

New species and combinations in *Hieracium* (Asteraceae) from southern Sweden

Torbjörn Tyler

Department of Ecology, Plant Ecology and Systematics, Sölvegatan 37, SE-223 62 Lund, Sweden
(e-mail: torbjorn.tyler@ekol.lu.se)

Received 7 June 2005, revised version received 22 June 2005, accepted 23 June 2005

Tyler, T. 2005: New species and combinations in *Hieracium* (Asteraceae) from southern Sweden. — *Ann. Bot. Fennici* 42: 399–403.

Three new species, i.e. *Hieracium cirrobractum* T. Tyler, *H. helenae* T. Tyler and *H. praviforme* T. Tyler, are described from southern Sweden and two new combinations, i.e. *Hieracium limitianum* (Johanss.) T. Tyler and *Hieracium oletatum* (Johanss. & Sam.) T. Tyler are made.

Key words: *Hieracium*, new species, nomenclature, taxonomy

Introduction

While working on a monographic treatment of the *Hieracium* species of the Swedish provinces of Dalsland and Bohuslän (Tyler 2004) and the eastern Svealand region (Tyler 2005) material of three apparently new species were encountered. Simultaneously, two taxa previously regarded as varieties were found to represent distinct species. The aim of this paper is to formally describe the previously unknown species and make the necessary new nomenclatural combinations.

The three new species described here are all known from several gatherings made at two or more separate sites. While working with apomictic *Hieracium* taxa, aberrant morphotypes that have only been found at a single site are encountered now and then. However, even if some of these local morphotypes may be morphologically as distinct as the widespread species, I

prefer not to treat them as separate species. Such a 'geographic species concept' has recently been successfully implemented among apomictic taxa of *Rubus* (Weber 1996). In plant genera where new distinct morphotypes are known to evolve relatively easily, it appears reasonable to demand that an accepted species should have a certain age and distribution (but see also Schuhwerk 2002). However, since species of *Hieracium* apparently have a rather limited dispersal ability (at least the groups here concerned and in Scandinavia), and are obviously much slower dispersers than the bird-sown taxa of *Rubus*, even morphotypes with a very limited distribution may be of considerable age. Thus, albeit I am inclined to accept a 'geographic species concept' in *Hieracium*, I would suggest that the distributional demands ought to be moderate and that species that are known from two or more sites at a distance from each other of at least a few kilometers should be accepted as species.



Fig. 1. Part of holotype of *Hieracium cirrobractum*.

New species

Hieracium cirrobractum T. Tyler, sp. nova
(Fig. 1)

Folia rosularia media viridia, late elliptica, basi breviter attenuata, margine irregulariter triangulari-dentato (Fig. 1 vide). *Folia caulina* 0–1, *subtus dense–densissime stellata*. *Anthela laxe subpaniculata, pauciceps, ramis crassis suberectis*. *Rami pedicellique glandulis nigris crebre obsiti*. *Involucra* 12–13 mm longa, *squamis latis, late obtusis vel breviter triangularibus, glandulis mediocribus nigris creberrimis pilisque*

breviter albi-apiculatis parce obsitis; margines squamarum basin versus manifeste stellato-limbati; apices squamarum comis longe decursivis et densissimis longissimisque. *Apices ligulae sparse sed longissime ciliati*. *Stylus siccus fusco-hispidulus*.

HOLOTYPE: Sweden. 'Bohuslän, Tossene socken, Nyckelbergets SO-sluttning, i granskog, Koord. 648815/123953, 2003-06-24, Leg. *Sven Bergqvist*' (S, isotype LD!). — **PARATYPES:** Sweden. 'Bohuslän, Foss s:n, 100 m N om Kobranken, i lövskog. Kartblad 8B6c. 2003-06-13. Leg. *E. Blomgren*' (LD!); 'Dalsland, ängsgranskog och örtrikt hygge kring domänreservatet 500 m NV Bollungen, Sundals-Ryr s:n. RN: 12895/65020 (= 9Bso); T. Tyler, juni 2003' (LD!).

Fig. 2. Part of holotype of *Hieracium helenae*, showing the characteristic leaf shape.



This species clearly belongs to the “murorum group” within *Hieracium* sect. *Hieracium*. The species was recognized under the provisional name “orphanoglochin” already by Dahlstedt as is evident from determination-strips in several herbaria but he never published that name and his use of it appears not to have been fully consistent. However, more often material belonging to this species has been referred to *H. crassiceps* (Dahlst.) Dahlst. or to *H. eudaedalum* Stenstr. ex Dahlst. However, *H. cirrobractum* differs from *H. crassiceps* by e.g. broadly obtuse phyllaries with more abundant stellate hairs and by ciliate ligules. *H. eudaedalum* on the other hand as compared with *H. cirrobractum* has very abundant stellate tomentum forming broad bands along the margins of the phyllaries, rather different leaf-shape and a richer and more contracted synflorescence with $\pm$ arcuate branches. Thus far, *H. cirrobractum* has been found in the parishes of Foss, Strömstad (in GB) and Tossene in the province of Bohuslän as well as in Sundals-Ryr in Dalsland.

***Hieracium helenae* T. Tyler, sp. nova (Fig. 2)**

Folia rosularia supra $\pm$ glabra, paullo glauca, saepe purpurascentia, interdum hepatico-macu-

lata; exteriora et media ovata, profunde crebreque triangulariforme serrato-dentata, basi attenuata; interiora $\pm$ anguste lanceolata, profundissime irregulariter acuto-laciniata (Fig. 2 vide). Folium caulinum plerumque abest. Anthela laxa, ramis longis, suberectis—moderate arcuatis divaricatisque. Acladium longum (3–5 cm). Rami pedicellique glandulis nigris parce pilisque copiose obsiti. Involucra 8–9 mm longa, squamis angustis, producte subulatis, glandulis parvis nigris parce, pilisque ex proximo base albis $\pm$ crebre longisque, et tomento stellati copiose obsitis. Apices squamarum comis longissimis patulisque. Apices ligulae glabri. Stylus siccus fusco-hispidulus.

HOLOTYPE: Sweden. ‘Uppland. Sollentuna, Rösjörp, mossig skogsglänta; 22/6 1963; Erik Almquist’ (S). — **PARATYPES:** Sweden. ‘Stockholm (Spånga s:n.), Rinkeby (NW-ut), mossig skogsglänta; 21/6 1963; Erik Almquist’ (S!); ‘Uppland: Sollentuna, Edsberg (1 km Ö-ut), mossig skogsslutning; 22/6 1963; Erik Almquist’ (S!).

This species belongs to the ‘bifidum-group’ and is apparently related to the widespread *H. caesiiflorum* Almq. ex Norrl. and, in particular, to the rare but sympatric *H. juellii* (Dahlst.) Johanss. & Sam. and *H. tanaodeirum* Johanss. The leaf-shape of *H. helenae* is closely similar to that of the two last mentioned species but it



Fig. 3. Part of holotype of *Hieracium praviforme*.

differs by narrowly subulate phyllaries covered by simple hairs that are whitish almost from the base and by darker pigmented styles and often spotted leaves. So far this species is only known from three sites in the parishes of Sollentuna and Spånga close to Stockholm.

***Hieracium praviforme* T. Tyler, sp. nova**
(Fig. 3)

Folia rosularia media supra glabra, undulata, caesio-viridia, saepe caeruleo-purpurascentia, anguste ovata, crebre sed grosse irregulariter triangulari-dentata, basi truncata-subhastata

(Fig. 3 vide). *Folium caulinum si evolutum crebrissime angustissimeque subulato-dentatum, subtus haud stellato-tomentosum (pleurumque abest). Anthela simplex-subdichotoma, ramis acladioque longis suberectis. Rami pedicellique, absque pilis stellatis, ± glabri. Involucra ca. 10 mm longa; squamis anguste obtusis, densissime ± aequaliter stellato-tomentosis, glandulis parvis electrinis solitariis, pilisque mediocribus, ex medio albi-apiculatis, sparsis-copiosis obsitis. Apices squamarum manifeste comosi. Apices ligulae glabri. Stylus siccus ± pure luteus.*

HOLOTYPE: Sweden. 'Uppland; Vänge, Göken, mossig barrskog; 3/7 1954; Erik Almquist' in (S).

This species, belonging to the ‘*bifidum*-group’ and somewhat similar to e.g. *H. sinuosifrons* (Dahlst.) Dahlst., has previously been mixed up with *H. pravifrons* Johanss. & Sam. but differs from that species in many respects, e.g. by almost completely lacking glandular hairs in the synflorescence. *Hieracium praviforme* has been collected many times in the close vicinity (to the north and west) of the city of Uppsala (in the parishes of Balingsta, Börje, Lena, Läby, Ramsta, Rasbo and Vänge) and appears to be fairly frequent there but, as far as is known, the distribution is restricted to this area.

New combinations

Hieracium limitianum (Johanss.) T. Tyler,
comb. & stat. nov.

BASIONYM: *H. persimile* (Dahlst.) Dahlst. (1899) var. *limitianum* Johanss., Archier. Dalarnas Siluomr.: 49. 1902.

Hieracium oletatum (Johanss. & Sam.) T.
Tyler, *comb. & stat. nov.*

BASIONYM: *H. incurrens* Saelan ex Norrl. (1889) var. *oletatum* Johanss. & Sam., Hierac. Västmanl.: 37. 1920.

Acknowledgement

The present study is part of the project “The Hawkweeds of Sweden” funded by the Swedish Species Initiative and Gyllenstiernska Kräppruppstiftelsen.

References

- Johansson, K. 1902: Archieraciumfloran inom Dalarnas siluområde i Siljanstrakten. — *Bih. Sv. Vet.-Akad. Handl.* 28, III(7): 1–156.
- Johansson, K. & Samuelsson, G. 1920: Hieraciumfloran i Västmanland. — *Arkiv Bot.* 16(14): 1–54.
- Schuhwerk, F. 2002: Some thoughts on the taxonomy of *Hieracium*. — *Ber. Bayer. Bot. Ges.* 72: 193–198.
- Tyler, T. 2004: Skogs- och hagfibblor i Göteborgsområdet, Bohuslän och Dalsland [*Hieracium* sect. *Hieracium* and sect. *Vulgata* in the Gothenburg region and the provinces Dalsland and Bohuslän]. — *Vrivrånge* 22: 1–69. [In Swedish with English abstract].
- Tyler, T. 2005: Mälarlandskapens hökfibblor. — *Daphne*. [In press].
- Weber, H. E. 1996: Former and modern taxonomic treatment of the apomictic *Rubus* complex. — *Folia Geobot. Phytotax.* 31: 373–380.