Updated 01/02/13

From information presented at Country and UK Squirrel Groups and other meetings.
Please send new items to mark.ferryman@forestry.gsi.gov.uk (Forest Research)

NEWS ITEMS

The first National conference on Red squirrel conservation, entitled 'National and International Perspectives on Red squirrel conservation' is to be held at Exeter Business School on 19th April 2013. For enquiries and bookings email: **britishredsquirrel*@gmail.com***

A Northern Ireland squirrel seminar (possibly as part of an Ulster Wildlife Trust (UWT) planned event) or a full day conference might be set for later in the year. The next Northern Ireland Squirrel Forum (NISF) meeting is 21st February 2013.

New guidance on the ecological impact of development on red squirrels has been published in *UK BAP* Mammals; Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation published by the Mammal Society 2012 (other species covered include harvest mice, hares, hedgehogs, wildcats, pine martens, and polecats). Also recently published are two booklets, one called *Squirrels* written by John Gurnell, Peter Lurz and Luc Wauters and published by The Mammal Society 2012, and the other called *The Eurasian Red Squirrel* Sciurus vulgaris, NBB English Edition (2012) by Stefan Bosch and Peter Lurz. See publications at the end of this report for full references.

The Cornwall Red Squirrel project has appointed Natasha Collings Natasha.collings@rsst.org.uk as its first full-time co-ordinator. The aim of the project is to re-introduce Britain's native red squirrel into Cornwall. The last red squirrel was seen in Cornwall in 1984. Cornwall is ideally suited to this project because of its relative isolation from the mainland, and the presence of wooded valleys and mixed woodland which offer suitable red squirrel habitat. The project will start with reintroductions on The Lizard and in West Penwith. These sites have been identified in a habitat survey as being suitable for re-introduction. As the two areas are surrounded by sea on three sides they are also more easily defended against re-population by grey squirrels.
http://www.cornwallredsquirrels.co.uk/

Bristol Water plc has produced a red squirrel project proposal for Denny Island in Chew Valley Lake, Somerset (SSSI/SPA), an island that currently supports grey squirrels. The island covers 6Ha and habitat enhancement work including the removal of greys is proposed for 2012-13, prior to the introduction of captive-bred red squirrels. Greys will be controlled on the mainland shoreline of Chew Valley Lake in the vicinity of Denny Island. (See translocations advice below in terms of leaving woodland without squirrels).

Translocations advice: Protocol is required for restricting the spread of disease (adenovirus and SQPV). UKRSG to produce guidance to include health checks for the translocation of red squirrels. Possible regulation needed, e.g. licence to release reds as well as capture. In England the licence required for red squirrel capture from the wild does not cover release, so there is no power to enforce health checks. Legalities would depend on whether the red squirrel is added to schedule 9.
Some poxviruses remain infectious in fomites (droppings, hair, skin) for up to, or more than a year if they are kept cool and dry (conditions that you would expect within a drey). If a grey population that is being eradicated is seropositive for the virus, the advice to cut the risk of exposure is to leave the woodland without squirrels for a year before repopulating and destroy the existing grey dreys before releasing the reds.

Following the introduction of the Wildlife and Natural Environment (Scotland) Act 2011 (WANE Act), Scottish Natural Heritage can licence restricted forest activities that could affect red squirrels. Such licences can only be issued if an activity will contribute to significant social, economic or environmental benefit. This covers a range of forestry activities, including felling as part of an approved forest plan. Forestry Commission Scotland is working to produce guidance on how to licence forest operations that may disturb red squirrels and a project is currently underway with Forest Research to assess the behaviour of red squirrels in relation to forest operations. mark.ferryman@forestry.gsi.gov.uk

The Ring of Gullion Red Squirrel Group was formed in the summer of 2012 and operates in the south Down /Armagh border region of Northern Ireland where there are a mix of red and grey squirrels in a patchwork landscape of forestry and bog land. The group operates over an area of about 15300 hectares with at least five healthy groups of red squirrel in different areas. There are populations of grey squirrels on the North East from Newry City, South in County Louth and West from the rest of South Armagh however sightings of greys within the Ring dyke have, thankfully, remained absent up until now. The group has close ties with local landowners,

businesses in the area, Newry and Mourne District Council and has a good working relationship with NI Forest Service. www.ringofgullion.org/Red-Squirrel-Group.aspx

The Glens Red Squirrel Group assisted staff from Belfast Zoo in May-June 2012 in collecting red squirrels from the wild for display with the zoo. Three red squirrels (two females and one male) were collected from the Glens of Antrim under NIEA licence. The squirrels currently have the run of two enclosures which are linked by two overhead runs. While the primary purpose is an educational role, it is hoped that they will breed and their offspring can be returned to the wild in Northern Ireland. The zoo would like to expand this breeding program if these initial steps prove successful.

The Northern Ireland Environment Agency commissioned Queens University to undertake an investigation into the prevalence of SQPV and transmission route between animals. Using a real-time PCR technique allowed an accurate, specific quantification of prevalence. The work has finished and a final report is due shortly.
Key points from the results include:
1. The role of ectoparasites in the spread of squirrel pox is confirmed – fleas in particular seem to carry virus load.
2. Blood, faeces, salvia and surprising urine can contain shed virus particles; the numbers shed rises with advanced stages of the disease. Frontier groups of grey squirrels pose a higher risk to reds as they tend to carry higher viral loads. The full report is to be published in 2013. Jon.Lees@doeni.gsi.gov.uk

An end of project report has been produced for the Red Squirrels of the Highlands Project (2009-2012). The charity (Highland Red Squirrel Group) has undertaken to maintain the high profile of red squirrels, submit records to the SSRS database and help answer general queries. A contingency plan for grey squirrel sightings is being developed in conjunction with stakeholders.

The Red squirrels in South Scotland (RSSS) project is now integrated with the Saving Scotland's Red Squirrels (SSRS) project to form a national red squirrel conservation scheme. Forestry Commission Scotland is a contributor to the project.

Dr Andy White is leading on a NERC application to develop competition modelling approaches with squirrel pox as a case study of a disease mediated ecological invasion. The research also involves Dr Mike Boots at Exeter, Prof Colin McInnes from the Moredun and Dr Peter Lurz. They hope to examine factors that affect the rate of spread; both in terms of landscape character and in terms of population structure and to look at the effect of management strategies on the spread of the disease. They hope to work with data from SSRS and to help inform policy development.

Lisa Signorlie - Imperial College London - provided a copy of a poster of her research on the genetics of grey squirrel populations which was circulated at the Scottish Squirrel Group meeting on 19th September 2012. Amelia Brereton - University of Aberdeen gave a PowerPoint presentation on the scope of her PhD (2011) research. This had two main aspects to; examine factors that influence the effectiveness of grey squirrel control and to examine the parasites found in grey squirrel populations and the implications for disease transmission. The PhD was supervised by Sandra Telfer.

Silvia Flaherty – University of Edinburgh – recently completed her PhD on 'red squirrel habitat mapping using remote sensing'. A paper from her thesis was published in 2012 'The impact of forest stand structure on red squirrel habitat use. See the abstract at:
http://forestry.oxfordjournals.org/content/85/3/437.abstract and the full reference at the end of this report.

J. Gurnell, P. Lurz, C. Breummer & A. Meredith are carrying out a 22-month study (Mar 2011-Dec 2012) entitled "Monitoring of squirrel populations at Foulshaw and Meathop Mosses" with funding from Cumbria Wildlife Trust. This will include using camera traps.

Forestry Commission Scotland (FCS) has produced Guidance for managing forests as red squirrels strongholds The red squirrel strongholds programme is part of the Scottish Government's strategy to secure the future of red squirrels in Scotland. 18 stronghold areas have been identified in public and private areas. The island of Arran, in itself an island stronghold, has not yet been specifically identified, but is the only Scottish island with a resident red squirrel population and vigilance against grey squirrels on the island will be the primary means to safeguard red squirrels. As a precautionary measure, the principles of stronghold management will be incorporated into the management of some of the national forest estate on the island so that red squirrels on Arran will have a refuge should grey squirrels ever establish themselves. As the process moves on, FCS will work with partners to make sure the strongholds programme aligns with other red squirrel conservation actions so that there is a coherent set of measures throughout Scotland. Framework management plans for the

strongholds are being produced– A report has been produced for Forestry Commission Scotland on recommendations for the management of the Arran red squirrel stronghold.

Emma Sheehy - The Mammal Ecology Group, of National University of Ireland (NUI) Galway is examining the relationships between three woodland mammal species in Ireland; the native **red squirrel** and **pine marten**, and the introduced **grey squirrel**. This project aims to increase understanding of the ecology of all three animals, and help in the conservation of the two native species. “Recent anecdotal reports have linked a revival of red squirrel populations and a reduction in the range of grey squirrels, in certain midland counties of Ireland, with the resurgence of the pine marten. It has been suggested that the pine marten is preying on the introduced grey squirrel to a greater extent than the more nimble red squirrel. This projects aims to investigate the relationship between the three species, and identify (if any) the impact that the pine marten is having on squirrel dynamics in Ireland. The work will feed into existing squirrel research in the Mammal Ecology group and inform conservation and management policies in Ireland and other parts of Europe. The initial stage of the project involves a survey of the three species in the counties in question. The Irish Squirrel and Pine Marten Project is funded by the Irish Research Council for Science, Engineering and Technology, under the Embark Initiative, and is being carried out by Emma Sheehy B.Sc. (Hons) of the Mammal Ecology Group, NUI, Galway under the supervision of Dr. Colin Lawton. emmasheehy@gmail.com

Margaret Flaherty - The Shannon Project which is investigating the spread of grey squirrels to the west of Ireland is funded by COFORD of the Department of Agriculture, Food and the Marine and is being carried out by Margaret Flaherty MSc of the Mammal Ecology Group, NUI, Galway under the supervision of Dr. Colin Lawton.
The Shannon Project - About
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