

All About Glow Worms



Walking alongside the Grand Union Canal late on a summer evening, you may be lucky enough to glimpse the occasional eerie pinprick of luminous green light shining out from the grass at the edges of the towpath. These lights emanate from female glow worms, and we are fortunate to have a small but established colony along the borders of the Trust land.

Bearing the latin name *Lampyris noctiluca* the glow worm is actually a beetle, growing up to 25 mm in length. Only the female glows strongly; she is wingless and glows to attract the flying males. (The males do glow, but only very slightly). The females seem to glow most strongly on damp evenings. They are often found in river valleys, along towpaths or close to railway lines - always relatively close to open areas. This is thought to be because they need to be visible to the flying males, so there would be no benefit in them being hidden away in dense woodland or very tall meadow grass. They seem to favour chalky or limestone areas.

Adult glow worms can't feed, so they can only live for about 14 days. Once the female has mated and laid her eggs, she will die. The peak glowing period is evenings during June and July. The eggs hatch after several weeks and the larvae feed on snails, which they paralyse and suck dry! They remain as larvae for one or two summers before metamorphosing into the adult beetle.

The sedentary females usually remain in one spot either on the ground or clinging to a stem, curled so as to turn the glow upwards. Often they move their tail segments from side to side. The glow itself emanates from the final two segments of the female's body. The light is a yellowish-green colour and is a form of bioluminescence. It is caused when a molecule called luciferin is oxidised to produce oxyluciferin, with the enzyme luciferase acting as a catalyst in the reaction.

There is some evidence to suggest that attraction to artificial lighting can pose a problem for male glow worms, and lamp posts, household security lights, etc can all distract them from finding females.

The population bordering Trust land was surveyed during the 1980s, when 17 adult females were recorded at one session. Although no formal surveys have taken place since then numbers of individual insects spotted were recorded in 2012 and again in 2013, when the highest number seen in one evening was 21. This is very encouraging as it would suggest that the colony is at least remaining stable.

Legend says that early humans used to use glow worms to mark paths and provide light in huts. Glow worms were thought to have some kind of magical power and were also used in medicines. As you would expect, they have long been associated with elves and fairies in folklore.