

Three new species of *Hieracium* (Asteraceae) from northern England

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Abstract

Three new species of hawkweed are described in *Hieracium* section *Stelligera* from Northern England, based on the herbarium collection of Vincent Jones; *Hieracium lacinifolium* V. Jones, *Hieracium obovatifolium* V. Jones and *Hieracium pseudosubcyaneum* V. Jones.

Introduction

Vincent Jones undertook a detailed 30-year study of *Hieracium* in Yorkshire culminating in his excellent *Yorkshire hawkweeds* monograph (Jones, 2014). During the course of his study, a number of taxa were found which did not fit existing *Hieracium* species described in the standard British *Hieracium* monograph by Sell & Murrell (2006), and there are references to such plants in his account. Sadly, Vincent is no longer able to continue his work, so we have undertaken to publish three new species on his behalf and under his name, based on the specimens in his *Hieracium* collection which is now deposited in Leeds Museum (**LES**). Further work will be required to assess whether other taxa he mentioned also merit naming as new species.

Hieracium lacinifolium V. Jones **sp. nov.**

Vernacular name: Lacinate-leaved hawkweed

Stem 30-45 cm, slender to robust, pale green suffused purple towards the base with scattered stellate and simple hairs. *Leaves* bluish-green with numerous spots and blotches on the upper side, paler beneath and often suffused purple; basal rosette leaves few, the outer with lamina 4-9 x 2-5 cm, ovate, elliptical or occasionally lanceolate, obtuse-mucronulate to narrowly acute or occasionally acuminate at apex, rounded to cuneate at base (the outermost retuse) and shallowly-dentate to aquiline-mammiform at base; the inner leaves with lamina 5-7 x 2-5 cm, lanceolate, acute to acuminate at the apex, the base cuneate but the proximal two thirds or sometimes one third deeply lacinate-dentate, the teeth markedly apiculate and sometimes extending down the petiole, subentire in the distal part, petioles short less than 3 cm; cauline leaves 0-1(-2), narrowly elliptic, with narrowly acuminate apex, abruptly contracted or cuneate at the lacinate-dentate base, or bract-like; all hairy above or glabrate, with few to numerous pale simple hairs beneath, longer ones on the midrib, and numerous stiff ones on the margin. *Inflorescence* with 2-4 (-13) capitula, furcate-corymbose or occasionally paniculate-corymbose, sometimes

with a long lower branch; peduncles more or less robust, with numerous stellate hairs, frequent to numerous, short to medium, black-based simple hairs and few to numerous, short dark glandular hairs. *Capitula* 35-40 mm in diameter, rounded at base; involucre bracts 6-14 x 1.2- 1.5 mm, more or less acute, linear-lanceolate, blackish-green, the inner with paler margins, with numerous stellate hairs, numerous black-based simple and numerous short fine glandular hairs. *Ligules* yellow, glabrous-tipped. *Styles* discoloured. *Receptacle pits* not seen. *Achenes* not seen. *Flowers* 5-7.

Holotype: Raven Scar, Ingleborough, v.c.64 Mid-west Yorkshire, SD7274, V. Jones no. 97/9, 10 June 1997 (**BM**; Fig. 1).

Hieracium lacinifolium is a new species of section *Stelligera* closely related to *H. stictum* P. D. Sell, from which it differs in most leaves being laciniate-dentate at least in the lower part, by its narrower bracts and by its more glandular peduncles and involucre bracts. It differs from *H. inaequilaterum* P. D. Sell in having the leaves more regularly laciniate-dentate at the base (asymmetrically so in *H. inaequilaterum*) and by the narrower bracts with fewer glandular hairs. *H. lacinifolium* is a new name for the taxon mentioned as '*H. lancifolium*' by Jones (2014, page 85), the epithet *lancifolium* already being in use.

In addition to the type locality, there are specimens of *H. lacinifolium* from the following localities in **herb. V. Jones** (Fig. 2): Victoria Cave, limestone cliffs near, Langcliffe, v.c.64, SD838650, 24 June 1994, V. Jones no. 94/9(i) (**LES**). Foredale Quarry, low scar north of, v.c.64, SD795709, 2 June 2010, V. Jones no. 10/2 (**LES**). Lauradale Bridge, Linton v.c.64, SD988620, B. Burrow, 05 June 2006, Lauradale Bridge, Linton (**LES**). George's Scar, north of Ingleton, v.c.64, SD701764, 2 June 2004, V. Jones no. 04/21 (**LES**). Long Scar, Malham Tarn v.c.64, SD885652, V. Jones, 24 May 2007 (**LES**). Thieves Moss, Ingleborough, v.c.64, SD871729, 1 June 2007, B. Burrow, herb. V. Jones no. 07/35 (**LES**). Moughton Scar v.c.64, SD786729, V. Jones, 01 June 2007 (**LES**). Clapham, near, v.c.64, SD747707, V. Jones, 08 June 2008 (**herb. D. McCosh**). Cave Hole Wood, Settle v.c.64, SD787663, V. Jones, 22 May 2009 (**LES**). Blue Scar, Arncliffe v.c.64, SD934706, V. Jones, 12 June 2009, Blue Scar, Arncliffe (**LES**). Hesleden Gill v.c.64, SD859735, V. Jones, 30 June 2010, Hesleden Gill (**LES**). Souther Scales, Ingleborough v.c.64, SD744765, V. Jones, 26 June 2011 (**herb. D. McCosh**). Scar Close, Ingleborough v.c.64, SD751778, V. Jones, 04 June 2011 (**LES**). Ellerkin Scar, Askrigg, v.c.65, SD963922, V. Jones, 03 June 2011 (**LES**).

***Hieracium obovatifolium* V. Jones sp. nov.**

Vernacular name: Obovate-leaved hawkweed

Stem 30-50 cm, usually robust, striate, yellowish-green, sometimes suffused purple below, with occasional short simple hairs, a few glandular hairs and scattered stellate hairs throughout, becoming more numerous above. *Leaves* yellowish-green, some with light brown-purple spotting, paler beneath; basal rosette leaves 3-5, the outer with lamina 3-8 x 2-4.5 cm, mostly elliptical, often broadly so, sometimes ovate and often at least one obovate, apex rounded (retuse in outermost leaves), base rounded, subentire to denticulate, sometimes with a pair of patent or reflexed teeth at the subtruncate base, the inner with lamina 2-7 x 2-3 cm, lanceolate to elliptic, rounded-mucronulate to acute to subobtuse at apex, the base cuneate or rounded, denticulate or shallowly dentate (rarely shallowly mammiform), petioles up to 7 cm with few to numerous short to medium simple hairs; cauline leaves 0- 2(-3), ovate, acute at apex with mammiform teeth in the lower half the lowest teeth patent, or bract-like; all with few to numerous short to medium simple hairs above with numerous beneath and on the margins. *Inflorescence* with 2-7 capitula, cymose-corymbose, occasionally with a long lower branch; peduncles rather robust, straight or somewhat curved with dense stellate hairs, occasional dark-based simple hairs and usually numerous short to medium dark glandular hairs. *Capitula* 35-45 mm in diameter, rounded at base. *Involucral bracts* 5-15 x 0.4-1.5 mm, linear-lanceolate, the outer subobtuse and blackish-green, the inner acute with pale margins with numerous short dark glandular hairs, few to numerous, medium dark-based simple hairs and numerous stellate hairs mostly on the margins. *Ligules* yellow, glabrous or sparsely hairy at apex. *Styles* discoloured. *Receptacle pits* not seen. *Achenes* 4-4.5 mm, purplish-black. *Flowers* 5-7.

Holotype: Scar Close, Ingleborough, edge of limestone pavement, SD7477, v.c.64 mid-West Yorkshire, B. Burrow, 22 June 2014 (**BM**; isotype **CGE**; Fig. 3).

Hieracium obovatifolium is a new species of section *Stelligera* distinguished by at least one leaf being obovate, sometimes lightly spotted, by the numerous glandular hairs on the peduncles together with at most an occasional simple hair and by the more or less acute involucral bracts with numerous glandular hairs and few to numerous simple hairs.

In addition to the type locality, there are specimens from the following localities in **herb. V. Jones** (Fig. 4): Thieves Moss, Ingleborough, limestone cliffs, v.c.64, SD777781, 16 June 2006, V. Jones no. 06/14 (**LES**). Thieves Moss, Ingleborough, v.c.64, SD871729, 1 June 2007, B. Burrow (**LES**). Twisleton Scar End, low cliffs, v.c.64, SD706756, 31 May 2004, B. Burrow (**LES**). Twisleton Scar End, v.c.64, SD705754, 21 May 2008, B. Burrow (**herb. D. McCosh**). Langcliffe Scars, Settle, v.c.64, SD837650, B. Burrow (**LES**). Scar Close, low scar, Ingleborough, v.c.64, SD748776, 9 June 2009, V. Jones no. 09/18 (**LES**). Scar Close, Ingleborough, edge of pavement, v.c.64, SD748776, B. Burrow (**herb. D. McCosh**). George's Scar, north of Ingleton, v.c.64, SD701761 to SD701765 and SD700764 to SD701761, 2 June 2004, V. Jones nos. 04/16 and 04/18 (**LES**). Aysgarth, SE001888, v.c.65, 24 May 2004, B. Burrow (**LES**). High Cup Nick, crag at NW end, NY72, v.c.69, 18 June 1995, V. Jones, no. 95/8.



Figure 3. Holotype of *Hieracium obovatifolium* (BM).

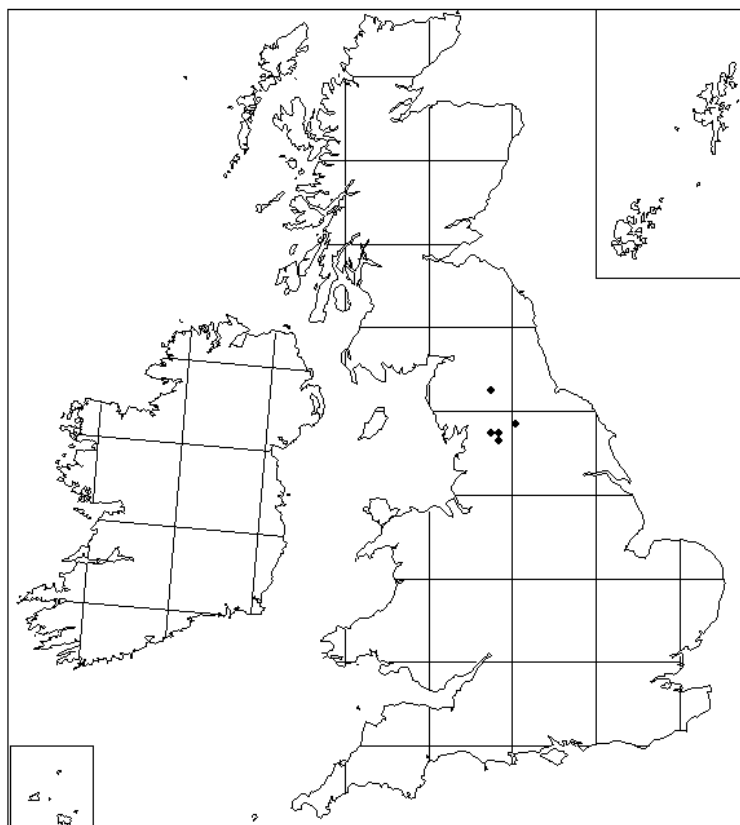


Figure 4. Distribution map of *Hieracium obovatifolium*.

***Hieracium pseudosubcyaneum* V. Jones sp. nov.**

Vernacular name: False porrect-bracted hawkweed

Stem 15-25(-28) cm, pale green, striate, with simple hairs below, scattered upwards and stellate hairs above, without glandular hairs. *Leaves* bluish-green, lightly spotted; basal rosette leaves usually numerous, the outer with lamina 3-5 x 1.5-3.5 cm, elliptical, obtuse at apex (rarely retuse), base rounded to truncate, subentire, the inner with lamina 4-7 x 2-3.5 cm, elliptical, lanceolate or oblong, the apex usually acute, and base truncate or abruptly contracted, petioles short with long white hairs; cauline leaves 0-2, if present, linear or bract-like and sessile, very rarely the lower narrowly lanceolate, dentate and petiolate; all with more or less numerous simple hairs above at least near the margins, sometimes across the whole surface especially on the inner leaves, numerous medium to long simple hairs beneath particularly on the midrib and stiff hairs on the margin. *Inflorescence* with 2-4 capitula, furcate-corymbose; peduncles with numerous to dense stellate hairs, numerous simple hairs, without or with few to frequent glandular hairs. *Capitula* 30-40 mm in diameter, rounded at base. *Involucral bracts* blackish-green, the inner with pale margins, 6-16 x 1.0-1.5 mm linear-lanceolate, more or less acute, with numerous short to medium dark-based simple and occasional short glandular hairs and dense stellate hairs mostly on the margins. *Ligules* yellow, glabrous-tipped. *Styles* somewhat discoloured. *Receptacle pits* not seen. *Achenes* not seen. *Flowers* 5-7.

Holotype: Twisleton Scars, v.c.64 Mid-west Yorkshire, SD707755, 21 May 2008, B. Burrow (**BM**; Fig. 5).

Hieracium pseudosubcyaneum is a new species of section *Stelligera* with similarities to *H. subcyaneum* (W.R. Linton) Pugsley from which it differs by the invariable spotting and blotching of its leaves which are often wider and with numerous simple hairs above at least near the margins, peduncles with few glandular hairs and involucral bracts with at most an occasional glandular hair. This is one of the taxa mentioned under the *H. decolor* aggregate by Jones (2014; page 75).

In addition to the type locality, there are specimens from the following localities in **herb. V. Jones** (Fig. 6): Winskill Stones, roadside, v.c.64, SD8366, 28 May 2005, V. Jones no. 09/47 (**CGE**). Giggleswick Scar, Settle, limestone cliffs, v.c.64, SD807650, 16 July 2005, B. Burrow, herb. V. Jones no. 05/63 (**LES**). Brent Scar, Langcliffe, v.c.64, SD838647, 10 May 2011, B. Burrow, herb. V. Jones no. 11/17 (**LES**). Ivy Scar, Carperby, v.c.65, SD988904, 19 May 2011, B. Burrow, no. 11/19 (**LES**). Ponderledge Scar, Carperby, v.c.65, SE004904, 6 June 2002, V. Jones no. 02/7 (**LES**). Thackthwiate Beck, Wensleydale, crags, v.c.65, SD982908, V. Jones no. 02/11 (**LES**). Reinster Scar, Settle, v.c.64, SD808657 and SD811660, 8 June 2009, V. Jones nos. 09/11 and 09/12 (**LES**; **herb. D. McCosh**). Whitbarrow Scar, south end, limestone screes, v.c.69, SD449847, 29 June 1996, V. Jones no. 10/96 (**LES**).

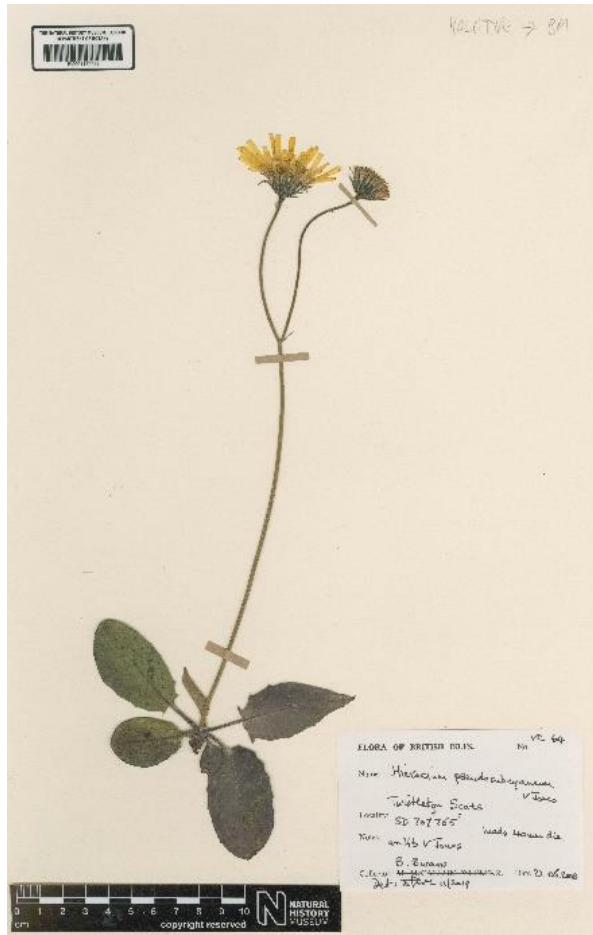


Figure 5. Holotype of *Hieracium pseudosubcyaneum* (BM).

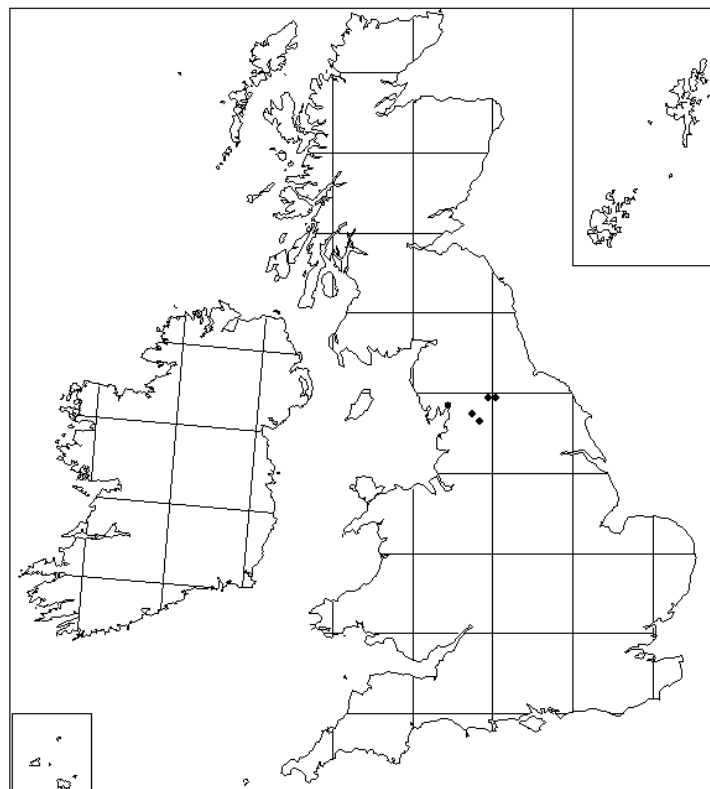


Figure 6. Distribution map of *Hieracium pseudosubcyaneum*.

Acknowledgements

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References

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