

16. *Hieracium larigense* (H. W. Pugsley) P. D. Sell & C. West

in *Botanical Journal of Linnean Society* 71: 264 (volume dated 1975 but published in 1976).

Lairig Hawkweed

Synonymy

H. globosiflorum H. W. Pugsley var. *larigense* H. W. Pugsley, *Journal of Linnean Society of London (Botany)* 54: 47 (1948). Holotype: La[i]rig Pass, 4 August 1890, H. Groves (herb. H. W. Pugsley no. 567, **BM**).

Illustrations

Figures 99-101.

Diagnostic description

STEM 10-25 cm, slender to rather robust, often reddish-violet tinted at the base, with numerous, medium and long simple eglandular hairs throughout, the uppermost part of the stem greyish-green or greyish-white in appearance, with very numerous, medium and long (up to 3.0(-5.0) mm), very wavy, often slightly greyish simple eglandular hairs and scattered to numerous, very short and short (up to 0.6(-0.9) mm), dark glandular hairs.

ROSETTE LEAVES palish to rather deep, brightish green and glossy on the upper surface, paler beneath, frequently partially tinted with reddish-violet, especially on the midrib of both surfaces.

OUTER ROSETTE LEAVES broadly elliptic or obovate, broadly rounded-obtuse or obtuse-mucronulate at the apex, entire, denticulate or with a few mammiform teeth at the margins, and shortly narrowed to cuneate at the base.

INNER ROSETTE LEAVES with the lamina 15-80 x 3-20 mm, narrowly elliptic to elliptic, oblong-elliptic, lanceolate or oblanceolate, rather rigid, semi-coriaceous, sometimes strongly channelled (cymbiform), frequently undulate, mainly acute or subacute, apiculate and downwardly twisted at the apex, subentire to dentate or serrate-dentate at the margins with acute, often irregular, somewhat incised, ascending, narrowly mammiform or long, cusped-mammiform teeth, mainly on the lower half of the margins and often descending well onto the petiole, attenuate to narrowly cuneate at the base, the majority usually glabrous on the upper surface or sometimes with several simple eglandular hairs confined to near the margins (the innermost leaves often with more or less uniformly scattered hairs), but the margins with very numerous to rather dense, medium and often long, rather coarse, straight or slightly wavy simple eglandular hairs which are often rigidly directed inwards towards the midrib, and with many microglands; petioles short to long, slender to winged, usually reddish-violet tinted, with very numerous, long, wavy simple eglandular hairs, especially near the base. **CAULINE LEAVES** 0-2(-5), often all very small, erect and narrow, the lowest often in the lower part of the stem, usually not greater than 20 x 2 mm (rarely up to 90 x 8 mm), typically

linear or bract-like, acute-acuminate at the apex, entire or very occasionally with a few, acute teeth, and sessile at the base, the remaining cauline leaves bract-like, appressed, acute and finely acuminate, the uppermost filamentous.

CAPITULUM 1, or occasionally 2, often with a rudimentary bud in the axil of a cauline leaf, and occasionally with a second stem arising from the base and bearing a capitulum, 30-48 mm in diameter, with the involucre relatively robust for the size of plant, dark olive-grey to blackish-grey in appearance, campanulate to broadly campanulate, broadly rounded or broadly rounded-cuneiform at the base, slightly constricted in the middle or not constricted.

INVOLUCRAL BRACTS with numerous to dense, medium and long (up to 3.0 mm), wavy, often slightly greyish simple eglandular hairs, numerous, very short and short (up to 0.5(-0.7) mm), dark, largely obscured or often several conspicuous glandular hairs, and with a more or less distinct tuft of short, pale hairs at the apex; inner involucre bracts 11-16 x 1.0-1.5(-1.7) mm, appressed, linear-lanceolate, acute, often sharply acute and shortly fine-acuminate at the apex, the innermost bracts very narrow with paler margins; outer involucre bracts shorter, loosely appressed and erect.

LIGULES bright medium yellow, the outer not very broad, 3.0-3.6(-3.9) mm wide, rather numerous but slightly discrete, more or less straight (very shallowly upturned to very slightly recurving), with a few to several, extremely short to very short, pale or slightly discoloured hairs beneath and several extremely short and often a few short hairs projecting by up to 0.3 mm beyond the margins of the apical lobes.

STYLES usually lightly discoloured olive-grey or dirty olive-yellow, very seldom pure yellow (when yellowish, discoloured scales are present causing the styles to darken appreciably when dried).

ACHENES 3.0-4.0 mm, purplish-black.

Chromosome numbers: Counts of $2n=27$ (triploid) and $2n=36$ (tetraploid) were obtained from two different plants collected from the same population in the Lairig Ghru (Stace *et al.* 1995), so it is probable that one was misidentified and a recount is required.

Distribution, habitats and conservation status

Hieracium larigense is endemic to Scotland (Figure 102). It appears to be restricted to the hills bordering the Lairig Ghru in the centre of the Cairngorms in the Eastern Highlands, in Aberdeenshire (v.c. 92) on Cairn Toul and in An Garbh Choire, and in Inverness-shire (v.c. 96) on Creag an Leth-choin. It occurs locally in crevices of sloping rock slabs, cliff ledges and grit-scrub, on steep, rocky slopes, sometimes in

Hieracium larigense

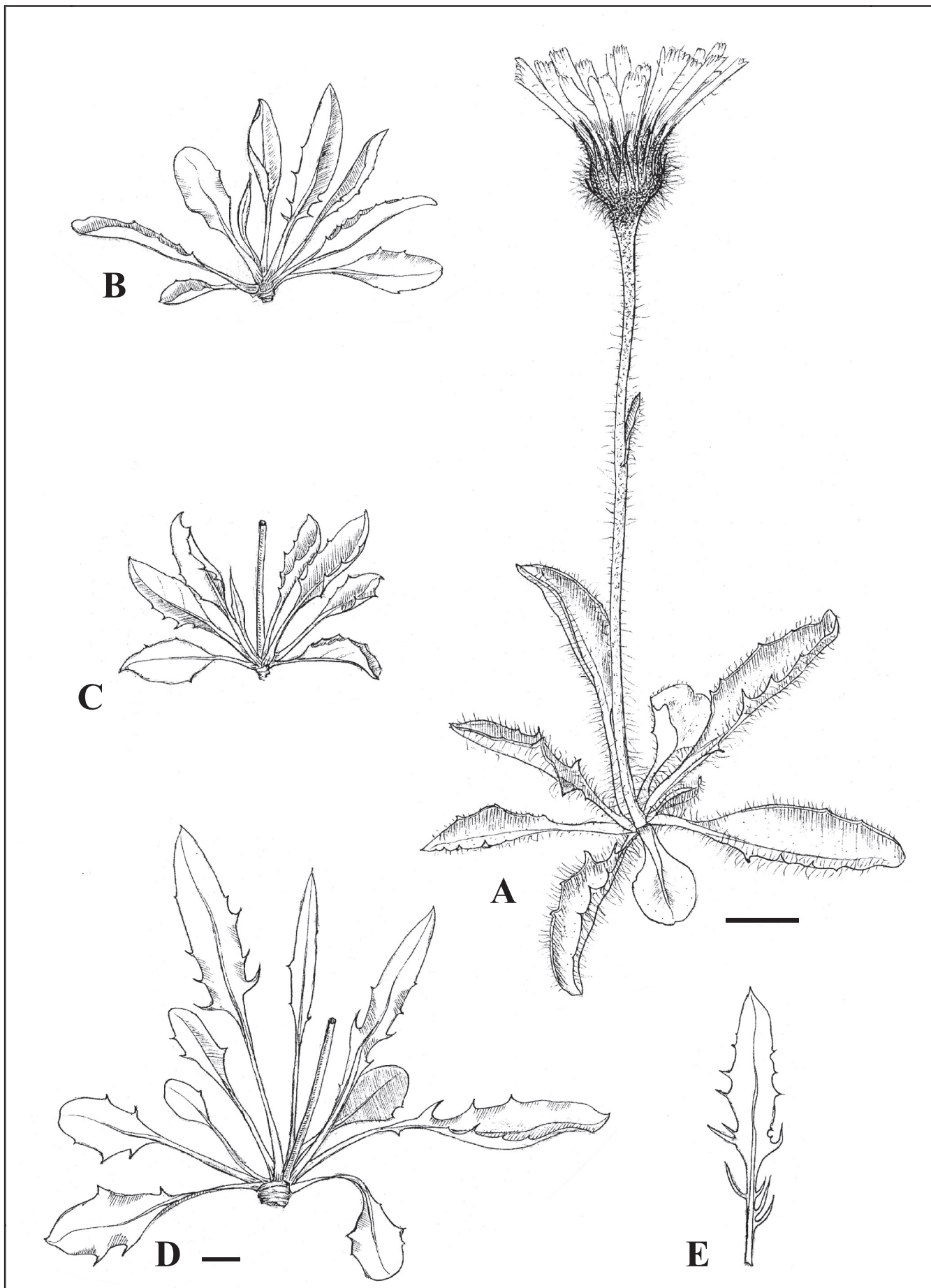


Figure 99. *Hieracium larigense*. A, Whole plant. B-D, Rosettes (details of hairs not shown). E, Strongly toothed inner rosette leaf (details of hairs not shown). Scale bar 1 cm.

Hieracium larigense

turf at the base of cliffs, usually on coarse-grained granite, at altitudes between 730 and 870 m.

The earliest gathering of *H. larigense* was in 1884 from the 'Larig Pass' (probably in v.c. 96) by J. Groves (BM), left un-named but later determined by Pugsley. H. & J. Groves made further collections from the same locality in 1886, 1890 and 1894 (BM), some named as *H. globosum*. There is also a specimen in herb. P. Ewing (GLAM) dated 1886, and in herb. F. J. Hanbury dated 1886 from Cairn Toul (BM, as *H. nigrescens*).

Hieracium larigense is known very locally from four sites, in three of which it is scarce, in two hectads. Population sizes of 5, 6, 11 and c. 60 plants (total 80+) were recorded between 1973 and 1987. National Status: Red Data Book. IUCN (2001) Threat Category: Endangered. **This species must not be collected.**

Taxonomy, variation and separation from other species

Hieracium larigense is characterised by the very numerous, long, often greyish simple eglandular hairs on the uppermost part of its stem, by its rosette leaves which are usually glossy



Figure 100. *Hieracium larigense*, Lairig Ghru, 1986.

green, and reddish-violet tinted on the midrib, the inner leaves mainly elliptic, rather rigid and semi-coriaceous, often channelled, undulate and slightly twisted at the acute or subacute apex, the largest plants with long, irregular, cusped teeth at the margins which often descend onto the petiole, with numerous, long, stiff, often inwardly-directed simple eglandular hairs on the margin, which are more or less absent from the upper surface of the majority of leaves, and the very numerous, long simple eglandular hairs on the reddish-violet tinted petioles, by its usually few, very small, erect, linear or bract-like cauline leaves (except in the largest plants), by its relatively large involucre with a more or less broadly rounded base, with appressed, sharply acute-acuminate inner involucre bracts which have rather dense, often slightly greyish simple eglandular hairs and a few to several, conspicuous glandular hairs, by its medium yellow, rather narrow, almost straight outer ligules, with a few, very short hairs beneath and some extremely short and often a few very short hairs at the apex, and by its usually lightly discoloured styles.

Hieracium larigense is described here from plants which have been determined with certainty, but the precise limits of its variation are not known on account of the similarity of some plants presently referred to *H. subtenuifrons*, which *H. larigense* can most resemble (see below). Other than the occasional development of a second capitulum, in its main habitats and its main populations *H. larigense* is a rather small plant with a compact basal rosette which shows very little variation. However, plants which stray from these habitats into turf at the base of cliffs become taller, more robust and have less compact, longer rosette leaves, longer petioles and larger cauline leaves, the rosette leaves develop characteristic, very large, narrow and cusped teeth which extend on to the petiole, and frequently more than one capitulum develops.

Hieracium larigense was originally referred to a variety of *H. globosiflorum*, especially on account of its similar involucre, but in *H. larigense* the involucre is less narrowed into the stem at the base and it is further distinguished from *H. globosiflorum* by the longer, coarser simple eglandular hairs on the margins of the rosette leaves and its discoloured styles. Except when in typical form, it is less readily distinguished from variants of *H. subtenuifrons*, and plants which occur locally on Cairn Toul (v.c. 92) approach *H. larigense*, but have some black-based simple eglandular hairs on the rosette leaves, more numerous cauline leaves, more abruptly acute and acuminate involucre bracts, more numerous, somewhat dusky hairs on the ligules and darker styles, all characters which are typical of *H. subtenuifrons*. In typical form, *H. larigense* is distinguished from *H. subtenuifrons* mainly by the shape of its involucre, with more finely acute involucre bracts which have some conspicuous glandular hairs, and by its slightly deeper yellow ligules and less deeply discoloured styles.

Hieracium larigense



Figure 101. *Hieracium larigense*, Creag an Leth-choin, 1986.

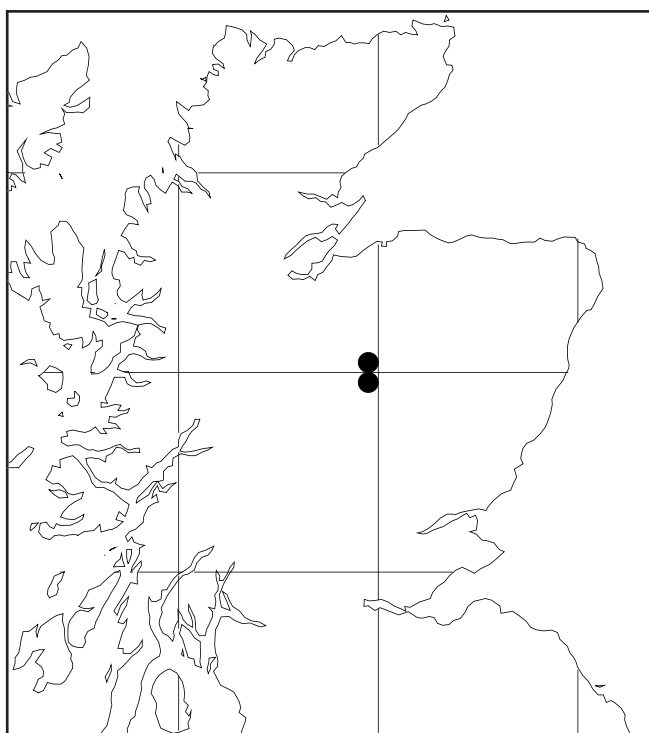


Figure 102. Distribution map of *Hieracium larigense*.

Hieracium larigense is distinguished from *H. calvum* mainly by its small cauline leaves, its darker involucre which is broader and more rounded at the base and by its more discoloured styles. It is distinguished from *H. completum* mainly by its narrower, unblotched rosette leaves with few or no hairs on the upper surface, its smaller, narrow lowest cauline leaf, its more sharply acute involucre bracts, straighter, narrower, lighter yellow ligules and less darkly discoloured styles. It is distinguished from *H. hanburyi* and *H. memorabile* mainly by the absence of simple eglandular hairs on all or most of the upper surface of the inner rosette leaves, the fewer conspicuous glandular hairs on the involucre bracts, and the paler yellow, much straighter outer ligules. It is distinguished from *H. insigne* mainly by the lack of simple eglandular hairs on all or much of the upper surface of the inner rosette leaves, the smaller cauline leaves and by its narrower ligules and discoloured styles. It is distinguished from *H. milesii* by its much less developed, less spreading lowest cauline leaf, its more appressed, more finely acute inner involucre bracts, by its slightly narrower ligules and by its usually more discoloured styles. It is distinguished from *H. pseudopetiolum* mainly by its more numerous, more elliptic, less obtuse, more dentate rosette leaves, its much less developed lowest cauline leaf, and its broader-based involucre with a few, conspicuous glandular hairs.

The epithet *larigense* is derived from its occurrence in the Lairig Ghru.