

# SPECIES HANDBOOK

## Green Tiger Beetle (*Cicindela campestris*)

Ecology, conservation, survey  
and management





## Conservation Status

# COMMON

- Currently facing a low risk of extinction in the wild
- Still threatened by habitat degradation and loss of habitat

Green Tiger Beetles are currently found across Britain in a range of habitats. They are not currently endangered and so are not facing an imminent risk of extinction. We are primarily working on the conservation of this species as a result of its close relationship with the rare Heath Tiger Beetle (*Cicindela sylvatica*)

These two species of Tiger Beetle are often found in the same habitats. As part of our conservation work on the Heath Tiger Beetle, we have been working with volunteers to collect data on where the beetle is found and in what numbers. When out on site, we are also encouraging volunteers to collect information about the Green Tiger Beetle so that we can make sure that numbers of this species also remain stable.

We are also planning to breed Green Tiger Beetles in captivity, as proof of a concept project and to develop the techniques needed to rear Tiger Beetles so that in the future we can breed Heath Tiger Beetles for reintroduction projects.





## Description

A large, bright green beetle with creamy-white spots on its wing cases and a pale labrum. It has long brown legs with whitish hairs and ranges from 10-15mm in length. It has large, sickle-shaped jaws with several teeth and large eyes which help it spot and catch prey. Females often have an additional dark spot on the anterior third of each elytron and so this can be used (although not with complete accuracy) as a means of identifying the sex of an individual. Males can also be identified by their thickened fore tarsi (the end segments of their legs).



## Lifecycle

Green Tiger Beetle larvae are sedentary and dig burrows in the soil in which they remain during their development. Once they reach adulthood, Green Tiger Beetles are thought to live for a further one or two years. Adults breed in late spring to early summer and females oviposit their eggs into areas of bare ground. Adults are generally found from late March to the end of July / August but are mostly active between April and May.

Both adults and larvae are predatory. Larvae ambush their prey from their larval burrows, while adults are fast runners and actively hunt other invertebrates, such as ants, caterpillars and spiders.



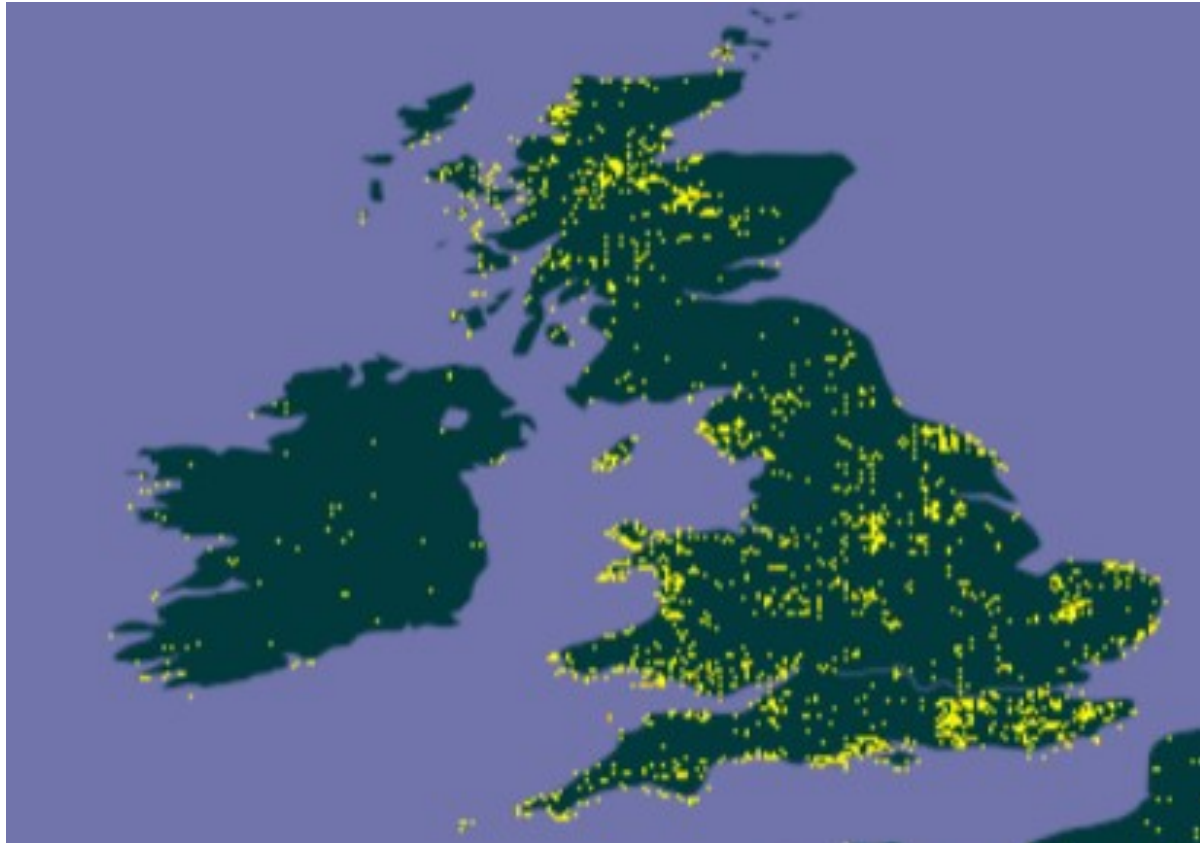


## Habitat

Green Tiger Beetles are found on dry, lowland heathland, moorland, sandy grassland, sand dunes and on brownfield sites. We know very little about the specific habitat requirements of the larvae, but bare ground appears to be very important, as larval burrows tend to be found clustered in areas with a high proportion of bare ground.

Adults also seem to require bare, open ground where they can hunt for prey, and are often found on tracks or in scrapes. They need exposure to the sun in order to reach the high body temperatures needed for their rapid movement. In addition to bare ground, adults seem to need access to patchy vegetation. This provides them with both shelter from poor weather and protection from predators.



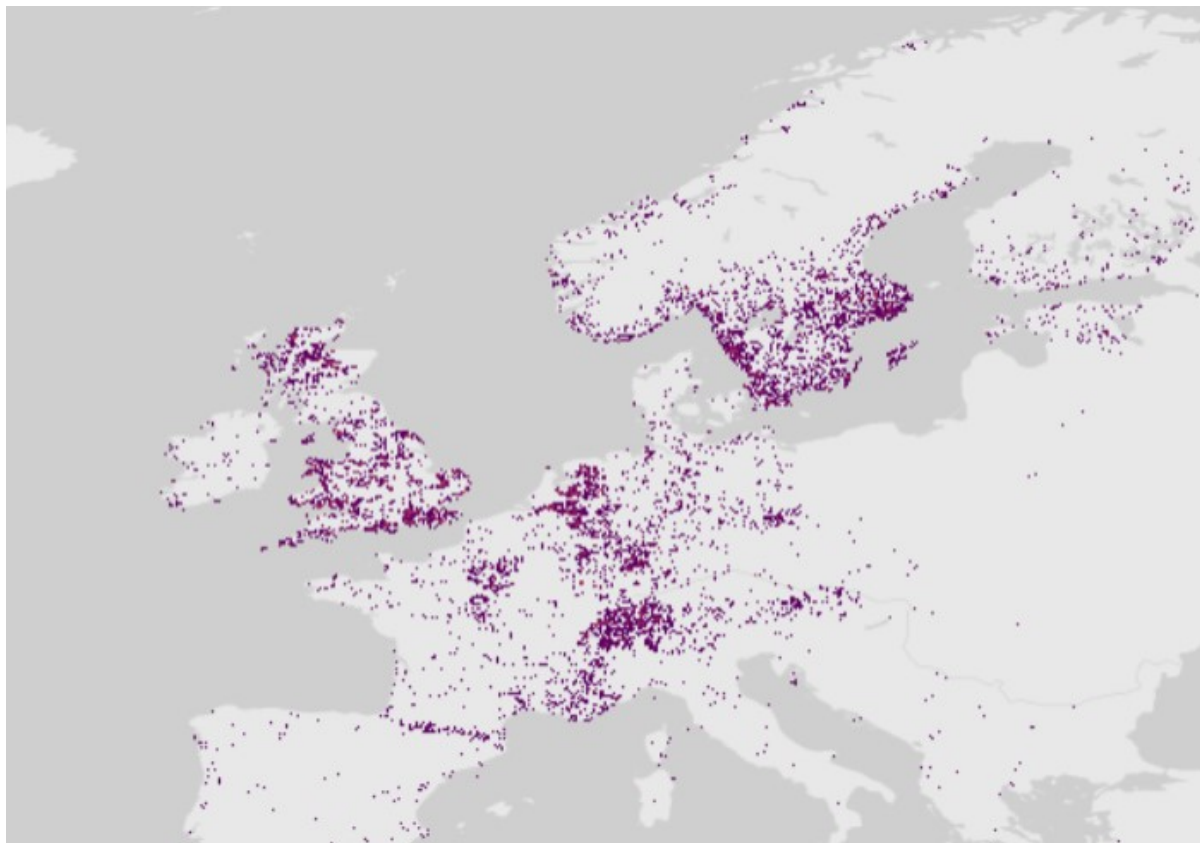


## Distribution

Occurs throughout Great Britain and is relatively widespread in continental Europe

## Status

**Common**





## Reasons for decline

Whilst this species is still widespread in Great Britain, its traditional habitats are in decline. Over the last few decades, much of the heathland in the country has been converted fro agriculture, forestry and development, while areas that remain often suffer from scrub encroachment, reducing the availability of bare ground.

## Protection under the law

None.



*Heathland*





# SURVEY

## Habitat

Target areas with compact sandy soils and lots of bare ground.

## What to look for

**Adults:** Walk slowly along compact, sandy tracks, scanning the track and the border carefully for any signs of beetles. They are easily disturbed, particularly in hot weather, but will only fly a short distance. They often appear blue in flight. They can usually be followed, allowing for identification when they land. Care should be taken to avoid double counting individuals that fly forwards along the path when disturbed. Sitting very still on the edge of a suitable path or scrape and watching for any beetles can also be an effective survey method.

**Larval burrows:** Tiger Beetle larval burrows are small, round, vertical burrows. The burrows have no spoil heap but have a distinctive haul out lip. They are often found clustered together. It is not possible to distinguish between a Green Tiger Beetle and a Heath Tiger Beetle larval burrow, but it is still worth recording the number of tiger beetle burrows that have been seen, as well as the location. We do not recommend disturbing the burrows or trying to get the larvae to come out, as this can damage them. But if you sit and watch a burrow for long enough, you may see the head of a larvae appear at the surface.





# SURVEY

## When to survey

The best time of year to survey is between late March and July. Surveys should be undertaken on relatively still, warm, dry days. Some cloud cover can be beneficial, as the beetles will be less likely to fly away when disturbed.



## What to record

- Number of beetles
- Number of larval burrows
- Location (8 figure grid reference or GPS if possible)
- Availability of suitable habitat (i.e. percentage of bare ground cover)
- If possible, record on [Living Record](#). See [here](#) for a step by step guide on how to do this.



# CONFUSABLE SPECIES

Green Tiger Beetle has occasionally been confused with Heath Tiger Beetle, but they are very different in colour if seen close.

Beetles in flight should be followed until they land to ensure they are identified correctly.





# MANAGEMENT

Management should focus on the provision of bare ground. Periodic scrub clearance may be necessary and possibly the creation of scrapes where there is little bare ground.

Green Tiger Beetles have also been found on brownfield sites and so it is also important to protect these sites from development, where there is known to be a substantial population of Green Tiger Beetles.





# OUR WORK

- Regularly searching heathland sites for Green Tiger Beetle
- Exploring undertaking research into larval ecology
- Investigating potential for captive breeding project

# SUCCESS

- Have confirmed that the beetle continues to thrive at heathland sites in the south of England
- Have initiated a proof of concept captive breeding programme

Our survey work to date has focussed on key Heath Tiger Beetle sites in Hampshire, Surrey and Dorset. At each of these sites, we have found evidence of a strong Green Tiger Beetle population. This is a good sign that this species is continuing to thrive on the heathlands of the south of England.

The Heath Tiger Beetle is not faring so well and is at high risk of extinction. We are therefore planning to focus our future efforts on a captive breeding programme for this species. However, in order to develop the protocol for this breeding project, we will first attempt to captive breed Green Tiger Beetles. This will also help us to develop our understanding of the larval phase of the Green Tiger Beetle life cycle, which could provide valuable insights for future conservation efforts.



*Concept captive breeding programme*



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 small, purple-blue bell-shaped flowers (bluebells). In the foreground, a large, moss-covered tree stump lies horizontally. The background is filled with tall, slender trees with green foliage, and sunlight filters through the canopy, creating dappled light on the forest floor.

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