



July 2020

Priority Areas for Red Squirrel Conservation (PARCs) in South Scotland

Frequently asked questions

What is a PARC?

Priority Areas for Red Squirrel Conservation (PARCs) were first introduced by Saving Scotland's Red Squirrels in 2014, as a way of focussing the project's limited resources on some of the healthier red squirrel populations in the south of Scotland. We initially selected eight landscapes over which the formation of connected grey squirrel control networks might be possible, aiming at providing co-ordinated and sustained protection of the resident red squirrels which were under imminent threat of being replaced by grey squirrels.

With additional resources made possible by the National Lottery Heritage Fund, and with increasing grey squirrel threat in Dumfries and Galloway, we added new PARCs and extended some existing boundaries to better protect larger and hitherto unthreatened populations of red squirrels, bringing the total to ten.

The criteria for Choosing PARCs

To provide joined-up and long-term protection for the red squirrels in the PARCs, it is important that we have the support and active participation of the people living in these areas. Therefore, the PARCs were chosen by assessing factors that were based on the biology and distribution of squirrels, the nature of the landscape, and potential for involvement of local communities.

A combination of the following criteria were used:

- The presence of red squirrel populations
- An urgent threat from grey squirrel incursion
- Local landowner support and cooperation
- An existing active volunteer network
- Local communities from which new volunteer networks could develop
- Geographically important / nationally strategic
- Sufficient area of suitable joined-up habitat for a self-sustaining red squirrel population
- Defendability of boundaries
- Accessibility for volunteer survey and trapping
- Potential for natural recolonisation by red squirrels from neighbouring landscapes (e.g. large neighbouring forest blocks)
- The likely level of annual trapping required to sustain red squirrels in the landscape, using the outputs of computer modelling (White & Lurz, 2018, Grey squirrel control in Southern Scotland: A model analysis)

Each PARC did not have to fulfil **all** these criteria, but they were each chosen to contribute to the sustainable protection of the region's red squirrels overall.

During the project's 'Developing Community Action' phase (2017-2022) the focus is on developing and supporting landowners and volunteer networks in these PARCs, providing them with the knowledge and skills they need to continue red squirrel conservation activity beyond the duration of the Saving Scotland's Red Squirrels project.

Volunteer groups operating within PARC boundaries can receive support from SSRS in the form of advice, training and resources such as trapping equipment, public engagement materials and costs. You can see a list of all active volunteer groups working with SSRS at scottishsquirrels.org.uk/network-directory/.

Why are PARCs needed?

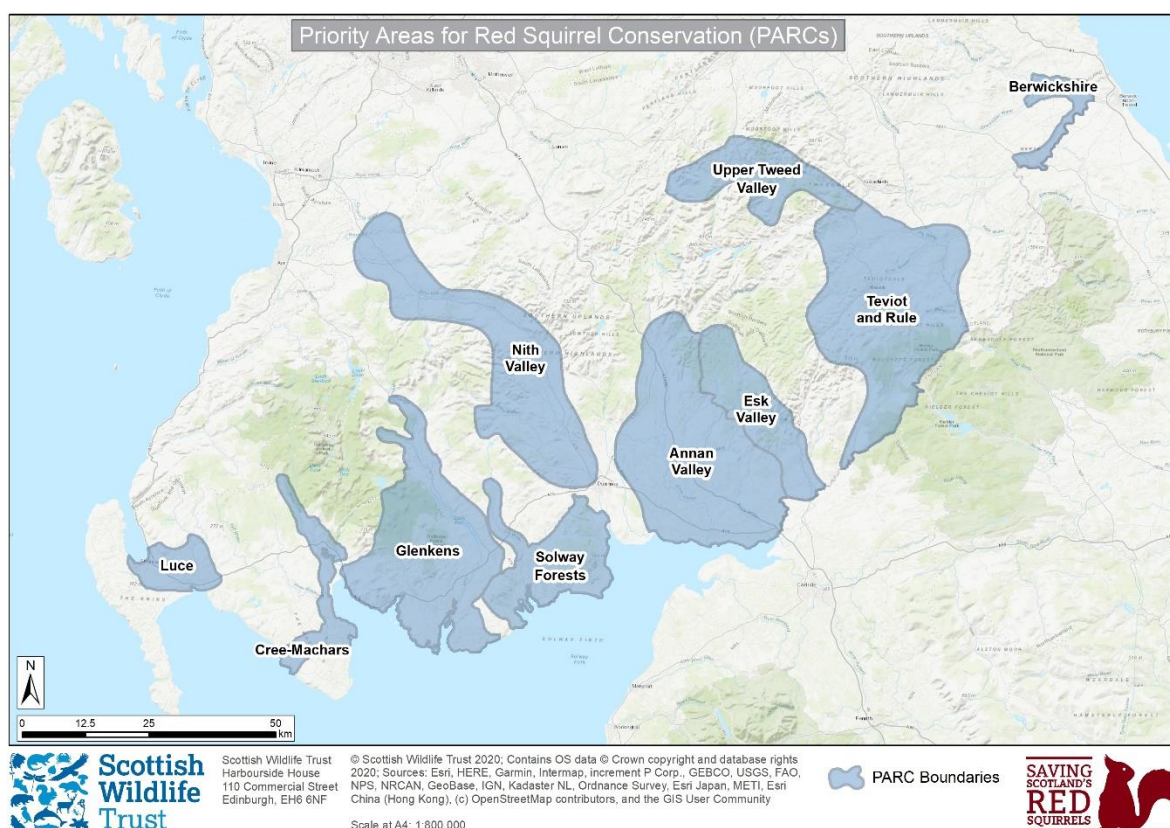
Previously Saving Scotland's Red Squirrels and its predecessor projects had been attempting to control grey squirrel numbers to stop the spread of squirrelpox across the entire region. With limited resources, this was proving unsustainable. By 2014 it was acknowledged that the squirrelpox virus was now widespread throughout grey squirrels across the region, and containment was not feasible.

At the same time we observed that the control measures already in place had reversed some of the local declines in red squirrels, despite the presence of squirrelpox in overlapping grey squirrel populations. A new approach was required.

The PARCs strategy makes use of these observations, but with limited resources for long-term red squirrel conservation, we needed to ensure that our conservation action was targeted and coordinated, providing the fullest possible protection to those red squirrel populations that have the highest chance of thriving long into the future.

Where are the PARCs?

The current PARC boundaries (as of 2020) are:



Will the current PARC boundaries change?

It is important that the PARCs strategy allows flexibility to adapt to changing situations on the ground. Therefore, PARC boundaries will be reviewed periodically and adjusted as necessary. The first review took place in 2019, resulting in new PARC boundaries that better reflect the current situation and future conservation need in the region. The changes made then include:

- The Berwickshire PARC was reduced in size to better reflect current red squirrel populations in the area, with the emphasis on providing protection of the nearby Northern England red squirrel Stronghold at Kyloe.
- The Esk Valley PARC has been allocated some of the landscape previously allocated to the Annan PARC. It is now managed by the SSRS South East Scotland team. This will better secure the Eskdalemuir red squirrel Stronghold and reinforce existing protection measures in the Esk Valley.
- A new Solway Forest PARC was introduced to protect local healthy red squirrel populations from recent large-scale grey squirrel incursions in the Dumfries area, and to prevent westward drift of grey squirrels into wider Dumfries and Galloway.
- The Glenkens PARC was expanded to include the lower Fleet Valley and Loch Ken grey squirrel incursion routes into the red squirrel Stronghold of Fleet Basin, as identified by the mathematical modelling work carried out by researchers at Heriot-Watt University.
- A new Cree-Machars PARC was introduced to provide grey squirrel control in an incursion route to the Fleet Basin, as identified by the mathematical modelling work carried out by researchers at Heriot-Watt University.

- A new Luce PARC was introduced to provide grey squirrel control in an incursion route from southern Ayrshire into the whole of Dumfries & Galloway and the Galloway Forest Park.
- The small Culzean PARC was decommissioned because of a lack of a viable red squirrel population in the area.

In 2020, an additional change was made to the northern boundary of the Teviot and Rule PARC to include the red squirrel populations of the adjacent lower stretches of the Ettrick and Yarrow Waters, as potentially the best source of colonising red squirrels in the region.

What is a red squirrel stronghold?

Scottish Forestry (formerly Forestry Commission Scotland) has designated 19 Red Squirrel Stronghold forests across Scotland, large woodland networks could serve as refuges for red squirrels if their decline could not be halted. There are two Red Squirrel Stronghold forests in the south of Scotland— Fleet Basin and Eskdalemuir, both of which sit within PARC boundaries. The Red Squirrels Northern England project also has similar strongholds south of the Scottish border. One of these is the Kyloe Forest Red Squirrel Stronghold on the Northumberland coast.

Will the rest of South Scotland become “grey-only”, creating island populations of reds?

Most of the PARCs are in themselves large landscapes that are home to many local populations of red squirrels that are interconnected. They range from under 100 square kilometres (Berwickshire) to almost 1,000 square kilometres (Teviot and Rule) in size.

The smaller PARCs of Luce, Cree-Machars and Berwickshire have been chosen more for their strategic position in protecting other important red squirrel populations, rather than specifically for their own local red squirrels. Luce and Cree-Machars sit on important habitat network routes that allow grey squirrels to colonise Dumfries and Galloway from South Ayrshire, while Berwickshire covers a main route for grey squirrels from eastern Scotland to colonise the important Northern England red squirrel stronghold of Kyloe.

The remaining PARCs are either large enough to have self-sustaining red squirrel populations within their borders, or else they border on large blocks of conifer that present habitat where red squirrels are able to survive, but grey squirrels struggle to gain permanent foothold. This supports the long-term viability of red squirrels in these landscapes, but also creates a source of red squirrels to keep recolonising the landscapes outside the PARCs.

Even with this potential for recolonisation, it is unlikely to be enough to retain red squirrels in all landscapes. We are already seeing the species under threat of dying out in Roxburghshire and Berwickshire, and very few are left in South Lanarkshire or South Ayrshire. This reinforces the need to keep up the pressure in the areas where we can support joined-up protection work, and where we think we have some chance of delivering sufficient protection to reds to keep them going.

Can I volunteer if I don't live in a PARC?

If you live in the south of Scotland, but not within a PARC boundary, you can support the project by submitting red and grey squirrel sightings— important data which will help inform our strategy in the future. You may be able to contribute to our annual spring survey which takes place right across southern Scotland regardless of PARC status. You may also be able to volunteer for a grey squirrel control network in a neighbouring PARC or for work just outside PARCs in the main grey squirrel ingress routes into PARCs.

Volunteering in other regions of the SSRS project is not affected by PARCs status.

Can volunteer groups operate outwith PARCs?

In South Scotland, SSRS will prioritise its support for volunteer groups operating within PARC boundaries. However, volunteer groups may self-organise outwith PARC boundaries, both in southern Scotland and in other SSRS project areas. SSRS may be able to provide some or all of the support available to PARC groups, and this will be considered on a case-by-case basis. Support for volunteer networks outwith PARCs will be dependent upon:

- Availability of project resources (staff time and funding)
- Conservation need— does protecting red squirrels in this area also help protect Scotland's key populations of red squirrels?

Saving Scotland's Red Squirrels - Developing Community Action is a project to implement a sustainable programme of red squirrel protection capable of securing the long-term survival of core red squirrel populations across Scotland. It is a five-year project to recruit and equip communities to take on a vital role in the long-term protection of red squirrels in key areas across the country. It is a partnership project between Scottish Wildlife Trust, Scottish Natural Heritage, Forestry Commission Scotland, RSPB Scotland, Scottish Land & Estates and Red Squirrel Survival Trust.

It is funded for the five years 2017-2022 by the National Lottery Heritage Fund.

