

Scottish Squirrel Group

Wednesday 13th March 2013

Northern Research Station
Roslin

Draft minutes

Present:

Jenny Bryce, SNH - Wildlife Ecologist (chair)

Anne Gray, Scottish Land & Estates

Colin McInnes – Moredun Research Institute

Heinz Traut, Saving Scotland's Red Squirrels (SSRS) – Project Officer Dumfries & Galloway

Ian Collier, Forestry Commission Scotland and Highland Red Squirrel Group

Karen Ramoo, SSRS – Project Officer South Scotland

Keith Morton, RSPB

Ken Neil, SSRS, Project Officer Tayside

Lewis Pate, SSRS, Project Officer Argyll & Trossachs

Lindsay Mackinlay, NTS - Nature Conservation Advisor

Mark Ferryman, Forest Research – by telephone link from Alice Holt

Mel Tonkin, SSRS, Project Manager

Peter Lurz, Independent consultant squirrel scientist

Sophie Eastwood, Fife Red Squirrel Officer

Stephen Willis, SSRS, Project Officer Northeast Scotland

Apologies:

Sian Williams, Ayrshire Red Squirrel Group

Andy Wiseman, European Squirrel Initiative

Cecilia Rogers, Grampian Squirrel Group

Jamie Farquhar, ConFor

Mike Libera, Crown Estates – representing Red Alert South West Scotland

Simon Poots, Perth and Kinross Red Squirrel Group

1. Welcome and introductions

JB welcomed the group and listed the apologies received. Introductions and welcomes were made to Anne Gray, new representative for Scottish Land and Estates, Heinz Traut, the SSRS Project Officer for Dumfries and Galloway with special responsibilities for surveys development and data management, Colin McInnes of Moredun Research Institute and Peter Lurz, consultant and research scientist.

Ian Collier announced that he was stepping down from the position of secretariat for the group due to work pressures. He suggested the role be taken on by members of the group on a rolling basis. Mel Tonkin volunteered to take over for this meeting. Thanks were given to Ian for his contribution to the secretariat over the last several years.

2. Minutes of previous meeting and matters arising.

AP 1: MT to circulate feeder box survey protocol including to FES regarding their sampling/monitoring of Strongholds. *Discharged*

AP 2: JB to look into reviving UKRSG. *Discharged*. A meeting of UKRSG was held in January.

3. Project updates

Saving Scotland's Red Squirrels – see update attached

In addition to the written submission the following points were raised and discussed:

Some of the more outlying locations where squirrelpox testing has revealed seropositive grey squirrels – Culzean and Mauchline in Ayrshire – were noted. SSRS provided an update on these: a great deal of trapping and testing of grey squirrels in the surrounding countryside had followed these results, with no further positives found in the areas. There had, however, been one positive result from Cumnock, down river on the Nith from Mauchline.

SW drew the group's attention to the likelihood of mitigation funding for grey squirrel control around Aberdeen issuing from the Aberdeen Western Peripheral Route development. Projects had been agreed by the construction company with Aberdeen City Council and Forest Enterprise. Both these bodies preferred that this should be vired to the SSRS project to co-ordinate work in the area, rather than create separate projects. A start date for works had not been given by the construction company.

Fife Red Squirrel Project - see update attached

SE was not optimistic about the situation in Fife as it was looking unlikely that there would be another Fife red squirrel project. Fife Council was moving away from single species conservation towards an ecosystem approach. Fife Coast and Countryside Trust (SE's current employers) were stepping away from conservation: they might be persuaded to continue support for awareness raising, but not for active conservation.

Fife Council was considering an "invasives" project which might include grey squirrels. SE was concerned that one invasive species officer would not be sufficient to tackle all the invasive species involved.

SE indicated that Rob Coope (FCS) had suggested including a consideration of the position of Fife and Clackmannanshire in the national Squirrelpox (SQPV) contingency plan being drawn up by SSRS, with a view to reviewing the eligibility of local landowners for Scottish Rural Development Programme funding.

SE is to produce a SQPV advice note for Fife, for distribution in the event that squirrelpox reaches the Edinburgh-Glasgow belt.

SE was to look into Fife Red Squirrel Group becoming a constituted group in order that it could acquire funding in its own right. Another possibility was to look into joining with the Central Scotland Red Squirrel Group that was being proposed by the Clackmannanshire Ranger Service and Stirling University, given the relatively widespread red squirrel populations in the area.

SE to meet with the Scottish Parliament's red squirrel Species Champion, Dr Aileen McLeod MSP, to flag up the situation in Fife. It was noted that Simon Poots of Perth and Kinross Red Squirrel Group had been mentioned in Scottish Parliamentary reports, commending the work done by the Group.

SE noted that Forest Enterprise does not recognise the Fife LBAP which lists 9 key sites for red squirrels, four of which are on FE ground. Although at present FE had been undertaking grey squirrel control at Tenstmuir, but it is not clear how long this might continue.

SE's update noted the issue of red-band needle-blight which is causing serious problems for Scots and Corsican pine in Tentsmuir. With trial thinning here and 30% more felling than normal in Ladybank and other young plantations, there is a concern that all pine may have to be clear-felled if the thinning is not successful in containing the blight.

IC noted the red band needle-blight was bringing about huge changes to forest design plans across the pine-dominated areas of the national forest estate.

PL noted that there were implications to the design plans for Red Squirrel Strongholds. Alternative food sources to pines may have to be considered if the needle-blight situation continues to worsen. He drew the group's attention to a paper published in Forestry by himself¹ and Craig Shuttleworth, looking at the outcomes for red squirrels if a lot of pine has to be felled.

LM asked what were the implications for grey squirrel control officers going into different forests in relation to biosecurity measures: he suggested the SSRS project institute measures, perhaps particularly in high-risk areas.

IC said that there was a simple source of information on biosecurity on the FCS website

AP 1: IC to circulate web link to the group.

4. Local group updates

Highland Red Squirrel Group

IC noted that the funding for the HRSG website runs out at the end of March 2013. It was likely the group could keep the website in a much reduced form, with squirrel

¹ Shuttleworth, Lurz, Geddes & Browne 2012 Forest Ecology and Management 279: 167-175.

records forwarded to the Scottish Wildlife Trust online reporting form, from where the results are processed rapidly to feed into the NBN.

Roy Dennis is currently taking forward a further red squirrel translocation project on three estates, Alladale, Croich and Amat, in Strath Carron. There appears to be a substantial area of suitable woodland with no red squirrels. The project had been appraised by SNH against IUCN guidelines. The protocol for release would be “hard-release”, based on the earlier work at Dundonnell.

Cowal Red Squirrel Group:

- LP reported that with funding support from the Loch Lomond and the Trossachs National Park’s Natural Heritage Grant Scheme, he had purchased a squirrel-suit, timber for feeder-boxes, bait and a laminator (for posters, etc) for the CRSG.
- The Group was planning to take on a disused red squirrel walk at Lochgoilhead and re-vamp it.
- The group was using the hide at Royal Botanic Gardens at Benmore for red squirrel interpretation and the Gardens for guided red squirrel walks.
- Monitoring for grey squirrel presence was continuing at Ardgarten.
- LP was trying to get a similar red squirrel group set up at Aberfoyle as part of his duties under LEADER funding.

Ayrshire Red Squirrel Group - following written update was provided.

- Our main focus continues to be raising funds for the employment of an Ayrshire project officer. We are currently awaiting the outcome of two funding applications made in December 2012.
- The group has seen an increase in the level of community participation in the South, particularly focussed in the Stinchar Valley. We are working closely with people living in the communities in this area to provide traps and submit samples for pox testing.
- Grey control and pox testing continues across Ayrshire through our trap loan scheme.
- Our AGM will be held on March 21st in Girvan.

General Discussion

- KN noted that Perth and Kinross Council was undertaking a small research project to investigate the effectiveness of red squirrel road warning signs. At a known hotspot for red squirrel casualties near Blairgowrie, monitoring of motorist speed and carcasses on the road-side was to be carried out before and after warning signs had been erected at either end of the stretch of road in question.
- Also noted that Simon Poots of the Perth and Kinross Red Squirrel Group had a supply of plastic red squirrel road warning signs and the Group was putting these up on private verges across Perthshire.
- RSPB had nothing to report, but LP asked if KM could assist him with gaining access for trapping at the RSPB reserve at the south end of Loch Lomond. KM assured him that there should be no problem with accessing RSPB reserves for this type of national project work and would investigate and resolve the issue.
- SE reminded the SSG of the film that was being produced by Amber Eades about red squirrels. Amber had now landed a new job in wildlife filming and had very little spare time, but was meeting with SE in June to look into how they could get the film finished.

National Trust for Scotland

- LM reported that NTS plans to survey all properties for squirrels.
- Another project involved the use of film camera equipment by NTS staff to take high definition footage of various things on NTS properties, including red squirrels: NTS plans to make this footage available to others.

UKRSG Update (Sophie Eastwood)

UKRSG met in January after a year's hiatus. The Group had discussed the need for a protocol of veterinary checks to be undertaken prior to red squirrels translocations. In particular the need for adenovirus checks, which is believed may have been spread by previous translocations.

PL noted that in Italy gut parasites had been passed on by Asian squirrel species, and that there may be a need to look for these.

There had been discussion on the lapse of the English Red Squirrel Forum: there had not been interest in a meeting for some time as much of the current action was being addressed through the Northern England Project and associated meetings.

In reviewing UKRSG representation Sally Bailey had suggested Red Squirrel Survival Trust should be invited to join.

Red Squirrels Northern England had given a progress report. They have a large team carrying out trapping, surveying and research. Nick Mason was keen that research from the project would assist in the evaluation of the project's activities. Cross-border links with SSRS were being maintained.

There had been some discussion of whether the UKRSG should take a view on national priorities for red squirrel conservation, e.g. to prevent resources being directed to non-priority reintroduction projects. The UKRSG terms of reference includes setting priorities for red squirrel conservation. JB had offered to take comments from the SSG on this issue. JB noted that environmental policy is now devolved hence we are not talking about a UK strategy, but instead inserting a statement of principles into the UKRSG terms of reference.

AP2: All to provide Jenny with suggestions for amendments to the UKRSG ToR by the end of April.

It was noted that the IUCN guidelines had been revised and were now published.

5. Strongholds Woodlands update

IC reported on behalf of Julia Garritt. There are 19 Red Squirrel Strongholds in Scotland. The management guidance is available on the website: [http://www.forestry.gov.uk/pdf/FCSStrongholdsGuidance.pdf/\\$file/FCSStrongholdsGuidance.pdf](http://www.forestry.gov.uk/pdf/FCSStrongholdsGuidance.pdf/$file/FCSStrongholdsGuidance.pdf).

A contractor is in the process of drafting advice statements for each individual stronghold and wishes to consult SSG on the contents of one of these statements. JG notes that the issues raised in the advice statements will not be affected

immediately, but are intended to be part of the long-term forest management plan process.

AP 3: IC to circulate the draft stronghold advice statement.

AP4: All to feed back any comments to Julia Garritt.

6. Research update Mark Ferryman had circulated the research update.

Red Squirrels on Arran

A Peoples Trust for Endangered Species grant had been awarded to Professor Anna Meredith for the Project - Developing an integrated disease and habitat management strategy for red squirrels on the Isle of Arran. This involves carrying out post mortems and assessing parasite and disease risks. The results will feed into forest management on the island.

Forest Operations Study

Forest Research with FCS had started a pilot study in Glenmore in October 2012, to look at the response of red squirrels to forest operations. They had been marking trees and leaving drey trees standing during the felling of pine and Sitka spruce to widen a wayleave. There are thought to be a lot of red squirrels in the area, but it was noted that none were observed during sightings transects. However, as squirrels are being trapped to attach radio and GPS collars, mark recapture methods can be used to estimate population size. The forestry machinery also had GPS units, so it should be possible to co-ordinate information from loggers and squirrels to see what the response is. They have still to re-trap to retrieve the collars and GPS units. There will also be some post-operation radio-tracking. If the results are promising, there may be further studies to follow; looking at different mitigation scenarios.

MF asked that people keep him updated with any research projects of which we are aware.

7. Squirrelpox Update –

SQPV Vaccine Research - Colin McInnes (Moredun Research Institute)

CM reported on the SQPV transmission and vaccine research carried out at MRI that concluded earlier this year.

It was noted that in an experimental situation red squirrels seroconvert (produce specific antibodies) to SQPV within 3 weeks of a challenge with a weakened live virus. In contrast, grey squirrels do not seroconvert measurably after 1 challenge, and require a second challenge before antibodies are produced.

- MRI had produced 2 candidate vaccines which were live attenuated (weakened) viruses for the proof of concept trials.
- Both vaccines were tested on red squirrels. Neither killed the red squirrels, however, the extent of the lesions at the vaccine site differed between the two candidate vaccines, with one producing more serious local lesions than the other.

- When subsequently challenged with wild-type vaccine, all the red squirrels survived the challenge: therefore the vaccines successfully delivered protection to the squirrels. It is not known how long this level of protection would last, but this experimental work has delivered the proof of concept.
- The next step may be to assess how safe the vaccine candidates are to use in the wild. The more virulent vaccine was ruled out. The remaining candidate also causes lesions at the infection site, and it is unknown if a squirrel would survive in the wild. In captivity the squirrels fed and drank normally and were normally active, and the lesions subsequently cleared up.
- A remaining key step is to work out how to deliver the vaccines in a wild situation.

Hence although good progress has been made, it was noted that there are still considerable issues to resolve before a vaccine can be deemed safe for use in the wild and can be produced in meaningful quantities. A successful method of vaccinating red squirrels is likely to be still some years away. Further discussions are ongoing with the Moredun, the Wildlife Ark Trust and others to agree next steps and potential funding sources.

SQPV Modelling – Peter Lurz and Jenny Bryce

- SNH is working with Peter Lurz and Dr Andy White (Heriot-Watt University) to carry out some modelling of the spread of SQPV. The aim is to review and inform the strategy for grey squirrel control being taken forward through the SSRS Project and the Squirrelepox Contingency Plan for Scotland drawn up by the SSRS project.
- White and Lurz’s model is a spatially explicit, individual-based, stochastic model developed to represent the population and epidemiological dynamics of red and grey squirrel populations.
- Using FCS National Forest Inventory map and SSRS control and SQPV testing data, the model was given a disease entry point coming over the border with England at Canonbie and a later set of entry points along the border at Coldstream, i.e. simulating known patterns.
- The model was run with and without grey squirrel control. This showed that the control undertaken by SSRS and RSSS has slowed the progress of the disease.
- Importantly, the model has identified that there may be natural low density grey squirrel “pinch points” where intensive control could prevent SQPV spread. This could guide future work, with the proviso that this is an indicative model and can only predict probabilities and not what will actually happen.

7. AOB

Forest operations and squirrel greys

There was some discussion of licensing activities relating to red squirrel dreys. JB clarified that SNH is the licensing authority in relation to any activities affecting red squirrel dreys. In granting a license SNH needs to apply the licensing tests; that the proposal is of significant social, economic or environmental benefit and there is no reasonable alternative. SNH will also assess the impact on the local population. The onus is on forest managers to satisfy themselves that they are not likely to cause an offence by carrying out reasonable checks. However, there is recognition that

commercial forestry provides habitat for red squirrels and that woodland management is necessary.

PL noted that large-scale forest operations and clearfells have not caused extinctions of red squirrel populations. MF noted that Kenny Kortland (FCS) and Mark Ferryman (Forest Research) were currently studying what happens to red squirrels during forest operations.

AG highlighted that land managers are interested in red squirrel conservation hence there is a need to ensure that they are not perceived as a constraint on forest operations.

YONS

JB drew the group's attention to the Year of Natural Scotland. Red squirrel is one of the "Big Five" wildlife species identified by the campaign. JB suggested Red squirrel Week could link to the "Big Five" this year. There are squirrel related resources available to be booked for events see - <http://www.snh.gov.uk/enjoying-the-outdoors/year-of-natural-scotland-2013/scotlands-big-5-celebrations/>

8. DONM

JB to circulate a doodle poll for dates - venue SNH Battleby.

Mel Tonkin
16th April 2013