

Red Squirrel Monitoring Report

Spring 2022

Introduction

The spring monitoring of the North Merseyside and West Lancashire Red Squirrel Stronghold was conducted in March 2022 using visual transects. All visual transects were completed within a 3-week period in March. 12 sites throughout the reserve woodlands of Formby and Ainsdale were surveyed. A further 11 woodlands within the buffer zone were surveyed covering Little Crosby, Ince Blundell, Southport and Scarisbrick.

Reserve Woodlands – Spring Surveys

12 visual transects throughout the reserve woodlands were carried out, with each transect being walked 3 times. Red squirrels were sighted on every transect, and 1 grey squirrel was sighted on the Ravenmeols transect. Urban Trap Loan Scheme work is helping to control the incursion of grey squirrels in the reserve area.

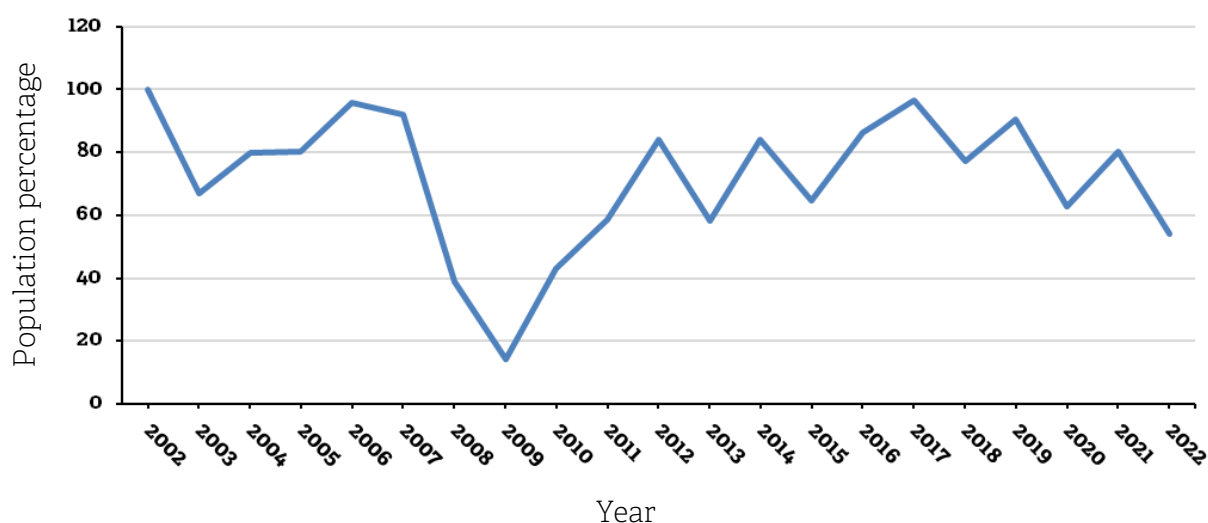


Figure 1: Changes in the spring red squirrel reserve population between 2002 and 2022.

Figure 1 shows the red squirrel spring monitoring results in the reserve woodlands from spring 2002 to spring 2021. The average number of red squirrels seen across reserve transects in 2002 are taken as 100% of the population. The average number of red squirrels seen in subsequent years are compared to this value. This year, the red squirrel population was at 54.2% of the baseline figure from 2002, a decrease from 80.2% in spring 2021.

This spring saw an increase in the number of red squirrels at 9 of the transects within the reserve compared to spring 2021. The highest number of red squirrels were seen on the Ainsdale NNR no3 transect, with 16 sightings on a singular transect, an increase from 9 in 2021.

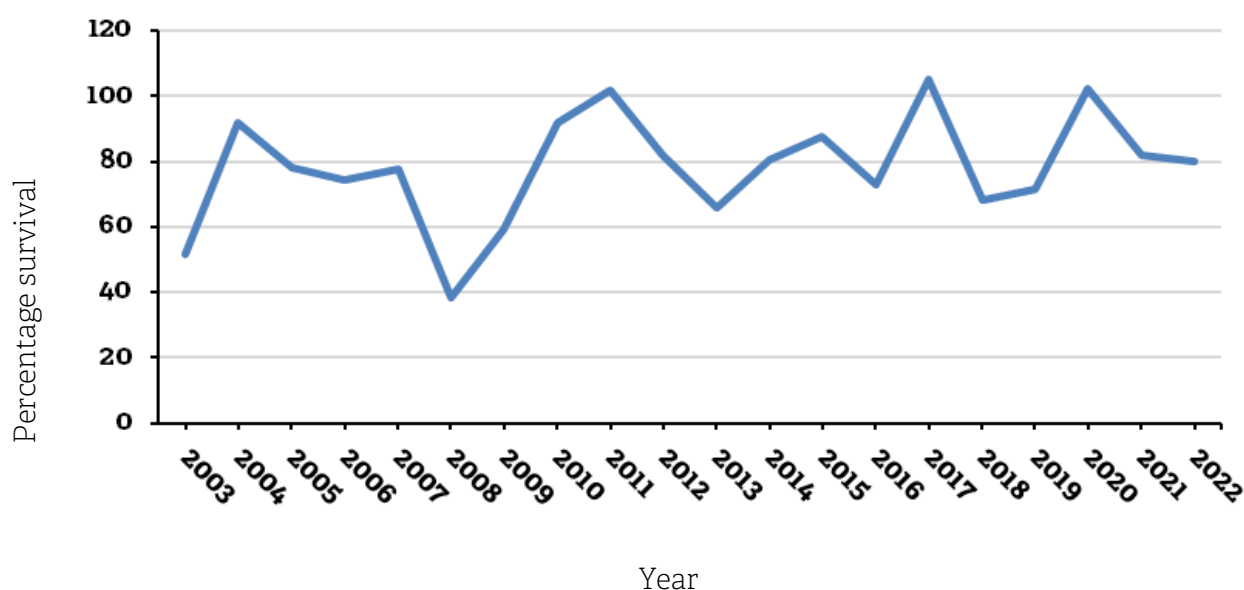


Figure 2: Changes in overwinter survival in the spring red squirrel reserve population between 2003 and 2022.

Figure 2 shows the overwinter survival for the red squirrels, which is calculated by taking the average number seen on the spring transects as a proportion of those seen in the autumn of the previous year. This year the overwinter survival was 80%.

Buffer Zone & Wider Landscape: Surveys and Analysis

A further 13 sites were surveyed using visual transects outside of the reserve woodland, 10 within the buffer zone of the stronghold and 3 outside of the stronghold. The results are shown in Table 1.

Table 1. The number of transects within the buffer zone of the stronghold and wider landscape with red squirrel, grey squirrel or both species present.

	<u>Red Squirrel only</u>	<u>Grey Squirrel only</u>	<u>Both species</u>	<u>None</u>
<u>Number of sites</u>	0	10	0	3

Red squirrels were not recorded in any of the woodlands surveyed in the buffer zone or outside of the stronghold. However, our public sightings data does show red squirrel occupancy in areas outside of the reserve boundary.

We were able to complete the transect in Great Altcar again for Spring 2022, after being unable to access the site in 2021 due to COVID-19 restrictions. This transect showed a continued presence of red squirrels onsite. Ben's Gorse wood increased to 2 grey squirrels (up from 1 last year), and reds have not been sighted since 2020. We are not permitted to conduct grey control in these woods as the site is frequently used for educational activities.

No squirrels were detected at Orrell Hill Wood in Hightown or Southport Crematorium. Public sightings show both a red and grey squirrel presence at Southport Crematorium, grey squirrel control work continues in this area.

There were 7 sites within the stronghold where only grey squirrel presence was detected (Botanic Gardens in Southport, Ince Blundell Hall, Jospice, in Thornton, Moss Wood, Church Wood and Bens Gorse in Little Crosby, and Girl Guides in Scarisbrick).

An additional 3 sites were monitored outside of the stronghold, Mere Sands Wood and 2 sites on Knowsley estate. Only grey squirrels were detected at these additional sites. Knowsley Estate is a site we continue to monitor outside of the stronghold to contribute to their [Reclaiming Reds](#) project.

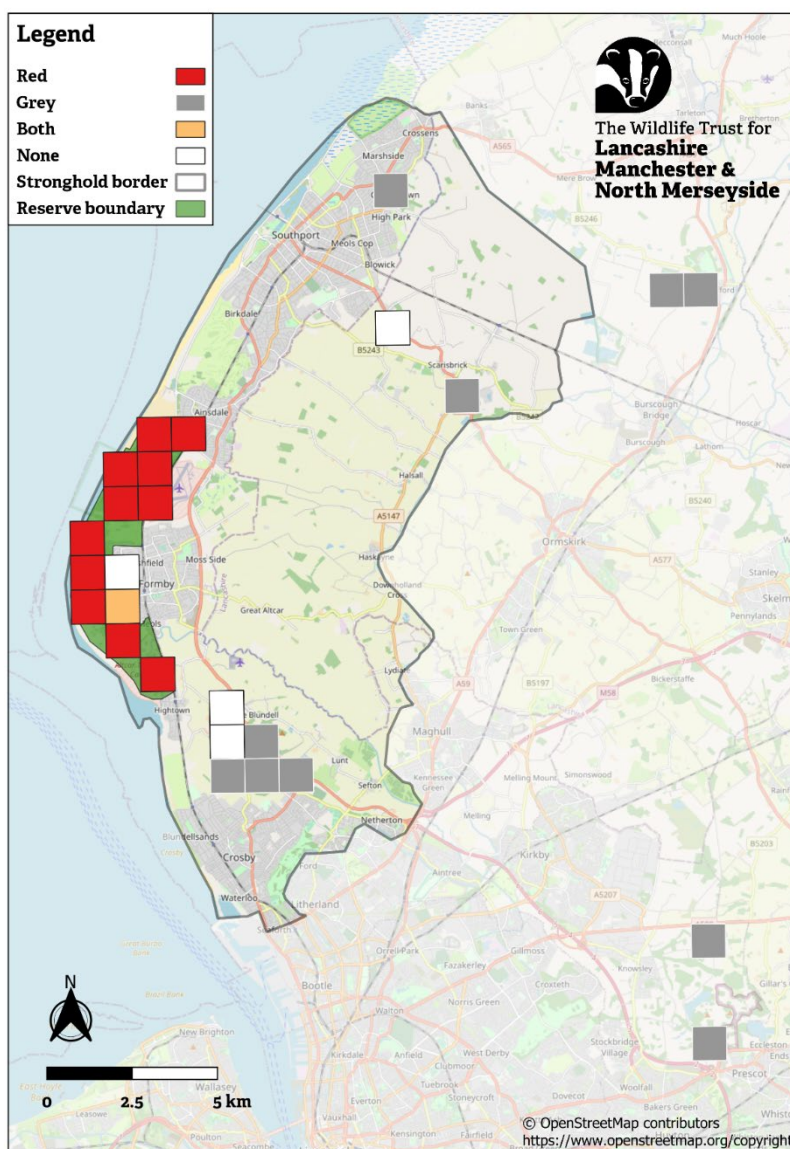


Figure 3: Autumn 2022 standardised monitoring results in the North Merseyside and West Lancashire red squirrel stronghold. Map shows presence of red squirrels (red), grey squirrels (grey), both (orange) and no squirrels (white) in 1km x 1km squares. The Knowsley Estate and Mere Sands Wood transects (outside the stronghold boundary) are also shown.

Public Sightings and grey squirrel control data

Grey squirrel control is undertaken in the woodlands throughout the stronghold all year round by the Red Squirrel Officer, Red Squirrel Ranger and volunteers. There is also an urban trap loan scheme to control grey squirrels in urban areas. This is co-ordinated by the Red Squirrel Officer but run by local volunteers. Records of grey squirrel control and red and grey squirrel sightings are kept up to date to monitor their distribution and population within the stronghold. Combining this data with the standardised monitoring results further informs our knowledge of red and grey squirrel distribution. Figures 5 and 6 show the current distribution of red squirrels and grey squirrels respectively in North Merseyside and West Lancashire using the combined data. It is important to note, particularly for the grey squirrel sightings map, that one grey square may only denote 1 squirrel sighting.

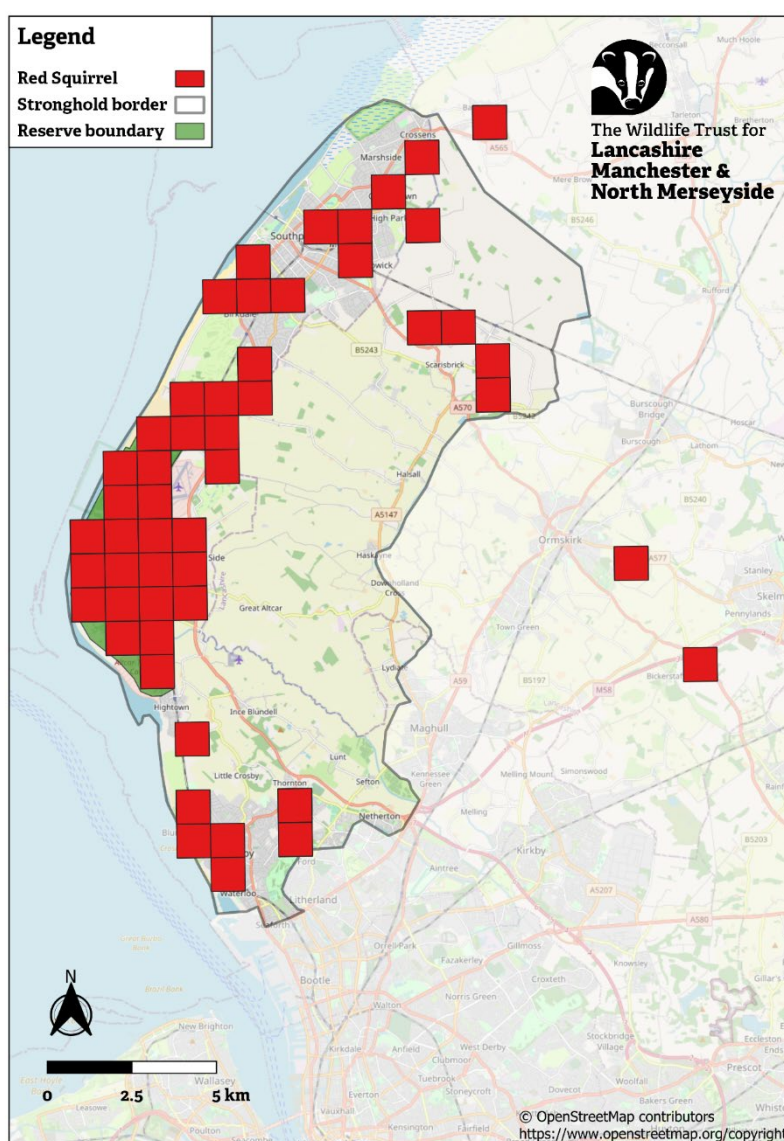


Figure 5: Red squirrel distribution in the North Merseyside and West Lancashire area. Map shows presence of red squirrels in 1km x 1km squares. Results compiled from public sightings, control records and standardised monitoring throughout January – July 2022.

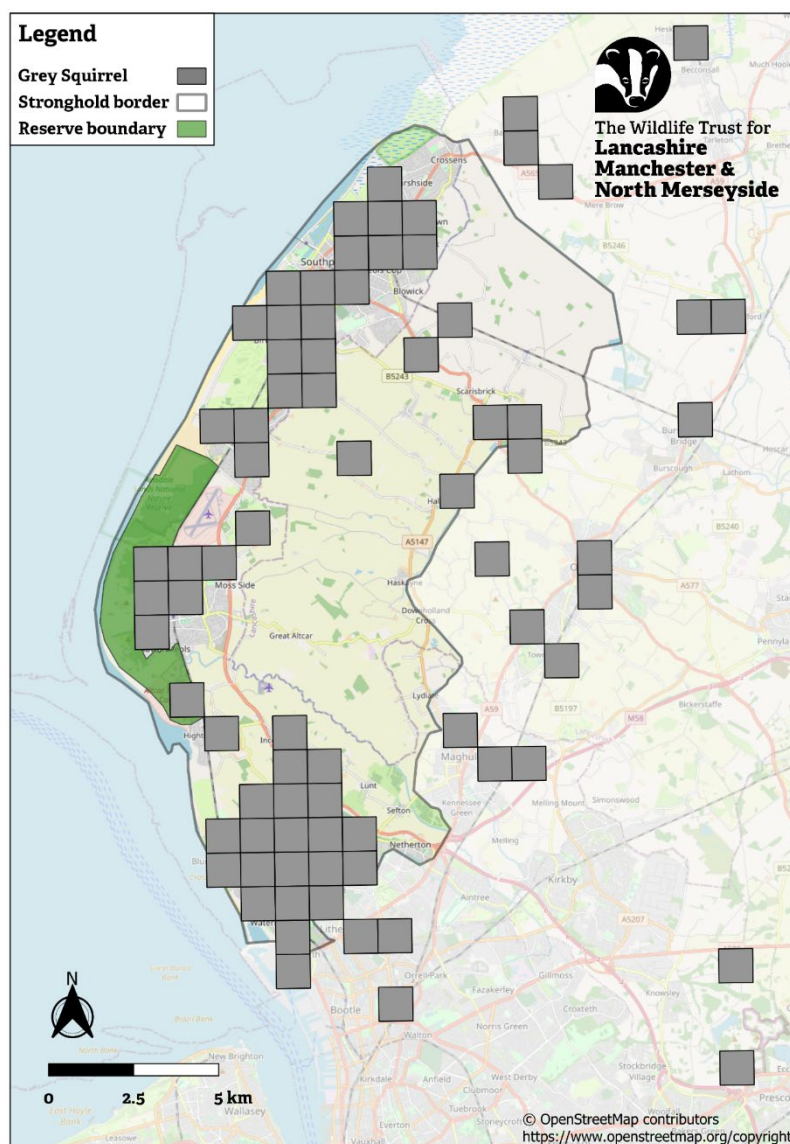


Figure 6: Grey squirrel distribution in the North Merseyside and West Lancashire area. Map shows presence of grey squirrels in 1km x 1km squares. Results compiled from public sightings, control records and standardised monitoring throughout January – July 2022.

Acknowledgements

Thank you to all the staff and volunteers who undertook the surveys and those who have informed us of their squirrel sightings. We also thank the many landowners who continue to grant access to their woodlands.

By Molly Frost, September 2022