

Back from the Brink – Species summary

Heath Tiger Beetle

BftB project: IP01 Dorset's Heathland Heart

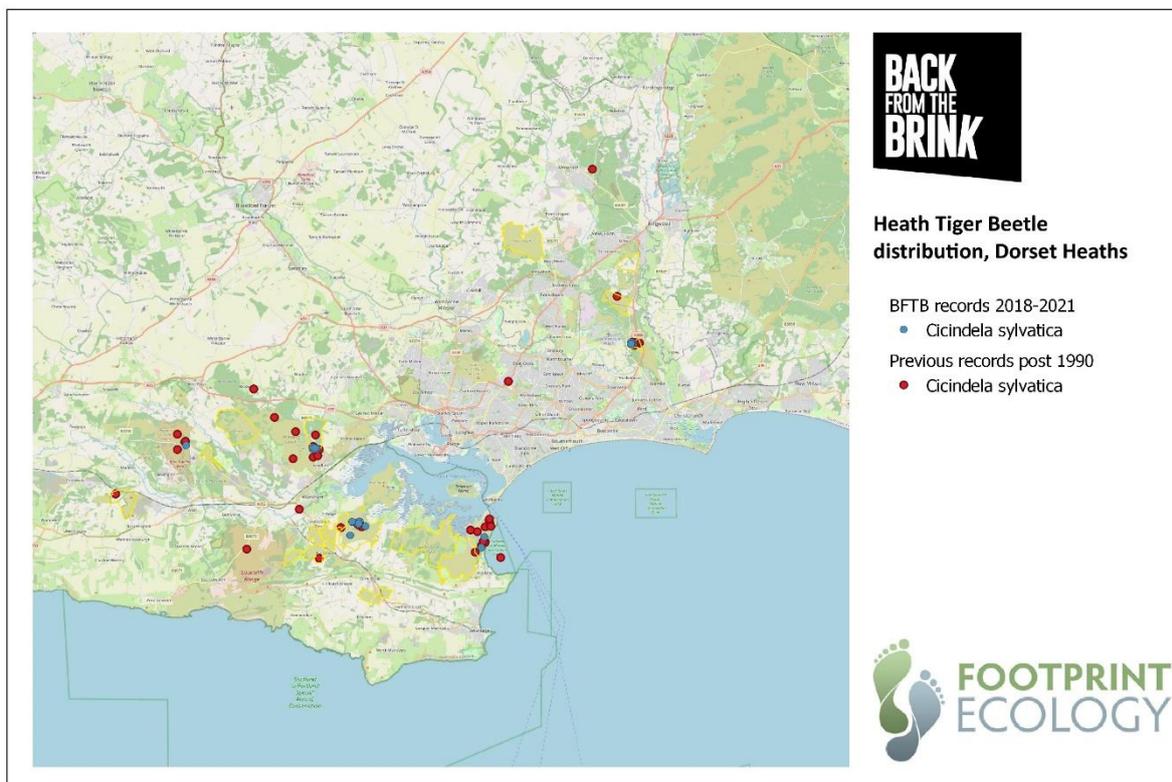
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Species name – common & scientific	Heath Tiger Beetle – <i>Cicindela sylvatica</i>
Photograph	 <p>© Alex Hyde / Back from the Brink</p>
Taxon group	Insect - Coleoptera
Conservation status	NERC S.41, GB Nationally Notable A - IUCN Endangered, Nationally Scarce.
UK distribution	Confined to southern England with small, isolated populations in Dorset, Surrey, Hampshire and Sussex.
Habitat associations	Found on lowland heathland in areas with dry, compacted, bare sand for nesting and foraging, with a mosaic of heather age classes for shelter and protection from predators. The habitat requirements of the larvae are not fully understood but nesting burrows are often found on tracks and scrapes.
BftB work carried out:	
Survey & Monitoring	Annual surveys were carried out at the Great Ovens, Slepe Heath and Studland. These were a mix of BFTB staff-led and volunteers self-led. Self-led surveys were also carried out at Sopley in 2019 and repeated in 2021 by Dorset Wildlife Trust Volunteers. Additional incidental records were made from two sites by Dorset recorders during the project.

<p>Sites habitat management works</p>	<p>Over 300 dry sandy scrapes have been created across 8 heathland sites (Stoborough, Grange, Winfrith, Godlingston, and Barnsfield heaths, Hartland Moor, Rempstone and Wareham Forests, Sopley Common) and will provide suitable habitat for the species should it disperse.</p> <p>More specifically, 83 scrapes were created on 4 sites within reach of existing populations of Heath Tiger Beetle (Slepe Heath, Hartland Moor, Wareham Forest, Sopley Common). These were generally mechanically created scrapes of between 5m x 5m and 5m x 20m, but included one longer, deep-ploughed strip adjacent to a track supporting Heath Tiger Beetle.</p>
<p>Technical advice provision</p>	<p>Advice on provision of bare ground microhabitats was given to site managers through presentations to the Wild Purbeck partnership. Discussions on the potential impact of recreation disturbance were also held directly with site managers and information on habitat management was supplied in a handover pack at the end of the project.</p>
<p>Links made with other taxa / conservation work?</p>	<p>This habitat management was carried out to benefit a suite of invertebrates associated with bare, sandy ground within a heathland context including, in addition to Heath Tiger Beetle BFTB species Heath Beefly and Tormentil Mining Bee and other species such as the Nationally Scarce <i>Ammophila pubescens</i> plus Sand Lizard</p>
<p>Wider engagement & advocacy activities?</p>	<p>Information about the species, its requirements and the microhabitat creation work carried out as part of the project was disseminated through a BFTB workshop and the local National Trust volunteer conference plus an Important Invertebrate Areas workshop run by Buglife and talks to Dorset Recorders, the Bournemouth Natural Science Society and the 16th European Heathland Workshop plus an Important Invertebrate Areas workshop run by Buglife. A large model created by an Arts student at Bournemouth University was used at community events.</p>
<p>BftB results obtained:</p>	
<p>Recorded Distribution (in BftB focal areas)</p>	<p>Between 2018-2021, Heath Tiger Beetle was recorded from 4 sites (Slepe Heath, Great Ovens, Studland Heath, Sopley Common) with individual records by BFTB volunteers and others from two additional sites (Hartland Moor and Bovington Heath). Of around 20 locations where the species has been recorded in the last 20 years, it is now only known from 6.</p>
<p>Recorded Abundance of species populations</p>	<p>Overall records have increased from 96 in the 15 years prior to the project to 126 between 1918 and 2021. An increase in adults has been recorded at the 3 key sites where management was undertaken during the project period. However, the larval stage may take more than a year and the increase in numbers over the short time span of the project may be due to increased survey effort, increased likelihood of observing adults (they are easier to see on bare ground) and favourable weather conditions over the project period.</p> <p>A mark and recapture project carried out by a student during the project period indicates that population estimates derived from transects counts (as undertaken by BFTB volunteers) could be almost an order of magnitude lower than those estimated by mark and recapture techniques. However, transects are still considered useful as an index of change.</p>
<p>Other results documented?</p>	<p>Scrape monitoring proved that the approach was increasing suitable habitat for the species. 7 Heath Tiger Beetles were recorded using a new scrape on Slepe Heath in 2021, similarly 14 were recorded using scrapes on Sopley Heath in 2021. 9 of 10 Heath Tiger Beetles recorded from Great Ovens were recorded on scrapes created by ARC.</p>

<p>Species Recovery Curve progress made</p>	<p>2 – 7 (<i>partially</i>). Best approach adopted. The creation of sandy scrapes has been shown to be successful for this species, which appears to require new bare ground. A lack of adequate baseline data has made it difficult to assess whether the scrapes are leading to species recovery at the population level. It is not clear at this stage that this is leading to population recovery, although this seems possible (the apparent overall increase in numbers is also likely to be due to increased survey effort and favourable weather conditions over the project period). This approach has been adopted on existing sites.</p>
<p>Recommendations for future work:-</p>	<p>Refreshing existing scrapes is not likely to be suitable for this species (as the larval life stage lasts for up to 3 years) therefore replacement scrape creation will need to be ongoing in the long term. Ongoing scrape creation is part of mainstream management at one site (Gt. Ovens), currently project funded at a 2nd (Studland), and is a high priority for site managers at a 3rd (Slepe). There is currently limited scope for further bare ground creation at the 4th main site (Sopley Common) due to the significant amount that has already been carried out.</p> <p>A regular monitoring programme is recommended and should be instigated through the Purbeck Natural History Forum. Further consolidation is required if self-led surveys are to be relied on, with additional visits added due to the variability between counts throughout the season.</p> <p>Dispersal is a limiting factor for this species and the possibility of translocation (e.g. to Hyde’s Heath) should be explored e.g. with Species Recovery Trust and Sparsholt College (who have successfully trialled captive breeding of Green Tiger Beetle).</p>



Map 1: Distribution of Heath Tiger Beetle in the Dorset Heaths (previous records supplied by Dorset Environmental Records Centre).