

## Back from the Brink – Species summary

### Small-flowered Catchfly

BftB project: IP03 Colour in the Margins

Project lead organisation: Plantlife

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Species name – common & scientific	Small-flowered Catchfly <i>Silene gallica</i>
Photograph	 <p data-bbox="692 1317 1225 1350">© Andrew Gagg, Plantlife / Back from the Brink</p>
Taxon group	Vascular plant
Conservation status	Endangered
UK distribution	<p>Historically, Small-flowered Catchfly was prevalent throughout England and Wales, with most sites south of a line from the Humber to the Severn Estuary. It was largely absent from the Midlands and the chalklands of the south and east of the country and was scarce in northern England. The major concentrations of populations were on the sandy soils of Norfolk and Suffolk, the acidic sands of the Hampshire and Thames Basins, the Weald and on the more varied acidic soils of south-west England. This species has now disappeared from an estimated 70% of its former range, virtually disappearing from northern England by 1950. Most sites are now found near the coasts of south-west England and Wales. Although Small-flowered Catchfly has declined significantly, the extent of its range has expanded and there are now recent records scattered throughout northern and eastern England, and Scotland (see page 9 of the <a href="#">Portfolio</a> for more information).</p>

<b>Habitat associations</b>	Spring-cultivated arable fields, railway ballast and roadside verges (see pages 4-7 of the <a href="#">Portfolio</a> for more information).
<b>BftB work carried out:</b>	
<b>Survey &amp; Monitoring</b>	Population count/survey of natural and reintroduced populations (see pages 11-12 and 18-21 of the <a href="#">Portfolio</a> for a brief description, a 'how to' case study and survey form).
<b>Sites habitat management works</b>	There have been two types of interventions for this species: <ul style="list-style-type: none"> <li>• management advice provided at extant locations, on farms (see pages 11-14 of the <a href="#">Portfolio</a> for information on management and two case studies)</li> <li>• reintroductions undertaken to create a model for undertaking this type of activity (see pages 14-16 in the <a href="#">Portfolio</a> for information about how to reintroduce this species and two case studies).</li> </ul>
<b>Conservation 'interventions' incl. reintroductions &amp; translocations</b>	27 reintroductions undertaken in Cornwall (20 sites) and Devon (7 sites). All the reintroductions have been successful in .
<b>Technical advice provision</b>	Tailored reports on survey results and management advice sent to landowners. Production and dissemination of species ecology and conservation portfolio.
<b>Links made with other taxa / conservation work?</b>	Annual Knawel and other arable farmland flora; Sausage Beard-moss; Cirl Bunting.
<b>Wider engagement &amp; advocacy activities?</b>	A <a href="#">species briefing sheet</a> and <a href="#">portfolio</a> have been produced and are available for download on the Colour in the Margins webpage. Copies were sent to landowners with records of this species on their land.
<b>BftB results obtained:</b>	
<b>Recorded Distribution (in BftB focal areas)</b>	There are approximately 80 records of 'natural' Small-flowered Catchfly populations that have been recorded since 2000 across England (Figure 1: Natural populations are those that originate from the soil seed bank and are not sown). 40-45 of these populations fall within the CitM Cornwall and South Devon focus area (record data analysed as part of Natural England's Species Recovery Programme funded Mapping IAPA and S41 species by Plantlife). In addition, the Isles of Scilly are a stronghold for Small-flowered Catchfly (their numbers are not included above).
<b>Recorded Abundance of species populations</b>	The population sizes of annual plants vary enormously from year-to-year dependent on a wide range of variables. Abundance data has been recorded annually at project sites between one and four times during the project. However, without a comprehensive dataset of population counts from previous years and a thorough understanding of the variables effecting the abundance of the species it is not possible to make valid assessments of potential recovery within this timeframe. Colour in the Margins has made progress on both these fronts by providing a few years of population counts and improving our understanding of the autecology of the species. Thus, we will be better able to interpret changes of abundance in the future.
<b>Other results documented?</b>	Novel information about soil nutrients and texture at extant sites, and the arable plant communities within which Small-flowered Catchfly grows has been generated and is captured in the <a href="#">Portfolio</a> (pages 5-9).

<p><b>Species Recovery Curve progress made</b></p>	<p>Landowners that CitM worked with are undertaking appropriate management following advice developed through the project. Reintroductions have been undertaken to establish new populations and identify management and environmental factors for successful translocations of <i>Silene gallica</i>. The reintroductions have been very effective at establishing populations in the first year or two but demonstrating long term persistence is necessary for them to be deemed successful. Volunteers have been recruited to continue monitoring. These activities are working towards trialling of recovery solutions and therefore <i>Silene gallica</i> is deemed to be at step 6 on the recovery curve.</p>
<p><b>Recommendations for future work:-</b></p>	<ul style="list-style-type: none"> <li>• Continued annual monitoring of reintroduction sites.</li> <li>• Seed longevity in natural conditions within the soil seed bank.</li> <li>• Analysis in ~10 years of the success of the reintroductions and explore factors that correlate.</li> <li>• Further reintroductions, following CitM protocols.</li> <li>• Study of the genetic structure of Small-flowered Catchfly e.g. to understand the relationship between populations in southwest England and east of England.</li> <li>• Effects of different herbicides on Small-flowered Catchfly.</li> <li>• How changes in cultivation depth, the move from ploughing to minimum tillage, might affect Small-flowered Catchfly populations.</li> </ul>

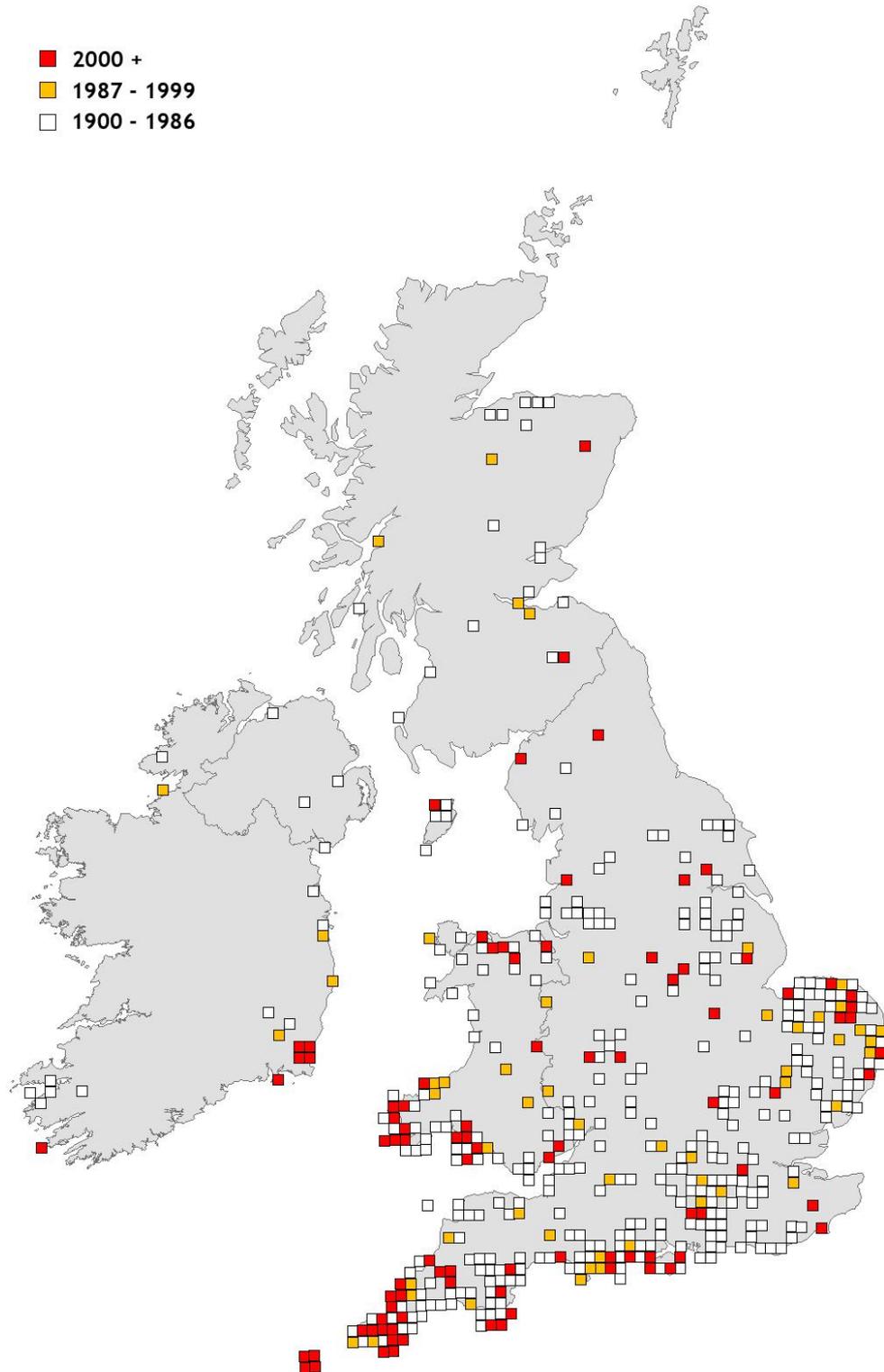


Figure 1: Small-flowered Catchfly *Silene gallica* distribution in Britain and Ireland. The data used to create this map has been provided under licence from the Botanical Society of Britain and Ireland (BSBI) and accessed from the Society's online database in 2020.