

Back from the Brink – Species summary

Cotswold Pennycress

BftB project: IPO4 Limestone’s Living Legacies

Project lead organisation: Butterfly Conservation

Contact: info@butterfly-conservation.org

Partner organisation for species: Plantlife

Species name – common & scientific	<p align="center">Cotswold Pennycress <i>Microthlaspi perfoliatum</i></p>
Photograph	 <p align="center">© Andrew Gagg / Back from the Brink</p>
Taxon group	Cabbage (Brassicaceae) family
Conservation status	<p>A species “of principal importance for the purpose of conserving biodiversity” under Section 41 (England) of the Natural Environment and Rural Communities Act 2006. Fully protected Schedule 8 of the Wildlife and Countryside Act 1981.</p>
UK distribution	<p>Largely confined to fewer than 15 sites in the Cotswolds, due to loss of open habitat to scrub invasion, lack of grazing or cessation of quarrying (and associated post-quarrying restoration works). It produces few seeds per capsule and has poor seed dispersal.</p>
Habitat associations	<p>Bare or sparsely vegetated soils on oolitic limestone. A naturally occurring species on disturbed ground within limestone pasture, but mostly associated today with small ‘slate’ pits and larger quarries within both Gloucestershire and Oxfordshire Cotswolds. Rarely recorded from the brashy margins of arable land, on the weathered tops of old walls, and on the ‘screes’ and ballast of railway cuttings.</p>

BftB work carried out:	
Survey & Monitoring	<ul style="list-style-type: none"> • Surveys to two privately owned sites were undertaken in 2018. • Further surveys to the two sites surveyed in 2018 were carried out in 2019, plus to a further seven privately owned sites. • Following scrape creation and scrub removal at four of these sites, follow up surveys were carried out in 2021 to determine initial results.
Sites habitat management works	<p>Habitat management work has focussed on four privately owned sites:</p> <ul style="list-style-type: none"> • Scrub clearance work carried out in 2020. Five old slate pits re-excavated in Feb 2020 – turf and topsoil removed to expose bare limestone rubble and enable Cotswold Pennycress to spread. • Two old slate pits re-excavated in Feb 2020. • Five old slate pits re-excavated in Feb 2020. • Scrub clearance work in front of old quarry face to enable small populations on ledges to expand. <p>(See ‘Evaluation of management interventions for Cotswold Pennycress and Fine-leaved Sandwort’ by Cath Shelswell, Plantlife for further detail.)</p>
Technical advice provision	<ul style="list-style-type: none"> • Andrew Byfield (representing Plantlife) and Julian Bendle (Butterfly Conservation) visited three sites in 2018 to assess current status of Cotswold Pennycress and provide management advice. • Andrew Byfield, Julian Bendle and Cath Shelswell (Plantlife) visited three additional sites in 2019 to assess current status of Cotswold Pennycress and provide management advice. • Follow up visit by Julian Bendle to one site in 2020 prior to scrub clearance works. • A new Cotswold Pennycress factsheet was also produced with Plantlife.
Links made with other taxa / conservation work?	<ul style="list-style-type: none"> • Fine-leaved Sandwort (<i>Minuartia hybrida</i>), one of our secondary species favours similar habitat to Cotswold Pennycress and occurs on several of the known Cotswold Pennycress sites. • Scrapes at one site and scrub removal work at another also aimed to benefit Fine-leaved Sandwort and Basil Thyme.
Wider engagement & advocacy activities?	<ul style="list-style-type: none"> • Cotswold Pennycress mentioned in a number of talks during the project and success of scrapes/scrub removal highlighted in various talks at the end of the project.
BftB results obtained:	
Recorded Distribution (in BftB focal areas)	<p>2018 surveys – two sites: Site no.1: 12 plants Site no. 2: zero found*</p> <p>2019 surveys: Site no.1: 19 plants (site no.1 in 2018) Site no.2: zero* (site no.2 in 2018) Site no.3: around 600 plants Site no.4: 40 plants Site no.5: zero found Site no.6: zero* Site no.7: zero* Site no.8: zero*</p>

	<p>Site no.9: zero*</p> <p>*Negative surveys at 5 sites with historical records for 1900-1986 and 2000-2017 date ranges. Thoroughly searched all locations shown in 2018 Plantlife report ('Section 41 species present within the Cotswolds AONB') but no plants visible.</p> <p>2021 surveys:</p> <p>Site no.1: an increase in Cotswold Pennycress plants was found in both areas where scrub was cleared (see 'Evaluation of management interventions for Cotswold Pennycress and Fine-leaved Sandwort' by Cath Shelswell, Plantlife)</p> <p>Site no.3: a number of plants found within or just on the edge of newly created scrapes (see Plantlife report)</p> <p>Site no.4: a number of plants found within the newly created scrapes (see Plantlife report)</p> <p>Site no.5: no Cotswold Pennycress plants found within newly created scrapes (see Plantlife report)</p>
Recorded Abundance of species populations	As above.
Other results documented?	As above see - Shellswell, C 2021 Evaluation of management interventions for Cotswold Pennycress and Fine-leaved Sandwort. A report for the Back from the Brink Limestone's Living Legacies project. Plantlife
Species Recovery Curve progress made	Species recovery curve score moved from 2 to 8: Follow up visits to assess success of scrub removal work and scrape creation at known Cotswold Pennycress sites with Plantlife discovered an encouraging response and increase in Cotswold Pennycress abundance and distribution.
Recommendations for future work:-	<p>Continue to monitor re-excavated pits at the three sites where this work was carried out. Also continue to monitor the quarry face at the fourth site where scrub removal was carried out.</p> <p>Further scrub removal work along the quarry face as well as along the top edge (planned for but not carried out due to limited funds) would be beneficial to open up more of the quarry face.</p>