

# Back from the Brink – Species summary

## Basil-thyme Case-bearer

**BftB project:** IP07 Shifting Sands – Securing a future for the Brecks

**Project lead organisation:** Natural England

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**Partner organisation for species:** Butterfly Conservation

<b>Species name – common &amp; scientific</b>	Basil-thyme Case-bearer moth (Coleophora tricolor)
<b>Photograph</b>	 <p style="text-align: center;">© Rob Dyke, BC / Back from the Brink</p>
<b>Taxon group</b>	Family: Coleophoridae
<b>Conservation status</b>	IUCN: None Section 41 (NERC Act) UK BAP Status: Priority species Butterfly Conservation: High Priority
<b>UK distribution</b>	Largely restricted to Breckland in Norfolk.
<b>Habitat associations</b>	Guilds: Open, disturbed, ungrazed
<b>BftB work carried out:</b>	
<b>Survey &amp; Monitoring</b>	Bespoke surveying method (larval search) with the Butterfly Conservation protocol. Surveying undertaken once annually between August - October at four/five locations: <ul style="list-style-type: none"> <li>- East Wretham Heath</li> <li>- Feltwell</li> <li>- Icknield Heath (Kings Forest)</li> <li>- Middle Harling Heath</li> <li>- Kings Forest</li> </ul>

<b>Sites habitat management works</b>	<p>Main site work for this species has taken place along the Forest Corridors route in Kings Forest in 2020 and results investigated in 2020/2021. Basil Thyme plants did appear on the Forest Corridors in 2020 at one location but were subsequently eaten by deer. In 2021 Basil Thyme plants were found in several different locations along the forest corridor network, covering over 100 metres in one location in July 2021. Larval sampling in August and September 2021 was negative at all locations. Larvae were confirmed close to the forest corridor network at three different locations in 2019, 2020 and 2021.</p> <p>To maintain Basil Thyme on the Forest Corridors Project Site it will be necessary to disturb strips with a harrow on an annual basis. During the work, most of the tree stumps have been left due to archaeology constraints and so it may be very difficult to maintain bare ground with a harrow in the future and the species will be lost again.</p>
<b>Technical advice provision</b>	<p>Training day held for land managers in 2019  Factsheet available on Butterfly Conservation website  Video footage of larva and gallery of photographs available  Advice to ecologist undertaking work at Centre Parcs Elveden which is a former site with no recent records</p>
<b>Links made with other taxa / conservation work?</b>	<ul style="list-style-type: none"> <li>• Basil Thyme (<i>Acinos arvensis</i>) which is vulnerable to grazing by sheep, deer and rabbits.</li> <li>• Lunar Yellow Underwing also benefits from disturbed ground.</li> <li>• Grayling butterfly confirmed at Feltwell and King's Forest sites for Basil Thyme Case-bearer moth.</li> <li>• Dingy Skipper on Chalk Lane in King's Forest</li> <li>• Wood Lark</li> </ul>
<b>Wider engagement &amp; advocacy activities?</b>	<p>Guided walks with identification and survey training. Children painted lanterns with Basil Thyme Case-bearer moths at an event with an artist at Lackford Visitor Centre.</p>
<b>BftB results obtained:</b>	
<b>Recorded Distribution (in BftB focal areas)</b>	<p>Kings Forest and 5 other sites surveyed annually using bespoke larval sampling method.  Distribution surveyed during the project lifetime and confirmed at 5 different sites. Kings Forest is a stronghold for the moth along forest rides where annual disturbance takes place. The forest corridor distribution still not fully understood due to short timescale of surveying. The moth has been lost from East Wretham Heath due to rabbit pressure, although this impact may only be temporary if rabbit numbers decline in the future.</p>
<b>Recorded Abundance of species populations</b>	<p>The abundance of the Basil-thyme Case-bearer larvae was recorded during annual surveys with good populations confirmed at three sites.</p>
<b>Other results documented?</b>	<p>Survey work over 4 years has confirmed that annual bare ground creation on forest rides using disc harrow is vital for this species. Ground disturbance in main forest corridors following BftB works has successfully encouraged Basil Thyme on a large scale and results have fed into the 10-year management plan to benefit the King Forest population.</p>

<p><b>Species Recovery Curve progress made</b></p>	<p>Baseline: 4 Current estimate: 6</p> <p>The moth was confirmed at 5 different site during the project. Bare ground has been created on a large scale on the Forest Corridors in King's Forest and Basil Thyme appeared in large quantities. However we will need several more years to observe trends to know whether this habitat can be maintained and the moth to appear.</p>
<p><b>Recommendations for future work:-</b></p>	<p>Continue and expand creation of disturbed bare ground strips using a harrow to break up ground and any dense grass along forest corridors and forest rides in King's Forest and elsewhere in the Brecks. Consider removing sheep from some part of Ickneild Heath with Basil Thyme to enable plant and moth to thrive.</p>
<p><b>Overview of plans for future monitoring:-</b></p>	<p>Carry out annual site visits to establish presence of Basil Thyme and bare ground on known sites between July and September. Undertake larval sampling at 2 sites between mid-August and late September on a rolling programme. Expand surveys to other potential sites within the Brecks area especially along arable margins.</p>