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Short Communication

Lectotypifications, neotypification, and nomenclatural observations for species of *Hieracium* subg. *Chionoracium* sect. *Piloselliformia* (Asteraceae: Cichorieae)

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Abstract

As part of studies on South American *Hieracium* subg. *Chionoracium*, sect. *Piloselliformia* (Asteraceae: Cichorieae) in the present work are proposed four lectotypifications, one neotypification, and comments regarding previous nomenclatural decisions within the group.

Key words: compositae, South America, typification.

Resumo

Como parte dos estudos sobre *Hieracium* subg. *Chionoracium* sect. *Piloselliformia* (Asteraceae: Cichorieae), no presente trabalho são propostas quatro lectotipificações e uma neotipificação, e atualizações sobre decisões nomenclaturais anteriores dentro do grupo.

Palavras-chave: compositae, América do Sul, tipificação.

Zahn (1922: 1093) established the section *Piloselliformia* within subgenus *Chionoracium* Sch.Bip (under subgenus *Stenotheca*) of *Hieracium* L. (Asteraceae: Cichorieae). This name was first used by Fries (1848: 134) to refer to some South and Central American species treated. Zahn (1922) included 13 species in this section from the Andes of South America and Patagonia, which were characterized by the following features: perennial herbs, mainly without stem leaves (or with only a few reduced leaves); basal leaves lanceolate, efloccose; capitula few-flowered; involucre lightly subglandular, pilose, floccose or glabrous; corollas barely longer than the involucre, with glabrous lobes; and cypsela with subturbinate base and truncate apex.

Sleumer (1936: 117) added a new species from Peru to this section, *Hieracium infravillosulum* Sleumer. Also, in his studies on the genus in Argentina (Sleumer 1956: 127), he included in the key to section *Piloselliformia* three additional species: *Hieracium apoloensis* Rusby and *H. mapirense* Britton from Bolivia, and *H. fulvipes* Wedd. from Argentina and Bolivia.

As part of studies on South American *Hieracium*, I herein present new lectotypes, a neotype, and some nomenclatural observations for section *Piloselliformia*.

Nomenclatural decisions for the names treated are based upon the analysis of protologues, related bibliography, herbarium material, and following the ICN (Turland *et al*. 2018). Type specimens and original materials lodged at herbaria BM, GH, K, LD, P. PH, S, US, WIS (Thiers continuosly updated) were studied from images on the JSTOR Global Plants data base (JSTOR 2021).

Four names are lectotypified. One name typified by Sleumer (1956: 131) is recognized here as a first-step lectotypification, which was followed by a further designation of Ariza Espinar & Cerana (2015: 37), now regarded as a second-step lectotypification. A neotype is also designated. Accepted names and synonyms are provided.

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1. ***Hieracium austroamericanum*** Dahlst. Ark. Bot. 7(2): 51. 1907. TYPE: ARGENTINA. SANTA CRUZ, Lago Argentino, in campo, Jan. 1905, *P. Dusén 5609* (first-step lectotype, selected by Sleumer 1956: 131: S; second step lectotype, selected by Ariza Espinar & Cerana 2015, 37: S [S-R-2881 digital image!]; isolectotype, S [S-10-41317 digital image!] US [US00119688]). Accepted name: *Hieracium patagonicum* Hook. f.

According to the protologue of *Hieracium austroamericanum*, Dahlstedt (*in* Dusén 1907: 51) based the description of this species on two syntypes collected by Dusén during his stay in southern South America. Both collections were made in the western portion of Santa Cruz province (Argentina): the first collection was made in Lago Argentino, while the second consists of a collection from Lago San Martín. Sleumer (1956: 131) referred to a Dusén collection (number 5609) at S as the lectotype of the name. However, two duplicates are found at S in agreement with the protologue, and both determined by Sleumer as 'lectotypus'. Thus, Sleumer's (1956) choice is here considered as a first-step lectotypification. Ariza Espinar & Cerana's indication of the specimen S-R-2881 as the lectotype of name is here interpreted as a second-step lectotypification according to the ICN (Art. 9.17, Turland *et al*. 2018).

2. ***Hieracium fulvipes*** Wedd., Chlor. Andina 1(7): 224. 1857]. *Pilosella fulvipes* (Wedd.) F. W. Schultz & Sch. Bip., Flora 45: 436. 1862. TYPE: BOLIVIA, CHUQUISACA, Tomina, Dic 1845 – Jan. 1846, *H. A. Weddell 3673bis* (lectotype, selected by H. Sleumer [1956: 132], P, [P00707012 digital image!]). Accepted name.

The protologue of *Hieracium fulvipes* (Weddell 1857) includes a direct reference to a collection made by H. A. Weddell in Tomina, Bolivia but without collection number. Ariza Espinar & Cerana (2015: 28) referred to a specimen kept at P as the lectotype of the species name. This designation, however, is superfluous because Sleumer (1956: 132) implicitly lectotypified it when citing the "holotype" of the name at P (P00707012, *Weddell* 3673bis). Therefore, Sleumer's use of holotype is an error to be corrected to lectotype.

3. ***Hieracium hieronymi*** Zahn, Pflanzenr. 4 (Heft 79): 1097. 1922. Replaced name: *Hieracium ecuadoriense* Hieron., Bot. Jahrb. Syst. 21: 376. 1896, ***nom illeg***, non Arv. -Touv. (1881). TYPE: ECUADOR. Nono, in frustich steril, Aug. 1887, *A. Sodiro 70-2* (neotype, selected here: P [P04026326, digital image!]). Accepted name.

In the description of this species, Hieronymus (1896) selected as type material a collection, Stübel *85a*, made near Panecillo, Ecuador. According to Stafleu & Cowan (1979: 193), Hieronymus worked at B since 1892, thus, the type collection housed there was probably destroyed by the fire caused by the Allied bombing of Berlin-Dahlem in 1943 (Hiepko 1987), but a photograph of the destroyed B specimen from Berlin negatives (negative 16145) is available at F. Since all potential sources of original material have been checked, but nothing has been found, a neotype is here proposed (Art. 9.7 of the ICN) based on a specimen held at P (P04026326). The material selected is a specimen in agreement with the material studied and cited by Zahn (1922: 1097) when he published a replacement name for this taxon.

4. ***Hieracium infravillosulum*** Sleumer, Repert. Spec. Nov. Regni Veg. 41: 117. 1936. TYPE: PERU. CUZCO, Quispicanchi. 15-16 Feb. 1929, *A. Weberbauer 7779* (lectotype, selected here: US [US00119701 digital image!]). Accepted name.

In the protologue of *Hieracium infravillosulum*, Sleumer (1936) cited the collection Weberbauer 7779 from Peru, and he explicitly stated that the material he used to describe the species was studied at B ("Typus in Herb. Berolin."). During the Second World War (Hiepko 1987), this sheet as many others housed at this herbarium were destroyed. One isotype of the collection made by Weberbauer, however, is housed at US (US00119701). Given that this specimen is in agreement with the protologue, it is here selected as lectotype of the species name.

5. ***Hieracium mapirense*** Britton, Bull. Torrey Bot. Club 19: 371. 1892. TYPE: BOLIVIA. Mapiri, 10000 ft., *H. H. Rusby* 1694 (lectotype, selected here: NY [NY00180072 digital image!]; isolectotypes: BM [BM000799998 digital image!], GH [GH00009082 digital image!], K [K001097515 digital image!], NY [NY00180073 digital image!], P [P00707025 digital image!], PH [PH00014837 digital image!], S [S-R-2904, fragment, digital image!], US [US00119709 digital image!], WIS [WISv0256904WIS digital image!]). Accepted name.

Britton (1892) described *Hieracium mapirense* for Bolivia based on the collection Rusby 1694, but he did not provide a herbarium

indication. According to Stafleu & Cowan (1976: 332), Britton´s herbarium and types are lodged at NY. In the collection at NY there are two specimens in agreement with the locality and the diagnosis in the protologue. Furthermore, nine duplicates of this gathering were found at BM, GH, K, NY, P, PH, S, US and WIS. In this context, the sheet at NY barcode NY00180072 that is the most complete plant and with Britton´s annotation on the main label is here selected as a lectotype of the name.

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