



Scabrous Hawkweed (*Hieracium scabrisetum*)
Lus Screbbagh ny Shawk
Biodiversity Action Plan | Cummey Yannoo Beiyne-Feie



Background

The Isle of Man has a restricted hawkweed flora with most native hawkweeds occurring in very localised areas. The Scabrous Hawkweed growing in Santon Gorge Area of Special Scientific Interest (ASSI) is one of the most remote. Here it grows on rocks in the Santon Burn that are scoured by winter storms, leaving little competition for this crevice rooting species.

Nomenclature

The genus *Hieracium* is known for its complex taxonomy due to apomixis (reproduction via seeds without fertilisation resulting in offspring that are clones of the parents), leading to many closely related microspecies or clones that some botanists treat as distinct species.

The species was first described and named by German botanist Karl Hermann Zahn in 1922¹ and he called it *Hieracium laevigatum* subsp. *scabrisetum*, a subspecies of *Hieracium laevigatum* Willd Smooth Hawkweed. The plant was described a second time shortly after, by botanist Reverend John Roffey in 1925² and he described it as a species in its own right using the synonym *Hieracium scabrisetum* (Zahn) Roffey and the English name Scabrous Hawkweed.

Stace (2005)³ recognised 261 *Hieracium* microspecies and aggregated them into 15 sections. *Hieracium scabrisetum* falls with the section H. sect. *Tridentata* that at the time of publishing had 21 microspecies.

Description

A rather plain hawkweed, growing to around 50 cm tall. What makes this species stand out is its shade tolerance. This is a species made for temperate rainforest streams but which has not got the dispersal ability to spread from its only known ancient woodland ravine site.

H. sect. *Tridentata* usually has less than 15 stem leaves that are rarely crowded and the upper leaves are narrowed to the base. The stems are usually greater than 30cm.

The English name Scabrous probably comes from scaberulous used in botany to mean very fine rough texture. The hair arrangement (indumentum) on the many individual florets (secondary capitulum) that make up the flower head (capitulum) are identifying features characteristic of the family Asteraceae, that this species belongs to.

Confusingly rough hawkweed *Hieracium scabrum*, a species found in Central and Eastern America and Canada, is also sometimes known as scabrous hawkweed.

¹ Zahn, K. H. (1922) Engler, A. (Ed.) Das Pflanzenreich. Regni vegetabilis conspectus IV 280 (79. Heft) 892.

² Roffey, J. (1925) The London Catalogue of British Plants. Botanical Society of London Ed. 11, 28, No. 1226

³ Stace, C. (2005) Field flora of the British Isles. 2nd Edn. Cambridge University Press, Cambridge, UK.



British Isles Distribution

This species is most frequent in Wales with just a few English and NBN Atlas

Scottish records. It is also native to Norway.



Isle of Man Distribution

This species is restricted to a single colony of around 40 plants in Santon Gorge ASSI. The plants occur on three rocks deep in the gorge where sheep are not able to access.

The colony is just above the reach of the highest tides. The species was first recorded in 1990 by Jessie Tregale (a botanist associated with the Bradford Botany Group) and confirmed by David McCosh (GB Hieracium referee).

Habitat and Ecology

There is little literature available about this species except that it is a woodland/woodland edge species. Stace (2005) reports that *H. sect. Tridentata* occurs on grassy, rocky and marginal habitats.

On the Isle of Man, it is able to find a niche on seasonally water-scoured rocks by the Santon Burn in a clearing. By having tap roots, it is able to survive in crevices where it can grow in spring in relatively competition-free conditions. As a small and low growing plant, it would likely be smothered by most competitive vegetation. While this plant is not competitive, the surrounding vegetation is generally lush and configures to a NVC W8 habitat. Like all *Hieracium* this species is self-fertile and rarely outbreeds, thus forming clonal colonies by seed. In this way it is able to persist at very low numbers without suffering from inbreeding depression.

Its position in a particularly inaccessible ancient woodland ravine, points to the species being unable to tolerate much grazing pressure. It is likely to be highly drought tolerant as well as it appears to grow in crevices with nearly no soil. While this is speculative, the author also believes that it is likely that individual plants are very long-lived.

Legal protection

None for species, however the only known site is within an ASSI. All *Hieracium* are red listed under *Plants of Conservation Concern in the Isle of Man 2022*.

Threats

The extremely small population has been stable since it was discovered over 30 years ago, however there are clear vulnerabilities to such a small population such as extreme weather events or an opening up to grazing (it is protected from grazing from the south by dense gorse that is gradually being colonised by trees, thus this protection may not persist in decades to come). The clearing in which this plant grows is gradually being enclosed by young establishing Sycamore trees; the shade levels are likely to challenge this species in a few decades, with retreat down-stream impossible due to tidal salt water and upstream in deep shade and narrow canyon.

Reason for BAP		
A very small population that is vulnerable to extinction. Manx Wildlife Trust rainforest restoration project offers many streams that will be protected from grazing while trees are established and then will be grazed by cattle (that are not able to access areas sheep do).		
Aims		
To create at least two new self-sustaining colonies of Scabrous Hawkweed.		
Linked BAPS		
Rainforest Flora BAPs		
Delivery Options	Active	Challenges
Repository of a voucher specimen with the national herbarium at the Manx Museum.	No	Material can be gathered from nursery stock so site access and permissions not needed
Annual monitoring of existing population at Santon Gorge		Land-owner permission
Grow ex-situ and introduce as small plants to suitable ravine habitat at MWT Glion Darragh and MWT Glen Auldyn Nature Reserves.	No	Establishing young plants in crevices in exactly the correct river rocks (in sunny positions with bare rocks among neutral soil conditions) will be a tough challenge.
In-situ conservation interventions	No	- The removal young trees from the Scabrous Hawkweed area would be extremely challenging due to steepness and remoteness of area. With the shade threat still at least a decade away, on site actions are premature. - Resources - Consents



Delivery Plan		
Strategy		Lead
Grow 50 plants for each release site in small plug trays and introduce to crevices by using a masonry drill to widen crevices locally to allow plug plants to be inserted. Plants to be introduced to semi-scoured rocks in mid-sized streams where NVC W8 vegetation dominates the river-banks.		Manx Wildlife Trust Milntown Nursery and Woodland Team
Include Scabrous Hawkweed on the <i>Plants of Conservation Concern Isle of Man</i> red list as its own species rather than a genus as found in the 2022 version		Isle of Man BAP Leaders and flora specialists
Action	Timing	Responsibility
Collect seed and grow stock plants	2025-6	Manx Wildlife Trust Milntown Nursery
From stock plants grow plug trays of plants	2026-7	Manx Wildlife Trust Milntown Nursery
Introduce plugs to suitable habitat	2027 onwards	Manx Wildlife Trust Woodland Team
Include Scabrous Hawkweed in next review of <i>Plants of Conservation Concern Isle of Man</i> (red list)	Next review	Manx Wildlife Trust (in consultation with Isle of Man BAP Leaders and flora specialists)
Supply Manx Museum with voucher specimen	2027	Manx Wildlife Trust Milntown Nursery



Monitor in-situ population In Santon	Every 5 years	Manx Wildlife Trust/DEFA
Annual Updates		
Year		

