

# Saving Scotland's Red Squirrels



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Spring survey protocol  
Argyll, the Trossachs and Stirling



January 2019

## Tetrad Feeder-box survey protocol with camera

Saving Scotland's Red Squirrels has carefully chosen 2km x 2km square areas (known as '**tetrads**') in which to monitor for the presence of red and grey squirrels. The tetrads represent various woodland habitats and cover all of the project's target areas.

This network of tetrads is surveyed every spring using hair-trap feeder boxes, sometimes combined with trail cameras. **Four feeder boxes** are located in each tetrad, with a **sticky tab ('stickies')** placed on the underside of the lid. When the squirrels lift the lid, hairs are caught on its surface. Each sticky tab is collected and replaced twice, at two week intervals, resulting in three tabs per feeder box and 12 tabs per tetrad. The whole operation is completed within a six week period during **March and April**.

The species is then identified through a painstaking process of looking at the whole tab under a microscope to make sure that no hairs are missed. The collected data contributes towards a detailed understanding of red and grey distribution over time across the project areas and helps us measure the impact of our red squirrel conservation efforts.

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### 1. Before you start...

Please make sure you have read the Survey Health & Safety documentation provided. You can also download this information from the [Resources Page](#) on the Community Hub.

Before you head out, make sure you have:

- Your survey data sheet with a pencil or ballpoint pen
- Maps
- A charged mobile phone
- Bait (peanuts)
- 4 stickies and 4 waxed paper covers
- Stickies recording sheet
- 500ml spray bottle with Virkon solution and disposable gloves (first and last visit only – read safety instructions)
- Biosecurity kit (if required)
- Camera, batteries and SD card (if provided)

## 2. Pre-survey visit

You may be asked to visit your survey site for a pre-survey health check.

Your feeder boxes may already be in place. However, some might need to be replaced or moved, for example if the box has been damaged or the tree has been felled. If this is required, attach your feeder-box to an appropriate tree in a position agreed with the project team.

Note on your recording sheet when and where the feeder box was erected. Assistance from the project team is available for volunteers that do not have access to a GPS.

Please let your Conservation Officer know if you need replacement boxes or plastic squares on which to attach stickies.



To reduce the risk of disease spreading amongst any visiting wildlife, all feeder boxes must be disinfected with a broad-spectrum disinfectant solution called Virkon S. You'll find Virkon tablets in your survey pack. Before setting out, dissolve one Virkon tablet in a spray bottle containing 500ml water. **Virkon is a toxic substance so please read the provided health and safety guidance carefully before handling.**

Once on site, check the box is clear of feed or any other debris, and spray carefully until the whole box is damp, making sure anyone else present is standing behind you. Leave the boxes for a few days to dry.

Tip: Bring along an old spoon, or simply find a stick to use as a scraper to get all of the old bait out.

Do not immediately dispose of any remaining Virkon solution. Instead, leave the spray bottle in a safe place for one week to deactivate before it can be safely poured away. Please refer to the health and safety guidance for more details.





### 3. Visit 1

On your first survey visit you'll be adding bait to the feeder box and installing the first set of stickies.

Using the provided bags of bait use 1 for each box for each visit so each feeder box is roughly half-full with bait. You could also sprinkle a small amount of bait outside the box to help squirrels know there's a new food source available.



Attach a sticky to the inside of the feeder box lid. Remove the protective backing paper from **one side only**. Press down firmly before removing the final backing paper, exposing the sticky surface while ensuring no contamination occurs.



Position the camera opposite the feeder and test it to ensure it has the feeder box in view. Please record which box it was viewing and if this changes during the course of the survey.

### 4. Visits 2-3

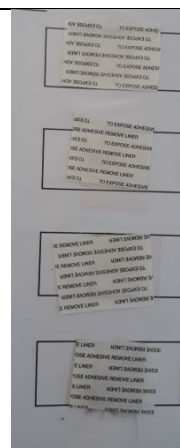
On your second and third visits you'll be collecting hair samples and installing fresh stickies.

Carefully remove the used sticky and place it face/hair side down on a piece of waxed paper before sticking it to the record sheet for that visit, even if you cannot see hairs. The wax paper will prevent hairs being lost or the sticky getting stuck to the plastic wallet. If there is a lot of hair and the wax paper won't adhere you can add a small piece of tape to one side of the wax paper so it stays over the sticky.

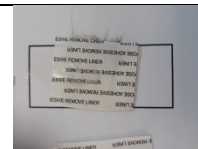
Remove any uneaten bait and refill the box half-full with fresh bait using the bag of bait provided.

Lastly, carefully place a new sticky to the inside lid and remove the backing paper.

Your survey data sheet form requires details of bait taken, time spent, etc. to be recorded.



To complete all of our analyses we must have all four stickies from each tetrad per two week sampling period. If a sticky is missing please ask your Conservation Officer for advice.



On each visit replace the SD card with a new one and change the AA rechargeable batteries.

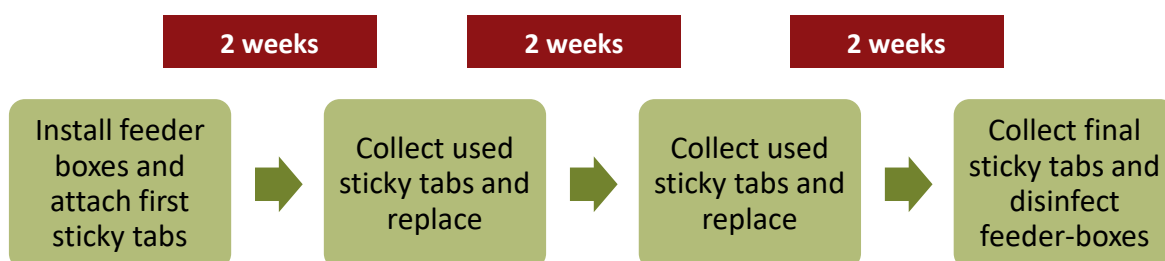
## 5. Visit 4

On your fourth and final visit you will collect the last set of hair samples, remove any uneaten bait and disinfect each box with a freshly made batch of Virkon using the tablet provided. Always read the safety guidance before preparing, handling and disposing Virkon. Don't forget to complete the data sheet with date visited, bait taken and time spent completing the survey.



Collect the camera. Please ensure you have recorded which box the camera was aimed at and if it was changed throughout the survey please make a note.

If you are able to look through the pictures please detail any findings in the sections provided. Ensure you keep records up to date including details of which SD card was used in each visit and which feeder box it was aimed at, especially if this changes during the survey.



## 6. Returning your hair samples and data

Before returning your hair samples and data sheet, please ensure that:

- All recording sheets are in the plastic wallets with the stickies attached and labelled with the date they were collected.
- Your data sheet is complete including box map reference, survey set up date, sample collection dates and camera information if applicable.

Next, return all samples and data sheets to your local SSRS Conservation Officer using the addressed envelope provided, or contact them to arrange collection. Please return any other equipment (e.g. camera traps) as soon as possible.

## 7. Your survey results

The overall spring survey results will be published on the SSRS website within a year of the survey taking place. However, you can view your tetrad results as soon as they appear by joining the Community Hub. The Hub is a space for volunteers to access additional resources, connect with the project and manage red squirrel conservation data.

[Create an account](#) and [sign up as a volunteer](#) to be invited to the private feeder box survey group. From here you'll be able to view your own results and explore the map to see results across the country.

You can download a Hub user guide for volunteers [on our website](#).

*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.*

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## PROJECT PARTNERSHIP



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