

## Red squirrel (*Sciurus vulgaris*)

The red squirrel is a native British rodent, found in broadleaved and coniferous woodlands throughout Western Europe. It feeds primarily on tree seeds (such as beechmast, hazelnuts, acorns and conifer cones), fruits, berries and fungi, but will also eat buds, shoots, flowers and bark of trees. Red squirrels build dreys (nests) with twigs and leaves, lined with soft material such as moss, leaves and bark. These are situated close to the trunk of the tree or in a fork in the branches, approximately 6m high or higher. Red squirrels are now largely confined to extensive tracts of coniferous forests within the UK.

UKBAP priority habitats of particular importance to this species are: native pine woodlands, upland oakwood, and lowland beech and yew woodland.

### Current status

#### *National status*

The red squirrel is listed on Appendix 3 of the Bern Convention and is protected under Schedules 5 and 6 of the Wildlife and Countryside Act (1981, as amended). It is also listed as a Priority Species on the UK Biodiversity Action Plan. Formerly widespread, the red squirrel in England is now restricted to a few isolated populations in the south, on three islands in Poole Harbour in Dorset, Cannock Chase in Staffordshire, the Isle of Wight, and Thetford Forest in Norfolk.

#### *Status on the network*

Red squirrels are present in Highways Agency network areas 3, 6, 11 and 17-20 (inclusive). There are no references to red squirrels in the Highways Agency network ecological information. However, it is likely that sightings of the species is under-recorded on the soft estate. For example, according to the North Merseyside Species Action Plan for red squirrels, up to 50 animals per year are known to be killed on roads in the Formby area of North Merseyside alone.

### Current factors affecting the species

#### *Woodland management practices, particularly clear-felling*

Routine management of the Highways Agency soft estate could be detrimental to red squirrels, where present, unless it takes into account their requirements for species diversity, habitat structure and connectivity.

#### *Fragmentation of woodland, leaving isolated, non-viable populations*

New roads, or road improvements, may cause isolation or fragmentation if woodlands occupied by red squirrels are severed.

#### *Road deaths*

The loss and fragmentation of woodlands occupied by red squirrels may make individuals more prone to death on the roads, particularly whilst dispersing. Widening of existing roads and the subsequent increase in traffic volume, may also cause an increase in the number of animals killed on the roads.

### Current action

Red squirrel surveys are carried out as part of the Environmental Assessment process for any proposed new scheme, and thus avoidance or mitigation can be proposed at the earliest possible stage.

English Nature have a Species Recovery Programme for red squirrels that aims to provide a package of management techniques used to conserve the remaining red squirrel populations, and to undertake the reintroduction of new populations.



## Objectives

The aim of the Highways Agency Species Action Plan for the red squirrel is to enhance the value of the soft estate for red squirrels, avoid adverse

impacts associated with unsympathetic management, and to fully mitigate any potential effects of new schemes on the species.

	Objective	Proposed actions
A	To avoid adverse impacts of new road schemes or improvements on red squirrels.	4
B	To mitigate unavoidable impacts on red squirrels and/or their habitat.	5
C	To raise the awareness of HA staff, Managing Agents and consultants regarding the significance of red squirrels on the network.	1, 2, 8
D	To develop a greater knowledge of the dispersement of red squirrels in the soft estate.	3
E	To safeguard and enhance known red squirrel populations in the soft estate.	6, 7
F	To safeguard and enhance potentially suitable red squirrel habitat in network areas 3, 6, 11 and 17-20 (inclusive).	2

## Proposed action

The following table lists the actions required to achieve the objectives set out in this Plan. For some of the actions, potential partners have

been assigned as likely sources of cooperation. Targets are provided to give an indication of the timescale for the proposed action.

	Action	Potential partners	Target
	<i>Policy, guidance and advice</i>		
1	Publish an Advice Note on red squirrels in the DMRB.	-	2004
2	Provide detailed information in TRMM on the management of highway vegetation for the benefit of red squirrels.	-	2004
	<i>Surveying</i>		
3	Identify all areas on the network likely to be used by red squirrels. Compile a list of locations of red squirrel road deaths. Include all records on Environmental Database.	Local BRCs	2006

	<b>Action (continued)</b>	<b>Potential partners</b>	<b>Target</b>
	<i>Mitigation and Management</i>		
<b>4</b>	For all new schemes and road improvements, include search for records of red squirrels in desk study at stage 1 and in surveys at stage 2. (Early identification of this constraint may allow impacts to be avoided).	-	<b>Ongoing</b>
<b>5</b>	Where impacts of new schemes and road improvements on red squirrel habitat are unavoidable, consider the options for habitat recreation and enhancement, and consider mitigation of fragmentation by maintaining "green links" and/or rope bridges across roads.	-	<b>Ongoing</b>
<b>6</b>	Ensure that best practice is employed in the management of verges where red squirrels are known to be present. In particular by management of species composition.	-	<b>Ongoing</b>
<b>7</b>	Avoid creating, by roadside planting, corridors of broadleaved species in areas of predominantly coniferous woodland which contain red squirrels.	-	<b>Ongoing</b>
	<i>Communications and publicity</i>		
<b>8</b>	Information on red squirrels should be included in environmental training for HA staff and Managing Agents.		<b>2003</b>

#### **Links with other plans**

This plan should be read in conjunction with the woodland HAP.

The red squirrel is listed as a Priority Species in the following LBAPs: Durham, Cumbria, Lancashire, Gosforth Park-Cramlington Wildlife Corridor, North Merseyside, and Suffolk. None ascribe specific actions to the Highways Agency.

#### **Lead partner**

The lead partner for the red squirrel in the UKBAP is JNCC.

