

the
species
recovery
trust

SPECIES HANDBOOK

Cosnard's

Net-winged Beetle

(*Erotides cosnardi*)

Ecology, conservation, survey
and management



Conservation Status

ENDANGERED

- Only known from two small regions of England
- Very little known about the ecology of the species

Before the Species Recovery Trust started working on Cosnard's Net-winged Beetle in 2014, it had been recorded less than 10 times in total in the UK and we knew almost nothing about its ecology or life history. We have been working with partner organisations over the last few years to improve our understanding of this beetle and what it needs to survive, but there is still a long way to go.

What we do know is that the species is found in the Wye Valley and the South Downs and relies on dead and dying wood in ancient forests for survival. It also appears to be attracted to recently cut tree stumps, which may play a role in mating behaviour. To protect this species, we need to build on this knowledge and gain a better understanding of larval ecology in particular, so that we can protect it at every stage of its life cycle.



Description

A medium sized, elongated beetle with black antennae and legs and a red/brown pronotum that is darker in the centre. Beetles are around 7-8mm long with a small triangular head and large convex eyes. The antennae are long and thick with the second segment much shorter than the others. The elytra bear an intricate network of ridges which look a bit like a net, hence the name. The legs are dark, long and thick, with the femora broad and parallel-sided and the tibiae curved and thickened towards the apex.

Lifecycle

No larvae of this species have been reported and so very little is known about larval ecology. However, it is thought that larvae develop in the rotten heartwood in dead and dying beech trees. Adults have been reported from May to June. They tend to be found in sunny glades in ancient woodland and fly in hot sunshine. There is some evidence to suggest that adults are attracted to recently cut tree stumps and that these stumps may be important for the mating behaviour of the species.



Habitat

The beetles are found in ancient woodland on dead and dying trees. The species has traditionally been associated with beech trees, however, it is possible that veteran trees of other species such as willows also provide a suitable habitat. As mentioned above, the presence of recently cut stumps may be an important feature of the habitat.

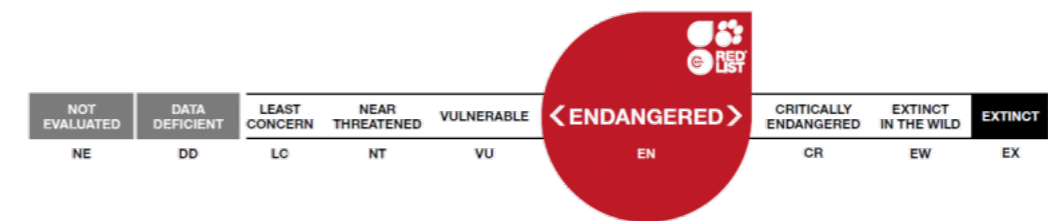
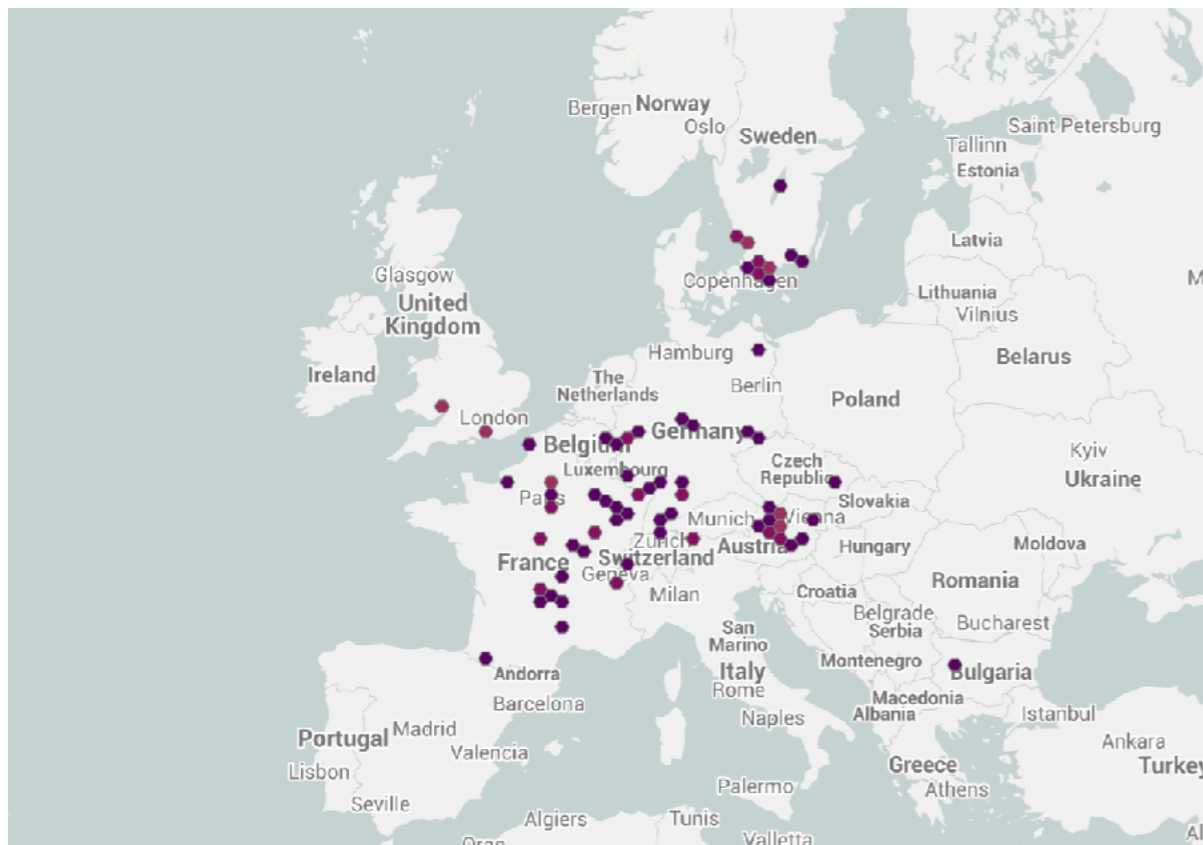
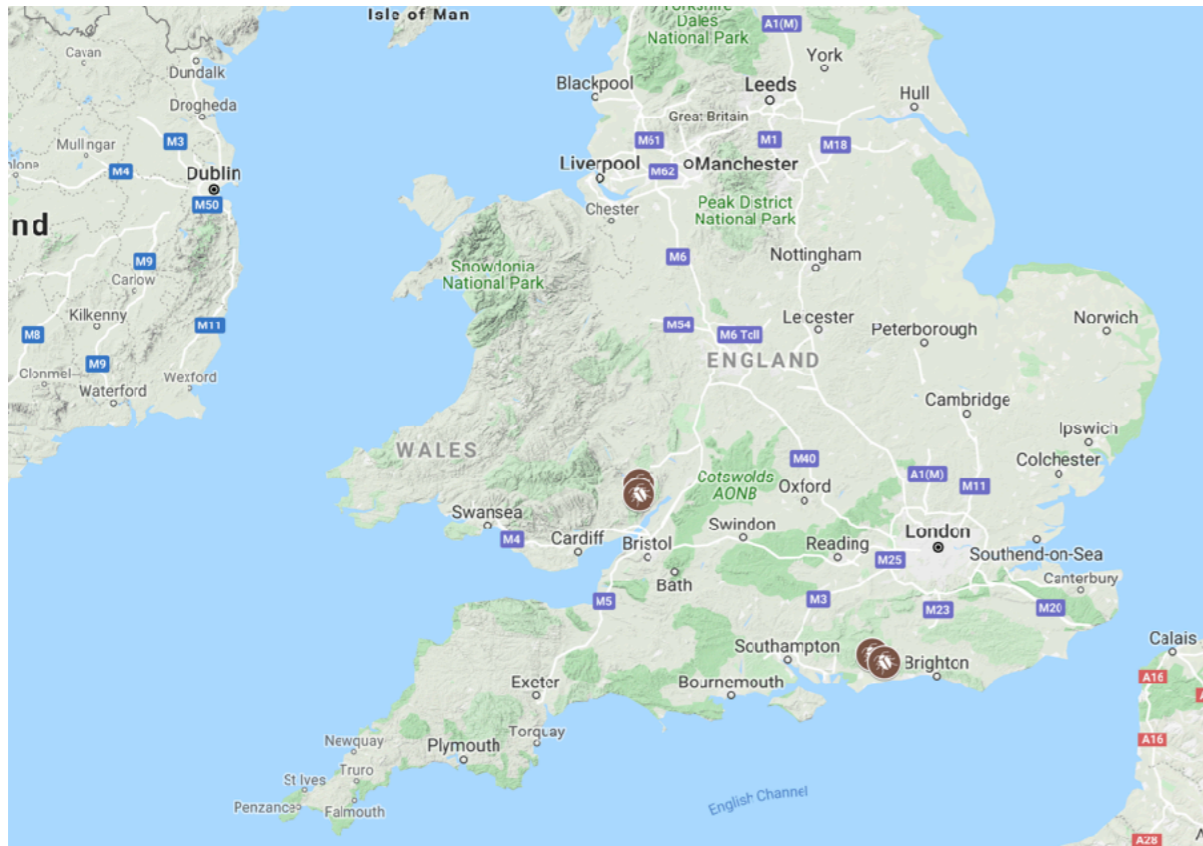
Distribution

Populations are widespread though very local species throughout western and central Europe extending north into southern Scandinavia.

In the UK, it has been found in the Wye Gorge area and on the South Downs. It is also found in ancient woodland in Europe.

Status

Endangered, meaning it is facing a high risk of extinction in the wild.



Reasons for decline

Loss of ancient woodlands and large veteran beech trees in particular. Poor management leading to the clearance of dead and decaying wood. Climate change may be an additional threat in the future as there is evidence to suggest that it may lead to a decline in beech trees.

Protection under the law

It is listed as “a species of principal importance” under Section 41 of the NERC Act (2006) and is included on the UKBAP list of species (2007).





SURVEY

Habitat

Target areas with large populations of Beech trees including a good proportion of mature and over-mature trees. Focus effort on individual trees which are dead or with extensive heartwood decay, standing or fallen, especially of large girth and in open, sunny situations. Effort should also be focussed on any cut stumps as the beetles can be found congregating on these stumps.

Survey method

Use a stout, canvas sweep-net to sweep the grassy and herbaceous vegetation all around any potential Beeches. Look carefully in the bottom of the sweep-net for any CNWBs lying folded-up and motionless.

Be alert to the possibility of seeing CNWB sitting up on vegetation or of seeing CNWB in flight. Check cut stumps for any CNWBs.



SURVEY

What to record

- Number of beetles
- Location (grid reference or GPS if possible)
- Behaviour of beetles, e.g. any mating behaviour
- If possible, take photos of the beetle and the habitat

When to survey

Search during May and early June. Concentrate survey effort on the hottest, sunny and still days of the season.

Confusable species

It can be confused with *Platycis minutus*. However, *P. minutus* has a completely black pronotum and the last segment of the antenna is a yellowish colour. In addition, confirmed records of Cosnard's Net-winged Beetle (CNWB) have all fallen between early May and the middle of June whereas *P. minutus* adults have been recorded in August and September, so the time of year can be a useful distinguishing feature.



MANAGEMENT

Deadwood Management

No beech deadwood should be taken as firewood, removed from site for any other reason, or burnt on site. There should be a minimal intervention approach to beech deadwood - fallen trees should be left untouched, not trimmed and logged, except where they fall across a path or track in which case the route could be cleared without impacting the rest of the tree.



MANAGEMENT

Woodland Management

Living beech trees are the future habitat for Cosnard's Net-winged Beetles and management should aim to prolong their lives and to promote their growth into open-grown trees of large girth. In the short term, this may mean thinning, clearing or coppicing competing trees and shrubs in a halo around selected beeches.

Where veteran trees have become swamped in secondary woodland, halo-thinning should be phased over several years, allowing the veteran to adapt to increased exposure. It is particularly important to open the tree to the morning sun from the south-east and south.

In the longer term, the reinstatement of grazing on former woodpasture sites should restore a more open structure. This management by more natural processes is preferable to halo-thinning but does mean that grazing would need to be sustained for the long term.

The creation of cut stumps may also be beneficial for the beetles, however, felling should only be carried out following detailed consideration of the impact on the overall habitat and on other species. If trees are being felled as part of the general woodland management regime, it may be useful to cut them into sections and leave all the sections in situ - essentially creating a number of cut stumps for Cosnard's Net-winged Beetles. If this approach is undertaken, it would be useful to combine with monitoring for the beetle to assess the impact of providing the cut stumps.

OUR WORK

- Regular surveys of sites in Wye Valley
- Continuing work to improve understanding of larval ecology
- Working with land managers in Wye Valley on habitat trials

SUCCESS

- Discovered that beetles are attracted to recently cut tree stumps
- Recorded seven individuals on one cut stump

Cosnard's Net-winged Beetle is such an elusive beetle that it will likely take many years before we truly understand its ecological needs and how to protect it for the future.

We have already made some great strides in this direction and will continue to work with our partner organisations to make exciting discoveries about this beetle.

We will also continue to undertake habitat work and habitat trials in the Wye Valley and are planning to expand our work to cover the South Downs population in the near future.



The Species Recovery Trust is a charity set up to tackle the loss of some of the rarest species in the UK.

There are over nine hundred native species in the UK that are classed as under threat, with several hundreds more currently widespread but known to be in significant decline. The countryside is now bereft of many species that were a familiar sight a mere generation ago.

A small number of these species are on the absolute brink of existence, poised to become extinct in our lifetimes; our goal is to stop them vanishing.

Our aim is to remove 50 species from the edge of extinction in the UK by the year 2050. In addition we are reconnecting people with wildlife and the natural world through training programmes and awareness raising.



A photograph of a forest floor in spring. The ground is covered with a dense carpet of purple bluebells. A large, moss-covered fallen log lies in the foreground on the right. The background is filled with tall, slender trees with fresh green leaves, and sunlight filters through the canopy, creating dappled light on the forest floor.

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