

Back from the Brink – Species summary

Red Hemp-nettle

BftB project: IP03 Colour in the Margins

Project lead organisation: Plantlife

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Species name – common & scientific	Red Hemp-nettle <i>Galeopsis angustifolia</i>
Photograph	 <p>© Cath Shellswell / Back from the Brink</p>
Taxon group	Vascular plant
Conservation status	Critically Endangered
UK distribution	Once widespread on calcareous soils from Devon to Yorkshire, Red Hemp-nettle is now largely restricted to south and south-east England from Dorset to Cambridgeshire with a few scattered populations elsewhere in England and south Wales (see page 10 of the Portfolio for more information).
Habitat associations	Arable fields, coastal shingle, railway ballast, chalk spoil and limestone scree. It has also been recorded growing on Salisbury Plain along the sides of rough tracks (see pages 5, 8-9 in the Portfolio for more information).
BftB work carried out:	
Survey & Monitoring	Population count/survey of natural and reintroduced populations (see pages 10-11 and 18-21 of the Portfolio for a brief description, a 'how to' case study and survey form).

Sites habitat management works	<p>There have been two interventions for this species:</p> <ul style="list-style-type: none"> • farm management advice provided at extant locations (see pages 11-13 of the Portfolio for information on management and three case studies) • reintroductions undertaken to create a model for undertaking this type of activity (see pages 13-17 in the Portfolio for information about how to reintroduce this species and three case studies).
Conservation 'interventions' incl. reintroductions & translocations	<p>Fifteen reintroductions undertaken in: Gloucestershire (4 sites), Hampshire (6 sites), Kent (1 site), Oxfordshire (1 site), Surrey (1 site), Wiltshire (1 site) and Worcestershire (1 site). 12 of the reintroductions have been successful so far and the other reintroductions may be successful in the future.</p> <p>Some phenotypic variation was identified within the Cotswold Red Hemp-nettle population which was also observed when seeds from this population were grown on at Kew MSB (see pages 16-17 of the Portfolio for a case study mentioning these differences). As part of the project's legacy Colour in the Margins funded genetic analysis by Kew Gardens of tissue samples collected from 'natural' and reintroduced populations around the country.</p>
Technical advice provision	<p>Tailored reports on survey results and management advice sent to landowners. Production and dissemination of species ecology and conservation portfolio.</p>
Links made with other taxa / conservation work?	<p>Other arable farmland flora; Brown Hare; Pale Shining Brown; Northern Lapwing; Skylark; Stone Curlew; Corn Bunting;</p>
Wider engagement & advocacy activities?	<p>Species briefing sheet or Portfolio sent to approximately 80 farms / sites, including both natural and reintroduction sites with post-2000 records.</p>
BftB results obtained:	
Recorded Distribution (in BftB focal areas)	<p>There are approximately 100 'natural' records of Red Hemp-nettle populations across England (Figure 1: Natural populations are those that originate from the soil seed bank and are not sown). The Wessex area contains 45-50 of these records, some of which the populations may be extensive such as across Salisbury Plain. The Yorkshire Wolds has a group of records, some of which are natural and others are reintroduced. The only other population within a CitM focus area is in the Brecks (record data analysed as part of Natural England's Species Recovery Programme funded Mapping IAPA and S41 species by Plantlife).</p>
Recorded Abundance of species populations	<p>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 trends 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.</p>

<p>Other results documented?</p>	<p>The additional seed biology information (i.e. dormancy) collated by Kew MSB has been essential to gain a fuller understanding of the requirements of this species (see pages 3-5 in the Portfolio). The information about soil nutrients and texture at extant sites, and the arable plant communities within which Red Hemp-nettle grows is also new and captures in the Portfolio (pages 5-9)</p>
<p>Species Recovery Curve progress made</p>	<p>Landowners that CitM worked with are trialling different management following advice developed through the project. Reintroductions have been undertaken to identify biological, management and environmental factors that need to be in place for successful translocations of Red Hemp-nettle. These activities are working towards trialling of recovery solutions and therefore Red Hemp-nettle is deemed to be at step 6 on the recovery curve.</p>
<p>Recommendations for future work:-</p>	<ul style="list-style-type: none"> • Continued annual monitoring of reintroduction sites. • Analysis in ~10 years of the success of the management advice and reintroductions and factors that correlate. • Further reintroductions, following CitM protocols and source population choice informed by the results from the genetic study with Kew. • Seed longevity in the soil seed bank. • Further soil analysis at extant sites to determine what soil types and nutrient levels are suitable for Red Hemp-nettle (the information in the Portfolio is based on 6 samples). • Further vegetation community analysis (the information in the Portfolio is based on surveys at 6 sites). • Further research into dormancy and germination of seeds as this is complex and still poorly understood.

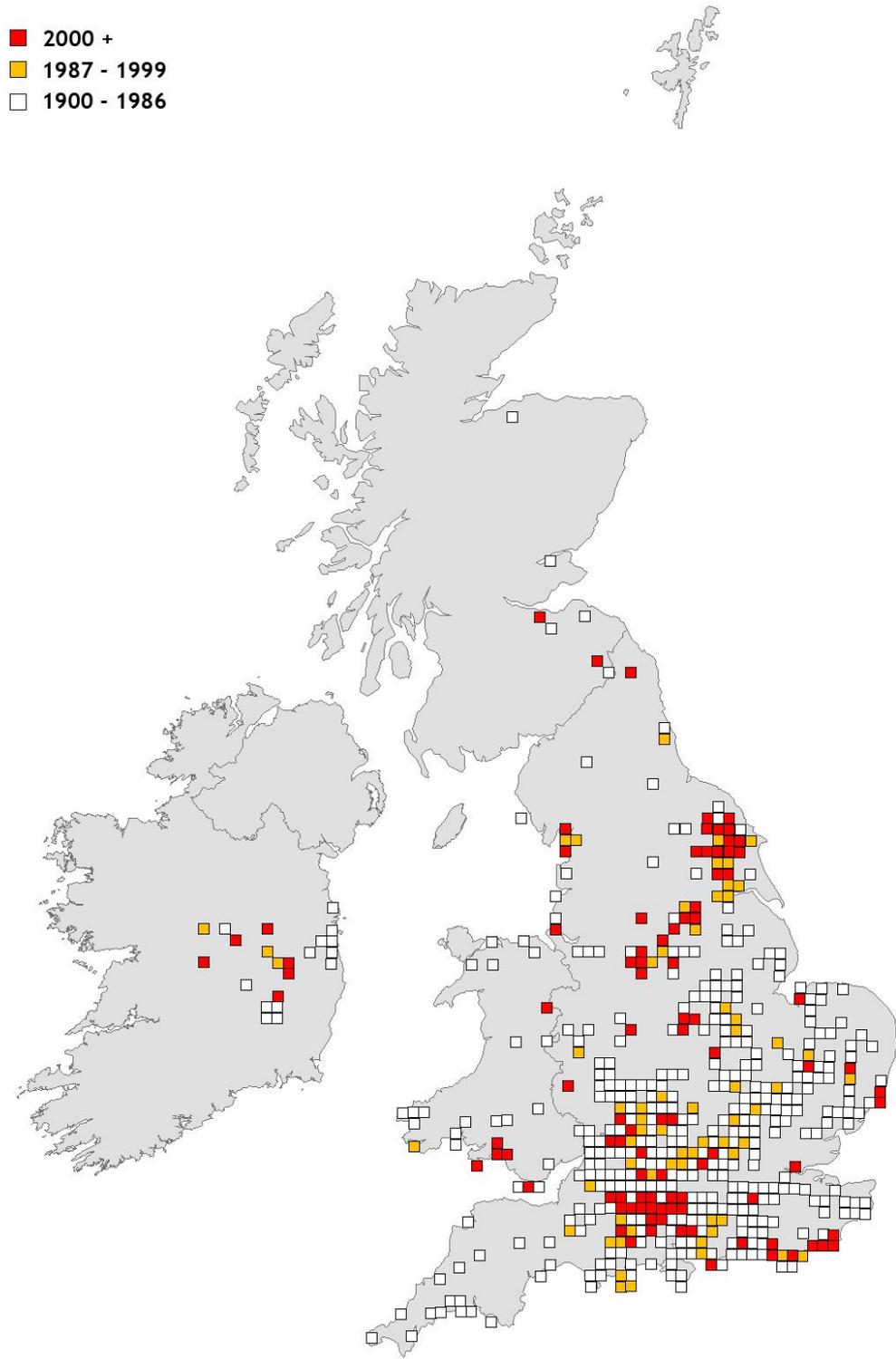


Figure 1: Red Hemp-nettle *Galeopsis angustifolia* distribution across Britain and Ireland. The data used to create this map has been provided under licence from the Botanical Society of Britain and Ireland (BSBI) and accessed from the Society's online database in 2020.