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SPECIES ACTION PLAN

STAG BEETLE (*Dorcus spp*)

IN THE BOROUGH OF LEWISHAM

1.0 INTRODUCTION

The stag beetle is Britain's largest terrestrial beetle, with the largest males reaching 8cm in length. However, the size of adults is variable and 5cm is more typical. The large antler-shaped mandibles of the male enable easy identification, although females may be confused with the lesser stag beetle (*Dorcus parallelipedus*) which is also locally common in the Lewisham area. The mandibles of the male 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 and larva will spend five to seven years in the wood, slowly growing in size. Deciduous, particularly oak, woodlands appear to be preferred. 'Artificial' wood is also utilised, especially sunken fence posts. London is nationally significant for the stag beetle populations it supports - over 3,000 (c30%) of the 1998 national records were from the capital.

Adults emerge from mid-May until late July. Males emerge before females and appear to be more active as the search for females to mate with, and can often be seen flying on sultry summer evenings an hour or two before dusk. As adults they are short-lived and generally die after mating and egg-laying, although occasionally some may over-winter in places such as compost heaps.

1.2 Aims

- To protect, conserve and enhance where appropriate the nationally significant populations of stag beetle in Lewisham.
- To raise awareness of the species among planners, land workers and the general public.

2.0 CURRENT STATUS

2.1 Background

The family Lucanidae is poorly represented in Europe, with only seven species in the area. The largest and most conspicuous member of the family, the stag beetle, is globally-threatened, rare and protected in some European countries. Records from the 1940s show that the species was formally more widely distributed, in Wales to the west and as far north as North Yorkshire and Cumbria, but its range has contracted considerably in the intervening years, presumably due to the loss of woodland habitats and post-war agricultural intensification. Still widespread in south-east England, the stag beetle has been recorded from most of London, but is significantly more common south of the Thames. It is rarely found in central London, where suitable habitats are absent, and is surprisingly uncommon or absent in the north-west and parts of north-east London. In Lewisham it is found especially in Sydenham, Honor Oak and Hither Green, but from recent surveys it appears to be less common in the northern parts, such as Deptford and New Cross (the old flood plain).

3.0 SPECIFIC FACTORS AFFECTING THE SPECIES

3.1 Reduction of dead wood

In earlier centuries dead wood would have been reduced through the intensive management of loss of woodlands. Although some ‘tidying up’ still continues in woodlands and parks, management plans now commonly recognise the need to retain dead wood, as part of the woodland ecosystem and this will have benefited stag beetles at a local level. The increased frequency of violent storms with high winds since the mid-1980s has probably increased the natural supply of dead wood which can and should be left *in situ* (safety permitting) or translocated to appropriate sites.

3.2 Loss of habitat to urban development

Habitat was 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 surviving open spaces were developed, especially woodland. Development will continue to result in the loss of stag beetle habitat, especially where breeding sites remain unrecorded.

3.3 Direct human impact

Adult stag beetles are attracted to the warm surfaces of tarmac and pavements, making them particularly vulnerable to crushing by traffic or human feet. Gardeners may mistake the large grubs for pests and exterminate them. Commercial threats are probably a minor concern, but a recent fad for large beetles in the Far East highlighted the presence of a lucrative and potentially threatening black market in illegally captured beetles.

3.4 Predation

Predators such as cats, foxes, crows, kestrels 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 in the last decade may be having a significant impact on stag beetle populations.

4.0 CURRENT ACTIONS

4.1 Legal status

The stag beetle is listed on Schedule 5 of the Wildlife and Countryside Act (1981, as amended) but only to prevent trade. A major threat to stag beetles, especially in continental Europe, has been from private collectors and the legislation aims to stop the species from being collected for sale. It is also listed on 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 Special Areas of Conservation (SAC) specifically to protect the stag beetle.

4.2 Stag Beetle Focus Group

The London-based People's Trust for Endangered Species (PTES), Lead Partner for the UK stag beetle Action Plan, established the national Stag Beetle Focus Groups (SBFG) in 1997 to co-ordinate, develop and implement the national SAP. This is a partnership of a range of organisations and individuals, including English Nature (Lead Contact), the Wildlife Trusts, Natural History Museum, London Borough of Bromley, corporation of London, Royal Parks Agency, Forestry Commission, and Suffolk Naturalists Trust.

4.3 Survey and research

As a large insect, the stag beetle has always attracted the interest of entomologists and has been the subject of various papers and surveys over the past century. Data collected by individuals and societies has contributed to the knowledge of the species, although most of this contribution was made before the 1940s. Since the publication of the UK Biodiversity Action Plan there has been significant work on the stag beetle, with a number of local surveys.

In 1998 the SBFG conducted a national survey, collecting over 10,000 new records for the species and providing an updated and considerably more accurate picture of the UK distribution. Further research was also undertaken on the beetle's ecology. Subsequently, the Group's work has concentrated on further survey, monitoring methodology, and research into the beetle's ecology.

London Wildlife Trust piloted a survey in south London in 1997, 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, and has stimulated an interest in the beetle from newspapers, radio, TV and the general public.

The London Wildlife Trust website features a stag beetle recording form and a garden wildlife survey form for several species, including this beetle. Stag beetle records have been obtained from the general public in Lewisham during the Lewisham People's Day public event.

4.4 Habitat creation

The creation of stag beetle 'loggeries' has been pioneered in Epping Forest, Sydenham Hill Wood, Southwark and Bromley in 2000. In addition, trials of 'nest-boxes' are being conducted in these areas to see whether they attract females stag beetles, and if so could be used at the edge of the beetle's range as a monitoring tool. This type of scheme needs to be coordinated at suitable sites in Lewisham

5 OBJECTIVES, ACTIONS & TARGETS

Objective 1

To establish number and location of known populations of stag beetles in Lewisham

Target: To increase the number of suitable breeding areas within Lewisham by 2005.

ACTION	TARGET DATE	LEAD	OTHER PARTNERS
Establish links with proposed London Stag Beetle Work Group.	2003	Lewisham working party	LBL, LWT, GWK
Establish data base for current stag beetle population records	2004	Lewisham working party	LBL, LWT, GWK
Establish communication channels with all significant stag beetle workers	2004	Lewisham working party	LBL, LWT, GWK

Objective 2

To monitor existing stag beetle populations in Lewisham. To investigate the possibility of improving and extending breeding sites, particularly to the north of the borough.

Target: Contribute to proposed London Survey 2005.

ACTION	TARGET DATE	LEAD	OTHER PARTNERS
Request all managers and owners of parks (eg Glendales and Lewisham Council), nature reserves and major formal gardens to monitor existing stag beetle populations	2005	Lewisham working party	LBL, LWT, GWK
Identify suitable sites for loggery monitoring schemes, e.g. Devonshire Road Nature Reserve, Dacres Wood, Woodland Walk, Beckenham Place Park, Mayow Park..	2005	Lewisham working party	LBL, LWT, GWK
Send advice notes to all managers and owners of parks (eg Glendales), nature reserves and major formal gardens to encourage retention of dead wood. Encourage the use of wood (rather than concrete) for fenceposts and other structures. Provide information to arboroculturalists, planning and tree officers to promote retention of stag beetle habitat.	2006	Lewisham working party	LBL, LWT, GWK

Objective 3

To raise awareness of the stag beetle and its needs to Lewisham residents.

Target: Increase level of interest

ACTION	TARGET DATE	LEAD	OTHER PARTNERS
Provide advice and encouragement to private gardeners, utilising local garden centres as business partners and local media for publicity. Stress legal protection.	2005	Lewisham working party	LBL, LWT, GWK Local Garden Centres
To co-ordinate Lewisham's response to the LWT public survey, and continue to promote the stag beetle as a 'flagship' species at public events, through LewishamLife, etc.	2005	Lewisham working party	LBL, LWT, GWK

6.0 RELEVANT ACTIONS PLANS

6.1 local Plans

Woodlands, Veteran Trees, Churchyards & Cemeteries, Railway Linesides, Private Gardens, Parks.

Lewisham Plans: Woodlands, and Gardens

6.2 National Plans

Stag Beetle.

Acknowledgments

This Lewisham BAP is modelled closely on the London Species Action Plan for the stag beetle by Ralph Gaines of the LWT, incorporating several sections verbatim. Additional local information is largely the work of Matthew Frith, now of English Nature.

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Tony Canning, April 2001