

Richmond upon Thames

Species Action Plan

Stag Beetle



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1. Aims

- To protect, conserve and enhance nationally significant populations of stag beetle in London Borough of Richmond upon Thames.
- To ascertain the reasons for uneven distribution of stag beetle populations across the borough.
- Increase public awareness of the importance of stag beetle and that of the dead wood habitat.

2. Introduction

The vernacular names of billywitches, oak-ox, thunder-beetle and horse pincher give an indication of the mythology that has evolved around the stag beetle (*Lucanus cervus*). Ancient associations with storms and magical powers led to the beetles being both feared and revered.

The stag beetle is Britain's largest terrestrial (ground-living) beetle, reaching up to 7cm in length. Featuring shiny chestnut-violet wing-cases, the stag beetle is characterised by possessing large mandibles (jaws), which are antler-shaped in the male, giving them their common name. These 'antlers' are used for fighting other males, whereas the female's mandibles, being smaller, are more powerful.

The stag beetle requires dead wood to complete its lifecycle. The eggs are laid underground in the soil next to logs, or stumps of dead trees and the larva (or grub) will spend up to seven years in the wood, slowly growing in size. 'Artificial' wood is also utilised, especially sunken fence posts. Perhaps surprisingly, London is nationally significant for stag beetle populations as the capital reported 30% of the 1998 national records. Adults emerge from mid-May until late July. Males emerge earlier and appear to be more active as they search for females to mate, and can often be seen flying on sultry summer evenings an hour or two before dusk. Adults are short-lived, as many are predated within days of emerging.

3. Current Status

The stag beetle has been recorded from most of London but the key boroughs are all South of the Thames except Hounslow & parts of Richmond, although there are clusters of records in places such as Winchmore Hill and Hornchurch.

Gardens appear to be the most important habitat for the beetle in London perhaps because most people are likely to be in their gardens when beetles are likely to be active. The significance of

parklands in areas such as this Borough is unclear as until recently there have been no systematic surveys in Parks. Domestic gardens may be crucial to the conservation of the stag beetle in the capital given that many experts believe they do not fly far to find a mate. However, the increasing density of urban housing may militate against future domestic gardeners' contributions.

4. Specific Factors Affecting the Species

4.1 Reduction of dead wood

In earlier centuries dead wood would have been reduced through the intensive management and loss of woodlands. Although some 'tidying up' still continues in woodlands and parks, managers are now much more aware of the need to retain dead wood as part of the woodland ecosystem and this will have benefited stag beetles at a local level. Similarly, changes in the management of parks have led to the retention of dead wood, although this policy was always maintained in Richmond Park.

4.2 Loss of habitat to urban development

Habitat has been lost in London through suburban expansion in the inter-war years. Although the introduction of the Green Belt led to the restriction of suburban expansion, many of London's open spaces including woodland have been developed. Development will continue to result in the loss of stag beetle habitat, especially as there is a lack of awareness of the beetle's presence on sites as the adults are only visible for a few weeks a year.

4.3 Direct human impact

Adult stag beetles are attracted to the warm surfaces of tarmac and pavements, making them particularly vulnerable to being crushed by traffic or human feet. Public fear and misunderstanding of the species also leads to intentional killings of the beetles and their larvae.

4.4 Predation

Predators such as crows, magpies, cats, foxes, and others may have an adverse impact at the most vulnerable stage in the beetle's life cycle, when adults are seeking to mate and lay eggs. Indeed, it has been suggested that the rise in magpie and carrion crow numbers in the last decade has had a significant impact on stag beetle populations.

5. Current Action

5.1 Legal status

The stag beetle is listed under Schedule 5 of the Wildlife and Countryside Act 1981, as amended but only to prevent trade. A major threat to stag beetles, especially in Europe, has been from private collectors, although this legislation aims to stop the species from being collected for sale at entomological fairs. It is also listed under Appendix III of the Bern Convention on the Conservation of European Wildlife and Natural Habitats, 1979 and Appendix II of the Habitats Directive. The latter requires the UK to designate Sites as Special Areas of Conservation (SAC) specifically to protect the stag beetle. Wimbledon Common, Richmond Park and Epping Forest are all candidate SACs.

5.2 Mechanisms targeting the species

These current actions are ongoing. They need to be supported and continued in addition to the new action listed under Section 7.

5.2.1 Survey and research

In 1998 and again in 2002 the Stag Beetle Focus Group conducted a national survey, collecting a total of around 15,000 records for the species and providing an updated and considerably more accurate picture of the UK distribution.

The London Wildlife Trust piloted a survey in south London in 1997, which contributed to the 1998 national survey and has continued surveying in key areas in 1999 and 2000. It has also actively promoted the species to the media, hosted a website recording form for stag beetle and a garden wildlife survey form for several species including the stag beetle as well as stimulated interest in the beetle through press releases, newspapers, radio, TV and other media to the general public.



In Richmond we have encouraged landowners, managers, schools and members of the public to introduce loggeries/nest boxes. However, Richmond Park was always under surveyed and because so much historic parkland exists in Richmond it was considered important to arrange a proper survey to act as a flagship.

5.2.2 Richmond Park and Wimbledon Common Stag Beetle Project

Wimbledon Common is not in LB of Richmond upon Thames but it shares a boundary across the A3 Road with Richmond Park. Both sites are cSACs so a joint operation covering both areas was established in autumn 2003. Royal Holloway University became part of the partnership but work on the Common has not taken place but someone has now been found to start to take this forward.

5.2.3 Advice

In 1998 PTES produced 'Stags in Stumps', a leaflet aimed at land managers. Managers have since begun to take account of the species in site management plans, and it is likely this will develop further. In addition, wildlife gardening campaigns by London Wildlife Trust, local authorities and others have promoted stag beetles and dead wood conservation. In 2003 PTES published another leaflet, 'Stag Beetle Friendly Gardening', to promote these aspects, and London Wildlife Trust produced 'Stag Beetle; an advice note for its conservation in London' specifically aimed at the capital, which also covered survey and planning issues.

6. Objectives, Actions and Targets

Most of these actions are specific to this species. Please note that the partners identified in the tables are those that have been involved in the process of forming the plan. It is not an exclusive list and new partners are both welcomed and needed. The leads identified are responsible for co-ordinating the actions – but are not necessarily implementers.

Objective 1: To significantly increase stag beetle populations in LB Richmond-upon-Thames

Target: Increase the provision of habitats within its current known range by 2010

Action	Target Date	Lead	Other Partners
1.1 To cooperate with Richmond Park & Wimbledon Common Stag Beetle Working Group to promote monitoring of the species in sites across the Borough	2005	TRP & WC SBP	EN, LA, PTES, W&PCC, Royal Holloway & Royal Parks
1.2 Send advice note to all managers and landowners of parks, woodlands, nature reserves and major formal gardens to encourage retention of dead wood	Ongoing	LA & Working Group	RBGK, WWT, HRP, TRP & Golf Courses
1.3 Promote the retention and/or use of natural and artificial stag beetle habitats by landowners and the public.	2005	Working Group	LA, BTCV
1.4 Identify 25 key sites and install at least 2 loggeries per year in Richmond upon Thames	Annually	Working Group	LA, BTCV

Objective 2: To monitor existing stag beetle populations, and further the research on the reasons for their uneven distribution in LB Richmond-upon-Thames.

Target: Conduct repeat survey by 2005

Action	Target Date	Lead	Other Partners
2.1 Pilot a number of loggery monitoring schemes	2006	Working Group	LNHS



2.2 Undertake local initiatives to support surveys e.g. targeted data collection and developing new survey tool etc. To establish current distribution more precisely and complement national surveys and the establishment of monitoring baselines of loggeries	2006	Working Group	LA, RP & WC SBP & LNHS
2.3 Promote monitoring for a better understanding of the beetle's ecology and lifecycle.	2005	Working Group	As above + Site managers

Objective 3: To raise the awareness of the stag beetle and its needs in LB Richmond

Target: To incorporate information on stag beetle's needs into 2005 public survey

Action	Target Date	Lead	Other Partners
3.1 Use Stag Beetle Display Stand at least at one relevant events or venue per year.	Annually	Working Group	Site Managers
3.2 Conduct public survey that includes information on stag beetle conservation using newspaper and magazine articles and or websites.	Annually	Working Group	LA PTES
3.3 Produce a dead wood leaflet & website material on the protection of dead wood species in parks etc.	2006	TRP & WC SBP	LA and RBGK
3.4 Promote public engagement through walks, talks & discussions, as well as through press articles in the Borough focusing on the needs of Stag Beetles & other dead wood species in domestic gardens, parks, school & community groups grounds and other suitable locations	On going	Working Group	Site Managers and Community Groups

Objective 4: To ensure the conservation of stag beetles at London's strategically important site of Richmond Park

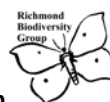
Target: To promote the development of a strategic plan for Richmond Park, Wimbledon Common and other candidate SAC's.

Action	Target Date	Lead	Other Partners
4.1 Support the development & promotion of a strategic plan for Richmond Park and Wimbledon Common stag beetle conservation project.	2005	TRP & WC SBP	Working Group
4.2 Support carrying out of local research on the effects of habitat and environmental factors on stag beetle populations of Richmond Park and consider the implications for other historic parklands	Annually	TRP & WC SBP	Working group

Relevant Action Plans

Local Plans

Ancient Parklands/Veteran Trees, Acid Grassland, Broadleaved Woodland



London Plans

Woodland; Open Landscapes with Ancient/Old Trees; Private Gardens; Railway linesides; Churchyards and Cemeteries; Hedgerows

National Plans

Stag Beetle

Key References

DETR (1995). *Stag Beetle Species Action Plan*. London, HMSO. See their website address below <http://www.ukbap.org.uk/UKPlans.aspx?ID=425>

London Wildlife Trust (2000). *Stag Beetle: an advice note on its conservation in London*. London Wildlife Trust. See their Website <http://www.wildlondon.org.uk/resourcefiles/20040625132051Stag+Beetles.doc>

PTES (2003). *Stag Beetle Friendly Gardening*. Leaflet, PTES. See also their website for further publications at http://www.ptes.org/stagbeetle/Stag_beetle_website/index.htm

RP & WC SBP (2004) *Public Discussion WebPages* – Includes 2004 Survey & Conference Reports

Abbreviations

EN – English Nature

HRP – Historic Royal Palaces

LB – London Borough of

LNHS – London Natural History Society

LA – LB of Richmond upon Thames

LWT – London Wildlife Trust

PTES – People's Trust for Endangered Species

RBGK – Royal Botanical Gardens Kew

RP & WC SBP – Richmond Park and Wimbledon Common Stag Beetle Partnership

TRP – The Royal Parks

W&PCC – Wimbledon and Putney Commons Conservators

WWT – Wildfowl & Wetlands Trust

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