

Glow Worm

Lampyris noctiluca



Description

The Glow Worm is a fairly large beetle; the winged male is 10–12mm long and the wingless female 15–20mm. They are active only after dark and so need good cover to conceal themselves from predators.

Grassland vegetation, logs, cracks and crevices with humid conditions are ideal habitats. In addition, the female needs a prominent position such as a bank, hummock, tussock or similar feature, to attract a passing male by 'glowing'.

Adult Glow Worms are active between June and August in a short summer breeding period, during which they do not feed and after which they die.

The Glow Worm's light is produced by a series of chemical reactions within the cells of the female's light organ. Oxidation of an active chemical, luciferin, in the presence of a catalyst, luciferase, causes the shedding of atoms and a release of energy in the form of light. The reaction is extremely efficient – wasting only 2% of its energy as heat. As a consequence, a brilliantly glowing female remains cold to the touch.

Glow Worms feed on a small snail species that is found in certain habitats, and this is crucial for survival and species continuation.

National Status

Many sites which contained Glow Worms have been unknowingly destroyed and their habitat fragmented; this leads to group isolation and the extinction of a local population.

Most Glow Worm sites are in southern England, but there are isolated colonies north into Scotland. Throughout the UK there is a gradual decline of the species due mainly to habitat loss, but also due to pollution, insecticides, loss of food (various snail species) and changes in climate.

Local Status

There is currently one known site in Barnsley at Thurgoland.

Legal Status

There is no legal protection for the species.

Links with other Action Plans

HAP8 Lowland Meadows

HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Mainly due to loss of improved grasslands, but also due to the loss of woodland fringe and banks.
- Areas which contain Glow Worm becoming overgrown.

Current Local Action

- There has been some attention given to identifying the distribution of the species in Barnsley, but currently there is only one site.
- There has been some habitat management to retain or expand the Glow Worm population.

Proposed Local Action

- Continue to monitor the Thurgoland site and inspect other parts of the Trans-Pennine Trail for additional sites.
- Expand the Thurgoland site for the existing population by a management programme of cutting back trees and vegetation, and providing suitable ground conditions.

BMBC Land Ownership and Management Actions

- Routine management of Trans-Pennine Trail (TPT) between Thurgoland and Wortley to be sympathetic to Glow Worm needs.
- Barnsley MBC to work with Barnsley Biodiversity Trust and BTCV on occasional basis to enhance Glow Worm habitat.