

# Red Squirrel Monitoring Report

## Autumn 2024

### Introduction

The autumn monitoring of the North Merseyside and West Lancashire Red Squirrel Stronghold was conducted in October 2024 using visual transects. All visual transects were completed within a 3-week period in October. 14 sites throughout the reserve woodlands of Formby and Ainsdale were surveyed. A further 10 woodlands within the buffer zone and wider were surveyed covering Little Crosby, Ince Blundell, Southport, Scarisbrick and Knowsley.

### Reserve Woodlands – Autumn Surveys

14 visual transects throughout the reserve woodlands were carried out, with each transect being walked 3 times. Red squirrels were sighted on 12 out of 14 transects, seven grey squirrels were sighted within the reserve. Urban Trap Loan Scheme work is helping to control grey squirrels in the reserve area and buffer zone as well as control occurring in wooded areas in the reserve.

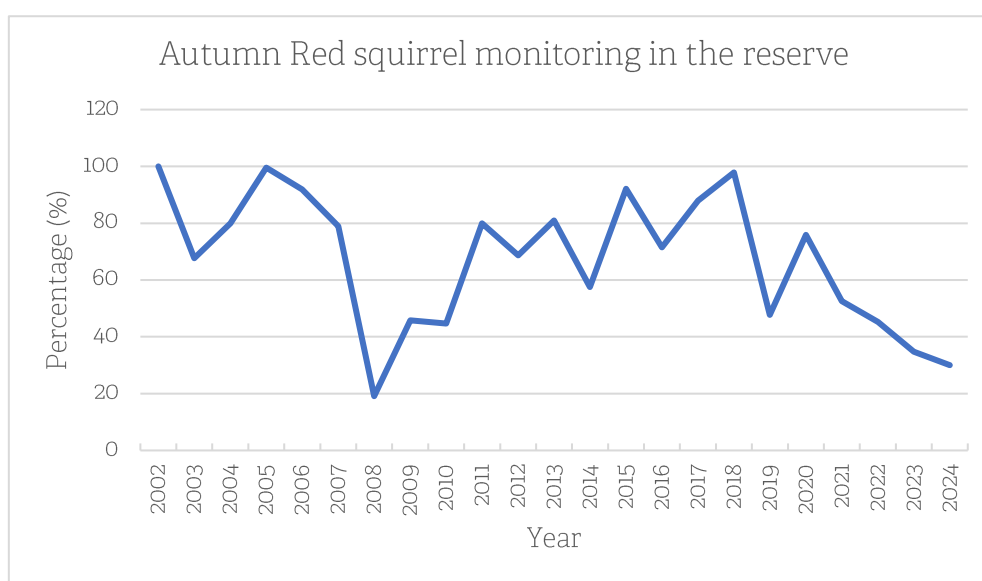


Figure 1: Changes in the autumn red squirrel reserve population between 2002 and 2024.

Figure 1 shows the red squirrel autumn monitoring results in the reserve woodlands from autumn 2002 to autumn 2024. 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 30% of the baseline figure from 2002, a decrease from 34.75% in Autumn 2023.

This autumn saw an increase in the number of red squirrels at 1 of the transects within the reserve compared to autumn 2022. The highest number of red squirrels were seen on the Ainsdale NNR no3 transect, with eight sightings on a singular transect, this is an increase in the number seen in autumn 2023. Seven red squirrels were also seen on lifeboat road which is an increase from no squirrels in Autumn 2022 when the transect was last done.

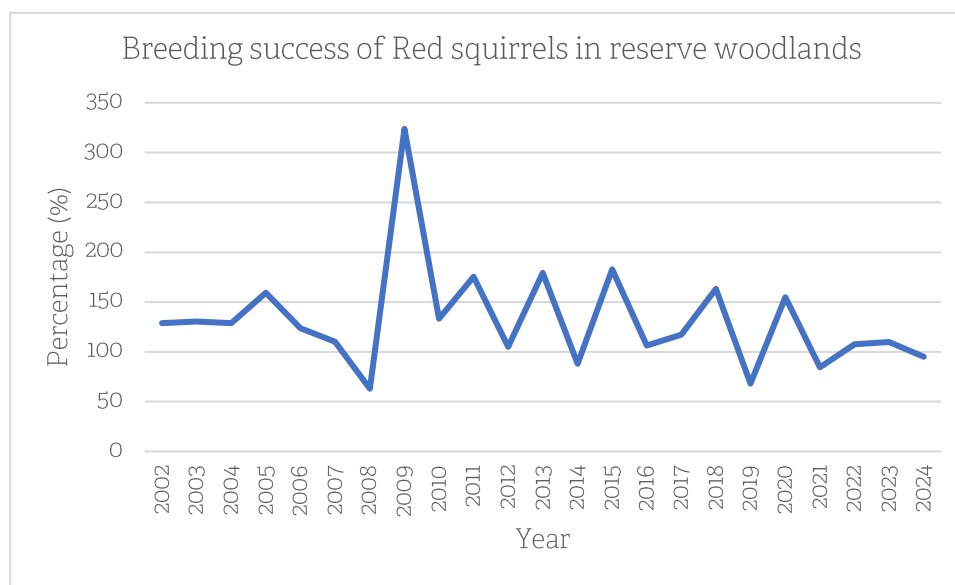


Figure 2: Changes in breeding success in the autumn red squirrel reserve population between 2003 and 2024.

Figure 2 shows the breeding success for the red squirrels, which is calculated by dividing the mean red squirrel autumn results by the mean red squirrel spring results of the same year and multiplying by 100. This year the breeding success was 95%, this is a decrease compared to last autumn which saw a 110% breeding success.

### Buffer Zone & Wider Landscape: Surveys and Analysis

A further 10 sites were surveyed using visual transects outside of the reserve woodland, 8 within the buffer zone of the stronghold and 2 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.

	Red Squirrel only	Grey Squirrel only	Both species	None
Number of sites	0	8	1	1



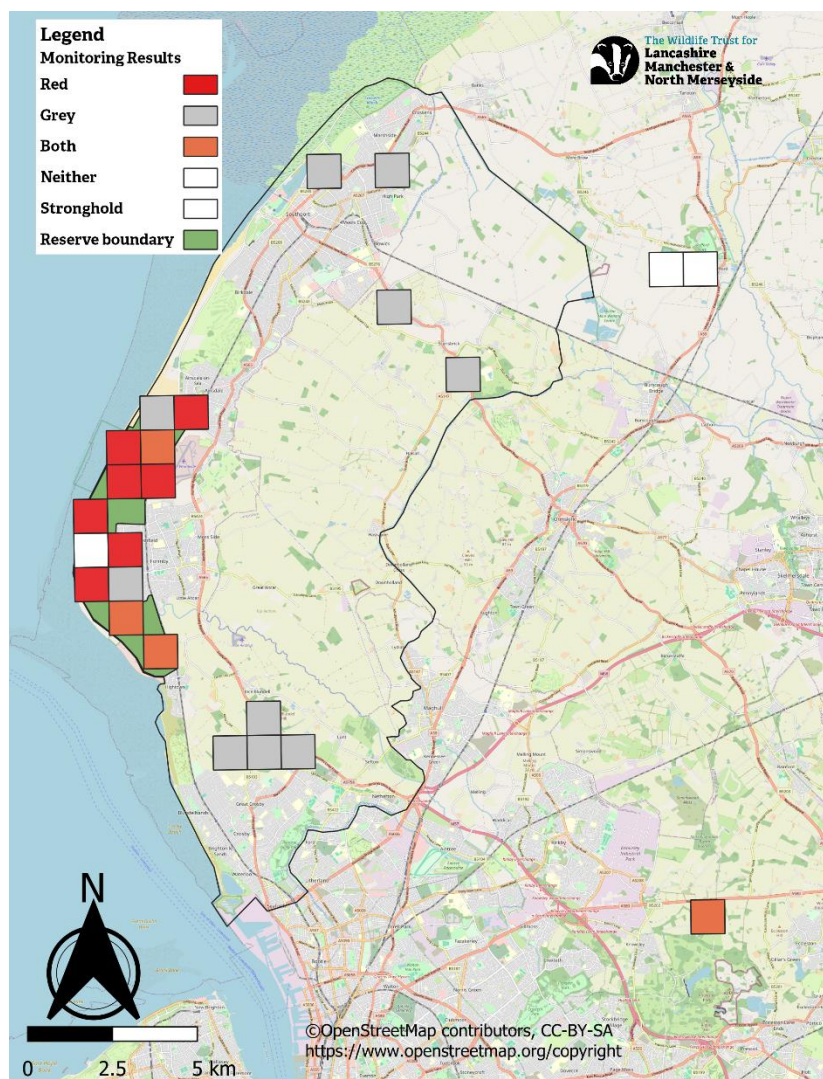
There were 8 sites within the stronghold where only grey squirrel presence was detected (Botanic Gardens, Hesketh Park and Southport Crem in Southport, Ince Blundell Hall, Jospice in Thornton, Moss Wood, Church Wood and Bens Gorse in Little Crosby). Grey Squirrel control has occurred in most of these sites. Whilst only grey squirrels were seen in the buffer zones, our public sightings data does show red squirrel occupancy in areas outside the reserve boundary.

Ben's Gorse wood continues to support grey squirrels 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, however the number of grey squirrels found in this woodland is still low with only two squirrels seen on one transect.

We continue to monitor in two in the wider landscape due to historic sightings of red squirrels. Mere sands wood continues to have no red squirrels however no grey squirrels were seen during the transects. Knowsley Estate however had one red squirrel seen on site along with grey squirrels. This is the first sighting of red squirrels on this site since 2017 and is likely due to the strategic grey squirrel control that was conducted onsite with the Reclaiming Reds project that ran from 2020-2023.

Reports of red squirrels at Aintree Hospital have also been confirmed, whilst no longer included in the bi-annual transects confirmed sightings from members of the public have shown that there is at least one red squirrel in the area.

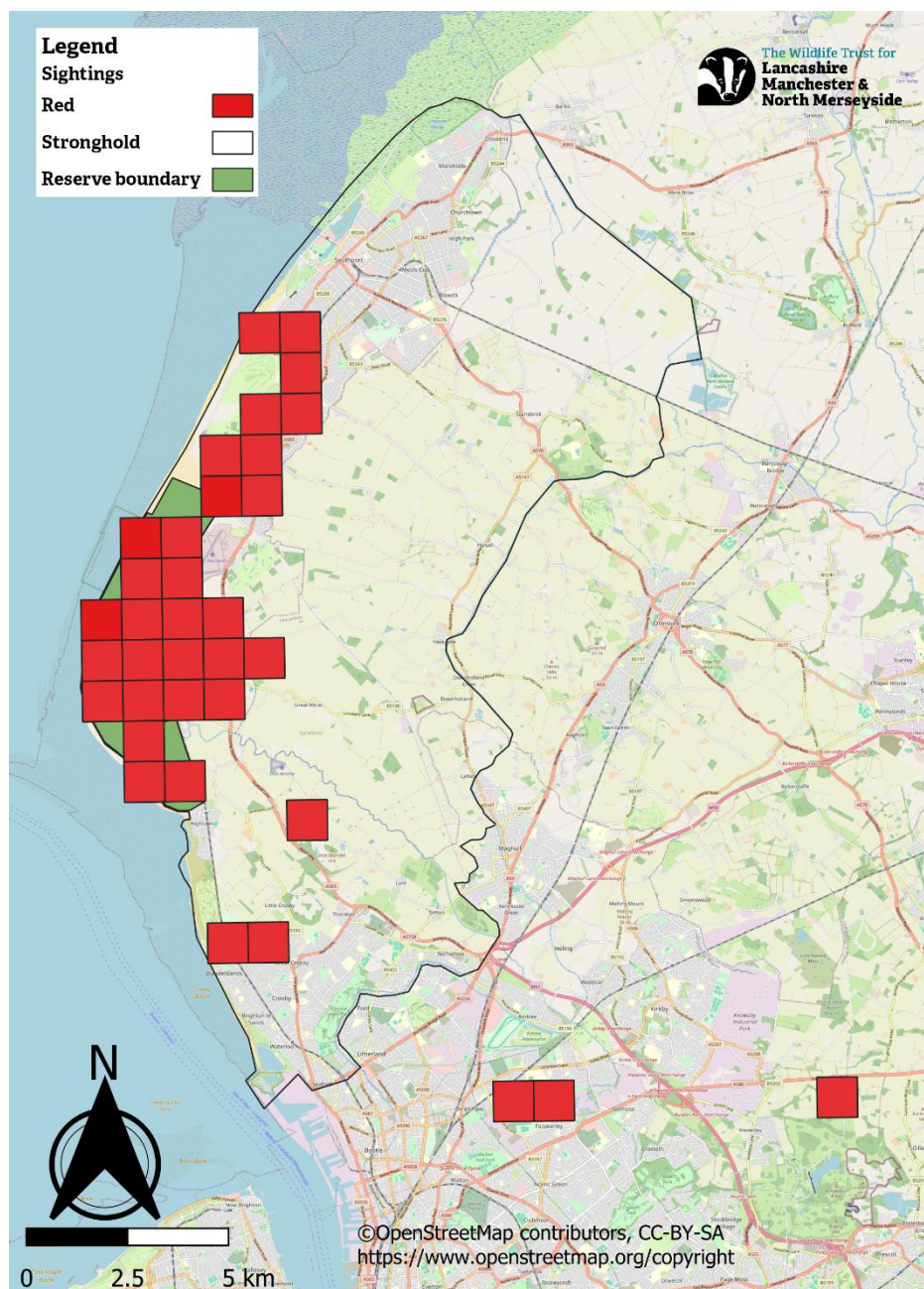
Whilst we have seen a decrease in the percentage of red squirrels in the stronghold reserve the red squirrel population is expanding into new areas which may be the reason for the decrease.



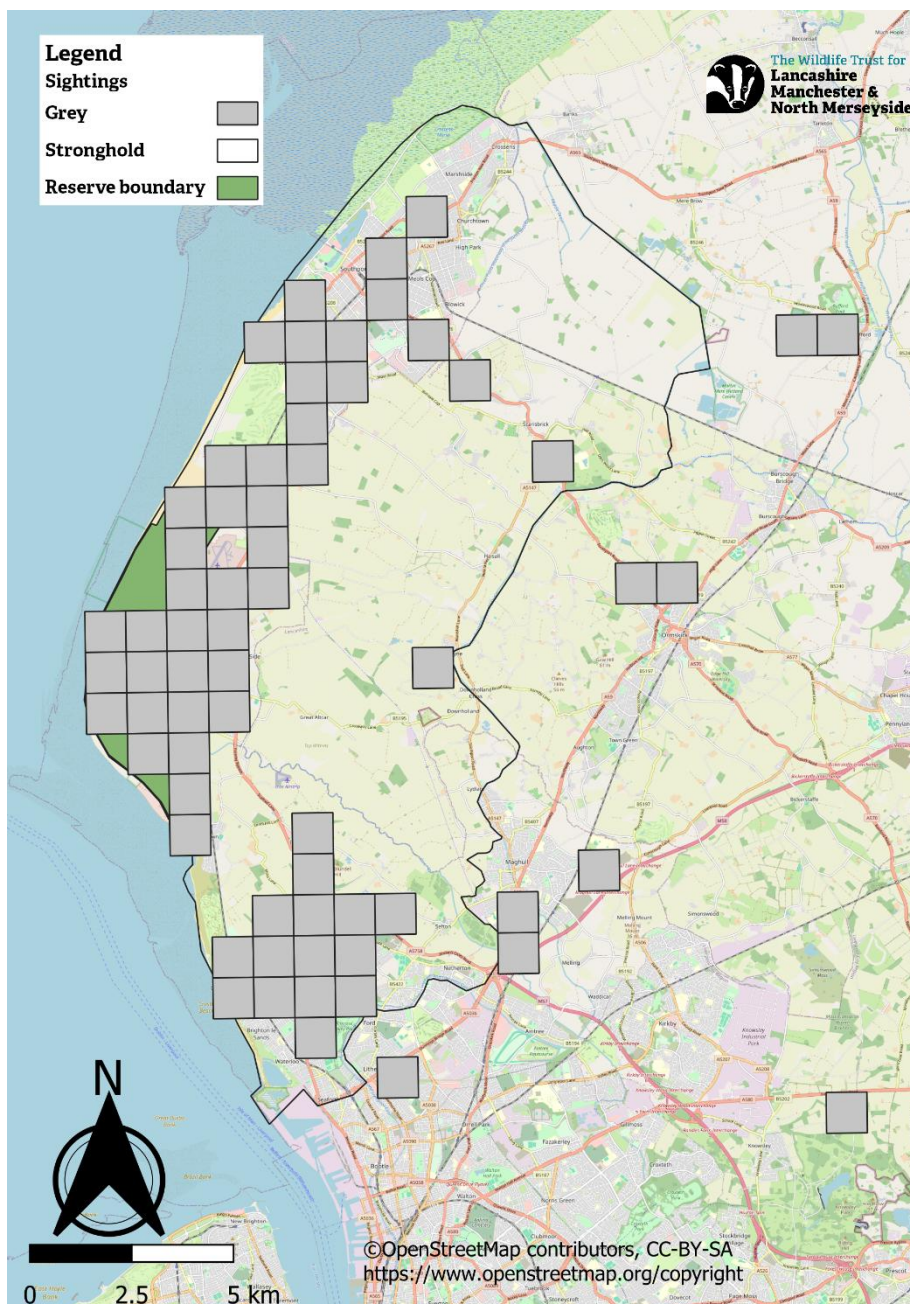
**Figure 3:** Autumn 2024 standardised monitoring results in the North Merseyside and West Lancashire red squirrel stronghold. Map shows presence of red squirrels (red), grey squirrels (grey), and no squirrels (white) in 1km x 1km squares. The Mere Sands Wood and Knowsley Estate transect (outside the stronghold boundary) is 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 Officers, contractors and volunteers. The urban trap loan scheme to control grey squirrel areas is co-ordinated by the Red Squirrel Officers but ran 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 August 2024 – November 2024



**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 August 2024 – November 2024

### 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 Melissa Wharram, 2024