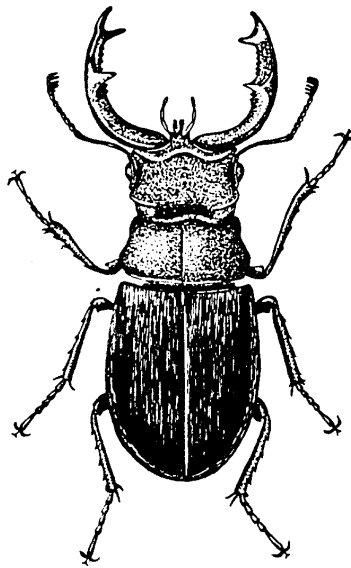


## Stag Beetle (*Lucanus cervus*)

### 1.0 Definition

*The Stag Beetle is the largest and most conspicuous terrestrial beetle in Britain. It can be found in a wide range of rural and urban habitats including broad-leaved woodland, parks, hedgerows, churchyards and urban gardens. The larvae live in and feed on the decaying wood of a wide variety of broad-leaved trees and shrubs, often in roots and stumps, at or below ground level, and may take up to five years to become fully grown. Metamorphosis takes place underground in the soil, during August, inside a cocoon built by the larva. Cocoons are the size of a chicken's egg and consist of soil and larval secretions. The pupal stage is short, lasting a maximum of six weeks. The resulting Stag Beetles break out of their cocoons after around 24 hours but remain under the ground for a further eight months before emerging in early summer. Mainly crepuscular, Stag Beetles can be seen flying at dusk on warm, still evenings in June and July.*



### 2.0 Current status

#### 2.1 National

The Stag Beetle is rare and protected in some European countries. In Britain the Stag Beetle is restricted mainly to southern England. Its main strongholds are London and the Thames valley, north Essex, south Suffolk, north Kent and areas along the south coast. Stag Beetles are found in the greatest abundance in the counties of Berkshire, Buckinghamshire, Dorset, Essex, Hampshire, Hertfordshire, Kent, Greater London, Oxfordshire, Suffolk and Surrey. There are outlying populations in the West Country, South Wales and the English Marches. They have been shown to prefer areas that have low average rainfall and high average temperatures. 75% of Stag Beetle records come from private gardens, with a further 22% from associated areas such as pavements, roads and local parks. Well-drained soil seems to be a requirement for the species.

## **2.2 Local**

This nationally scarce beetle is widespread in the south-east of the county, but only relatively common in certain localities. Key sites in Suffolk are Ipswich, Woodbridge and Hadleigh, where beetles are present throughout the towns, and a large number of villages across the Shotley and Felixstowe peninsulas, e.g. Bentley, Holbrook, Nacton and Kirton. National and County surveys suggest that the most significant 'hotspots' are urban, suburban and rural gardens and local parks. Records suggest that 9 -13% of the national population occurs in Suffolk.

## **2.3 Natural areas**

Suffolk coast and heaths and East Anglian Plain.

## **3.0 Current factors affecting Stag Beetles in Suffolk**

- Loss of habitat through the removal of stumps and other dead wood.
- Beetle road casualties: large numbers of beetles are killed on the roads and pavements, accidental victims of vehicular and pedestrian traffic.
- Beetle predators: large numbers of beetles are taken by birds, especially magpies and other corvids. Some fall prey to hedgehogs. Larvae are taken by badgers and foxes.
- Collecting for sale or other purposes is not a contributory factor in the UK.

## **4.0 Current Action**

### **4.1 Legal status**

At present there is little protection for the Stag Beetle or its habitat in Britain.

- The beetle is listed on Schedule 5, Section 9(5) of the Wildlife and Countryside Act 1981(as amended) stating that it is illegal to trade in the species, and on Annex II of the EC Habitats Directive.
- One site, Richmond Park (Greater London), has been designated a SAC for the species. Two other sites have been proposed as SACs (Epping Forest, New Forest). Further candidates for SACs are Wimbledon Common, Dixton Common and Chiltern beechwoods
- Stag Beetle habitat may sometimes be indirectly protected if it occurs at sites with statutory conservation status (SSSIs, SACs). It may also be protected within Special Landscape Areas and/or AONB. County Wildlife Sites may give habitat protection in the same way. Conservation Area Status may also be responsible for the protection of some habitat. Local Planning Authority (LPA) Tree Preservation Orders (TPO) can indirectly protect Stag Beetle habitat. Babergh District Council (BDC) planning application No.B/03/00686/OUT). LPA regulations can also be used to conserve Stag Beetles (BDC planning application B/97/00884/FUL).
- Organisations with statutory duties: EN and JNCC  
National Lead Partner: PTES  
Suffolk Lead Partner (SLP): Colin Hawes, member of the PTES National Steering Group (reporting to the Suffolk BAP Steering Group)

#### **4.2 Management, research and guidance**

- The Stag Beetle has received wide coverage in the media, both locally and nationally, as well as through the newsletter of the Suffolk Naturalists' Society, raising awareness of threats to the species among local conservation groups and communities. Further publicity has come from exhibitions and talks given to a wide range of organisations including schools and colleges.
- A 'Stag Beetle Friendly Gardening' leaflet produced by the PTES (1998) has been widely distributed to conservation groups and other organisations in the county. A "Stags in Stumps" leaflet has also been produced by PTES (1998).
- Knowledge of the beetles' ecology and methods for monitoring are currently being researched by the Suffolk Lead Partner in collaboration with a PhD student at Royal Holloway University of London (RHUL).
- The beetles' life-cycle has been researched and details published in 2003 (RHUL).
- The distribution of the species in Suffolk together with key sites for the county was published by SNS in 1998. National surveys organised by PTES (1998 and 2002) confirmed these findings.
- Key sites are monitored annually and in tandem with any national monitoring. Data collected is passed to the SBRC, PTES, EN and JNCC.
- The range, distribution and viability of existing populations is being achieved by ensuring a continuous supply of dead, decaying, broad-leaved wood at known Stag Beetle locations and by encouraging the building of 'log pyramids'.
- Liaison with local planning authorities has enabled Stag Beetles and Stag Beetle habitat to be conserved (Babergh District Council and also Suffolk Coastal District Council).

#### **5.0 Action Plan Objectives and Targets**

1. *Continue to raise awareness of threats to the species among the community on an annual basis.*
2. *Improve knowledge of the species ecology and methods of monitoring.*
3. *Monitor key sites annually for: presence or absence, abundance and population size (using methods developed at RHUL and by the Suffolk Lead Partner.*
4. *Maintain the range, distribution and viability of existing Stag beetle populations.*
5. *Undertake surveys to establish more precisely the beetles' distribution at the edge of its range.*
6. *Undertake surveys at sites where there are historical but no recent records for the insect.*
7. *Ensure liaison with local authority planning departments where Stag Beetles are present at proposed development sites.*

## 6 Stag Beetle: Proposed Action with Lead Agencies:

Action	Date	Partners
<b>POLICY AND LEGISLATION</b>		
Ensure WCA (1981) status is enforced and Local Authority Planners are aware of their duties. Encourage them to consider mitigation measures – at least 1 per relevant LA.	2006	<b>BDC, SCDC,</b> Suffolk lead partner, SWT
<b>SITE SAFEGUARD AND MANAGEMENT</b>		
Ensure favourable management of County Wildlife Sites and Nature reserves, town and country parks where the Stag Beetle occurs, by inclusion of beetle's requirements in site management plans.	2004 2005 2006 2007	SWT, FA, BDC, SCDC,EN, Suffolk lead partner
Encourage appropriate habitat management, including retention and continuity of dead wood, for all sites where the beetle is known to occur.	2004 2005 2006 2007	<b>SWT, EN, , FA,</b> BDC, SCDC, Suffolk lead partner
Promote creation of artificial habitats in areas where the beetle is known to occur. Current research suggests that brickwood chippings and coarse sawdust (hardwoods) act as suitable habitat.	2004 2005 2006 2007	<b>SWT, FA, BDC,</b> SCDC
<b>SPECIES MANAGEMENT AND PROTECTION</b>		
Liaise with Local Planning Authorities where the Stag Beetle or its larvae are put at risk from proposed building or other development and seek to provide alternative habitats where development is unavoidable.		<b>SWT, Suffolk lead partner, BDC,</b> SCDC,
<b>RESEARCH AND MONITORING</b>		
Undertake research to determine monitoring methods as currently there is no quantitative replicable method available.	2004 2005 2006 2007	<b>PTES, RHUL,</b> Suffolk lead partner & volunteers
Undertake surveys to establish more precisely the current distribution of the beetle in Suffolk and identify key sites for conservation action.	2004 2005 2006 2007	<b>Suffolk lead partner, SBRC,</b> SNS
Undertake ecological and behavioural research to determine the beetles' precise microhabitat requirements.	2007	<b>PTES, RHUL,</b> Suffolk lead partner

Pass information gathered during survey and monitoring of this species to JNCC or PTES so that it can be incorporated in national databases.	2004 2005 2006 2007	All partners
<b>ADVISORY</b>		
Ensure landowners and managers are aware of the presence and importance of conserving this species, and appropriate methods of management for its conservation. Distribute relevant literature.	2005	SWT, SCC, BDC, SCDC, FWAG, Suffolk lead partner
<b>COMMUNICATIONS AND PUBLICITY</b>		
Distribute guidance leaflet on habitat management and gardening practices for Stag Beetles in Suffolk to key parishes and also amongst Local Authority planning staff.	2004	SWT, PTES, RHUL, Suffolk lead partner
Publicise Stag Beetle and its habitat requirements by using local media. Aim for one article/press release in regional newspapers or parish magazines per year.	2004 2005 2006 2007	<b>Suffolk Lead Partner</b> , SWT, , EN, FWAG, SNS
Involve public in identifying Stag Beetle locations using local media to publicise surveys and organising field meetings and workshops.	2004 2005 2006 2007	<b>Suffolk lead partner</b> , SWT, SNS