

***HIERACIUM PILIFERUM* (ASTERACEAE) IN THE CARPATHIAN MTS**

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Abstract: A new locality of *Hieracium piliferum* Hoppe was found in the Tatra Mts (southern Poland), the third one in the Western Carpathians. The first locality also was discovered in the Tatra Mts, by B. Pawłowski more than 70 years ago. The paper gives a description of its morphological features and geographical range, an illustration and a key for distinguishing *H. piliferum* from morphologically similar species.

Key words: *Hieracium piliferum* Hoppe, distribution, taxonomy, key, illustration, Carpathians, Tatra Mts

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In July 1989 during the 19th International Phytogeographic Excursion (IPE), a new locality of *Hieracium piliferum* Hoppe was found at Morskie Oko lake in the Tatra Mts. The species was observed at the same site during subsequent visits in 1992 and 1998. Previously *H. piliferum* was collected in the Tatras in 1926 (Zahn 1929) and 1931 (Lengyel & Zahn 1934).

***Hieracium piliferum* Hoppe** (Fig. 1).
Bot. Taschenb.: 129. 1799.

Stem 5–20 cm high, leafless or rarely with 1 leaf, almost eglandular, but densely pubescent with stellate hair and fairly densely pilose with long, soft hairs; bearing only single flower head (capitulum). Leaves bright green, soft, lanceolate to ovate-lanceolate, margins entire or, rarely, remotely and minutely denticulate, fairly densely pilose with soft hairs 5–7 mm long. Ground leaves 3–6. Involucre 12–15 mm long, bracts narrow, long, cuspidate, densely lanate with grey or at base black, soft hairs, without stellate and glandular hairs or rarely with single glands in upper part. (Description based on Polish plants).

NOTES. *Hieracium piliferum* Hoppe is a basic species in the section *Barbata* Gremlí. In comparison with other species of the genus, *H. piliferum* is not very variable. Zahn (1935) distinguished nine subspecies within it. From the Carpathians two of

them are known, namely subsp. *piliferum* occurring in the Tatras and Banat Mts, and subsp. *amphigenum* (Arv.-Tuv. & Briq.) Zahn found in the Banat Mts only. These subspecies are among the most frequent throughout the entire range of *H. piliferum*. From the Tatras *H. piliferum* forma *morskiense* Pawł. in Zahn (Zahn 1929) was described, and the specimens I found perfectly match the description of the form and are identical with the material collected by B. Pawłowski. However, the taxonomical validity of fo. *morskiense* remains problematical.

DISTRIBUTION. The center of the *H. piliferum* range is located in the Alps. Elsewhere it is known from isolated stations in the Pyrenees, Apennines, Dynaric Alps and Carpathians (Meusel *et al.* 1992; Zahn 1922, 1935). *H. piliferum* occurs in the alpine belt, preferably in the altitude zone of 2000–2800 m (Hess *et al.* 1988). In the Alps, localities below 2000 m are very scarce, but the new find at Morskie Oko lake is located at only 1400 m and thus it is the lowest locality for the species found to date.

H. piliferum is one of the rarest vascular plant species in the entire Carpathians. Its localities are at the two ends of the Carpathian arc: the Banat Mts in the south and the Tatras in the north (Lengyel & Zahn 1934; Nyárády 1965; Zahn 1922, 1929, 1935). The species avoids all the highest



Fig. 1. Habit of *Hieracium piliferum* Hoppe from the Tatra Mts (drawn from *Szeląg s.n.*, KRAM). Scale bar = 5 cm.

ridges of the Southern Carpathians such as the Retezat, Fogaras or Bucegi Mts. The absence of *H. piliferum* there probably was the reason for the question mark on the Banat localities in the distribution map by Meusel *et al.* (1992). In my opinion this was too great a precaution, particularly since equally isolated stations in Bosnia and Montenegro (southern Yugoslavia) were not put in doubt.

The Banat localities were published for the first time by Zahn (1922) based on the collections of Schott and Rochel. While working on herbarium material of the genus *Hieracium* in the collection of the Natural History Museum in Budapest (BP)

I found the sheet of *H. piliferum* collected in Banat by Rochel in 1815. An attempt to rediscover the species at the same site now would make a very interesting task.

Our renewed searching with Jindřich Chrtek in the vicinity of Lengyel's locality in the Tatra Mts was unsuccessful in mid-July 2001.

SPECIMENS EXAMINED. POLAND, WESTERN CARPATHIANS, Tatra Mts, Mięguszowiecki Wielki Mt., alt. 1680–1700 m, 18 Aug. 1926, *leg. Pawłowski* (KRAM); Morskie Oko lake, alt. 1400 m, 09 July 1989, *leg. Szeląg* (KRAM); ROMANIA, SOUTHERN CARPATHIANS, Banat Mts, Ex alpe Babel Banatus, 11 Aug. 1815, *leg. Rochel* (BP); *Schott (n.v.)* (Zahn 1922, 1935; Nyárády 1965); SLOVAKIA, Tatra Mts In lapidosis sub lacubus Öttó [= Päť Spišských plies lakes], alt. ca 1900 m, 16 July 1931, *leg. Lengyel* (BP).

In the Tatra Mts *Hieracium piliferum* may be mistaken for the morphologically similar and very abundant *H. alpinum* L. It is less likely to mistake it for *H. villosum* Jacq. The key given here, along with the above description and illustration prepared after Tatra specimens, should prove useful in properly identifying the species.

KEY TO *H. PILIFERUM* AND SIMILAR SPECIES

1. Leaf margin glandulose. Involucre densely pilose and glandulose *H. alpinum* L.
- 1* Leaf margin eglandulose. Involucre densely pilose, but eglandulose (rarely with single glands in bracts' tops) 2
2. Stem bearing (1)2–3(5) flower heads and (2)3–10(12) leaves. Stem leaves cordate at base, stem-clasping (amplexicaul). Involucre 14–20(23) mm long, bright, lanate. Outer bracts wide, almost elliptic-lanceolate, acute, gradually transiting in 3–8 ovate-lanceolate bracteoles. Strongly calciphilous *H. villosum* Jacq.
- 2* Stem bearing single head and no leaves (rarely 1 sessile leaf present). Involucre 12–15 mm long, greyish, softly lanate. Bracts narrow, cuspidate. Bracteoles 0–1(2), narrow as bracts *H. piliferum* Hoppe

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