

Short communication

Hieracium pollinense (Asteraceae), an endemic species to the Pollino National Park (Southern Italy) rediscovered

Günter Gottschlich¹, Filippo Scafidi², Emilio Di Gristina^{3,*}¹ Hermann-Kurz-Straße 35, 72074 Tübingen, Germany² Department STEBICEF, Section of Botany and Plant Ecology, University of Palermo, via Archirafi 38, 90123 Palermo, Italy³ Botanical Garden and Herbarium Mediterraneum Panormitanum, University of Palermo, via Lincoln 2, 90133 Palermo, Italy

Abstract – The presence of *Hieracium pollinense* Zahn in Italy is confirmed here after 132 years since its first description based on a single collection made in 1877 in the Mt. Pollino. It is a calcicolous species, so far represented by one population, belongs to the *H.* sect. *Villosa*. In line with the IUCN criteria its conservation status assessment is “endangered”.

Keywords: Basilicata, distribution, *Hieracium*, Pollino Massif, taxonomy, vascular flora

Introduction

The Pollino National Park is the largest protected area (196,000 ha, Bernardo 1995) in Italy (Di Sanzo et al. 2013). It is located in the southern Italian Apennines along the border between the Calabria and Basilicata regions (Fig. 1). The Pollino National Park exhibits several very particular floristic features, due to a geographical location which allows different kind of biogeographical links to be established (Puglisi et al. 2009). The biogeographical relation with the southern Balkan Peninsula is the most evident and it is testified by the occurrence of a great number of amphiadriatic species (*Pinus heldreichii* H. Christ, *Festuca bosniaca* Kumm. & Sendtn., *Carex kitaibeliana* Beck, *Edraianthus graminifolius* A. DC., *Sesleria autumnalis* (Scop.) F. W. Schultz, *Gentianella crispata* (Vis.) Holub, *Cytisus spinescens* C. Presl, etc.) (Puglisi et al. 2009). Also the Pollino massif is the southernmost limit for various boreal or arctic-alpine species such as *Orthilia secunda* (L.) House, *Pyrola minor* L., *Chrysosplenium dubium* Ser., *Saxifraga aizoides* L., *Carex pallescens* L., *C. vesicaria* L., *Senecio alpinus* (L.) Scop., etc.), which covered southwards the Italian Peninsula during the ice ages and which remained isolated as relics in the postglacial period (Puglisi et al. 2009). By virtue of its ecological and floristic diversity, the flora of the Pollino National Park is currently under revision. Recent studies in fact resulted in the description of new taxa (Conti et al. 2014, Di Gristina et al. 2014 and 2015) that add to the con-

siderable number of about 1500 species (Gargano et al. 2014) as already estimated.

Regarding *Hieracium* L. (Asteraceae) s. str., 12 taxa have been reported from this territory: *H. hypochoeroides* subsp. *serinense* (Zahn) Greuter, *H. murorum* s.l., *H. pallescens* subsp. *tephrochlorum* (Zahn) Gottschl., *H. schmidtii* Tausch, *H. pollinense* Zahn, *H. portanum* Belli, *H. racemosum* subsp. *crinitum* (Sm.) Rouy, *H. racemosum* subsp. *virgaurea* (Coss.) Zahn, *H. scorzonifolium* subsp. *divaricatum* Nägeli & Peter, *H. terraccianoii* Di Grist. et al. and *H. valoddae* subsp. *austroitalicum* (Zahn) Zahn (Gavioli 1947, Di Gristina et al. 2014).

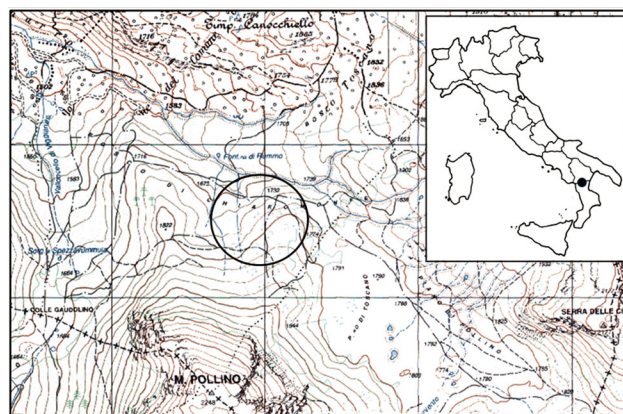


Fig. 1. The only known location of *Hieracium pollinense*.

* Corresponding author, e-mail: emilio.digristina@unipa.it

Hieracium pollinense Zahn is a little-known endemic species of the Pollino National Park. More than hundred years ago, Zahn (1901) described the plant, based on material collected in 1877 by Huter, Porta and Rigo on Mt Pollino, and distributed in the exsiccata “Huter, Porta, Rigo, Ex Itinere Italico III, Nr. 661^b” (Fig. 2) (not 616 as erroneously indicated in the protologue by Zahn). Lectotype: BOZ [BRIX-2462] (Gottschlich 2007), isolectotypes: BP-449969, FI s.n., W-1889-86148. In 1904 Belli and Arvet-Touvet described a species named *H. rigoanum* (Belli 1904), whose type was from the same locality as indicated for *H. pollinense* by Zahn, but with the reference to an exsiccata specimen “Huter, Porta et Rigo Nr. 661”, not 661^b, an orthographic mistake (Fig. 2). Therefore *H. rigoanum* must be regarded as superfluous (illegitimate) name. Beyond that it was a younger homonym to *H. rigoanum* Zahn 1902. So far, the presence of *H. pollinense* in Italy was known from the type specimens only. Pignatti (1982) reports the plant but as doubtfully present (“to be searched”), whereas Conti et al. (2005) do not account for this species in their checklist of the Italian flora.

During our recent floristic inventory of the Pollino Massif (Lucanian side, Potenza Province) (Fig. 1), a small population of *Hieracium* clearly related to *H. pollinense* was found. The comparison with the plants collected by Huter, Porta and Rigo, has allowed us to ascertain definitively the identity of this population to *H. pollinense* and to confirm its presence in the Italian flora after more than a century.

Material and methods

The relevant herbarium specimens were found during general revisions of *Hieracium* specimens in BOZ, FI, BP, W (acronyms are according to Thiers 2015). Additional material was collected during our field research in Southern Italy from 2014 to 2016. This material is deposited as PAL-108621 and Hb. Gottschlich-63953.

Results and discussion

Nomenclature:

Hieracium pollinense Zahn, Allg. Bot. Z. Syst. 7: 145 (1901)
 ≡ *H. leucophaeum* subsp. *pollinense* (Zahn) Zahn in Engler, Pflanzenreich [Heft 75] IV 280: 116 (1921)
 ≡ *H. rigoanum* Arv.-Touv. & Belli in Fiori & Paoletti, Fl. Italia 3: 481 (1904), nom. illeg (non Zahn 1902)

Because the original diagnosis (Zahn 1901) is very short we provide a detailed description of the taxon:

Perennial, phyllopodous, rosulate hemicryptophyte. Rhizome thick, horizontal to oblique. Stem erect, solid, (20–) 25–30(–45) cm high, sparsely covered with 8–12 mm long sericeous white simple hairs, without glandular and stellate hairs. Basal leaves (2–)3–5(–6), petiolate, petiole (1–)2–3(–4) cm long, moderate covered with 8–10 mm long sericeous white simple hairs lamina of outer basal leaves ovate (1.5–2 × 3–4 cm), rounded or truncate at base, entire, other ovate-lanceolate to lanceolate (5–7 × 1–2 cm), hastate at base, entire, denticulate or with one prominent tooth on each side, rarely whole margin dentate, glaucous; surface of leaves glabrous, margin and lower side with sericeous simple hairs up to 5 mm long. Cauline leaves 1(–2), often reduced, entire to denticulate. Synflorescence usually furcate, branches (0)1(–3), erect, 3–8 cm long, capitula altogether (1–)2(–4); acladium 3–4 cm long. Peduncles sparsely covered with simple and glandular hairs, stellate hairs rather dense. Capitula 8–10(–11) mm long, subglobose. Involucral bracts linear-lanceolate, acute, dark olive green, covered with moderate sericeous white simple hairs up to 5 mm long and sparse glandular hairs, 0.2–0.5 mm long, stellate hairs lacking or only at base along margins. Ligules liguliform, yellow, glabrous at apex. Styles dark. Achenes 3–3.5 mm long, dark brown.

Taxonomic relationship. Regarding to *Hieracium pollinense*, Zahn (1901) noted (in translation): “Synflorescence refers to *H. scorzonrifolium* grex *schizocladum*, the glandular hairs and the few stellate hairs point to *H. humile*, whose influence becomes evident also on the leaves. *H. pollinense* differs from *H. bernense* and its subspecies especially by the broad leaves”. However, after having examined further material from Switzerland, he placed it together with other earlier described species (like *H. bernense* Christener, *H. leucophaeum* Gren. & Godr., *H. gremlii* Arv.-Touv., *H. asterinum* Arv.-Touv. & Briq., *H. diabolinum* Nägeli & Peter, *H. godetii* Christener) and some subspecies described by himself, into the collective species *H. leucophaeum*, relegating *H. pollinense* and the other taxa to the rank of subspecies (Zahn 1921–1923, 1922–1938).

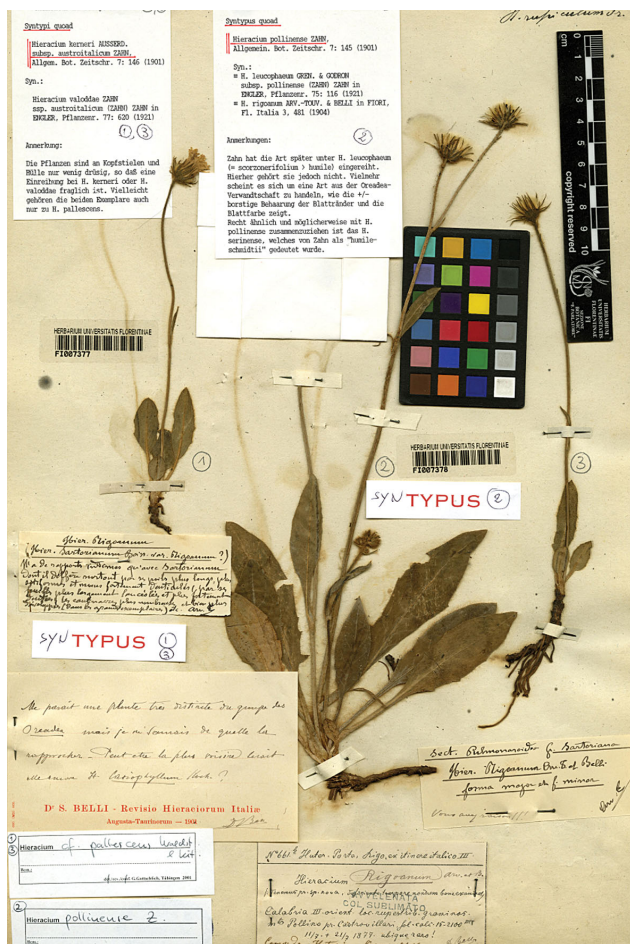


Fig. 2. *Hieracium pollinense*: lectotype (FI).

Recently the taxon was recognized at specific rank (Greuter 2008). The examination of recent collections showed that the plant deserves the rank of species and the interpretation about an introgression of *H. humile* Jacq. seems to be not appropriate. In fact there can be found some very isolated glandular hairs on the margins of the leaves, but this and also the shape of leaves are over-diagnosed with regard to an introgression of *H. humile*. The coincidence with the western alpine complex of similar taxa may be an analogy. So we favour to take *H. pollinense* as a separate species endemic to southern Italy. Concerning the relationship to *H. scorzonrifolium* Vill., the long sericeous simple hairs at the lower part of the stem, the petioles, the phyllaries and the somewhat glaucous leaves could indicate some plausibility for an introgression of a species from *H. sect. Villosa* (Griseb.) Greml. The second parent probably belongs to a species of *H. sect. Grovesiana* Gottschl.

Phenology. Flowering time: July to the first decade of August (Fig. 3). Fruiting time: July–August.

Distribution and ecology. Within the Pollino National Park, *H. pollinense* is currently known only from the Lucanian side of the Pollino Massif. It is a calcicolous taxon represented by a small population consisting about 100 individuals occurring on north-exposed rocks and stony slopes facing the Bosco di Chiaromonte (Chiaromonte, Potenza Province), between 1700 and 1800 m of elevation. Within this narrow mountain belt, it grows together with *Adenostyles australis* (Ten.) Iamónico & Pignatti, *Arabis collina* Ten., *Astragalus depressus* L., *Hypochoeris laevigata* (L.) Ces. et al., *Sanicula europaea* L., *Veronica montana* L., *Phytospermum verticillatum* (Waldst. & Kit.) Vis., etc.

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Fig. 3. *Hieracium pollinense* on the locus classicus.

Conservation status. Only one site is currently known for *Hieracium pollinense* within the Pollino National Park. Despite its limited distribution (less than 1 km²) and the low number of plants – in the only know location 40–60 mature individuals were estimated – it does not seem to be currently subject to threats that may cause a decrease of the number of mature individuals. Therefore, according to the IUCN (2014) criteria for the conservation status assessment, *H. pollinense* should be classified as “endangered” (EN): D.

Acknowledgements

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