The Nottinghamshire Glow Worm Survey

The Glow Worm (*Lampyris noctiluca*) is one of our most fascinating and endearing insects. Well known for its ability to produce light, the Glow Worm holds a unique place within UK fauna.

The female Glow Worm's bioluminescent glow has formed the basis of fairy tales and folk lore over countless centuries and has charmed both children and adults throughout history.

A National decline

Although still regarded by many authorities as being both nationally and locally common, this delightful beetle appears to be in a serious decline.

Glow Worm larva (www.eakringbirds.com)

Habitat loss through urbanisation, industrial development and the use of pesticides and herbicides as part of modern farming practices, are all thought to be contributing factors towards the Glow Worm's decline.

Today, we know little more about their current UK range, than Victorian naturalists did over 100 years ago. But has the Glow Worm declined in Nottinghamshire?

Certainly there is a lack of modern records from many of its known sites, but is this through a genuine decline, or just a lack of recording? It is hoped that the Nottinghamshire Glow Worm Survey will answer this.

Glow Worm distribution in Nottinghamshire

Our modern knowledge of the Glow Worm's Nottinghamshire distribution, currently relies on what we think, rather than what we know. There is a lack of modern records from many of its known sites, but the problem is that very few people are actively recording Glow Worms.

The Nottinghamshire Coleoptera recorder is of the opinion that Glow Worms are still quite widespread throughout the county, yet the distribution map we have produced would claim otherwise. The lack of historical records or reported sites, would also suggest that the Glow Worm has actually never been widespread here.

Certainly, there may be an element of secrecy regarding some colonies and while we have been informed of at least one healthy colony on private land in the Dukeries, there must be others out there waiting to be discovered.

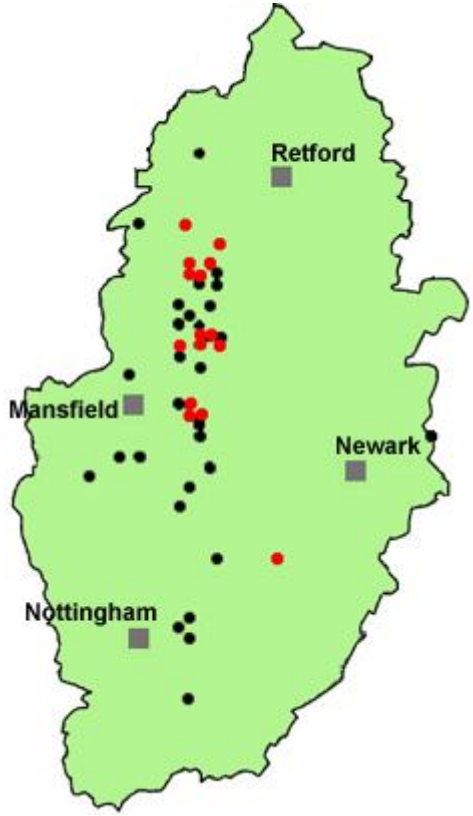
If other people are keeping watch on their local colony, then they are not openly publicising it, which is a shame, because national data suggests that the Glow Worm has actually decreased over the last century.

This may well be the case, but has our most charming beetle declined in Nottinghamshire? The answer is probably yes, but it is proving that it has declined effectively through a lack of surveying, that seems to be the main problem and this is where you can help.

The Nottinghamshire Glow Worm Survey

In 2012, a small group of dedicated Glow Worm enthusiasts, set out to map the Glow Worm's distribution across Nottinghamshire, in a determined effort to secure enough data to help confirm any decline.

Our first task was to gather and collate all available records and sites, some dating back over 100 years. All 44 sites were then plotted on a series of maps and those 15 sites still known to be active (post 2000) were marked in red and the others in black.



Mapping produced some unexpected results, showing that (even historically) the Glow Worm's Nottinghamshire distribution was much more restricted than previously thought. There was a surprising absence of records from the Trent Valley and the eastern half of Nottinghamshire.

Our mapping showed that Glow Worms are largely confined to those areas of Nottinghamshire which lie on Sherwood Sandstone. This includes areas such as Clumber Park, the Sherwood Forest NNR and Sherwood Pines, but it is possible that previously unknown Glow Worm sites still await discovery.

Why survey?

It is surprising how little we actually know about the distribution of many of our insects. So by surveying one of the most easily identified species, we have the chance to accurately map the Glow Worm in the county for the very first time.

Knowing more about the Glow Worm's present distribution, will also give us an idea of how we can help site owners to manage their sites more sympathetically to conserve them.

How to take part in the survey

2013 will see the Nottinghamshire Glow Worm Survey enter its second year and we need your help.

Glow Worms traditionally prefer grassy habitats, but disused railway lines, forest rides and roadside verges on well drained soils are all ideal sites to look for them.

No specialist equipment is needed and the whole family can take part. Surveying is relatively easy. Adult Glow Worms are nocturnal and any surveying is best undertaken without the use of a torch. Your eyes will fully adapt to the dark after about 20 minutes.

A survey for adults would take around an hour or longer, depending on size of site to be surveyed. Mild, cloudy evenings are ideal, from around 10:15pm onwards, between early June and late July.

If you prefer not to go out at night, you can look for the larva during the day. In March and April, larvae are often be found wandering on paths in suitable habitat during the late afternoon or evening.

We need all results. Negative results from a site are as important as positive results, in helping us map the Glow Worm's distribution across the county.

Site access permissions

You will not require any access permissions if surveying for Glow Worms along designated public footpaths.

If wanting to survey for Glow Worms on any private site, please check and arrange access permissions with the landowner before your visit. All Forestry Commission sites require a permit before surveying. We may be able to help arrange survey permits for those wishing to survey Forestry Commission or Nottinghamshire Wildlife Trust sites, so please contact us first.

Some Glow Worm facts

- The Glow Worm is actually a beetle. The 20mm long females are unable to fly, but the male is fully-winged and more typically beetle like. Both adults do not eat.
- Like all beetles, Glow Worms go through an egg, larval and pupal stage, before becoming adult.
- The larval stage lasts between one and three years, during which time the larva eats a diet of slugs and snails.
- Only the females glow bright enough for us to see at night, but the larva can also produce brief glows.
- Their light is a form of bioluminescence caused by chemical reaction.

For more information about Glow Worms in Nottinghamshire, please visit www.eakringbirds.com. Use the online form to report your sightings, or post your records to The NGWS, 13 Day Street, Market Warsop, Mansfield, Nottinghamshire NG20 0NG.

The Nottinghamshire Glow Worm Survey is supported by

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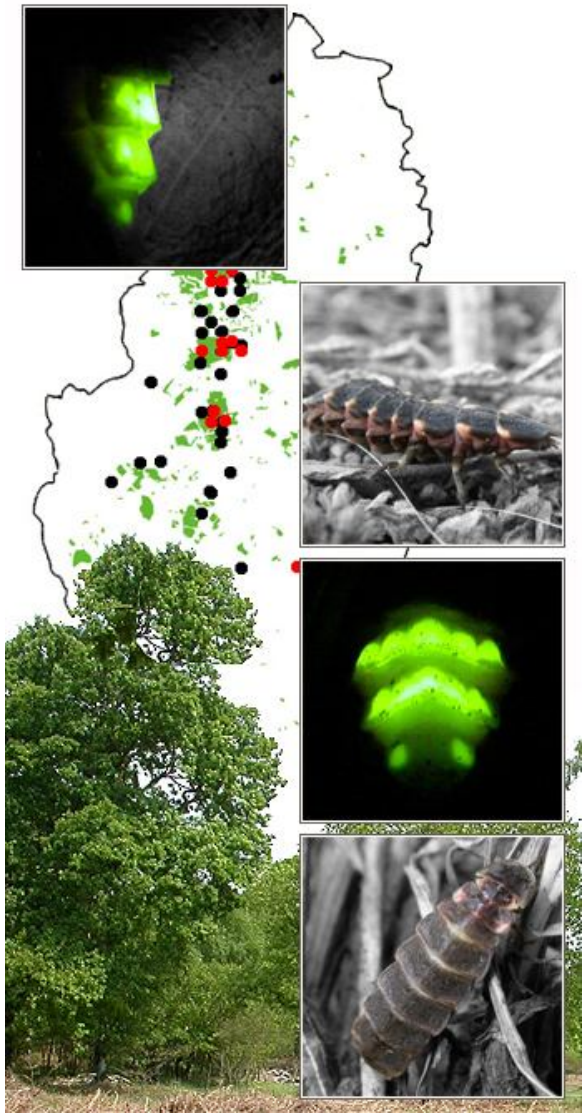

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