

Back from the Brink – Species summary

Ladybird Spider

BftB project: SP07 Ladybird Spider Species Recovery Project

Project lead organisation: Buglife

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Species name – common & scientific	Ladybird spider (<i>Eresus sandaliatus</i>)
Photograph	 <p style="text-align: right; font-size: small;">(c) Stephen Dalton</p> <p style="text-align: center;">© Stephen Dalton / Back from the Brink</p>
Taxon group	Aranea
Conservation status	Vulnerable & Nationally Rare, Section 41
UK distribution	Dorset
Habitat associations	Lowland heathland
BftB work carried out:	
Survey & Monitoring	Annual total web count monitoring across all 19 populations, through combination of BftB Project Officer and partners. Three transects set up at RSPB Arne for volunteer training in 2020 and 2021.
Sites habitat management works	All extant sites have had manual bracken management with pine sapling removal annually during each summer 2017-2020. Some tree felling has occurred at Forestry England sites. Preparatory site management or heather cutting, bracken removal, scrub management and pine sapling removal conducted at the 5 new populations with an additional 2 sites that have been identified for future introductions.

Conservation 'interventions' incl. reintroductions & translocations	5 introductions during 2017-2020 with a total of 95 translocated individual spiders.
Technical advice provision	Management advice given for all sites by Project Officer or the arachnologist Ian Hughes. An 'Ecology, Conservation and Best Practice Guidelines' document is also to be completed in 2021, which will bring together all knowledge of the species and confirmed best practice approaches to conserving, monitoring and managing the species. Training is also being given to local volunteers in 2021, to enable a sustainable long-term future for monitoring and managing for the species, building on initial volunteer training in 2020
Links made with other taxa / conservation work?	Links have been limited due to the requirement for confidentiality of sites. However, efforts have been made to link in with Natural England's new landscape scale Purbeck Heaths National Nature Reserve.
Wider engagement & advocacy activities?	<ul style="list-style-type: none"> • Web installation created at RSPB Arne, to educate the general public on this charismatic species that the public is unlikely to ever seen in real life. The web installation walks visitors through the spider's life cycle, while also describing the Ladybird spider's conservation story, including its suspected extinction, re-discovery, and translocation efforts, including via Back from the Brink. • Various art and craft activities were also used to engage the local community. • Education packs and Ladybird spider habitat diorama created by model makers to continue education beyond the life of the project. • 'Ecology, Conservation and Best Practice Guidelines' document being finalised for land managers. • Presentation given at 16th European heathland conference. • Local volunteers trained in species monitoring and management.
BftB results obtained:	
Recorded Distribution (in BftB focal areas)	Dorset on 19 locations
Recorded Abundance of species populations	<ul style="list-style-type: none"> • The project recorded the abundance of Ladybird spider webs at all known sites as an indicator of population size- the accepted measures for the species. • Of the 11 populations established prior to or in 2015, 6 populations have either remained at a small population level or have declined in size by 50% or more. • Four out of the eight of the populations introduced since 2015 have increased in size since their introduction. • In terms of cumulative total number of webs recorded for all populations, 2020 has been the best year since 2015, with 399 webs. • Only 7 of the 19 populations had more than 10 webs recorded in 2020.
Other results documented?	A student BSc project produced an analysis of soil characteristics on Ladybird spider sites, with the data and report shared with project partners.

<p>Species Recovery Curve progress made</p>	<p>I would estimate that at the end of project this species is at 6 with 7 & 8 in development. As from final report:</p> <p>7. In Development Current methods of Collection / Translocation / Management / Monitoring are considered to be the best approach, but further research is needed. It is not yet considered possible to assess the relative success of these methods, or if accurate population estimates can be made, due variations in the monitoring data collated over time and between sites.</p> <p>8. In Development Estimation of population extent, web density and number of webs recorded could be the agreed data to base a robust conclusion following a survey season of: is this species recovering? which site/population is recovering? Why is this population stable/declining/increasing? where can future management link populations?</p>
<p>Other measures of species recovery progress? e.g. FCS</p>	<p>None</p>
<p>Recommendations for future work:-</p>	<ul style="list-style-type: none"> • Soil variable should really be investigated further as a selection criteria for future introductions. • Continue with exploring the use of transect to estimate a population size at different sites. An analysis of the relative success of different survey methodologies might help ensure future monitoring is undertaken to allow future comparability. • Aerial photography e.g. drone to record web locations on a site -this would revolutionise the amount of effort required to monitor the species.