

Red Squirrels United SciuriosLIFE

Layman's Report 2018
LIFE14 NAT/UK/000467

Helping to secure the future
of red squirrels in the UK



The history of red squirrels

The red squirrel has lived in forests and woodlands across the UK since the end of the last ice age, 10,000 years ago. Their numbers have declined drastically over the last century and now there are approximately 140,000 left in the wild. Grey squirrels were brought to the UK in the 1800s by the Victorians and the first record of them escaping and establishing a wild population was in 1876. Since then they have spread across much of the UK, arriving in Ireland in 1911. Many scientific studies show that the introduction of the grey squirrel from North America has been the major factor in the red squirrel's decline over the past century. This is due to competition for food and shelter and spread of the squirrelpox virus (which grey squirrels can transmit to red squirrels). Unfortunately, without conservation management, red squirrels could become extinct from the UK mainland.



What is Red Squirrels United?

Organisations, volunteers and other conservationists have been involved in local conservation work and projects to protect red squirrels for many years. The Red Squirrels United partnership is joining up some of these initiatives, together with academics, practitioners and volunteers to deliver a unique programme of coordinated red squirrel conservation and knowledge sharing across the country. The focus for Red Squirrels United is to protect remaining red squirrel populations where they are under threat from invasive grey squirrels across Northern Ireland, Northern England and Wales.

Red Squirrels United 2018 highlights

2018 has seen the programme make great progress towards its objectives:

- 81% of the early warning and rapid response system was delivered by community members in northern England in 2018 exceeding the target of 75%. It is anticipated that this will be 100% volunteer delivered by the end of the project
- No grey squirrels were found on Anglesey in 2018 and red squirrels were sighted in Snowdonia National Park for the first time in fifty years!
- Removal of grey squirrels from the Mourne Mountains in Northern Ireland is almost complete, with the focus now moving towards reinforcing the buffer zone which keeps red and grey squirrels apart
- Successful red squirrel reintroductions took place in Silent Valley, Northern Ireland and Clocaenog Forest, north Wales
- Red squirrels were caught on camera in the northern Irfon Forest, mid-Wales. These are the first known records of red squirrels in this forest for more than 20 years!
- Autumn 2018 monitoring results detected the highest ever numbers of red squirrels at Ainsdale Nature Reserve in Merseyside
- Red Squirrels United achieved strong local and regional media coverage and featured on several national television programmes such as BBC Countryfile and BBC Springwatch



Red Squirrels United Knowledge Fair

The second annual Knowledge Fair took place in Bangor, north Wales on 24-25 March 2018. This two-day event was attended by 106 people including volunteers, conservation practitioners, government representatives, academics and other participants from across the UK and Europe. The Knowledge Fairs represent great opportunities for learning and knowledge sharing and participants took part in interactive grey squirrel management sessions, learnt more about citizen science and disease management in wildlife conservation and discussed the potential for national and local strategy development for red squirrel conservation. This was followed by an excursion to Treborth Botanic Gardens where workshops were held around monitoring for red and grey squirrel presence or absence, detecting and managing squirrelpox virus outbreaks, comparing different trap mechanisms and preventing island recolonisation.





The role of conservation dogs in squirrelpox virus outbreaks

Most people have heard of detection dogs being used by the police and military to detect drugs and explosives. But their skills can be used far more broadly, from medicine to conservation. During a squirrelpox outbreak it can be hard to locate the carcasses and any that remain in the environment can continue to be a source of infection. Disease outbreaks may not even be detected in more remote areas or in low density red squirrel populations unless carcasses are found. Several other diseases also display similar symptoms to squirrelpox, and only testing will confirm the virus.

In June 2018 Lancashire Wildlife Trust, Northumberland Wildlife Trust and Red Squirrels Trust Wales worked with Kryus Canine Ltd undertaking initial training and teaching their dogs to sniff out dead red squirrels. Dogs can search areas far more quickly and effectively and as they rely on smell instead of sight, obstacles such as overgrown vegetation are not such an issue. We hope that red squirrel populations remain healthy, but with our conservation dogs Red Squirrels United is better equipped to detect, identify and manage disease outbreaks.

Preventing subsequent grey squirrel invasion on the island of Anglesey

In north Wales, grey squirrels have been prevented from re-colonising Anglesey following their removal in 2013. This delivers direct benefits to nature conservation and forestry as the grey squirrel causes regional red squirrel extinction and damages timber by bark stripping. The established early warning network of island feeding stations monitored by the public (217 locations in 2018) and camera monitoring, reported neither sick red squirrels or the presence of grey squirrels on Anglesey during 2018. Red Squirrels Trust Wales continues to control grey squirrels in an area of 165km² in Gwynedd. Red squirrels continue to be present in Gwynedd having dispersed from Anglesey and are now regularly spotted in Treborth Botanic Gardens, Faenol and Braichmelyn. Red Squirrels Trust Wales delivered 132 community events in 2018 directly engaging 4,487 people and developed a proactive and reactive contingency plan for the early warning and prevention system for Anglesey.





Monitoring red squirrel populations in remote areas, mid-Wales

The Wildlife Trust of South and West Wales experimented with a new camera monitoring technique in 2018. Typically, trail cameras are focussed on a feeder to monitor squirrel populations, but this can draw in dominant feeders such as grey squirrels and pine martens. Across the woodlands that make up the Tywi Forest, experiments were carried out using 'ground cameras'. In areas showing signs of squirrel activity such as chewed cones, trail cameras were set up focused on the ground. The lack of feeders and absence of an introduced food source reduced the risk of cross contamination between red and grey squirrels, meaning that cameras could be checked less frequently. Red squirrels were spotted in several of the ground camera locations.

Maintaining grey squirrel free woodlands, northern England

Early warning system monitoring using trail cameras around Kielder, Kidland and Uswayford forests demonstrated that many parts of these huge woodlands remain grey squirrel free. The scale of the forests and size of the ranger areas makes effective control challenging but highlights the importance of the early warning system in providing intelligence and identifying areas to focus grey squirrel management. Despite logistical challenges covering huge areas, Northumberland Wildlife Trust trialled a rapid response approach and worked in partnership with two volunteer groups to respond to the detection of grey squirrels on trail cameras. This highlighted the need for long-term commitment to protect the largest red squirrel forest in northern England, and the importance of increased community support and participation to deal with the scale of the threat to red squirrels.

In January 2018, a pine marten was caught on camera by volunteers during early warning system monitoring. Four further recordings were made in 2018, all in different locations. This was an exciting and somewhat surprising development, as pine martens have been absent from the area for many years. In collaboration with others, Northumberland Wildlife Trust is exploring how this natural recolonisation might impact upon local red and grey squirrel populations. These sightings sparked much interest in the media.



Building community engagement in Northern Ireland

More than 200 woodlands were surveyed during spring/summer 2018 throughout six counties in Northern Ireland including Antrim, Down, Armagh, Tyrone, Fermanagh and Derry/Londonderry. Overall 68 sightings of red squirrels were recorded with 33.5% of forests containing red squirrels representing an increase of 8.2% from 2017. The percentage of woodlands containing pine marten also increased from 21.2% in 2017 to 26.1% in 2018. In the west Co Fermanagh showed no evidence of grey squirrel populations and continues to support the highest densities of both red squirrel and pine marten in Northern Ireland. The Fermanagh Red Squirrel Group also developed a formal network of early warning and surveillance sites in key woodlands to minimise the risk of grey squirrel incursion into the north east of the county.

Four new community groups were established in 2018 throughout Northern Ireland. Ulster Wildlife launched the Red Squirrels United support scheme which assists community groups through providing equipment under a loan agreement. Seven groups benefitted from the scheme in 2018. Ulster Wildlife delivered 37 community engagement activities reaching more than 2,700 people and hosted 26 training events.





Maintaining red squirrel populations in urban areas, Merseyside

The autumn 2018 monitoring programme undertaken with the help of more than 26 volunteers demonstrated that despite two confirmed squirrelpox virus outbreaks in 2018 and twice the number of dead red squirrels reported than in previous years, the red squirrel population in the reserve woodlands has remained stable at over 90% of the 2002 figures. The squirrelpox virus outbreaks remained quite localised and Lancashire Wildlife Trust implemented biosecurity controls such as removing feeders, maintaining close monitoring of the area and successfully used dogs to detect squirrel carcasses. Reports of 117 dead red squirrels were reported throughout the summer of 2018 and it is thought that the very hot weather contributed to mortality with many of the squirrels being juveniles. Red squirrels appear to have thrived further north however and autumn 2018 saw the highest numbers ever recorded at Ainsdale National Nature.

Development of the urban grey squirrel control networks continued in 2018 and 81 households in total participated in the urban Trap Loan Scheme (TLS). Lancashire Wildlife Trust ran 19 events and training sessions including training workshops, guided walks, talks to schools and community organisations and partnership events. Approximately 930 people (including over 400 children) were engaged through these interactions.

The local volunteer group, Red Alert, became a constituted group and are now more active in fundraising, awareness raising and grey squirrel control, including the continued development of the trap loan scheme. This will greatly increase the sustainability of the project into the future.

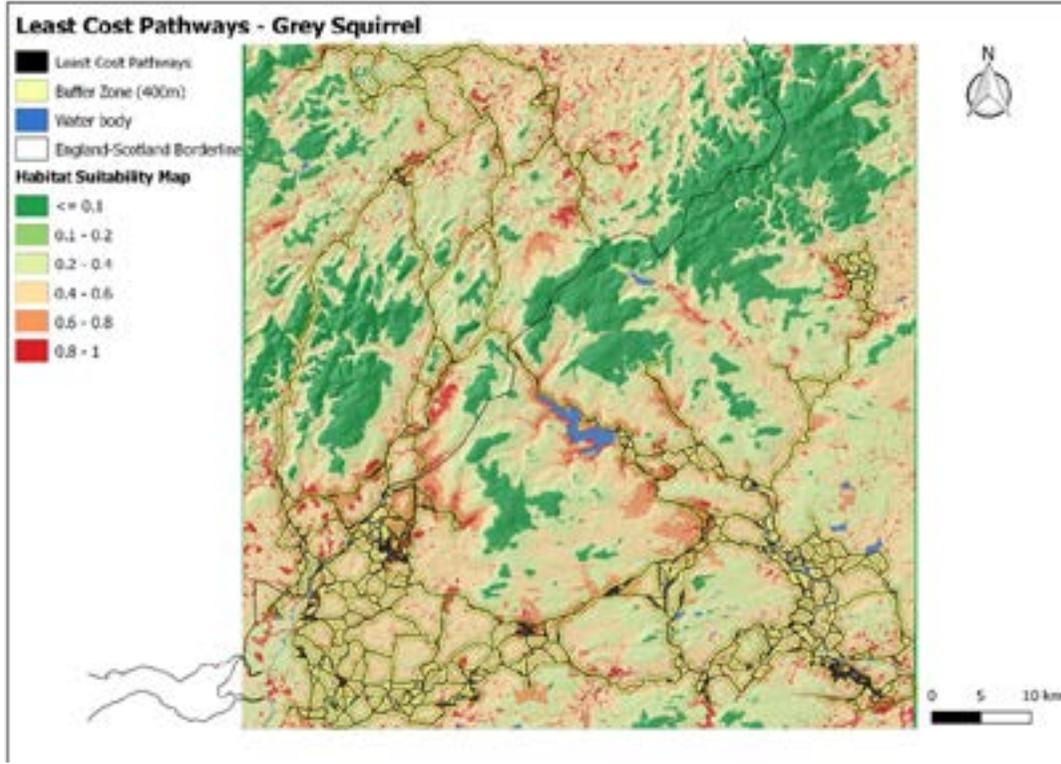
Exploring social attitudes towards red squirrel conservation

In 2018, Forest Research continued to explore motivations and attitudes to red squirrel conservation and grey squirrel control with the focus broadened out to include in-depth, semi-structured interviews with 33 landowners across northern England, Wales, Northern Ireland and Merseyside. This study will help to address the challenge of achieving landscape scale collaboration by shedding light on landowners' motivations and barriers to becoming involved in squirrel conservation and control. The teams continued to carry out short community surveys at events to understand levels of knowledge and awareness about local squirrel populations and identify interested parties who would be willing to participate in Red Squirrels United/red squirrel conservation going forward. Results from the community surveys will be used alongside those of the 2015 national attitudes survey to provide a baseline for a broader community survey to be conducted in 2019 in project areas.



Citizen science and the importance of data collection

Newcastle University monitor all the conservation work carried out through Red Squirrels United, to enable learning from our actions and improve best practise. Data collection and analysis continued throughout 2018 with a particular focus on comparing the different approaches taken across the project. Newcastle University also worked with Northumberland Wildlife Trust to create squirrel distribution maps for the north of England based on habitat characteristics. These maps were then used to identify 'hotspots' of squirrel activity; points in the landscape most likely to be used by grey squirrels migrating into the area. Outcomes from this research will be used operationally to inform and modify the control and monitoring strategy.



The Red Squirrels United Partnership

Red Squirrels United, coordinated by The Wildlife Trusts, is a partnership of organisations from Wales, England and Northern Ireland, including The Wildlife Trusts, Northumberland Wildlife Trust, The Wildlife Trust for Lancashire, Manchester and North Merseyside, Red Squirrels Trust Wales, The Wildlife Trust of South and West Wales, Ulster Wildlife, Newcastle University and Forest Research.

Who do we work with?

We are working alongside a range of community groups and organisation including land owners, estate managers, farmers and volunteers. We hold an annual knowledge fair where anyone interested in helping red squirrels and controlling the numbers of grey squirrels can meet to share ideas.

We also work closely with Saving Scotland's Red Squirrels to ensure a joined-up approach to red squirrel conservation is taken across the whole of the UK.



How to get involved

If you are interested in volunteering or would like to learn more about the project areas, please contact the following partner organisations:

- The Wildlife Trusts
rsu@wildlifetrusts.org
- Northumberland Wildlife Trust
red.squirrels@northwt.org.uk
- The Wildlife Trust for Lancashire, Manchester and North Merseyside
red.squirrel@lancswt.org.uk
- Red Squirrels Trust Wales
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- The Wildlife Trust of South and West Wales
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Produced as part of the Red Squirrels United project by:
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