Hieracium bertisceum (Compositae), a new species from the State Union of Serbia and Montenegro

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Source: Willdenowia, 35(2) : 265-269

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: https://doi.org/10.3372/wi.35.35206

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Hieracium bertisceum (Compositae), a new species from the State Union of Serbia and Montenegro

Abstract

Niketić, M.: *Hieracium bertisceum (Compositae),* a new species from the State Union of Serbia and Montenegro. – Willdenowia 35: 265-269. – ISSN 0511-9618; © 2005 BGBM Berlin-Dahlem. doi:10.3372/wi.35.35206 (available via http://dx.doi.org/)

Hieracium bertisceum is described as a species new to science and illustrated. It is compared with *H.* (sect. *Hieracium*) *transylvanicum* and *H. oxyodon* (*bupleuroides-bifidum)* and is assumed to originate from the crossing of these two species, an assumption further supported by its similarity to the equally sympatric *H. pseudobifidum (transylvanicum-bifidum)*. Currently it is only known from a mountain ridge of Mt Marijaš in the Prokletije Mts, in the central Balkan Peninsula.

As far as the number of described taxa (over 12 000, IPNI 2005) is concerned, *Hieracium* belongs to the richest genera in the plant kingdom; considering the complex evolution, followed by diverse types of reproduction and hybridization, it certainly belongs to the taxonomically most complicated genera, too. In the Balkan Peninsula, especially in the territory of the State Union of Serbia and Montenegro, the genus has one of its diversity centres (Stevanović & al. 1995): according to Zahn's classification (Zahn 1922-38, Behr & al. 1937, 1939a-b) 84 species, including 23 "species principales", with 235 subspecies of *Hieracium* s.str. (excl. *Pilosella* Hill.) were recorded from its territory so far. However, until now no group has been comprehensively studied in this area. Recent initial studies of certain aggregates resulted in the preliminary report of several new species (Niketić & al. 2003). In the present contribution, a new species is described and illustrated, which was discovered among few poorly known similar taxa during field excursions in the Prokletije Mts.

Hieracium bertisceum Niketić, **sp. nov.**
Holotype: State Union of Serbia and Montenegro, Kosovo, Metohija, Mts Prokletije, Mt Marijaš, 42°36'N, 20°06'E, c. 2350 m, open stony ridge between *Pinus peuce* and *P. mugo* communities on limestone, 28.8.1997, *M. Niketić A21* (BEO; isotype: B) – Fig. 1.

Transitus *oxyodon-transylvanicum*. Species nova *Hieracio pseudobifido* et *H. transylvanico* affinis, a quibus foliis basalibus rigidis lanceolatis basi attenuatis apice longe acuminatis, foliis caulinis bracteiformis, capitulis inferioribus saepe abortis differt; ab altero etiam pedunculis

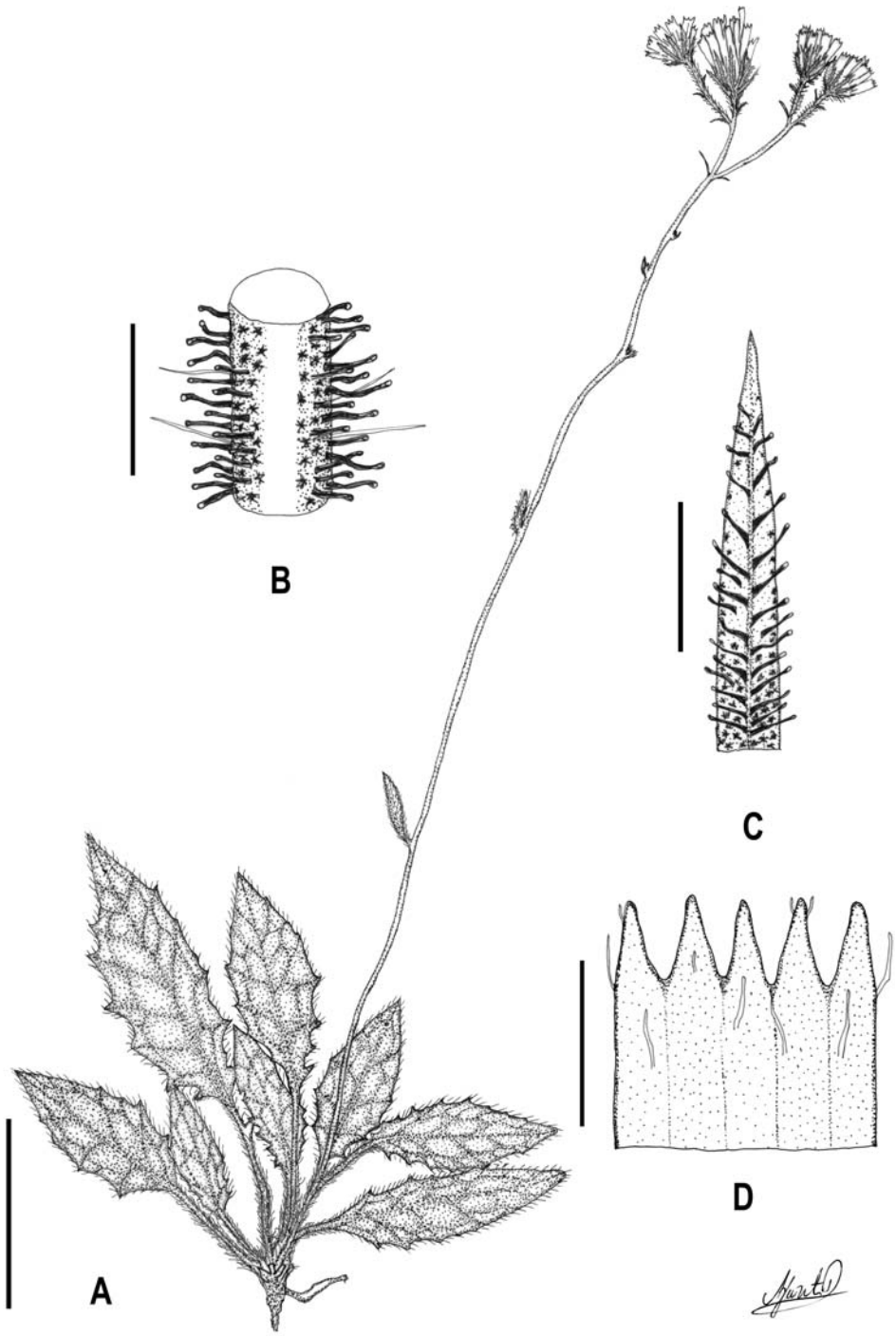

Fig. 1. *Hieracium bertisceum* – A: habit; B: pedicel segment, showing the indumentum; C: involucral bract, showing the indumentum; D: apex of marginal flower. – Scale bars: A = 5 cm; B = 1 mm; C-D = 3 mm.

et involucris stellato-pilosis differt. A *H. oxyodonti* distinctum foliis basalibus longe petiolatis rubrobrunneo villoso-pellitis, pedunculis et involucris ± dense glandulosis, achaeniis rubrobrunneis.

Phyllopodum, olivaceo-virens vel ± glaucescens, mono- vel bicaule. *Caulis* 30-50 cm tenuis subflexuosus substriatus basi saepe violaceus, inferne stellato-pilosus et pilosus (basi subvillosus), medio sparsim stellato-pilosus, apicem versus densius stellato-pilosus ± canus subglandulosus (raro breviter pilosus et eglandulosus), oligocephalus. *Folia* rigida, rosularia numerosa (7-10), exteriora minora saepe ovata basi rotundata obtusa, interiora late vel anguste lanceolata 4-8 cm longa ad basim attenuata longe (4-8 cm) petiolata, apice longius acuminata, valde grosse dentata, dentes longissime mucronati; caulina (1-)2-3 anguste lanceolata vel bracteiformia; omnia ± glaucescentia supra disperse breviterque pilosa, margine costaque dorsali et in petiolo (ut etiam folia novella) dense rubrobrunneo villoso-barbata (2-4 mm) et stellato-pilosa. *Anthela* furcata vel umbellato-paniculata c. 1/10 totius caulis longa, capitula (1-)2-5(-10), sed ramalia inferiora saepissime haud evoluta cum capitulis abortis, ramis 0-4 gracilibus 1(-2)-cephalis, acladio 2-5 cm longo; pedunculis cano-stellato-pilosis modice vel dense et plerumque longe obscure glandulosis ± epilosis (raro breviter albo pilosis et eglandulosis), apice parum incrassatis; bracteolis (1-)2-3(-4) parvis. *Involucra* 9-11 mm longa, ovato-cylindrica vel crasse ovata basi rotundata, squamis angustis acutiusculis obscuris viridi-marginatis, epilosis densiuscule obscure glandulosis (raro subdense albo pilosis et sparse breviter subglandulosis) modice vel inferne densius stellato-piloso-marginatis. *Ligulae* aureoluteae plerumque apice sparse breviter ciliatae. *Styli* obscuri. *Achaenia* rubrobrunnea, 3.5-4 mm longa.

Rosette-forming perennial, olive-green or glaucescent, with 1-2 stems. *Stem* 30-50 cm tall, slender, subflexuose, substriate, often purplish violet at base, stellate-pilose and pilose in the lower part (subvillous at base), scatteredly stellate-pilose in the middle part, ± densely greyish stellate-pilose and subglandulose towards the apex (rarely shortly pilose and eglandulose), with few capitula. *Leaves* rigid, *basal leaves* 7-10 in a rosette, petiole 4-8 cm long; outer ones smaller, often ovate, rounded at base, obtuse; inner ones broadly or narrowly lanceolate, with blades 4-8 cm long, attenuate at base, long-acuminate at apex, intensely coarsely toothed, teeth very long-mucronate; *cauline leaves* (1-)2-3, narrowly lanceolate or bract-shaped; all ± glaucescent, sparsely shortly pilose above, densely rusty villously bearded and stellate-pilose at the margin, on the midvein beneath and on the petiole (also on the surface of young leaves). *Synflorescence* forked or umbellate-paniculate, comprising c. 1/10 of the stem length, with (1-)2-5(-10) capitula, but basal branchets very often poorly developed with aborted capitula; branches 0-4, very slender, with 1(-2) capitula, terminal branch 2-5 cm long; peduncles moderately or densely greyish stellate-pilose and often obscurely long-glandulose and ± epilose (rarely shortly whitish pilose and eglandulose), slightly thickened at apex; bracteoles (1-)2-3(-4), very small. *Involucre* 9-11 mm long, ovate-cylindrical or broadly ovate, rounded at base; involucral bracts lanceolate, slightly acute, blackish green with green margins, epilose and ± densely obscurely glandulose (rarely subdensely whitish pilose and sparsely shortly glandulose), moderately or, in the lower part, densely 'floccosely' edged. *Ligules* golden-yellowish, often sparsely short-ciliate at apex. *Styles* dark. *Achenes* reddish brown, 3.5-4 mm long.

Etymology. – The name of the species refers to the mountain chain where the new species occurs, i.e. the Bertiscus Mts (or North Albanian Alps, or Prokletije Mts in Serbian, or Bjeshkët e Nemuna Mts in Albanian).

Phenology. – Flowering in August.

Distribution and habitat. – Known only from the recent type collection from Mt Marijaš in the Prokletije Mts (Fig. 2) and presumably a stenoendemic. It occurs in the subalpine belt at an altitude of 2300-2400 m, on exposed limestone slopes in the vegetation zone of *Pinus peuce* Griseb. and *P. mugo* Turra. Herbaceous plants growing in its vicinity include *Hieracium oxyodon* Fries, *Arenaria biflora* L., *Carex kitaibeliana* Degen ex Bech., *Gentiana verna* L., *Geum montanum* L.,

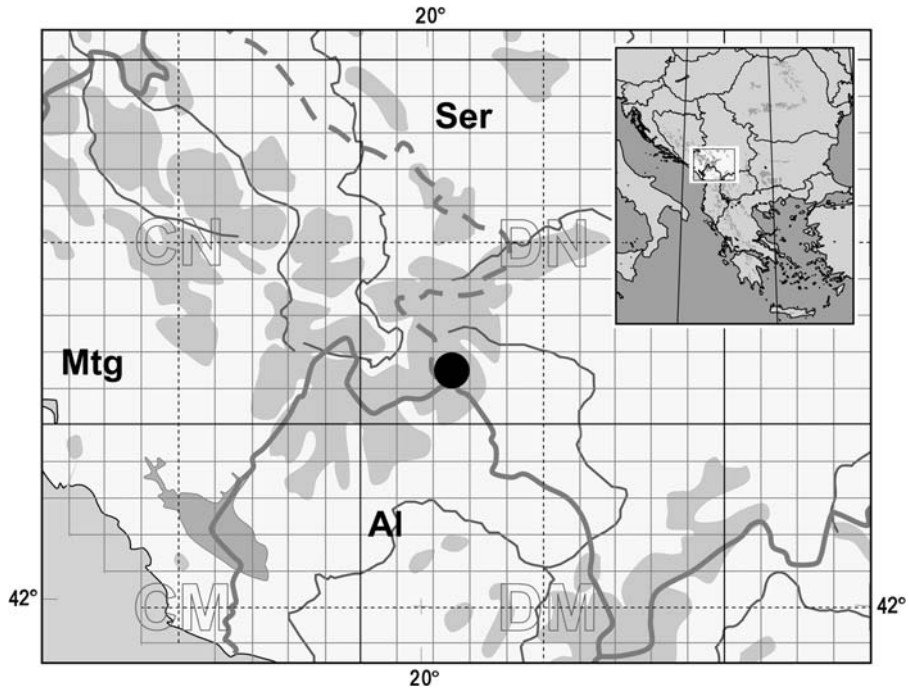

Fig. 2. Distribution of *Hieracium bertisceum.*

Meum athamanticum Jacq., *Minuartia recurva* (All.) Schinz & Thell., *Gnaphalium pichleri* Murb., *Salix waldsteiniana* Willd., *Saxifraga sempervivum* C. Koch, *Silene multicaulis* Guss., *Tanacetum larvatum* (Griseb.) Kanitz, *Thesium alpinum* L., *Veronica alpina* L., *Viola zoysii* Wulfen and *Wulfenia blecicii* Lakušić. The related *H. pseudobifidum* Schur and *H. transylvanicum* Heuffel have a sympatric distribution, growing only several hundred meters away, on rocky substrate within the *Pinus peuce* forest.

Conservation status. – Hieracium bertisceum is known only from one population and one location with an area of occupancy of less than 10 km^2. The number of mature individuals is estimated as less than 500. By using a software application (Niketić 1999a) the threat category (IUCN 2001) of *H. bertisceum* has been estimated as CR B_1 / EN C_2b / VU C_2a; D_1; D_2. According to criterion B_1 (area of occupancy less than 10 km^2 and only a single location) it should be classified as Critically Endangered (CR).

Relationships. – The newly described species is morphologically similar to the hybridogenous *Hieracium oxyodon (bupleuroides-bifidum),* which probably originated as a cross between representatives of *Hieracium* sect. *Drepanoidea* and sect. *Hieracium*. As in the southeastern Dinarides, only *H. oxyodon* subsp. *oxyodon* was recorded in the habitat (Zahn 1922-38(1930), Niketić 1999b) and grows in the immediate vicinity of *H. bertisceum*. The main differential characters of these two species are the shape and hairiness of the leaves. In *H. bertisceum,* young leaves have a characteristic cover of thick rusty hairs, which clearly points at the relationship with the equally sympatric diploid *H. transylvanicum* (Chrtek 1996, Vladimirov 2000, Mráz & Szeląg 2004). The latter species, from which c. 30 other hybridogenous groups originate, forms a separate group within *H.* sect. *Hieracium* (Zahn 1935). As *H. bertisceum* is in many morphological characteristics intermediate between *H. oxyodon* and *H. transylvanicum,* and as its population number is much lower than that of these two sympatric species, it may be assumed that *H. bertisceum* resulted from the crossing of them in a rather recent past. The hybridogenous combination *oxyo-*

don-transylvanicum was not recorded so far, and as it also includes two progenitors of *H.* sect. *Hieracium (H. bifidum* and *H. transylvanicum),* it points at the reticulate evolution of taxa in this genus. This hypothesis is supported by the existence of *H. pseudobifidum* in the same locality (Mt Marijaš), according to Zahn's classification (Zahn 1935) represented in the Prokletije Mts by *H. pseudobifidum* subsp. *caesiopictum* var. *hypochromum* (Zahn) Zahn. For this taxon, the hybridogenous combination *transylvanicum-bifidum* is cited, and it may explain that *H. bertisceum* shows greater morphological similarity to *H. pseudobifidum* than to the putative progenitor *H. transylvanicum.*

Acknowledgements

I want to thank Mr Rastko Ajtić for the illustration. The Ministry of Science and Environmental Protection of Republic of Serbia, Grant 1505: "Endemic Flora of Serbia – Distribution, Ecology and Protection" supported this research.

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