 1980
Babia Góra – Pasma Babiogórskie	DG26	Zapałowicz	Van Soest	Tacik 1980
Lipnica Wielka – Działy Orawskie	DG27	M. & J. Guzik	Van Soest	Tacik 1980
Zubrzyca Górna – Działy Orawskie	DG27	M. Guzik	Van Soest	Tacik 1980
'Droga pod Reglami' 850 m a.s.l. - Podtatrze	DG59	Pawłowski	Van Soest	Tacik 1980

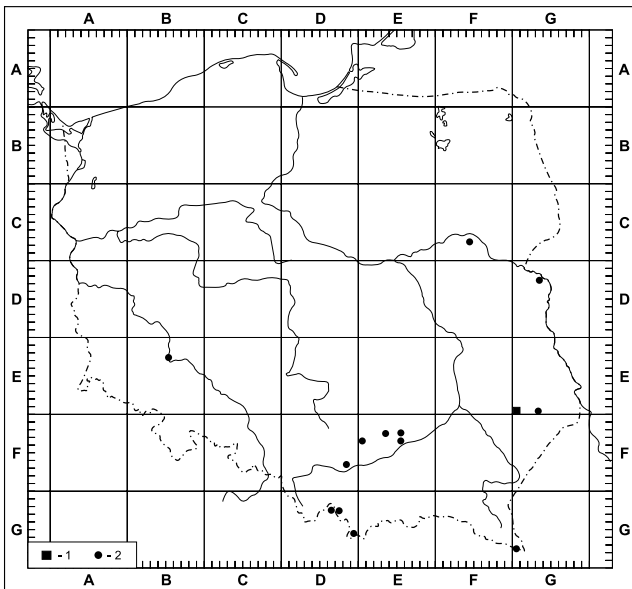
guish the species. The characteristics distinguishing *Taraxacum portentosum* from *T. vindobonense* are presented in Table 1, and the general constitution and structure of the inflorescence of both species are given in the Figures 1-4.

During the field research, carried out in eastern Poland in 2003, the new localities of *Taraxacum vindobonense* were found in the valley of the Goraj river, namely in

the West Roztocze (Table 2, Fig. 5). This species occurred in humid meadows of the *Molinion* alliance. In the Bug Valley (the Podlasie Bug Gorge) a new site of *Taraxacum portentosum* was found in May of the same year (Table 3, Fig. 6). The species occurred in the humid pasture (the order *Molinietales*), accompanied by *Taraxacum paucilobum* Hudziok, which is the most frequently found species from the *Palustria* section.

**Table 3.** Localities of *Taraxacum portentosum* in Poland

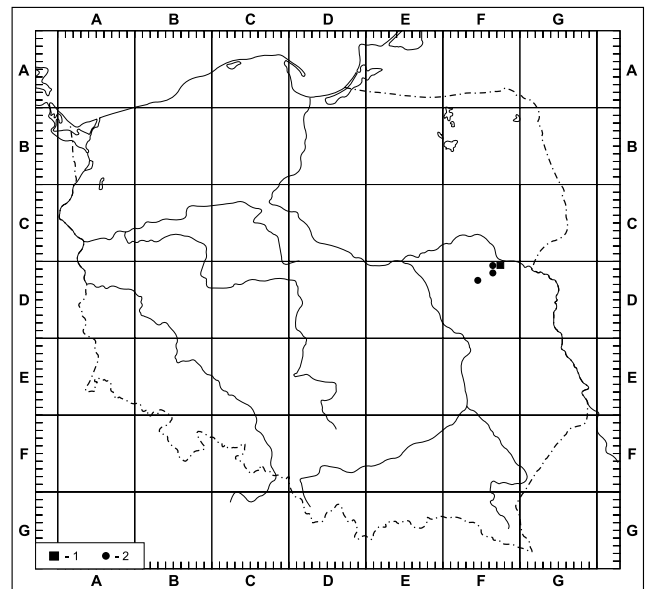
Locality	ATPOL Square	Year of last observation, Author	Determination	Publication
New locality				
Starczewice – Podlaski Przełom Bugu	FD07	10.05.2003, J. & P. Marciniuk	Štěpánek	unpublished
Published localities				
Liszki – Wysoczyzna Siedlecka	FD06	14.05.1992, Głowacki	Štěpánek	Øllgaard <i>et al.</i> 2002b
Czubaki – Wysoczyzna Siedlecka	FD16	14.05.1994, Głowacki	Kirschner & Štěpánek	Øllgaard <i>et al.</i> 2002b
Uziebły – Wysoczyzna Siedlecka	FD16	19.05.1974, Głowacki	Kirschner & Štěpánek	Øllgaard <i>et al.</i> 2002b
Iganie Nowe – Wysoczyzna Siedlecka	FD24	17.05.1995, Głowacki	Kirschner & Štěpánek	Øllgaard <i>et al.</i> 2002b



**Fig. 5.** Distribution of *Taraxacum vindobonense* in Poland  
Explanations: 1 – new station, 2 – published station

The dandelions of section *Palustria* occur in halfnatural and extensively cultivated meadows of the order *Molinietalia*; moreover, most of them have a limited covering power. Owing to these facts, all the Polish species of the section *Palustria* have been acknowledged as endangered (Marciniuk & Głowacki 2005).

In Poland *Taraxacum vindobonense* occur in 16 sites dispersed in the south of the country (Table 2, Fig. 5). The general distribution and the knowledge about its occurrence in Poland allows one to make a thesis that



**Fig. 6.** Distribution of *Taraxacum portentosum* in Poland  
Explanations: 1 – new station, 2 – published station

the northern border of its range runs through Poland.

In the view of the current knowledge, *Taraxacum portentosum* can be considered to be a Polish subendemit.

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