A revision of names in *Taraxacum* sect. *Erythrocarpa* and *T.* sect. *Erythrosperma* (Asteraceae: Cichorieae) published by C. E. Sonck from Greece, with nomenclatural comments

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Source: Willdenowia, 44(1) : 137-144
Published By: Botanic Garden and Botanical Museum Berlin (BGBM)
URL: https://doi.org/10.3372/wi.44.44114
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**Abstract**


DOI: http://dx.doi.org/10.3372/wi.44.44114

Selected names in the genus *Taraxacum*, belonging to *T.* sect. *Erythrocarpa* and *T.* sect. *Erythrosperma*, published in a series of papers by C. E. Sonck were revised taxonomically. Their types, from Greece (except two from Albania), were compared with material mainly from the Balkan Peninsula deposited at PRA. Ten names are relegated to synonymy. Range extensions (to Italy, Albania, the Former Yugoslav Republic of Makedonija, Bulgaria, Romania, Crimea and Turkey) are reported for ten taxa. Nomenclatural comments are given for *T. acutiusculum*, *T. dialeptum*, *T. gracilens*, *T. panhellenicum* and *T. salonikiense*. A lectotype is designated for *T. dialeptum*.

Additional key words: Balkan Peninsula, *Compositae*, lectotype, Mediterranean, synonymy, taxonomy, typification

**Introduction**

Prof. Carl Eric Sonck of Helsinki was born in the second largest city in Finland, Viipuri, now Vyborg, Russia, on 10 Nov 1905; he died in Helsinki on 13 Feb 2004 (see also Wallgren 2004). In order to study the genus *Taraxacum* of the Mediterranean, he undertook a series of exploratory journeys to the Balkan Peninsula, mainly to Greece in the 1980s. His studies resulted in a number of publications with descriptions of new dandelions from that area. The major part of his herbarium material is deposited in H; minor collections are in other herbaria. He kindly spared a selection of important duplicates, and the authors of the present paper had an opportunity to study the plants now deposited in PRA.

Following our taxonomic studies in the dandelion flora of the Balkans and the Mediterranean (Štěpánek & al. 2010, 2011; Štěpánek & Kirschner 2013a, b) and within the framework of the project of the *Taraxacum* treatment for Flora of Bulgaria (vol. XII, in prep.), we dealt with Sonck’s collections from the Balkans, mostly types, kindly made available by the keepers of the herbarium H. We revised the taxonomy of the plants described under the names published by Sonck (1984, 1985a–b, 1986, 1988, 1989a) in *T.* sect. *Erythrocarpa* Hand.-Mazz. and *T.* sect. *Erythrosperma* (H. Lindb.) Dahlst., analysed nomenclatural aspects of the names, and then compared the material with the plants deposited in PRA. The study yielded results relevant for the Euro+Med PlantBase (Euro+Med 2006+), and the most important ones are presented below. In the specimen citations, “no. det.” refers to the determination number of the present authors.

**Taxonomic and nomenclatural treatment**

*Taraxacum (Erythrosperma) acutiusculum* Sonck in Ann. Bot. Fenn. 21: 157. 1984. – Fig. 1. – Holotype: Greece, Thessalia, Olympos, am E-Abhang an der Land-
Fig. 1. *Taraxacum acutiusculum* Sonck. – Holotype (C. E. Sonck s.n., H 1540074 – no. det. 25669).
strasse 1–2 km von Stavros, 800–850 m, 21 Apr 1983, C. E. Sonck s.n. (H 1540074 – no. det. 25669). – Fig. 1.

The new records from Bulgaria, published here, indicate that *Taraxacum acutiusculum* is a relatively widely distributed species. There is a curious problem in the typification of the name. In the protologue, there is a photograph of a plant stated in the figure caption to be “Holotypus” (Sonck 1984: 158, fig. 1). The specimen corresponding with the plant photographed is deposited in the herbarium H (as H 1540067 – no. det. 25666) and is annotated as an isotype. Its label text, “800–900 m”, is slightly different from that cited in the protologue (Sonck 1984: 157): “800–850 m”. There are therefore certain doubts about the identity of the holotype. There are two ways to approach this problem:

1. We could consider the specimen H 1540067 (see Sonck 1984: fig. 1) as the holotype, as stated in the figure caption in the protologue, and the minor difference between the specimen label text and the protologue text could be considered as a misprint or other mistake.

2. Alternatively, we could strictly follow the locality text cited in the protologue, as there are six specimens with label data fully corresponding to it, one annotated as holotype (H 1540074 – no. det. 25669), the others as isotypes (G [2 sheets] – no. det. 18285 & 18286; H 1692399 – no. det. 25668; PRA – no. det. 25661; Z – no. det. 24671). In this case, the specimen H 1540067 (Sonck 1984: fig. 1) should be regarded as a paratype.

From a taxonomic point of view, either alternative is acceptable because all the specimens cited here are taxonomically identical. However, for the sake of nomenclatural clarity, we accept as the holotype the specimen annotated as such (H 1540074 – no. det. 25669; Fig. 1 in the present paper), fully corresponding to the indication of type in the protologue, except for the figure caption, which we consider to be a mistake.

Selected specimens examined — BULGARIA: Stara planina, distr. Trojan, Trojanska planina, NW slopes of Baljova planina, c. 2 km E of Mt Kozja Stena, 1670 m, on granite, 1550–1600 m, 21 Jun 1998, J. Štěpánek, R. Bělohlávková, V. D. Vladimirov & D. Petkova, cult. in Průhonice as JŠ 6506 & JŠ 6494 (PRA [3 sheets] – no. det. 25661 & 25662); ibid., Berkovska planina, Kopilovtsi, chalets on granite, 1550–1600 m, 21 Jun 1989, B. Kuzmanov 8923, cult. in Průhonice as JŠ 8923 & JŠ 8922 (PRA [2 sheets] – no. det. 25678 & 25679).


**Taraxacum botanicorum** is a species distinct in having yellowish brown achene, quite unusual in *T*. *Erythrosperma*. Originally described from Albania, here a range extension to Italy is documented.

Selected specimens examined — ITALY: Calabria, Sila [Mts], 3 km of Monte-Scuro, along the road delle Vette, 1620 m, 3 Jul 2004, G. Aquaro & Stefano s.n. (CLU) and cultivated from achenes of this specimen as JŠ 8166 (PRA – no. det. 27955).


The original type of *Taraxacum dialeptum* designated by Sonck (as “HT”) and portrayed in the protologue (Sonck 1984: 159, fig. 2) consists of two plants that cannot be considered as conspecific. The bigger plant mounted on the upper part of the sheet H 1540066 belongs to *T*. *sect. Taraxacum (Ruderalia)* and exhibits features that at first sight conflict with the description in the protologue (colour and shape of achenes). The bottom plant on the sheet belongs to *T*. *sect. Erythrosperma* and matches the protologue features very well. It is taxonomically identical with the other plants determined by Sonck as *T*. *dialeptum* (altogether six specimens of isotypes and paratypes seen by us in H, PRA and Z) and is therefore selected here as the lectotype.
It is quite possible that it was the heterogeneity of the original type specimen of *Taraxacum dialeptum* that led Sonck to describe the same species a second time under the name *T. molybdocephalum*. The type material of *T. molybdocephalum* is not different phenotypically from the lectotype specimen, designated here, of the name *T. dialeptum*.


*Taraxacum epirense*, originally described from Greece, is a relatively widely distributed species of the Balkans, according to the new records from Bulgaria and Romania published here. While the holotype of *T. epirense* is undoubtedly taxonomically identical with that of *T. lacisphylloides* (= *T. vexatum*), paratypes of *T. epirense* require further examination because at least one of them is taxonomically different from the holotype. Although the type of *T. lacistophylloides* is a plant from a shady habitat, the decisive characters of outer bracts, florets and achene match those of *T. epirense*.

*Selected specimens examined* — BULGARIA: Sofia, SE slopes of the Ljulj planina, Černija Kos, May 1986, L. Hrouda, cult. in Průhonice as JŠ 2784 (PRA – no. det. 25776); ibid., Sofia, Vitosha Mts, SW of mountain chalet Aleko, subalpine meadows, 1600 m, 3 Jun 1988, J. Kirschner, cult. in Průhonice as JK 101 (PRA – no. det. 25774); ibid., along way not far from mountain chalet Aleko, 1800 m, 3 Jun 1988, J. Kirschner & B. Kuzmanov, cult. in Průhonice as JK 356 (PRA – no. det. 25770); Pirin Mts, Melnik, Vlaškija put' above the village of Rožen, dry places, 1500 m, 31 May 1988, J. Kirschner, cult. in Průhonice as JŠ 2920 (PRA – no. det. 25773).

ROMANIA: Banatus, Sasca Romana, gorge of Nera riv- er, 21 Apr 1987, J. Sádlo, cult. in Průhonice as JŠ 4116 (PRA – no. det. 25771).


The three names referable to this taxon represent extremes in its plasticity, probably a consequence of different ecological conditions at the three sites in Greece. The new Bulgarian record published here is a remarkable range extension of the species.

*Selected specimens examined* — BULGARIA: mouth of Ropotamo river, coastal vegetation of the Black Sea c. 5 km N of the town of Primorsko, 1990, B. Kuzmanov & J. Kirschner (PRA – no. det. 25567).


The typification of *Taraxacum gracilens* is rather complicated. The type indication in the protologue (Dahlstedt 1926: 31) stated: “Graecia: Phokis: in Horto Botanico Upsaliensi annis 1924–1925 e fructibus ad Parnassos Graeciae lectis, 30 Jun 1924, G. Samuelsson s.n.”. We have seen authentic specimens in B (no. det. 22187), LE (no. det. 17264) and S (3 sheets: no. det. 23518 & 23519, and S13-2438). Later Soest (1966: 24) only repeated: “typus: cult. in Stockholm, from Parnassus, 1924, Samuelsson (h. S!)”. It was finally Doll (1973: 23) who made a serious attempt to typify this name. He selected the lectotype (mistakenly called holotype) from among the syntypes preserved in S and published a photograph of the type specimen, which means that he unequivocally designated the lectotype. The problem is that the captions to the photographs are totally chaotically jumbled (not unlike many other papers published by Doll), and only a rather difficult decipherment of the original label texts on the photographs shows that the photograph of the lectotype of *T. gracilens* is hidden under the caption “*T. magnolevigatum* W. Koch in v. Soest, Holotypus”. We treat this as a printer’s error and consider the lectotypification as effective. The lectotype is the specimen with the following label text written by H. Dahlstedt: “*T. gracilens* Dahlst. Ups. in horto botanico cult. e fructibus ad Parnassos Graeciae lectis. 30. 6. 1924. G. Samuelsson” (S 13-2438).
Fig. 2. *Taraxacum gracilens* Dahlst. – Specimen from C Turkey (M. Štech s.n., PRA – no. det. 25983).
The synonymization of Taraxacum divinum under *T. gracilens* is beyond any doubt; the type specimens of the two names are extremely similar; both come from Greece. The species seems, in fact, to be relatively widespread according to the new records from Bulgaria, Crimea and Turkey published here.

Selected specimens examined — BULGARIA: Sandanski, valley of Struma river, dry slopes above railway station Javorov, 30 May 1988, J. Kirschner, cult. in Průhonice as JŠ 2924 (PRA – no. det. 25763); ibid., Sandanski, valley of Struma river, dry slopes between the villages Strumjany and Kamenica, 1 Jun 1988, J. Kirschner, cult. in Průhonice as JŠ 2888 (PRA – no. det. 25762).

CRIMEA: E margin of Simferopol city, calcareous slope near Balaja village, 2 May 1984, N. Tzelev & al. 82, cult. in Průhonice as JŠ 3154 (PRA – no. det. 28746).

TURKEY: Aksaray, Kar[al]vansaray Öresin c. 20 km NE of the town of Aksaray, 38°28'16.5"N, 34°12'11"E, 8 May 2000, M. Štech s.n., cult. in Průhonice as JŠ 7637 (PRA – no. det. 25983) — Fig. 2.


The synonymy of *Taraxacum herae* was dealt with in our previous study of the *Taraxacum* flora of Corsica (Štěpáněk & Kirschner 2013a). In addition, we have to list the name *T. fibratum* among the synonyms of *T. herae*. The type specimens of the synonyms differ in their leaf shapes, obviously a variation resulting from ecological conditions. The new Bulgarian record published here, together with the Corsican material show that this species has a relatively large geographical range in the Mediterranean.

Selected specimen examined — BULGARIA: Trojanska planina, Trojan saddle (Trojanski prechod) in Beklemeto area, mountain grasslands along road between Karnare village and Trojan town, c. 15 km SSW of Trojan town, 42°46'47"N, 24°36'23"E, 1538 m, 4 Jul 2010, F. Krahulec & A. Krahulcová 60, cult. in Průhonice as JŠ 8932 (PRA – no. det. 25636).


To the original record from Greece, new Bulgarian records are added here.

Selected specimens examined — BULGARIA: Toce Dalčev (Goce Delčev), Petralik, 16 May 1988, B. Kuzmanov 8807-1, cult. in Průhonice as JŠ 3133 & JŠ 4123 (PRA [2 sheets] – no. det. 25539 & 25540); ibid., Sandanski, valley of Struma river, dry slopes above railway station Javorov, 30 May 1988, J. Kirschner, cult. in Průhonice as JŠ 2921 (PRA – no. det. 25538).


To the original record from Greece, a new record from the Former Yugoslav Republic of Makedonija is added here.


This name was validly published with the type indicated by reference to a single gathering comprising three specimens in different herbaria (H, L and “Pr”, i.e. PRA), therefore syntypes (ICN Art. 40.2 and Note 1, McNeill et al. 2012). The original intention of Sonck evidently was to designate the holotype in the caption of the figure showing the specimen at H. However, by mistake, the editors of Annales Botanici Fennici omitted the figure from the publication (vol. 26(1), published on 2 May 2013, page 142).
1989, Sonck 1989a). The figure appeared in the next issue of the journal (vol. 26(2), published on 3 Jul 1989, Sonck 1989b) as a correction. The type was clearly indicated in the later-published place, i.e. it is evident from the photograph that the type is the specimen at H, and although the term “holotype” was used, that term is to be corrected to lectotype under Art. 9.9 of the ICN (McNeill & al. 2012).


The taxon bearing the correct name *Taraxacum parnassicum* Dahlst. belongs to the most widespread C and S European members of *T.* sect. *Erythrosperma*. That is why it was repeatedly described from various regions under a number of names (see also Štěpánek & Kirschner 2013a, showing how common it is in Corsica). The relegation to synonymy of *T. pseudogracilens* (= *T. praegracilens*) represents a range extension to Albania for *T. parnassicum*.


New Bulgarian records are published here. In the protologue (Sonck 1985a: 144–146) the complete typification paragraph was omitted by mistake. Sonck (1985b: 261) published a typification in a later article. However, this was unnecessary because in the protologue a figure of a specimen of *Taraxacum salonikense* was published and, in the caption, the holotype was unequivocally designated “[‘Holotypus (arrow)’]”. Together with the introductory statement in the same paper (Sonck 1985a: 139), “The voucher specimens are deposited in H.”, this represents an acceptable indication of type satisfying the requirements for valid publication of Art. 40.1, 40.6 and 40.7 of the ICN (McNeill & al. 2012).

Selected specimens examined — **BULGARIA**: Melnik, vicinity of the monastery Roženskij monastyr, 3 May 1993, O. Šída, cult. in Průhonice as JŠ 5340, JŠ 5342 & JŠ 5433 (PRA [3 sheets] – no. det. 25708, 25703 & 25707); ibid., between the villages Koprivlen and Goce Dalčev, 41°33′N, 23°44′E, May 1988, B. Kuzmanov 8806-I, cult. in Průhonice as JŠ 3134, JŠ 4124 & JŠ 4125 (PRA [3 sheets] – no. det. 25704, 25705 & 25706); ibid., valley of Struma river, E slopes 7 km N of the village of Kresna, 3 May 1993, O. Šída, cult. in Průhonice as JŠ 5429 (PRA – no. det. 25702).

**Acknowledgements**

This study was supported by Institutional Research Plan AV0Z60050516 and a long-term research development project, no. RVO 67985939. Support was also provided by the Czech National Grant Agency, grant no. GA13–13368S. We also thank two reviewers, Bohumil Trávníček (Palacký University, Olomouc, Czech Republic) and Ingo Uhleman, Liebenau, Germany, for their comments on an earlier draft of this paper.

**References**


