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Hieracium moravense (Asteraceae), a new hawkweed from Albania

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Abstract

Hieracium moravense, a new hawkweed from the ultramafic soils of the region of Korcë in Albania, is described and illustrated.

Keywords: Albanian flora, *Hieracium,* new species, serpentine endemics, taxonomy

Introduction

The Balkan Peninsula is one of the most important European centers of diversity of the genus *Hieracium* Linnaeus (1753: 799) s.str. The sections *Pannosa* (Zahn) Zahn (1921: 560), *Pilosissima* Stace & P.D.Sell in Stace (1998: 436) and *Pseudostenotheca* (Fr.) Üksip (1960: 13) represent a great species richness in this area. The sect. *Glauciformia* (Freyn) Zahn (1922: 962) is even endemic.

With 79 species (including *Pilosella* Hill [1756: 441]) (Gottschlich & Barina 2017), Albania has a large share in this diversity. Due to the political circumstances, botanical research in this region only started at the turn of the 19th and 20th centuries (Lack 2007, Lack & Barina 2020). Important explorers who contributed knowledge to the genus *Hieracium* s.l. in Albania were Antonio Baldacci (Baldacci 1896, 1902), Ignaz Dörfler (Hayek 1918, 1924; Vogt *et al*. 2018), Bruno Schütt (Schütt 1932, Barina *et al*. 2016, Gottschlich 2020), Friedrich Markgraf (Markgraf 1926, 1927, 1931), Ernö Csiki, Sandor Jávorka, Jenö Béla Kümmerle (Csiki *et al*. 1926), Josef Bornmüller (Bornmüller 1933), Karl Heinz Rechinger (Rechinger 1935) and Josef Rohlena (Rohlena 1942). Based on an evaluation of all literature published between 1990 and 2012, supplements to species not yet registered for Albania, including six *Hieracium* taxa, were published by Rakaj *et al.* (2013).

As the maps in the distribution atlas of higher plants in Albania demonstrate (Gottschlich & Barina 2017), these cannot yet be regarded as real distribution maps. Due to the lack of intensive studies of this critical genus and the very heterogeneous landscape with its sometimes hardly accessible mountains, many of them are only maps showing some of the records actually known.

Surprises can therefore still be expected for the genus *Hieracium* in Albania. One of them, a species new to science, is presented here. It was detected during a recent botanical field trip across internal Albania, in the framework of a project aimed at advancing knowledge about the diversity of the metallophytic flora and metal-accumulator plants of the Mediterranean ultramafic regions (Cecchi *et al*. 2018, 2020).

Taxonomy

Hieracium moravense Gottschl. & Selvi, ***spec. nov.*** („waldsteinii – bifidum“) (figs. 1+2)

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FIGURE 1. *Hieracium moravense*, spec. nov. Left: holotype (FI), right: isotype (Hb. Gottschlich-81174).

FIGURE 2. *Hieracium moravense*, single capitulum.

Type:—ALBANIA. Korcë, Mt. Moravë, gola rocciosa che parte da Drenovë, rocce e rupi ultramafiche (serpentino), 40.5780°N, 20.7966°E, 980–1100 m, 14.07.2022, *F. Selvi, A. Coppi, I. Colzi, E. Bianchi s. n*. (holotype: FI068417; isotype: Hb. Gottschlich 81174).

Diagnosis:—*Planta inter* Hieracium waldsteinii *subsp*. plumulosum *et* H. bifidum *intermedia, ab* Hieracio waldsteinii *foliis rosulariis veris et supra minus hirsutis vel glabrescentibus, foliis caulinis minus numerosis, ab* Hieracio bifido *indumento plumoso differt.*

Perennial, hemicryptophyte. Rhizome stout, vertical. Stem erect, vertical, cylindrical, stout (2 mm in diam.), 25–40 cm tall, light green, brownish-purple at base, slightly striated, phyllopodous, in lower part with dense plumose whitish, soft, simple hairs and sparse minute (up to 0.1 mm long) yellowish glandular hairs, above glabrous. Basal leaves 3–4, ovate to elliptical, blade 4–8 × 3–4 cm, greyish-green, at base rounded to shortly attenuate, entire or denticulate only in the lower part, petiole 1–3 cm long, like the lower surface of leaves densely covered with 1–1.5 mm long plumose whitish soft simple hairs, upper surface becoming glabrous or only covered with moderate to sparse plumose hairs, glandular and stellate hairs absent. Cauline leaves 2–3, lanceolate, entire, the lower one long attenuate in a short, 1 cm long petiole, the one or two others attenuate-sessile, pubescence like on the basal leaves. Synflorescence racemose, peduncles 2–3, 3–7 cm long, sparsely covered with stellate hairs, in the upper part with 1–2 filiform bracts 3–4 mm long. Involucre almost ovoid, 8–9 mm long. Involucral bracts in a few rows, dark green, linear-lanceolate, 1 mm wide, acute, with dense stellate and few 0.3 mm long glandular hairs, simple hairs lacking. Corolla limb ligulate, yellow, glabrous. Styles yellow. Margins of alveoli with short broad teeth. Achenes not seen.

Phenology:—Flowering in June and July. Fruiting in July.

Distribution and ecology:—*Hieracium moravense* is currently known from only the type locality in the massif of Mt. Moravë in the region of Korcë. This locality is found in the narrow rocky valley ending at the south-eastern border of the village of Drenovë. The few plants that we could observe were growing at 1030–1050 m a.s.l. in fissures of steep, nearly vertical serpentine rocks on the hydrographic right of the gorge, mainly facing to the south-west (Fig. 3). Due to the difficult access to the site, only two specimens could be collected. This new hawkweed can be categorized as a metallophyte, and is also likely an obligate serpentinophyte, being able to tolerate the several chemical and physical anomalies of ultramafic soils, especially the elevated concentrations of trace metals such as Ni, Cr and Co.

Taxonomic affinities:—As given in the diagnosis, *Hieracium moravense* is quite intermediate between *H. waldsteinii* subsp. *plumulosum* and *H. bifidum*. Such species with intermediate characters between a species of *Hieracium* sect. *Pannosa* and a species of *Hieracium* sect. *Hieracium* or *H.* sect. *Bifida* (Arvet-Touvet) A.R.Clapham in Clapham *et al.* (1952: 1135) are well known from the Balkan Peninsula. They may have evolved by hybridisation. Examples are *Hieracium eriobasis* Freyn & Sintenis in Freyn (1897: 787) („pannosum – murorum"), *H. megalothecum* Zahn (1921: 587) („gymnocephalum – murorum"), *H. mattfeldianum* Zahn (1928: 383) („pannosum – bifidum") and *H. wettsteinianum* Zahn (1921: 586) („gymnocephalum – bifidum"). In the habit they all are characterised in being intermediate between the aphyllopodous *Pannosa* species and the phyllopodous *H. murorum* Linnaeus (1753: 802) or *H. bifidum* Kitaibel ex Hornemann (1815: 761). Differences are easy to recognize by the different pubescence of the putative parents.

Final remarks:—The discovery of *Hieracium moravense* underlies the phytogeographical importance of Mount Moravë as a centre of plant diversity in Albania, especially for the serpentine flora. This area is home of local endemics

such as *Odontarrhena moravensis* (F.K.Meyer) L.Cecchi & Selvi (2018: 18) and *Centaurea drenovensis* Pils (2016: 9), as well as of Albanian endemics like *Acantholimon albanicum* O.Schwarz & F.K.Meyer in Meyer (1987: 31), and others.

FIGURE 3. *Hieracium moravense*, plant in nature. (Photo: F. Selvi, 14 Jul 2022).

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