

Back from the Brink – Species summary

Barberry Carpet Moth

BftB project: SP01 – Barberry Carpet Moth Species Recovery Project

Project lead organisation: Butterfly Conservation

Contact: info@butterfly-conservation.org

Species name – common & scientific	Barberry Carpet (<i>Pareulype berberata</i>)
Photograph	 <p data-bbox="783 1240 1174 1272">© Alex Hyde / Back from the Brink</p>
Taxon group	Invertebrates
Conservation status	RDB1, Section 41 species, UK BAP
UK distribution	12 colonies over 4 counties - Oxfordshire (1), Dorset (1), Wiltshire (9), Gloucestershire (1)
Habitat associations	Hedgerows, woodland edge and glade
BftB work carried out:	
Survey & Monitoring	Annual larval survey at all 12 colonies by team of licensed surveyors. New larval surveyor trained and added to the licence for the Wiltshire area. Selection of maturing planted bushes surveyed for larvae in final year of project. Light trapping for adult moths on several sites over 8 occasions – at 3 colony locations and 2 locations extremely close to colonies.

<p>Sites habitat management works</p>	<p>Planting over 4000 Common Barberry <i>Berberis vulgaris</i> plants on 168 sites over 4 years of the project. Barberry is the sole foodplant for the moth. Planting sites selected according to distance from arable land, distance to colonies or other planting sites, and suitability of the site according to water table, competing vegetation, light level and soil type.</p> <p>Clearance of competing vegetation eg, Brambles, Dogwood, Clematis. Repeat visits to sites to check on plants and re-plant where plants had failed. Protection of younger plants using mesh and wooden stakes. Replacement of stakes and mesh as necessary due to vandalism on some sites. Watering during drought periods where possible.</p> <p>Combination of volunteer tasks in 2 project areas, and provision of plants and protection to landowners and partners for them to plant independently.</p> <p>Total of 30 volunteer tasks run by the project, with additional tasks run by Forestry England and Wiltshire Wildlife Trust.</p>
<p>Conservation 'interventions' incl. reintroductions & translocations</p>	<p>None</p>
<p>Technical advice provision</p>	<p>Advice to over 60 landowners through site visits. Additional advice to landowners and partners over email and phone, and through provision of factsheets on the moth and the plant, plus Barberry planting and germination advice. Regular technical advice given to volunteers growing their own Barberry plants from seed. Additional advice on care of Barberry plants to encourage the moth - particularly over timing of pruning and rotational hedge management. Also wider management advice to encourage wildlife such as meadow creation and provision of nectar sources and butterfly foodplants.</p>
<p>Links made with other taxa / conservation work?</p>	<p>No other target species. Links to wider conservation work through collaboration with project partners at Forestry England, Wiltshire Wildlife Trust, Woodland Trust, National Trust, Dorset County Council.</p>
<p>Wider engagement & advocacy activities?</p>	<ul style="list-style-type: none"> • Events at schools – talks to classes and presentations on butterflies and moths. Planting events with school pupils. • Community Arts event – artist creating paper lanterns at primary school in colony area to represent Barberry Carpet moth pupae. • Malmesbury Wassail event – lantern parade from the town hall to a planting site by the river – Conygre Meadows. Walk led by mayor, arranged by community artist and project officer. Walk preceded by a meeting in town hall where attendants heard about the project and could take plants for their gardens. • 30 planting events on sites, attended by volunteers and often with partner organisations and community groups. • Moth trapping sessions on 5 sites with evening and morning sessions for public to attend. Most footfall at Westonbirt arboretum's Big Forest Find event. • Field Studies Council BioLinks talk June 2020 on the Barberry Carpet Project. 97 attendees and video still available through You Tube channel. • Regular posting on social media channels to publicise the project.

BftB results obtained:	
Recorded Distribution (in BftB focal areas)	Distribution hasn't changed over the life of the project.
Recorded Abundance of species populations	Abundance not recorded due to potentially damaging survey method. Presence/ absence monitoring only possible measure of reliable monitoring for the species. Results over the last few years have been quite stable. It is hoped that in 5 – 10 years we start to see an increase in populations as bushes mature and are potentially colonised by Barberry Carpet.
Other results documented?	Surveys from adult moth trapping session reported to landowners, iRecord, BC files.
Species Recovery Curve progress made	At the start of the project we were at 6 on the recovery curve, and we have progressed to 7. We have gained more of an understanding of the needs of both the moth species and the plant. We moved away from planting on arable land due to the risk of rust re-emergence and have planted more in gardens, community spaces and nature reserves. We understand more about the importance of aftercare, and that the plant is not drought tolerant when very young. We are confident that moth can disperse and that lack of the foodplant is the main limiting factor, so we are planting in as many locations as possible. We are trying to keep planting locations within 2 km of extant colonies, or within 2 km of new plantings. We didn't expect the species to respond during the life of the project as it will take a while for the plants to grow large enough to sustain a colony of the moth. However we have set things in motion for the species to spread and disperse into plentiful available habitat in the future.
Other measures of species recovery progress? e.g. FCS	Colony sites aren't designated SSSI.
Recommendations for future work:-	<ul style="list-style-type: none"> Continued growing and planting of Barberry plants, particularly in the project area but also spreading further out. Continue to ensure new plants are sited at least 20 metres from arable land, preferably further. Maintain close links with John Innes Centre and support the PhD project. Maintain close links with project partners. Collection of berries each autumn and provision to plant nurseries who have been recruited for growing on new plants. Sign up new larval surveyors when opportunity arises. Maintain links with landowners who have collaborated on the project. Support project partners who wish to continue with moth trapping events. Support branches who will continue to run volunteer tasks at some planting sites.