

Typification of *Hieracium pilosella* L. (Asteraceae)

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Received 4 Nov. 2014, final version received 6 Feb. 2015, accepted 10 Feb. 2015

Ferrer-Gallego P.P. & Mateo G. 2015: Typification of *Hieracium pilosella* L. (Asteraceae). — *Ann. Bot. Fennici* 52: 202–204.

Typification of the name *Hieracium pilosella* L. (homotypic synonym: *Pilosella officinarum* F.W. Schultz & Sch. Bip.) (Asteraceae) is discussed. Designation of the type is based on consultation of Linnaeus's original material and the literature cited in the respective protologue. Original material conserved in the Linnaean Herbarium at LINN is designated as the lectotype.

Introduction

In the older literature, *Hieracium* L. *s. lato* (Asteraceae) was divided into subgenera *Hieracium* and *Pilosella*, but most modern works now treat *Pilosella* as a separate genus due to a range of morphological, biochemical, cytological and genetical characteristics (Bremer & Anderberg 1994). Such a concept was also adopted by some authors (e.g. Fuchs 1542, Matthioli 1586, Bauhin 1623) prior to Linnaeus's *Species Plantarum* (Linnaeus 1753).

Pilosella is one of the taxonomically most intricate vascular plant genera in the temperate flora. The reticulate pattern of morphological variation reflected in several thousands of taxa described from the species level to the form (e.g. Zahn 1922) complicates taxonomic treatment. Widespread polyploidy, different forms of reproduction (sexual, obligate and facultative apomixis of aposporous type, haploid parthenogenesis, vegetative propagation) and inter- and intraspecific hybridization within the same and

across different ploidy levels are the central processes involved in the microevolution (Krahulcová *et al.* 2000, Mráz *et al.* 2008).

The purpose of this paper is to contribute to the nomenclatural stability of the name *Pilosella officinarum* by lectotypification proposed for the name *Hieracium pilosella* L. [syn. subst.]. The designation of the type is based on consultation of Linnaeus's original material and the literature cited in the respective protologue.

Typification

The protologue of *Hieracium pilosella* (Linnaeus 1753: 800) consists of a short morphological diagnosis or *nomen specificum legitimum* “*Hieracium foliis integerrimis ovatis, caule repente, scapo unifloro*”, taken from Linnaeus (1738: 388, 1745: 228, no. 633, 1749: 130, no. 369), van Royen (1740: 122), Haller (1742: 742), and Dalibard (1749: 238), with two synonyms. The first synonym was cited from Bauhin

(1623: 262) “*Pilosella major repens hirsuta*”, and the second from Matthioli (1586: 709) and Fuchs (1542: 604–605) “*Pilosella major*”. These later two authors provided the illustrations that can be considered original material. In the protologue, the locality “*Habitat in Europae pascuis aridis*” is indicated.

Among Linnaeus’s original material (Jarvis 2007: 573), two herbarium sheets were found. In the Linnaean Herbarium at LINN, the specimen Herb. Linn. No. 954.7 (LINN) includes the annotation “5 *pilosella*”, explicitly referring to the number of the species account of *Hieracium pilosella* in the *Species Plantarum* (Linnaeus 1753: 800) (see Turland & Jarvis 1997, Turland 2006, Jarvis 2007: 41–46, 397). The sheet bears two plants with leaves and flowers, certainly to be referred to a single gathering. The specimen shows the most important diagnostic characters of this species, with abundant and long stolons, stem ca. 1–1.5 mm in diameter, adaxial faces of leaves without stellate hairs, glandular hairs densely distributed in the stem, bracts of flowering head ca. 1 mm in diameter, with dense glandular blackish hairs. This material allows preserving and applying the traditional and current use of the Linnaean name.

In the Joachim Burser Herbarium at UPS there exists a herbarium sheet with original material [sheet XV(1): 1] (Fig. 1). The sheet bears a plant with inflorescence and the text “*Pilosella major repens hirsuta Bauh* [...]”. Linnaeus’s citing the polynomial from Bauhin’s *Pinax* (1623) provides a link to the specimen Herb. Burser XV(1): 1 (UPS-BURSER). Joachim Burser’s herbarium was arranged and labelled according to *Pinax* (Stearn 1957, Jarvis 2007) and was cited in the introduction to *Species Plantarum* (7th unnumbered page) as one of the sources for that work. That herbarium was in Uppsala when it was used by Linnaeus for the interpretation of the names that appear in Bauhin’s work. A manuscript at LINN (transcribed by Savage) records that the material in vol. XV(1): 1 was identified by Linnaeus as *Hieracium pilosella* (Savage 1937: 48). Therefore, this specimen is undoubtedly original material. However, the specimen does not have glandular hairs densely distributed in the stem, and it does not correspond with the current concept



Fig. 1. Linnaeus’s original material of *Pilosella officinarum*, Herb. Burser XV(1): 1 (UPS-BURSER). Photograph courtesy of the herbarium UPS. Reproduced with their permission.

of the name *Pilosella officinarum*. On the other hand, in our opinion this plant is related to the “collective” species *P. pseudopilosella saussureoides*, especially to *P. tardans* (Peter) Soják [= *P. capillata* (Arv.-Touv.) Mateo] (see Mateo 2006: 65, Bräutigam & Greuter 2007: 132). We were unable to trace any further original material in any of the other Linnaean or Linnaean-linked herbaria.

Although the illustrations from Matthioli (1586: 709) and Fuchs (1542: 604–605), and herbarium specimens are in all cases identified as traditional Linnaeus’s concept of *Hieracium pilosella*, the good state of preservation of the specimen at LINN allows its designation versus the illustrations as a better choice for the lecto-

type of the Linnaean name. The herbarium sheet at UPS-BURSER does not correspond with the current concept of the name *Pilosella officinarum*, so it is not considered a good candidate for a lectotype.

***Pilosella officinarum* F.W. Schultz & Sch. Bip.**

Flora 45: 421, 422. 1862. — *Hieracium pilosella* L., Sp. Pl.: 800 (1753) [syn. subst.]. — LECTOTYPE (here designated): Herb. Linn. No. 954.7 (LINN) (image available at <http://linnean-online.org/9421/>)

Pilosella officinarum is a perennial plant, with a basal rosette of leaves, and a leafless flowering stem, 3–30(50) cm tall, sprouting from the centre of the rosette. The upper stem and bracts of the flowering head are covered with white to red glandular hairs. This plant is native to Europe and northern Asia, and thrives in perennial grasslands in cool environments in the Mediterranean area and dry areas in the Eurosiberian territories, on sandy or siliceous soils.

Acknowledgements

We thank Dr. Mats Hjertson (Museum of Evolution, Botany Section Uppsala University, Sweden) for his help.

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