

Isle of Wight Biodiversity Action Plan

Red Squirrel Species Action Plan

1. Introduction

The Red Squirrel (*Sciurus vulgaris*) has been identified by the UK Biodiversity Steering Group as a priority species for conservation action. A Species Action Plan was published as part of Tranche 1 of UK Action Plans in *Biodiversity: The UK Steering Group Report* Volume 2, page 91.

The Red Squirrel was once widespread in woodland throughout Britain but is currently in decline with the introduced Grey Squirrel (*Sciurus carolinensis*) replacing the species throughout most of England and Wales and parts of Scotland. The Red Squirrel is now largely confined to parts of Scotland and Ireland, where it is locally common, and in northern England in areas where greys are not yet established. The Isle of Wight holds the most important population in southern Britain and is the only surviving area in Lowland Britain where they occur in semi-natural broad-leaved woodland. The closest significant populations in this country, apart from a few on islands in Poole Harbour, are in the north of England. Although numerically small compared with populations in northern Britain, in the absence of Grey Squirrels, the Island offers one of the best opportunities in this country for the long-term sustainable conservation of the species.

The UK Strategy for Red Squirrel Conservation (JNCC, 1996) sets out national conservation priorities under which the Island should be considered as a relatively safe stronghold of national importance, where conservation should be a high priority. This has been taken forward by the UK

Red Squirrel Group in their draft paper *Priority areas for red squirrel conservation in the UK* (October 2000), which clearly identifies the Isle of Wight as a priority area. A subsequent paper for the England Squirrel Group, *Selecting refuge sites for red squirrel conservation* (Reynolds & Bentley, 2001) also recognises the national importance of the Island for Red Squirrels despite the fact that there are no large-scale (>2000ha) woodland blocks.

The importance of the Island population and the need for conservation action was recognised by the production of an *Isle of Wight Red Squirrel Strategy* by the Isle of Wight Council in 1996. The Strategy was produced in consultation with and supported by all key partners and forms the basis for this Species Action Plan.

2. Current Status

2.1 Ecology and Habitat Requirements

The Island is not regarded as a particularly well-wooded county but is fortunate in having good populations of Red Squirrels in native broad-leaved woodland, mixed woodland, conifer plantations, and in areas around settlements where there are parks and gardens containing large numbers of trees. Habitat structure on the Island

consists of fragmented deciduous and mixed woodlands with some larger blocks of forestry mainly in the northern half of the Island. Red Squirrels appear to occur throughout but are absent from small isolated woodlands, especially in the southern half (HIWWT, 1996). They can sometimes make use of quite small areas of woodland, and hedgerows and wooded rews are considered to be important in allowing squirrels to disperse and to reach foraging areas.

2.2 Population and Distribution

Harris *et al* (1995) have attempted to assess total population sizes of mammals in Britain. They have estimated a total of 160,000 Red Squirrels in Britain today of which 120,000 are found in Scotland, 30,000 in England and 10,000 in Wales. This compares with a population estimate of 2.5 million Grey Squirrels. A Red Squirrel summer population density for the Island has been estimated at 3,330, assuming an area of 3,695 ha of suitable broad-leaved and conifer woodland and a mean density of around 1.1 squirrels per ha.

In 1996, a survey of woodlands over 1ha to establish the presence of Red Squirrels (HIWWT) visited 249 woods (>80%) and found positive squirrel evidence in 69%. The population was considered to be high at this time and has remained so. A repeat survey was carried out 2002/3, using a different and more experienced surveyor. On this occasion 283 woods were visited and positive squirrel evidence was found in 86% of the woods.

2.3 Important Sites

Following modelling work by Rushton *et al* (1998) using the 1996 data set, core areas comprising large woodland blocks over 10ha or concentrations of woodland blocks were identified which were considered to be crucial for the long-term survival of the red squirrel population.

2.4 Protection

The Red Squirrel is fully protected under Schedules 5 and 6 of the Wildlife and Countryside Act 1981. Under the Act, the species must not be intentionally killed or injured and active dreys should not be interfered with. It is one of the priority species listed by the Government on the UK Biodiversity Action Plan and a national Species Action Plan has been published by the UK Biodiversity Steering Group (1995). In view of its more favourable conservation status in Europe, the Red Squirrel is only listed on Appendix III of the Bern Convention.

3. Current Factors Affecting Red Squirrels

The greatest threat to the future of Red Squirrels on the Island lies in the establishment of greys as a result of accidental or intentional introductions. The Isle of Wight would offer ideal habitats for Grey Squirrels and, once established, would rapidly spread to the detriment of the native species. The pattern elsewhere has been that reds are usually displaced within 15 years of the arrival of greys. An individual Grey Squirrel may not necessarily present a threat, but there is always a risk that the individual could be a pregnant female or a disease carrier. Perhaps a far greater risk could arise from an intentional release of individuals.

In the absence of Grey Squirrels, the key to Red Squirrel conservation on the Island is good woodland management. A variety of woodland types, broad-leaved, mixed and coniferous are important. Habitat management for Red Squirrels on the Island differs from national recommendations because of the absence of competing Grey Squirrels.

Habitat fragmentation (Rushton *et al* 1998) is considered to be a major factor in the decline and disappearance of squirrels in some parts of the Island. Woodland edge and tall hedgerow habitats can be important in enabling the dispersal of squirrels for feeding and colonisation of new sites. The most valuable corridors for squirrels are belts of trees (rews) and hedgerows with a good structure and species mix. Hedges can often be made more suitable by allowing natural regeneration into adjoining field margins.

4. Current Action

4.1 National

The Joint Nature Conservation Committee (JNCC) has published a *UK Strategy for Red Squirrel Conservation* (1996). This sets out the national priorities to achieve Red Squirrel conservation.

JNCC is the lead partner for delivering the national BAP for Red Squirrels. The England Squirrel Forum is the vehicle for reporting progress on SAP targets up to the UK level.

4.2 Local

The Isle of Wight Red Squirrel Forum meets annually to exchange ideas and promote good practice.

The Forestry Commission's JIGSAW funding package provides favourable funding for linking and extending ancient woodlands. Woodland Grant Schemes (WGS) and Woodland Improvement Grants (WIG) provide funding for the management of existing woods.

The Red Squirrel Project, funded by English Nature, was set up in 1996 in partnership with Wight Wildlife, Forestry Commission and Isle of Wight Council. The Wight Wildlife officer acts as project officer to promote addressing issues of habitat fragmentation.

Forest Enterprise Forest Design Plans now take into account the requirements of Red Squirrels in their long-term forest plans.

Wight Squirrel Project is very active in encouraging local and community support and taking forward a range of squirrel projects.

Grey Squirrel contingency plans have been put in place but are the subject of on-going review.

5. Objectives

The overall aim of this plan is to maintain and enhance the distribution and population of the Red Squirrel in Isle of Wight woodlands. This broad aim translates into the specific objectives set out below. Where feasible, objectives have been allocated targets against which achievements can be measured. The 'Proposed Action' table in Section 6 identifies the action to be taken to meet these objectives.

	OBJECTIVES	PROPOSED ACTIONS
A	Ensure the Island continues to remain free of grey squirrels	3, 4, 14, 15, 16, 18
B	Maintain viable populations and range of red squirrels in the Island ensuring no further fragmentation.	1, 2, 3, 5, 6, 7, 8
C	Enhance the habitat of red squirrels by favourable woodland management and by reversing the impacts of fragmentation.	5, 7, 9
D	Establish and maintain a comprehensive understanding of red squirrel distribution, status and ecological requirements on the Island through research, survey and monitoring programmes.	10, 11, 12
E	Promote communication, education and awareness of red squirrels.	1, 2, 3, 7, 8, 9,11, 13, 14, 15, 16, 17,18

6. Proposed Actions

The following table lists the actions required to achieve the objectives set out in this Plan. Each action has been assigned to one or more 'Key Partners'.

'Key partners' are those organisations that are expected to take responsibility for the delivery of actions assigned to them, according to the targets set in this Plan. Other organisations may be involved in the delivery of action, and they have been indicated in the 'Others' column. NB. Organisations have been listed alphabetically.

Key to symbols in Action Table:

- ◆ Review to be completed by the indicated year.
- To start by the indicated year and usually followed by ongoing work.
- ⇒ Work that has already begun and is ongoing.

IWNHAS Isle of Wight Natural History & Archaeological Society **DEFRA** Department for Environment, Food & Rural Affairs **EN** English Nature
FC Forestry Commission (inc. FE functions) **HIWWT** Hampshire & IW Wildlife Trust **IWC** Isle of Wight Council **IWRSF** IW Red Squirrel Forum **NT** National Trust
PTES People's Trust for Endangered Species **WSP** Wight Squirrel project **I2K** Island 2000 Trust
WW Wight Wildlife

	ACTION	DELIVERED BY		YEAR						MEETS OBJECTIVE	
		Key partner	Others	2003	2004	2005	2006	2007	2012		
Site and Species Policy and Protection											
1.	Ensure the needs of the Red Squirrel are included in land management incentive schemes.	EN, FC	DEFRA, I2K, IWC, WW	⇒					◆		B, E

	ACTION	DELIVERED BY		YEAR						MEETS OBJECTIVE
		Key partner	Others	2003	2004	2005	2006	2007	2012	
2.	Ensure that the needs of the Red Squirrel are fully considered in local development plans and policies.	IWC	EN, FC, WSP, WW	⇒				◆		B, E
3.	Review and assess the effectiveness of current protection policies/ advice, and amend where necessary.	IWC	EN, WSP, WW			◆				A, B, E
Site and Species Management										
4.	Seek to ensure continued exclusion of Grey Squirrels by implementing Grey Squirrel Contingency Plan.	All		⇒						A
5.	Encourage favourable management of woodland and linking tree corridors.	FC	EN, IWC, NT, PTES, WSP, HIWWT, WW	⇒		◆				B, C
6.	Seek to ensure that development schemes do not affect the integrity of the Red Squirrel population.	IWC	EN, FC, WSP, WW	⇒				◆		B
7.	Seek to encourage landowners and land managers to take up beneficial land management schemes.	FC, WW	DEFRA, I2K, NT	⇒				◆		B, C, E
8.	Continue to prioritise and implement measures to reduce road kills.	IWC, WSP		⇒				◆		B, E
9.	Provide good practical advice to landowners & managers using best available information.	WW	FC, IWC, WSP	⇒						C, E

	ACTION	DELIVERED BY		YEAR						MEETS OBJECTIVE	
		Key partner	Others	2003	2004	2005	2006	2007	2012		
Research, Survey and Monitoring											
10.	Ensure a detailed Island-wide survey is carried out every five years to monitor the state of Red Squirrel population.	EN, WW	PTES, WSP	◆					◆		D
11.	Ensure that survey data is incorporated in appropriate national and local databases.	EN, IWNHAS	NT, PTES, WSP, WW		→						D, E
12.	Ensure that Red Squirrel population and habitat quality surveys are consistent with national standard methodology .	EN, WSP, WW	PTES	⇒					◆		D
13.	Review and assess the effectiveness of current management advice and amend where necessary.	FC	EN, IWC, NT, WSP, WW	⇒							E
Communication, Awareness and Promotion											
14.	Ensure that there is a representative from the Island on the England Squirrel Forum.	IWRSF	IWC	⇒							A, E
15.	Ensure that the Isle of Wight Red Squirrel Forum continues to meet annually.	IWC		⇒							A, E
16.	Continue to maintain the high profile 'flagship species' status of the Red Squirrel as a means of promoting good management.	All		⇒				◆			A, E
17.	Ensure that the requirements of the Red Squirrel are considered during the production and implementation of action plans for relevant woodland and hedgerow habitats and other woodland species.	BAP Steering Group, FC	BAP Partnership	⇒							E

	ACTION	DELIVERED BY		YEAR						MEETS OBJECTIVE
		Key partner	Others	2003	2004	2005	2006	2007	2012	
18.	Continue to raise awareness of Red Squirrels and their needs through: i. Public presentations ii. Training days iii. County shows iv. The media. v. Relevant leaflets	WSP	All	⇒			◆			A, E

7. Links With Other Plans

It is likely that implementation of this action plan will benefit dormouse and woodland bats. The plan should be considered in conjunction with the Woodland Habitat Action Plan.

8. References

Countryside Commission (1993) *The Isle of Wight Landscape -An assessment of the AONB*. Countryside Commission Postal Sales, Northampton.

Harris, S., Morris, P., Wray, S., and Yalden, D. (1995) *A review of British Mammals; population estimates and conservation status of British mammals other than cetaceans*. UK Conservation Series, JNCC, Peterborough.

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Isle of Wight Council (1996) Draft IW Indicative Woodland Strategy. Unpublished.

Isle of Wight Council (1996) *Isle of Wight Red Squirrel Strategy*

JNCC (1996) *UK strategy for red squirrel conservation*. JNCC, Peterborough.

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Rushton, S.P., Lurz, P.W. & South, A.B. (1998) *Modelling the distribution of red squirrels on the Isle of Wight: an isolated and threatened island population of extreme conservation significance*. Report to English Nature, University of Newcastle upon Tyne.

U.K. Biodiversity Steering Group (1995) *Biodiversity: the UK Steering Group Report Volume 2: Action Plans: Red Squirrel*. London, HMSO.

U.K. Red Squirrel Group (Oct. 2000) Priority areas for red squirrel conservation. Unpublished.

This is one of a number of Habitat, Species and Topic Plans being prepared by the Isle of Wight Biodiversity Action Plan Steering Group. It will be monitored by the Partnership and reviewed in 2008. This Species Action Plan is based upon the Isle of Wight Red Squirrel Strategy (1996) and has been prepared by Colin Pope and Richard Grogan on behalf of the Isle of Wight BAP Steering Group. For further information contact the Countryside Section of the Isle of Wight Council tel. 823893 or Wight Wildlife tel. 533180

ANNEXE 1

GREY SQUIRREL CONTINGENCY PLAN

Background

The effectiveness of the Red Squirrel Strategy is critically dependent upon the ability to implement a contingency plan at short notice in the event of a confirmed report or reports involving Grey Squirrels. It is essential to make all efforts to eradicate any Grey Squirrels; even if only a single individual were to be involved, this could be a pregnant female or a carrier of the parapox virus.

Mechanisms of arrival

There are known to be populations of Grey Squirrels close to the three mainland ferryports. However, in the absence of a fixed link, it is not considered possible for squirrels to reach the Island unaided.

Legislation

The existing legislative framework exists to prevent Grey Squirrels being brought into and released into an area. Under the Destructive Imported Animals Act 1932, it is illegal to import, release or keep Grey Squirrels without a licence from the Ministry of Agriculture, Fisheries and Food. English Nature are a statutory consultee to MAFF and, in the event of an application being made to keep a Grey Squirrel in captivity on the Isle of Wight, they would strongly object to such a licence being granted.

The Wildlife & Countryside Act 1981 (as amended) contains various legislation designed to prevent the international spread of Grey Squirrels. Under Section 14 (1) (b), it is illegal to release or allow to escape into the wild any animal listed on Schedule 9. The Grey Squirrel is included in that schedule.

- Section 18 (2) creates an offence of being in possession of any item capable of being used to commit the offence (e.g. Cages for Grey Squirrels in transit).
- Section 19 permits any constable without warrant on reasonable suspicion, to stop and search suspects and to search and examine anything which they have in their possession. There is a power of arrest, a power of seizure and detainment of any equipment which could be used to commission an offence.
- Under Section 19 (2), a constable has the power of entering to any land other than a dwelling house without a warrant.
- If it is believed that squirrels are being held in a dwelling house, a Justice of the Peace can issue a warrant for search under Section 19 (3).
- In the event of any release or escape on the Island, the perpetrator would be liable to prosecution under the Wildlife & Countryside Act 1981 (as amended).

Action Plan

English Nature, Forestry Commission and Isle of Wight Council are signed up to a 'Memorandum of Agreement' to ensure that funds are in place to enable an effective control operation to be mounted in the event of a Grey Squirrel incident on the Island.

Following convincing evidence pointing to the probability of Grey Squirrels being present on the Island, a meeting between key partners will be held to agree the course of action.

Convincing evidence would be a corpse, a good sighting/s by a reliable person or a cluster of suspicious sightings within a defined area. The meeting needs to happen quickly but not necessarily immediately.

Key areas which need to be agreed are:

- Provision of funding
- Agreement on search area for trapping and for monitoring
- Timing of operations (monitoring is likely to start immediately; the trapping exercise may need to be delayed until February/March or July/August).
- Deployment of a team of forest rangers for trapping
- General agreement on content of press release

The requirement is to catch a very small number of Grey Squirrels in an area frequented by reds. The recommendation is for single catch traps, set on the ground and pre-baited with yellow whole maize. These are considered to offer the best chance in terms of easy of use, portability, and reducing the risk of trapping a Red Squirrel. A supply of one hundred dedicated purpose-built single-capture live traps should be housed securely at the Forest Enterprise Parkhurst base and maintained in working order.

Once the traps are set, they should be checked twice daily.

All trapping effort should be centrally co-ordinated to ensure that all information is adequately recorded, collated and acted upon.

All Grey Squirrels captured must be despatched humanely (transport and release of grey squirrels is illegal under section 9 of the Wildlife & Countryside Act). Sex and reproductive status should be recorded and the body frozen for later assessment of age and DNA analysis by Forest Research.

Trapping should continue, at appropriate times of the year, until evidence suggests that all Grey Squirrels have been removed, i.e. no sign of squirrel presence from whole grain maize, no evidence of Grey Squirrels in hair tube surveys or local sightings. In practice, there would need to be an understanding between the parties involved as to when trapping should cease.

Hair-tubes should be set up in a grid within all woodlands within a 2km radius of the core area. After 7 days, the bait should be renewed and the sticky blocks reinserted for a further 7 days.

Once it has been confirmed that greys are no longer in the area, then hair tubes should be monitored twice as year (September/October and January/February), with blocks left *in situ* for a 1 week period following a 1 week pre-baiting.

A 'Highly Probable' Grey Squirrel sighting would fall into one of the following categories:

- A Grey Squirrel carcass
- A good quality photograph
- A full description by a reliable and trusted individual who has had a good, clear view of the individual and is familiar with Grey Squirrels