

Stag beetle

Instantly recognisable by its huge antler-like jaws, the stag beetle is one of the largest insects in the UK. They spend most of their life underground as larvae, only emerging for a few weeks to find a mate and reproduce.

COMMON NAME Stag beetle. Also known as horse pincher, thunder beetle, oak ox

SCIENTIFIC NAME *Lucanus cervus*

DESCRIPTION The adult's head and thorax (middle section) are shiny black and its wing cases are chestnut brown. Males are 35-75mm long and have large, antler-like mandibles. Females are 30-50mm long with small mandibles.

DIET Larvae feed on decaying wood under the ground. Adults can't feed on solid food – they rely on the fat reserves built up whilst developing as a larva. They are able to drink from sap runs and fallen soft fruit.

HABITS Stag beetles spend the majority of their very long life cycle underground as a larva. This can be anywhere from three to seven years depending on the weather. Periods of very cold weather can extend the process. Once fully grown, the larvae leave the rotting wood they have been feeding on to build a large cocoon in the soil where they pupate and finally metamorphose into an adult. Adults spend the winter underground and usually emerge from mid-May onwards. By the end of August, most of them will have died. They do not survive the winter.

BREEDING Although they can fly, female beetles are most often seen walking around on the ground. Once they have mated, the females return to the spot where they emerged, if there is enough rotting wood to feed their young, and dig down into the soil to lay their eggs in rotting wood. Males tend to be seen flying around at dusk searching for a mate.

DISTRIBUTION Throughout Western Europe including Britain but not Ireland. Stag beetles are relatively widespread in southern England. They are also found in the Severn valley and coastal areas of the southwest. Female stag beetles prefer light soils which are easier to dig down into and lay their eggs. Newly emerging adults also have to dig their way up through the soil to reach the surface. Areas like the North and South Downs, which are chalky, have very few stag beetles. They also prefer areas which have the highest average air temperatures and lowest rainfall throughout the year.

CONSERVATION STATUS The stag beetle is protected from sale in the UK and is Red listed in many European countries. It has undergone a decline across Europe and is extinct in Denmark and Latvia.

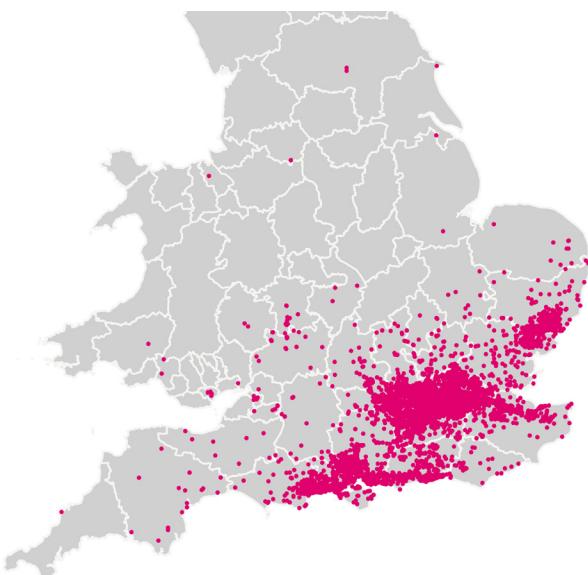


Figure 1. Map showing distribution of stag beetles across Britain



Stag beetles are harmless and do not damage living wood or timber. The larvae only feed on decaying wood so please do not kill them



What should I do if I find a stag beetle?

If you find an adult stag beetle, please leave it where it is, unless it is in danger of being run over or trodden on. If you have to move a beetle for its own safety, then please move it as short a distance as possible.

If you dig up a stag beetle larva, please put it back exactly where you found it. The next best thing is to re-bury the larva in a safe shady place in your garden with as much of the original rotting wood as possible.

Why do stag beetles need our help?

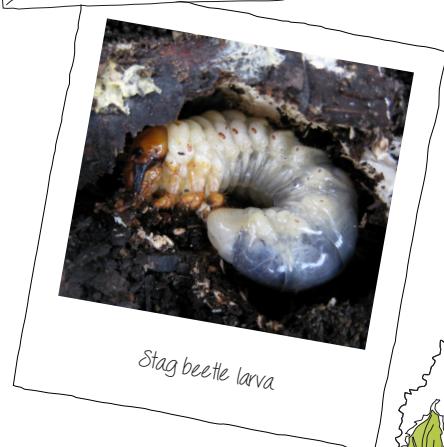
people's
trust for
endangered
species

The main problems facing stag beetles are habitat loss and a lack of rotting wood in which to lay their eggs and for their larvae to feed on. The tendency to keep parks and gardens "tidy" – including removing old tree stumps and roots - is problematic, but is becoming less so as people become more aware of the importance of leaving wild areas and park managers include dead wood retention in their management plans.

Other factors such as predation and road kills may have localised effects but we don't know exactly how these affect the UK or European populations as a whole.

Where stag beetles do exist they might face further challenges if populations become isolated. The larvae are long-lived and the adults do not move very far from where they emerge. Although males can fly for up to 500m, most females travel no more than 20m.

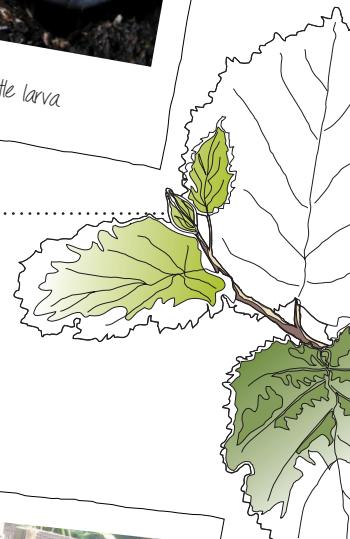
Changes in future weather patterns are also likely to have an impact; exceptionally dry or wet weather can affect the larvae, whilst wet and windy weather can inhibit the adults' flying ability.



How you can help

Record your sightings

If you see a stag beetle, please visit our website www.ptes.org/stagbeetle and record your sighting. This helps us build up a picture of where stag beetles are and how they are doing.



Create a stepping stone for stag beetles so that they can colonise new areas more easily

Please see our website or separate leaflet for how to create the perfect log pyramid for stag beetles.

Make your garden stag beetle friendly

- **Leave old stumps and dead wood.** Stag beetles need to lay their eggs in rotting wood.
- **Cover water butts,** to avoid stag beetles drowning.
- **Be alert for predators,** especially cats and magpies.
- **Avoid polythene sheeting.** Emerging beetles can get trapped beneath it.
- **Avoid stump grinding and burning dead wood,** this could kill larvae and removes potential habitat.
- **Lawn mowers can be lethal.** Please leave an unmown patch around log piles when beetles are emerging in May and June.

For other stag beetle questions and ID guides please see our website or email stagbeetle@ptes.org

For more information on planning and development, the legal requirements and what your role is, please visit our website www.ptes.org/stagbeetle



The lesser stag beetle (*Dorcus parallelipipedus*), right, can be confused with stag beetles. Note the rough texture of the exoskeleton. Female stag beetles are smooth and shiny.