

Species Statement for Adder

London

“The gardeners employed at villas close to the metropolis occasionally raise an alarm, and profess to have seen a viper in the shrubberies...”
(Jefferies, 1893).



Introduction

The adder or northern viper (*Vipera berus*) is almost extinct in Greater London. Its known distribution is confined to just four relatively small and widely separated populations, each within a different London borough. Although adders are more common in some of our neighbouring counties, a general countryside decline has recently prompted the species' re-evaluation as a priority species in need of special conservation action.

Like all reptiles, adders must absorb the sun's heat in order to become active. The open, dry nature of heathland and acid grassland provides ideal conditions to achieve this, as well as plenty of food and cover and this is the preferred habitat of adders in London. During the winter they are inactive, hibernating below ground in disused mammal burrows, deep within grass tussocks or among tree roots. On emergence in early spring they can be seen basking in the open. Following this they pair to mate, often involving complex ritualistic behaviour. Mature females then give birth in late summer to clutches of 5-10 young adderlings.

The adder is an efficient predator and hunts by stealth, preying on small mammals, nestling birds and lizards. Being our only venomous snake it is sometimes seen as a danger to human safety even though bites to humans are extremely uncommon. Our destruction, over-use and neglect of the places where adders occur present a far greater threat to them than they pose to us. This statement cannot provide details of the four remaining London sites because of the continued threat of persecution by misguided individuals.

Conservation Considerations

Historic development and unsympathetic land management has greatly reduced the habitat available to adders in London. In essence they require semi-natural habitats with a high degree of structural diversity, combining adequate basking areas, feeding opportunities and hibernation sites. These features are reduced or eliminated entirely by insensitive mowing or grazing, burning (both accidental or deliberate), or intensive recreational use.

London's adder populations have become extremely isolated from one another as well as from areas of adjacent habitat they might potentially colonise. This has arisen through fragmentation of suitable habitats by barriers that adders cannot cross, including major roads and built development, ploughed fields and expanses of short mown grass. Without intervention, isolated populations will gradually decline through inbreeding, a possible imbalance in sex ratio and susceptibility to disease, predation or persecution. Concerning the latter, adders have had a long and grisly history of persecution. Although the intentional killing or injuring of any native

reptile has been illegal since 1981, malevolent action directed at snakes in particular has unfortunately continued. This is fuelled by the enduring media image portraying all snakes as villainous and lethal predators of man¹.

In consequence of this, land managers have been known to over-react to concerns for public safety and the potential danger to domestic pets from adder bites. The resultant removal of suitable reptile habitat and/or illegal killing may have contributed to local declines in adder populations. Conservation action combined with a careful campaign aimed at raising awareness of the species' dire status could serve to improve its public image and that of snakes in general.

Future Action

Because it is unfeasible for London's remaining adders to ever become a functioning metapopulation, each population must be conserved independently as part of a 'back from the brink' programme that aims simply to retain the species as a component of London's biodiversity. Susceptibility to extinction varies markedly between the four populations; two are actually considered to be stable. Their conservation management will therefore require different emphases on a series of broadly related themes. These include artificial enhancement of reproductive potential (for example by releasing animals into the population); *in situ* habitat enhancement and restoration to improve carrying capacity; and restoration or creation of adjacent habitats combined with management for connectivity, to facilitate dispersal and colonisation. In the long-term, re-introductions to suitably restored and otherwise appropriate sites must also be considered. Recommended action is therefore summarised:-

1. Survey London adder populations

English Nature (now Natural England) commissioned a systematic survey and evaluation of population viability of each of the four sites in 2004 (1). This work also included a set of management recommendations pertinent to each site. However there still exists the possibility of further adder populations in Greater London, perhaps on private land hitherto inaccessible to specialist surveyors. All sight records of snakes (see 3. below) should be investigated by specialist herpetologists.

2. Habitat enhancement, restoration and creation

The management recommendations appended to the English Nature report include various detailed prescriptions for each site. These generally aim to achieve both *in situ* enhancements to improve the carrying capacity of the site, and restoration of surrounding habitat where appropriate to extend the total area suitable for adders. These recommendations must clearly be acted upon as soon as possible. Some of this work is related to action for heathland restoration promoted through the *Recovery Strategy for London's Heathland* (LBP, 2003).

Regional programmes for habitat restoration and creation of heathland, acid and chalk grassland may eventually facilitate the future introduction or re-introduction of adders, on sites where this is considered appropriate (for example those with limited public access).

3. Awareness-raising

Various agencies are actively raising the stakes for adder conservation. The Herpetological Conservation Trust is currently running a national recording scheme ("[Add an Adder](#)"), for example. The relevant county ARGs (Amphibian and Reptile Groups) promote generic reptile conservation in London. The London Wildlife Trust, Froglife and Natural England produce information notes and leaflets about reptiles and their conservation. A regional re-launch of the 'Be Kind To Snakes' public awareness campaign should be considered, using

¹ Witness Disney's "Kaa" from *The Jungle Book* and more recently the New Line horror-thriller movie *Snakes on a Plane*

available media resources and advertising capacity. Any sight records of snakes this generates from the wider public should be investigated.

Further reading

- (1) English Nature (2005). *Conservation status of Adders in London*. Research Report No. 666
 - (2) Langton T E S, Livingstone K et al. (2005). *Conservation of the adder or northern viper Vipera berus in the London area*, in *The London Naturalist*, No. 84 (79-115). LNHS
 - (3) Langton, Tom. (1989). *Snakes & Lizards*. Whittet Books
- National Amphibian & Reptile Recording Scheme (NARRS) website; <http://www.narrs.org.uk/>
The Herpetological Trust's 'Add an adder' project website; <http://www.adder.org.uk/>

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