



Quaillag-hellanagh Veg Heath Beefly *Bombylius minor*



Cummey Yannoo Beiyen-Feie Biodiversity Action Plan

Description

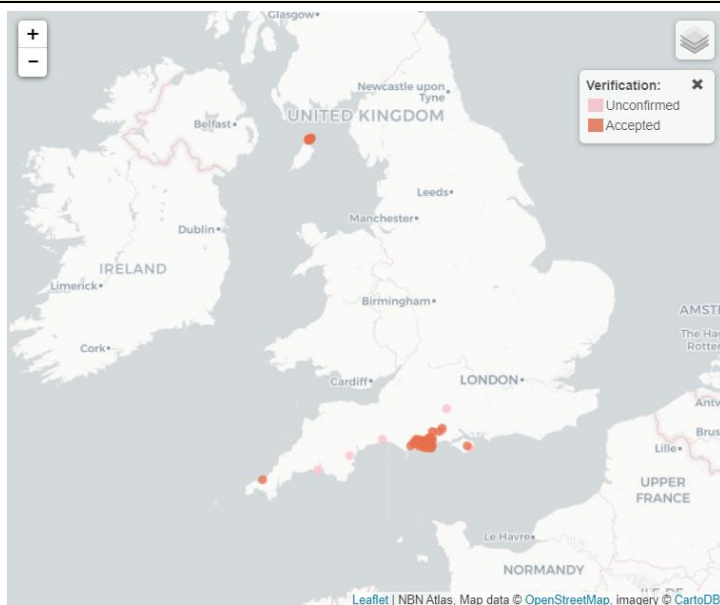


Superficially resembling a small bumblebee, *Bombylius minor* is covered in long hairs like other members of the genus but is distinguished from them by its unmarked wings, pale hairs behind the head and pale coloured femora. The adult has a long proboscis which it uses to probe flowers for nectar. Larvae live and feed in the nests of the solitary bee species *Colletes succinctus* and females have been observed flicking their eggs into host nests. Adults fly in July and August. Flight season for the adults on the Isle of Man is from 5th July to the 28th August.

Habitat

The heath beefly is specialist of lowland sandy heaths, dune grassland and former sand and gravel quarries. It can be frequently seen hovering over bare sandy places where it's host makes its burrows or nectaring on Cat's-ear *Hypochaeris radicata*, Ragwort *Scenecio jacobaea*, Sheep's-bit *Jasione montana*, Wild thyme *Thymus polytrichus* and Bell heather *Erica cinerea*.

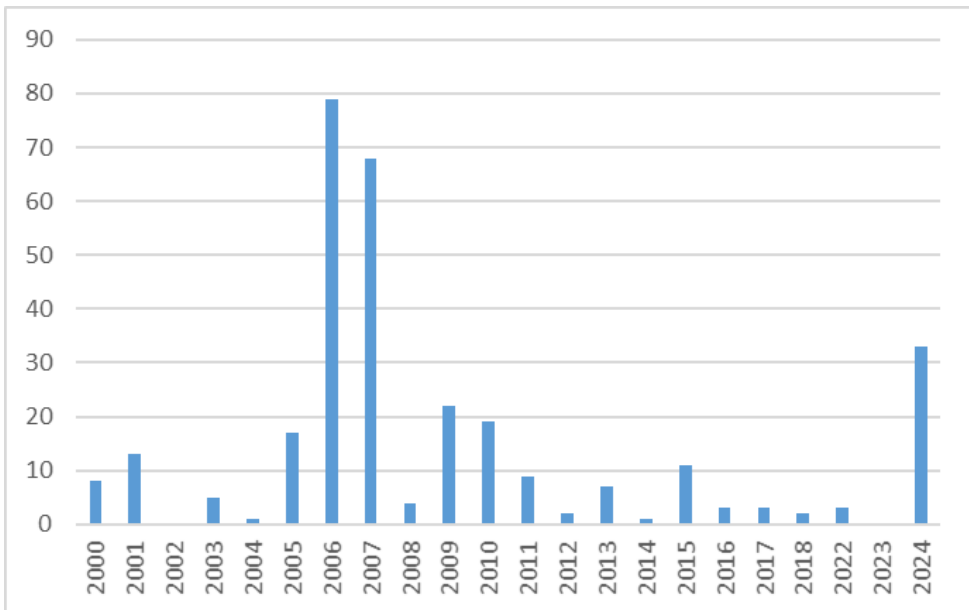
Distribution and Status



B. minor is oddly distributed in the British Isles. Current distribution seems to be limited to the Dorset heaths and the north coast of the Isle of Man at The Ayres, The Phurt (Ramsey) and The Lhen, although there are older records from Hampshire, Cornwall and the west coast of Wales. A possible explanation for this odd distribution is that the larvae or pupae of the heath beefly may have been transferred to the Ayres during the 1800's or early 1900's when soil ballasts were used on ships.

Legal protection and Status

- Listed on Schedule 5 of the Wildlife Act 1990. It is an offence to intentionally or recklessly kill, injure or take *Bombylius minor*. It is also an offence to possess a live or dead *Bombylius minor*. Furthermore, offences include damaging, destroying or obstructing their place of shelter or disturbing them while they sheltering.
- It is a UK Species of Principal Importance. (See [Habitats and species of principal importance in England - GOV.UK](#))
- Monitoring indicated that the species had greatly declined on the Ayres between 2006/2007 and 2022 and there were no sightings at all in 2023. However, in 2024 there was an upsurge in records with a minimum of 33 individuals recorded from Cronk y Bing to the Point of Ayre (including the Manx Birdlife Point of Ayre National Reserve)¹.



Annual counts of the heath bee fly (data provided by Louise Samson, DEFA)

Heath Bee fly Total Counts Per Year

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Count	8	13	0	5	1	17	79	68	4	22	19	9	2	7	1	11	3

Year	2017	2018	2019	2020	2021	2022	2023	2024
Count	3	2	No assessment	No assessment	Numerous recorded by Keith Alexander on the SE corner of the MBL Reserve	3	Searched for in suitable weather conditions in former locations and none found	A minimum of 33

Threats

Change/loss of habitat: habitat in the Isle of Man is dependent on the suitability for the host *Colletes succinctus* nest sites, namely open, often disturbed sandy ground. Vegetation encroachment, particularly by bracken and gorse, would reduce the availability of suitable nest burrows for the fly to flick its eggs into.

¹ Samson, L, 2024 Ayres NNR Report – DEFA (Unpublished)
Heath Bee fly January 2025 Kate Hawkins

Threats continued ...

Inadvertent disturbance by walkers, dogs and unauthorised vehicles at the Ayres may destroy bee burrows.

In recent years, flooding at the Ayres has threatened areas of heathland and this may be a lasting effect of climate change and sea level rise.

Change/loss of management: loss of warden oversight and management could lead to lack of monitoring of the heathland and degradation of habitat for the beeflies.

This species is extremely vulnerable in its Dorset locations due to habitat fragmentation and urbanisation of the heathland. Even stabilisation of natural erosion can be detrimental. The Isle of Man therefore has a responsibility to ensure the species continues to thrive at The Ayres at its only other known location in the British Isles.

The chough population has greatly increased in recent years in the north of the Island as they have become adapted to nesting in farm barns and chough feed preferentially on *Colletes* bee grubs².



Chough feeding on a *Colletes* bee colony

² : J. Clarke & P. M. Clarke (1995) Choughs feeding on Mining Bee *Colletes succinctus* larvae on Colonsay, Bird Study, 42:3, 253-254, DOI: 10.1080/00063659509477175
Heath Beefly January 2025 Kate Hawkins



Colletes bee colony turned over by feeding chough

Knowledge and Constraints

DEFA warden and volunteers have monitored the heath bee fly annually. Continuing systematic and detailed surveying informs conservation management and allows fluctuations in the population (as in 2023-2024) to be picked up.

The end of the flight season in 2024 extended beyond that previously recorded (8th July to 28th August) to 31st August and it is possible that this reflects a decrease in invertebrate predators due to poor weather earlier in the season.

This species often features in presentations and guided walks about the Ayres. It can be useful as a 'flagship species', promoting awareness of the ecology of the dune system and its specialised invertebrate inhabitants.

Linked BAPS

Habitats

- Sand dunes
- Lowland heath

Conservation Objectives

Objective 1: maintain and enhance suitable habitat for solitary bee *Colletes succinctus* as the host species for larvae of *B.minor* (DEFA, MNH + volunteers)

Actions:

1. Remove vegetation encroachment which is shading or likely to shade *Colletes* nest sites.
2. Provide strategic bare patches in fixed dunes and heathland in The Ayres NNR to encourage *Colletes succinctus* to nest and to provide places for insects to bask generally.
3. Assess and monitor likelihood and effects of flooding on key sites for bee fly and host and provide mitigation measures if necessary, eg by providing bare ground for host nests on nearby higher ground (aspect, slope, drainage, vegetation etc permitting). Look into the possibility of allowing some run-off gullies to develop naturally to provide the steep-sided ground that *Colletes* favours for nesting. Natural erosion along footpaths, tracks etc may provide additional habitat and should not be tidied up or stabilised unless necessary.
4. Ensure that nectar sources for the bee fly and host bees are not destroyed in the course of routine management. Nectar sources include Thyme, Sheep's-Bit, Ragwort, Bell Heather and yellow composites such as Cat's-ear.
5. Protect *Colletes* bee colony from feeding chough; trial wire netting cages over *Succinctus* colony.

Objective 2: Monitor populations of Heath Bee fly and its host (DEFA, volunteers, local and visiting entomologists)

Actions:

1. Continue annual counts of Heath Bee fly and its host *Colletes succinctus* as part of monitoring activity at The Ayres NNR.
2. Continue to estimate size and map colonies of *C.succinctus* at The Ayres, Lhen, Phurt, Cronk y Bing and Manx Birdlife Point of Ayre National Reserve.

Objective 3: Identify possible colonisation sites other than The Ayres and Phurt (local and visiting entomologists)

1. Check for *C.succinctus* colonies in other suitable-looking habitat along the north coast outside the NNR. As it has been recorded at Cronk y Bing, are there other potential sites along the north west coast?
2. Survey known *C. succinctus* colonies, such as those on the mine deads at Beckwith's Mine and the Calf of Man, for the presence of the Heath Bee fly.

Objective 4: Promote the conservation of the Heath Bee fly (DEFA, MNH, MWT + volunteers)

Actions:

1. Walks and talks by DEFA staff and informed volunteers
2. Commission specialist close-up photography of the bee fly and its host and provide habitat context for promotion of bee fly as a possible flagship species for dune/heath ecology and habitat management.
3. Displays in Ayres visitor centre

Objective 5: Review and update this BAP

Actions:

1. Review by December 2025.