

**Common name:** Cowberry

**Scientific name:** Vaccinium vitis-idaea

Conservation status: Scarce. Declining.

**Description:** Dwarf, evergreen shrub with pinkish-white, bell-shaped flowers in short, dense clusters. Berries are red and edible. The small, oval leaves are arranged alternately on the stem.

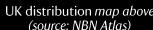
**Habitat:** Heaths, bogs and open coniferous woodlands.

**Ecology:** Cowberry grows in shallow, acidic and nutrient poor soils amongst heather, bilberry, crowberry, mosses and lichens. It spreads by underground stems, often forming dense colonies. A hardy shrub, cowberry will tolerate temperatures as low as -40 °C, growing at altitudes above 500 m. Some studies have indicated a certain drought tolerance in this species.

Cowberry tolerates controlled burning and like bilberry, regenerates faster than heather. Where heather subsequently dominates, cowberry becomes scarce.

**Distribution and threats:** Found in the north of England, the Welsh uplands and throughout Scotland. Cowberry has declined due to changes in land use, namely afforestation and agricultural improvement, with 80% of heathland lost since the 1800s and with it cowberry and other ericoid species like heather, bilberry and crowberry.



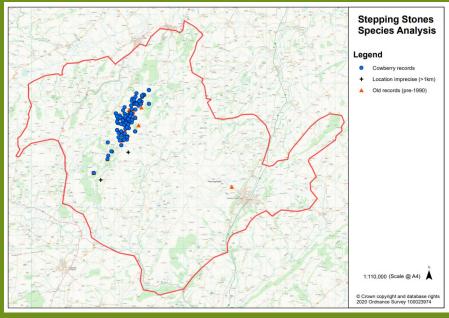








### Cowberry in the Stepping Stones Project area



Much of upland heathland in the Stiperstones suffered from afforestation in the 1950s, with planting of species like Sitka spruce. Overgrazing on the Long Mynd and inappropriate supplementary feeding led to a reduction in heathland and its replacement by bracken and grassland. Indiscriminate burning in both areas will have contributed to the loss of heathland and with it, cowberry.

In the Stiperstones most records show cowberry occurring along the ridge from Black Rhadley to Devil's Chair, where the jagged ridge of Stiperstones quartzite sits on Cambrian shales. More recent records show the species appearing in regenerating heath on the lower slopes of the Gatten and on Nipstone. Cowberry also occurs on Heath Mynd but only where soil is shallow and in rocky places and not on the more grassy slopes.

Current data shows no records from Cefn Gunthly or other hill tops above the moorland line, but the latter are regularly manured by farms, which compromises heathland regeneration. Cowberry has not been recorded on the Long Mynd for many years.

### **Conservation for Cowberry**

The 'Back to Purple' project which started in 2001, aimed to manage and restore extensive areas of heathland in the Stiperstones, beginning with the felling of conifers at the Gatten and followed by conifer removal at Nipstone Rock. Shropshire Wildlife Trust (SWT) purchased Nipstone in 2008 and felled a further plantation on the eastern slopes. Heather seed in the soil can be viable for 100 years and the heathlands started to recover rapidly. Healthy heather stands are now interspersed with cowberry throughout the Gatten and cowberry has appeared in 3 locations on Nipstone's most recently restored heath.

SWT acquired the adjacent Old Jubilee Wood in 2017, a potential site for cowberry and both new and existing landowners in the Stepping Stones project area have expressed the desire to, or are attempting to create new heathland habitat. Managers on the Long Mynd are working with the plant company Robert Lee Wildflower Seeds Ltd to re-introduce cowberry where historic records exist and where habitat is suitable.

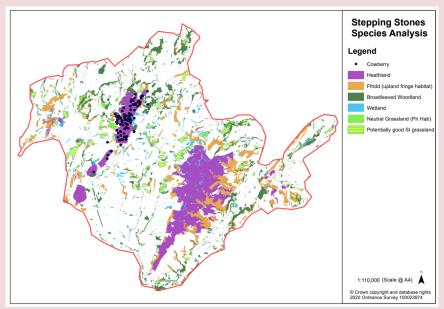
#### **Conservation actions include:**

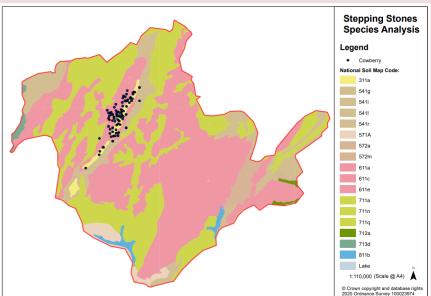
- Extensive grazing with traditional breeds to maintain heathland habitat, to stop succession to woodland, supress grasses and bramble and to reduce heather dominance.
- Reduction of heather dominance around cowberry stands, by rotational cutting or controlled burning of heath.
- Bracken management on heathland by cutting or bruising.
- Re-introduction of cowberry to suitable habitat where this species is absent.





# Habitat creation opportunities for cowberry in the Stepping Stones Project area





Above left: Habitat map of the Stepping Stones project area overlayed with cowberry records.

Below left: Soil type map of the Stepping Stones project area (with cowberry records).

The habitat map shows that in the Stepping Stones project area, cowberry is confined to heathland habitats in the Stiperstones area. Only one old record exists on the Long Mynd in comparable habitat.

The map of soil types shows the occurrence of cowberry, mostly on two types: 611 and 311, the latter being Stiperstones quartzite which is unique to this specific landscape. Cowberry is fairly well distributed on soil type 611

too in the Stiperstones and since this is the predominant soil type on the Long Mynd which supports heathland, great opportunities exist for cowberry re-introduction here. The National Trust are planning the re-introduction of this species using Local Provenance plants.

#### **Conservation objectives for Cowberry**

- Maintain accurate, up-to-date records of cowberry on all heathland areas in the Stepping Stones project area
- Increase the extent of suitable habitat for cowberry when opportunities arise to acquire surrounding land, felling conifers and restoring these areas and poor acid grassland to heathland
- Restore existing heathlands in the Stepping Stones project area to a condition which allows cowberry populations to thrive
- Raise awareness of the status of cowberry amongst heathland landowners, managers and volunteers who work on these sites, offering advice and support





## **Conservation actions for Cowberry**

- By 2025 to undertake a survey of all heathland sites for cowberry and its extent
- By 2026 to support land managers and volunteers to undertake condition monitoring of all heathland sites to assess heathland condition
- By 2026 to use predicted habitat mapping to work with landowners/ managers on a plan to manage heaths for cowberry
- To conduct research, perhaps through an MSc to understand fully the ecology of cowberry in the Stiperstones and elsewhere where it grows successfully
- By 2026 to re-introduce cowberry to the Long Mynd in suitable habitat and to advise landowners on restoring areas of poor grassland on sites like Heath Mynd and Cefn Gunthly to heathland
- To support land managers in the annual monitoring of cowberry on both restored and existing sites to map its occurrence and spread

Action Plans to be reviewed and updated annually

#### Further help and advice:

Locally: Natural England Stiperstones NNR, National Trust Cardingmill Valley

#### Nationally:

plantlife.org.uk/uk/discover-wildplants-nature/plant-fungi-species/ cowberry



#### **About Stepping Stones**

Stepping Stones is an innovative landscape-scale conservation programme. The aim is to connect wildlife habitats by

strengthening or creating 'stepping stones' and corridors of habitat between the Long Mynd and Stiperstones, and beyond. In practice, this means creating and linking areas of heathland, flower-rich grasslands and broadleaved woodland by a network of wildlife-rich hedgerows, road verges, hillsides and streamside wetlands.





