Scottish Raptor Monitoring Scheme Trends 2009-2018: Regional-focus

Amy Challis, Mark W. Wilson, Mark A. Eaton, Brian Etheridge, Kenny Kortland, Wendy Mattingley, Logan D. Steele, Andrew Stevenson, Patrick Stirling-Aird, Mike Thornton, Juli Titherington, Chris V. Wernham and Nick I. Wilkinson

Introduction

This document presents raptor population trends in Scotland by region. This approach will suit users of the trends who are particularly interested in the variation between different parameters and species within individual regions.

Clicking on the various links below will take you straight to the relevant account for the region of interest.

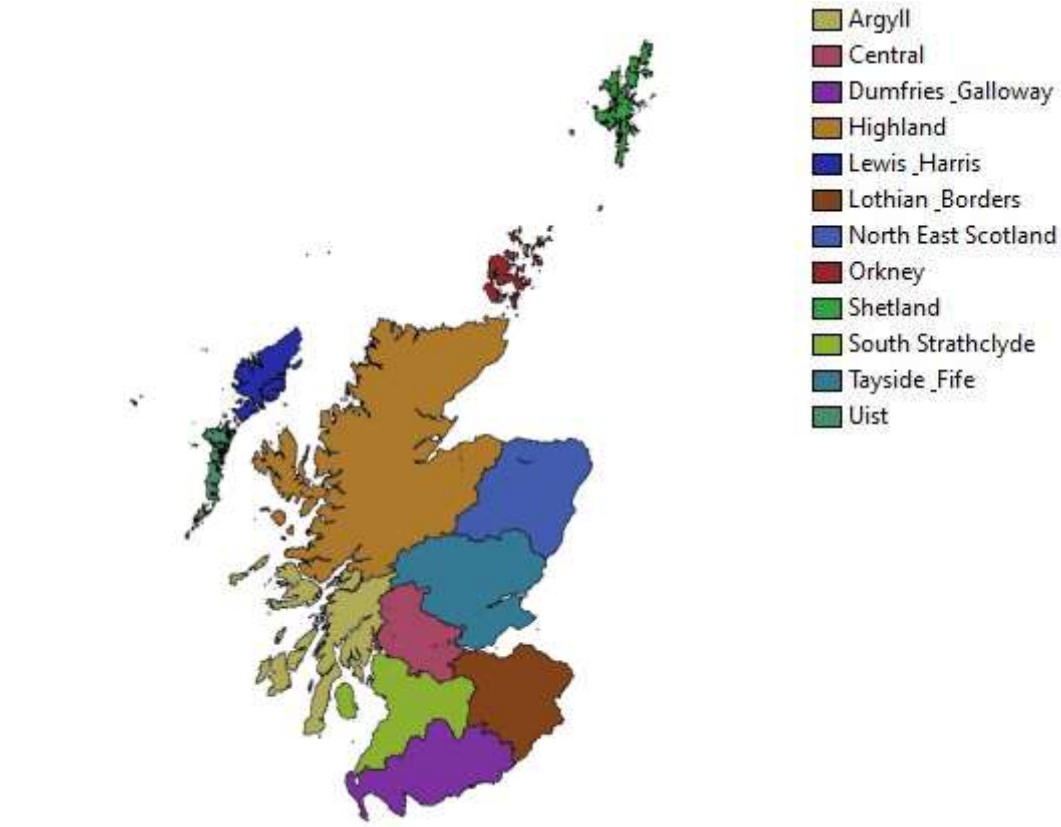


Figure 1: SRMS Region boundaries.

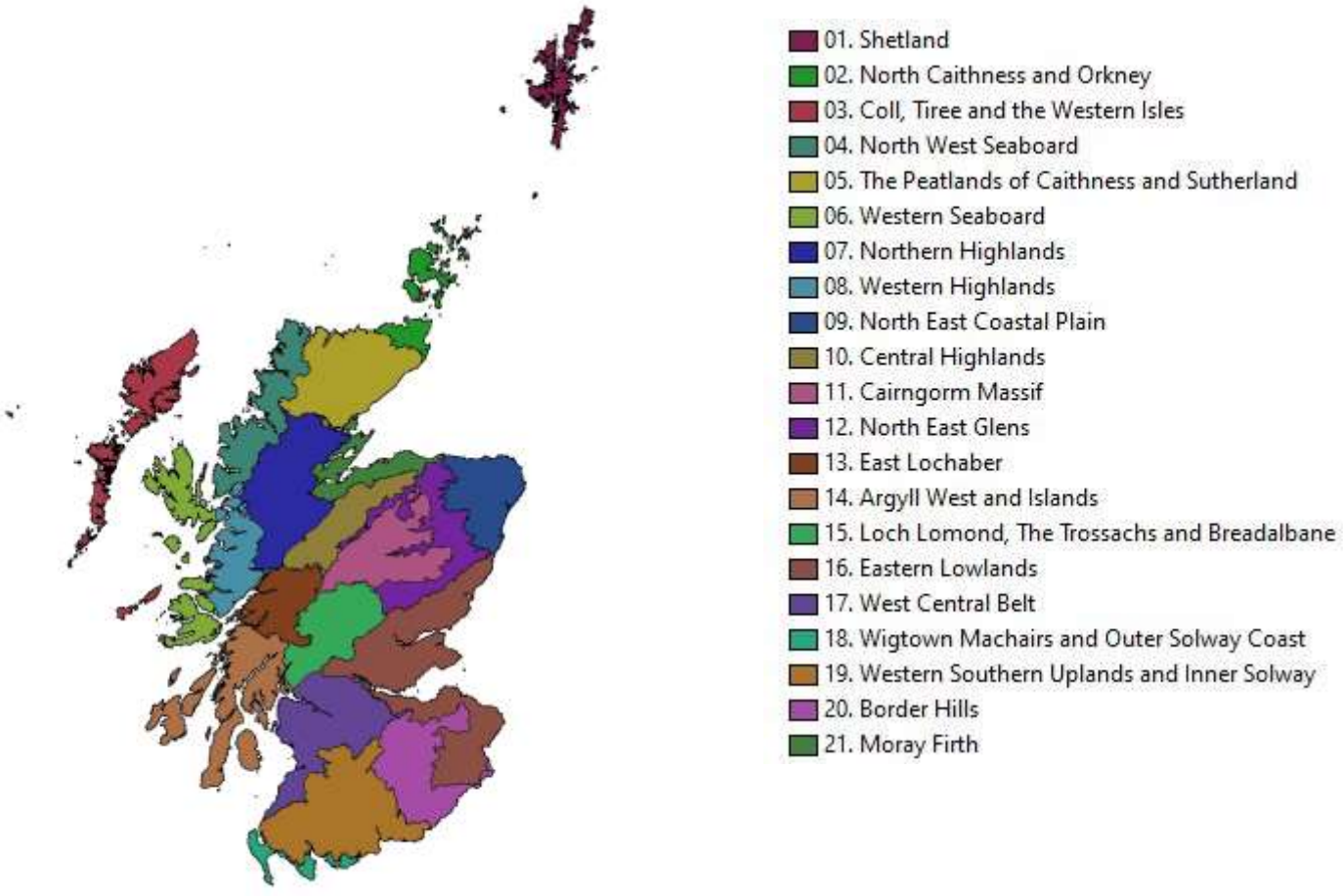


Figure 2: NHZ Region boundaries.

Methods

'Clusters' – Because the SRMS does not currently hold standardised information on study area coverage and effort, or changes in these between years, it was necessary to derive clusters using a two-stage process: (i) initially based on characteristics of the records themselves; and then (ii) through a consultation process with data contributors.

Only records with a spatial resolution of at least 1-km were used. Species-specific nearest neighbour distances were used to identify sub-sets of records that fell into groups or 'clusters' consistent with reasonably comprehensive monitoring coverage.

Consultation with observers resulted in helpful feedback on the draft clusters and the trends based on them. This feedback was considered carefully before producing the regional and national trends documented here. However, we were not able to completely address all of the suggestions made, particularly where these pointed towards the use of data not currently held by the SRMS. Inclusion of such data in the future may allow us to produce improved trends for some the combinations of species and regions, or may allow trends to be calculated for new combinations for which trends cannot be derived with existing SRMS data.

More details of the methods used to produce trends can be found in a technical report available on the SRMS website (https://raptormonitoring.org/trends/technical-report).

Species Accounts

Within the following species accounts, trends are presented sequentially at two different geographic scales – firstly national (i.e. Scotland) and then for two different regional scales (SRMS Regions & Natural Heritage Zone Regions). Within each section the following points should be taken into consideration:

Interpreting trend graphs: The graphs show how the number of breeding pairs and parameters related to breeding productivity (breeding success, clutch size, brood size, and number of fledglings) have changed over the relevant trend period. The purple dots show the average value of the relevant parameter for each year. The numbers at the top of the graph show the number of records from each year contributing to the trend. The purple line delineates the predicted values for the trend, illustrating the steepness and direction of change over time. The pale purple shading shows the 95% confidence interval around these predicted values.

Where there were significant directional changes in numbers or breeding success parameters, trends are described as increases or decreases. Where start and end values were not significantly different, but there was still statistical evidence for change during the period (e.g. a 'peak' being an increase followed by a decrease, or a 'trough' being a decrease followed by an increase) trends are described as non-linear. It should be noted that, where a trend is reported as not significant, this simply means that we cannot be confident that the trend either increased or decreased over the relevant period. It does NOT mean that there was no change over this time. What it does mean is that, if there was a change, it was too small to detect robustly with the available data.

Threshold criteria for trends: Individual home ranges only contributed to regional or national trends if they were checked for occupancy during five or more years of the trend period. Numerical trends only include home ranges that are included in defined clusters (in which monitoring coverage and effort is assumed to be consistent across the defined series of years). For breeding productivity trends, all records (not just those from clusters) were considered for inclusion. Trends are only presented for regions in which ten or more home ranges

contributed data in at least one year. Data from individual years in which fewer than five home ranges were checked were excluded from numerical trends, with the equivalent threshold being seven home ranges, for breeding productivity trends. No trend was produced if fewer than five years of suitable data were available for

inclusion. Regional trends were also scrutinised for any major changes in sample size during the trend period for each (which could indicate major changes in survey coverage/effort) and years of apparently inconsistent coverage were excluded from the final trend.

For trends in clutch size, brood size and numbers of fledged young, records with minimum estimates (e.g. 2+, 3+, 4+) were included as the minimum quoted (e.g. 2+ becomes 2) as conservative measures of the appropriate parameter. For all breeding attempts with successful or unknown outcomes, the largest count from either of the 'Large_Young' or 'Young_Fledged' categories of the SRMS spreadsheet was used as the estimate of the actual number that went on to fledge. This may slightly overestimate the actual number of young that go on to fledge. The number of young recorded at different stages may also vary slightly between different studies/areas due to variation in recording decisions and monitoring effort between data contributors.

Any caveats that need to be considered when interpreting trends are noted below each of the tables and graphs, both in this report and in the various accounts available via the SRMS website. These caveats, together with their potential implications for the observed trend, are detailed below.

- 'a' – All data used – these are trends based on all available data for the period but, unlike national trends, are not considered to be robustly representative of the national population. This is due to under-representation of particular regions, habitats, demographic cohorts, or some combination of these.
- 'n' – Nest box based – a large proportion of monitored individuals are based in nest boxes. If nest boxes tend to be preferred over natural sites or vice versa, numerical trends may not be representative unless a high proportion of pairs nesting in natural sites are also found and monitored. Moreover, because only a small proportion of the population of any Scottish raptor breeds in nest boxes, if any measures of productivity differ between nesting attempts in boxes and those in natural sites, estimates of and trends in productivity may also be unrepresentative.
- 'r' – No home range random effect – inclusion of the home range as a random effect in a productivity trend model caused the results of that model to depart unrealistically from the observed range of variation for that trend, so this variable was removed from the model. This could make the trend more prone to being unduly influenced by variation between individual home ranges; particularly when the home ranges contributing to the trend changed over time.
- 's' – Sample sizes small – mean annual sample size is less than 20. This is likely to decrease the precision of annual estimates, and to increase the influence of 'noise' (random variation) on apparent change from one year to the next. This is not based on any formal power analyses but simply highlights that trends based on samples of more than 20 home ranges are likely to be more robust/representative than those based on smaller samples.
- 'v' – Variable effort – variation in sample size between years suggests that variable monitoring effort could result in inter-annual variation in the location and nature of home ranges that are monitored, or in the effort put into collecting data from these. Such variable effort could result in 'noise' (random variation between years) or, if effort increases or decreases over time, introduce bias into the trend.
- 'x' – Expanding population – population of a recently re-introduced species, known to be undergoing rapid expansion. This means that traditional approaches to raptor monitoring (focussing on known home ranges or discrete study areas) are likely to underestimate rates of population growth, and may bias measures of breeding productivity towards older, more experienced pairs.

Scotland

Figure 3: Scotland.

Trends in breeding numbers are available only for White-tailed Eagle. National trends in breeding success, clutch size, brood size and the number of fledglings are available for only Osprey, Golden Eagle and White-tailed Eagle (Table 1).

Osprey

No trend is available for the number of breeding pairs. Trends for breeding success, clutch size, brood size and the number of fledglings all showed no significant change (Figure 4).

Golden Eagle

No trend is available for the number of breeding pairs. Trends for breeding success, clutch size, brood size and the number of fledglings all showed no significant change (Figure 5).

White-tailed Eagle

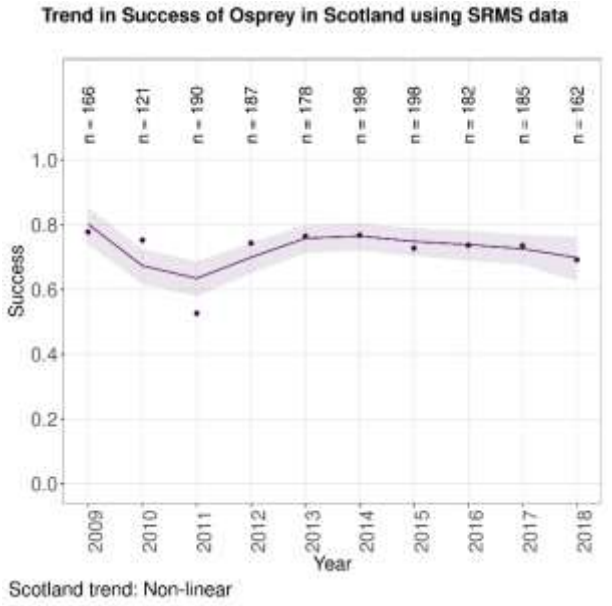
The number of breeding pairs has increased significantly (+5.4%) while breeding success has shown no significant change. Trends for clutch size, brood size and the number of fledglings all showed no significant change (Figure 6).

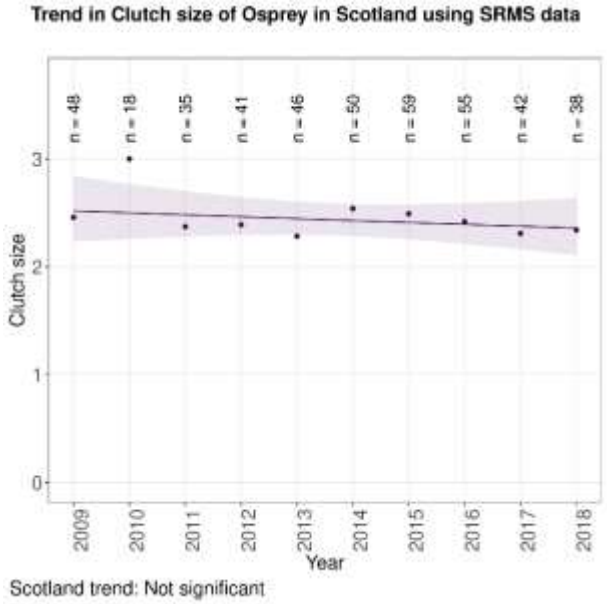
Table 1: Summary of SRMS trends for Scotland during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

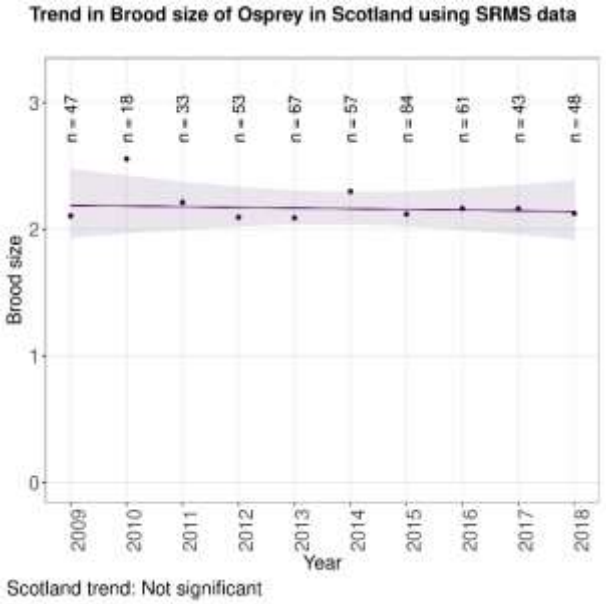
Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	Not significant	Not significant	Not significant	Not significant
Golden Eagle	—	Not significant	Not significant	Not significant	Not significant
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	**Increase [ax] (5.4%)**	Not significant [x]	Not significant [s]	Not significant [x]	Not significant [x]
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[a] All data used, [s] Sample sizes small, [x] Expanding population.

No trend available
for breeding pairs







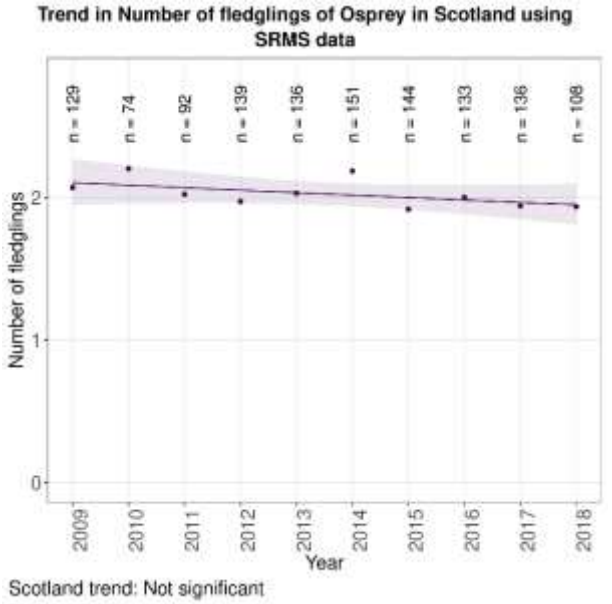
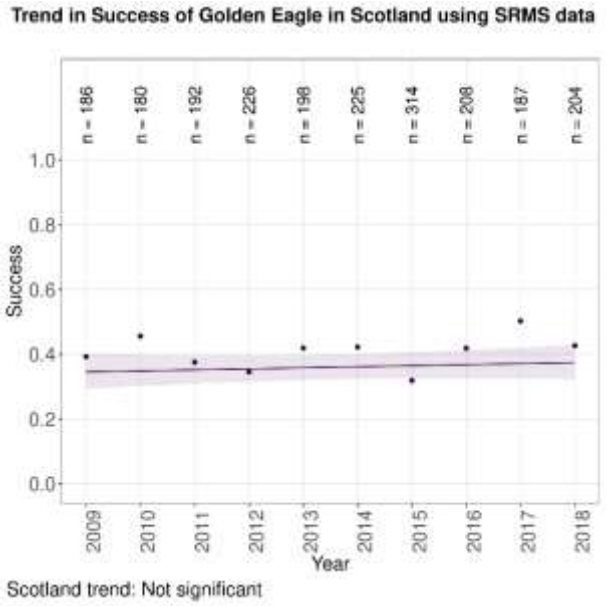
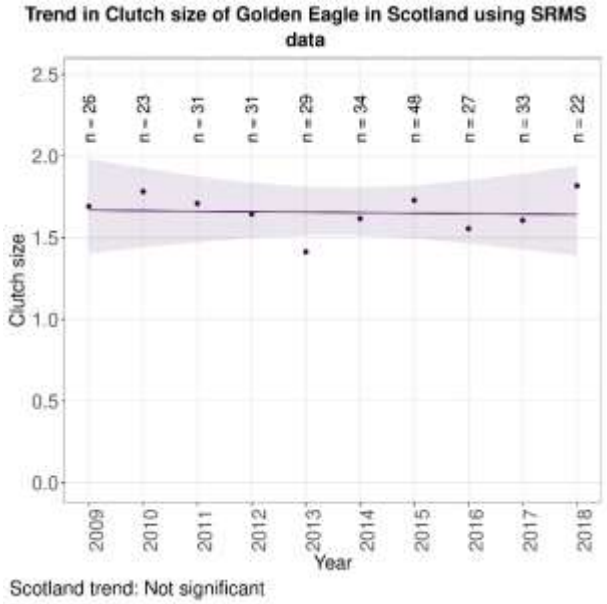
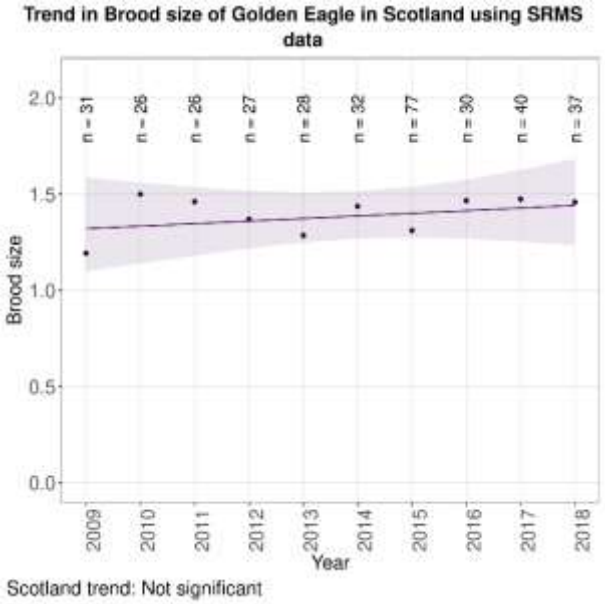


Figure 4: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in Scotland during 2009-2018.

No trend available
for breeding pairs







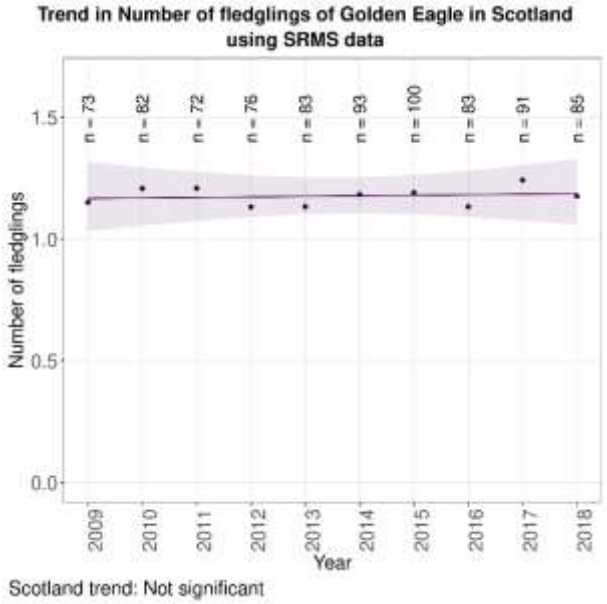
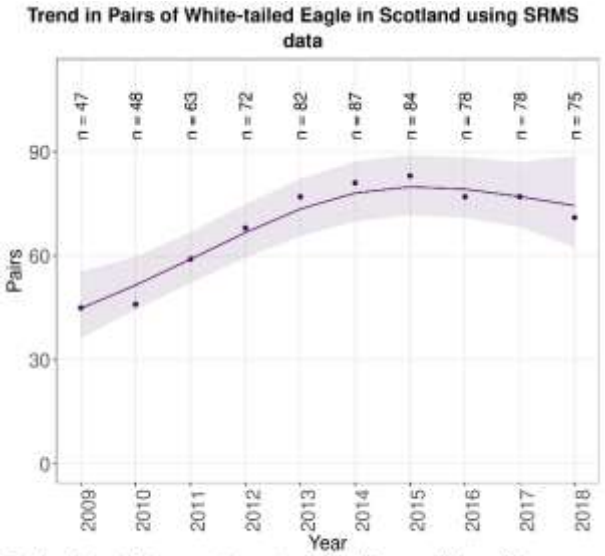
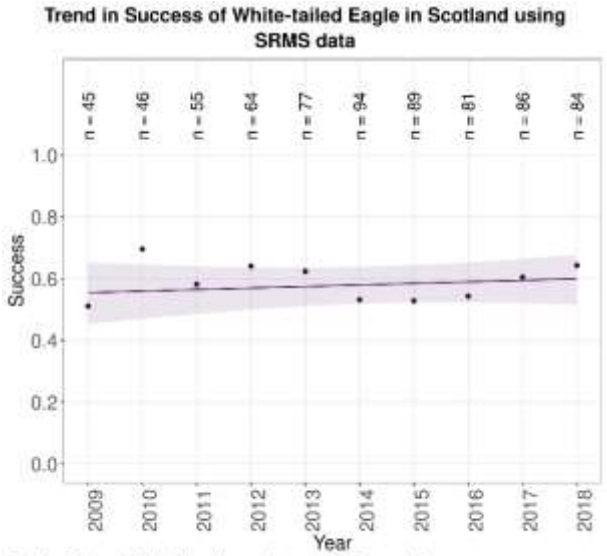
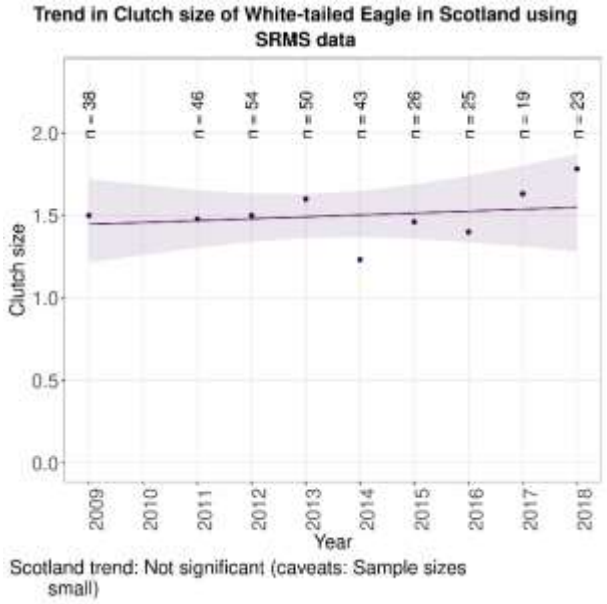
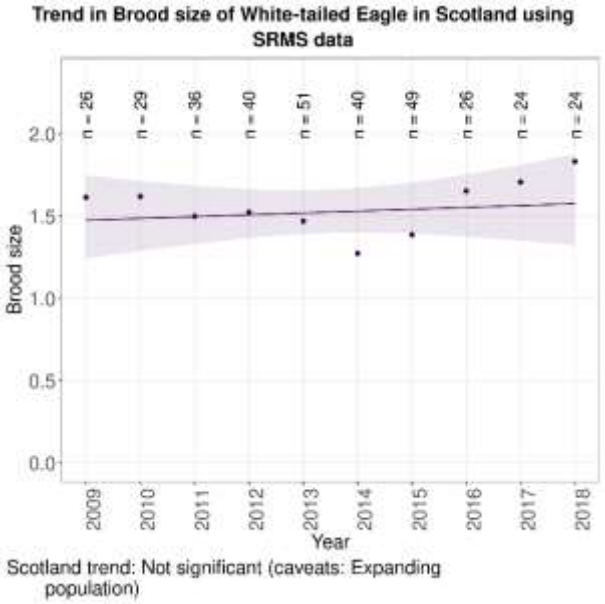


Figure 5: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Scotland during 2009-2018.









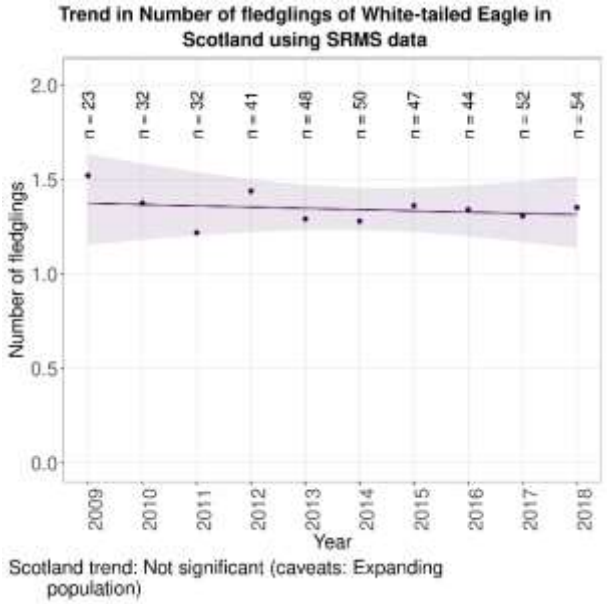


Figure 6: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in Scotland during 2009-2018.

Argyll

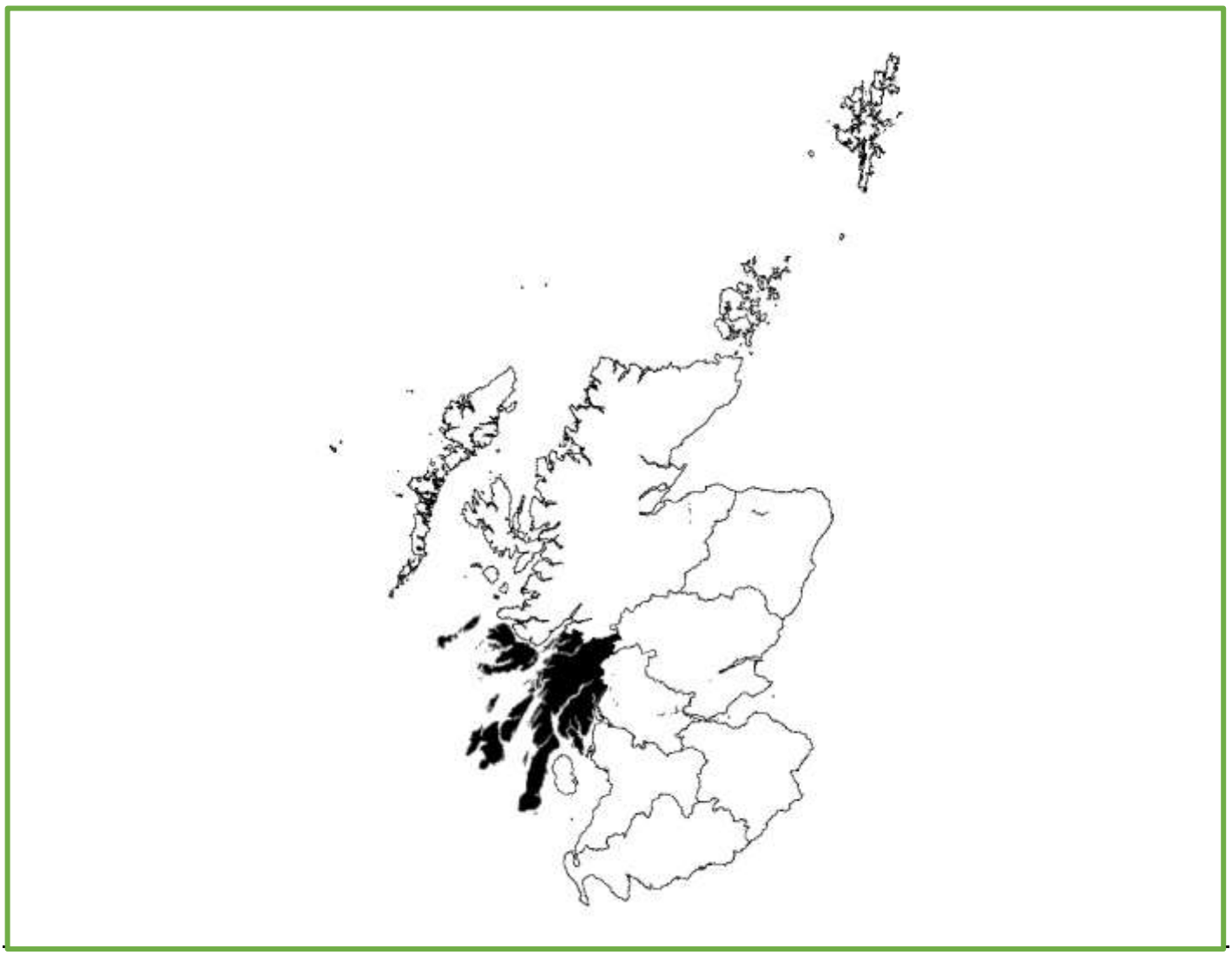


Figure 7: Argyll.

Trends in breeding numbers are available for six species and trends in breeding success for eight of the 13 species for which the SRMS holds records for Argyll (Table 2).

Osprey

The number of breeding pairs and breeding success showed no significant change. No trends in clutch size or brood size are available but the number of fledglings showed no significant change (Figure 8).

Golden Eagle

No trends are available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 9).

Hen Harrier

There was no significant change in breeding pairs or breeding success. No trends in clutch size, brood size or number of fledglings are available (Figure 10).

White-tailed Eagle

The number of breeding pairs increased significantly (+5.8%) while breeding success showed no significant change. No trend is available for clutch size but trends for brood size and the number of fledglings both showed no significant change (Figure 11).

Buzzard

The number of breeding pairs decreased significantly (-4.2%) while breeding success showed non-linear variation. No trend is available for clutch

size but trends for brood size and the number of fledglings both showed no significant change (Figure 12).

Barn Owl

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but number of fledglings increased significantly (+3.5%) (Figure 13).

Peregrine

The number of breeding pairs decreased significantly (-11%) while breeding success showed no significant change. No trends in clutch size, brood size or number of fledglings are available (Figure 14).

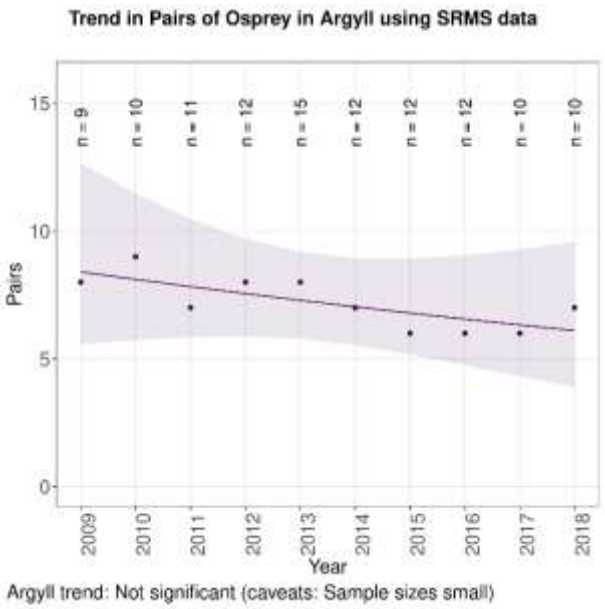
Raven

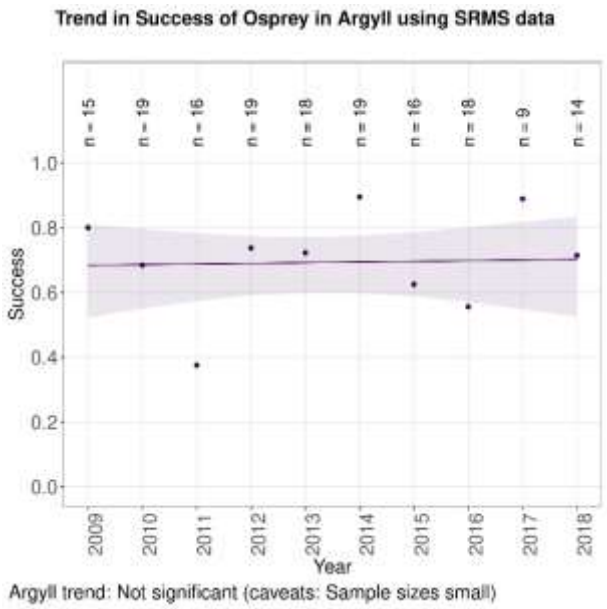
The number of breeding pairs and breeding success showed no significant change. No trend is available for clutch size but trends for brood size and the number of fledglings both showed no significant change (Figure 15).

Table 2: Summary of SRMS trends for Argyll during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Not significant [s]	Not significant [s]	—	—	Not significant
Golden Eagle	—	Not significant [v]	—	—	Not significant [s]
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant	Not significant	—	—	—
Red Kite	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
White-tailed Eagle	**Increase [ax] (5.8%)**	Not significant [x]	—	Not significant [s]	Not significant [s]
Buzzard	**Decrease (-4.2%)**	Non-linear	—	—	Not significant
Barn Owl	—	Not significant [n]	—	—	**Increase (3.5%)**
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	**Decrease [s] (-11%)**	Not significant [s]	—	—	—
Raven	Not significant	Not significant [r]	—	—	Not significant

[a] All data used, [n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

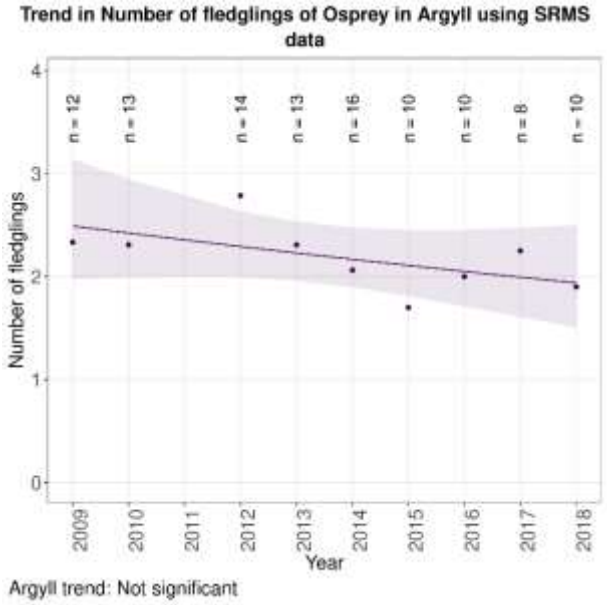
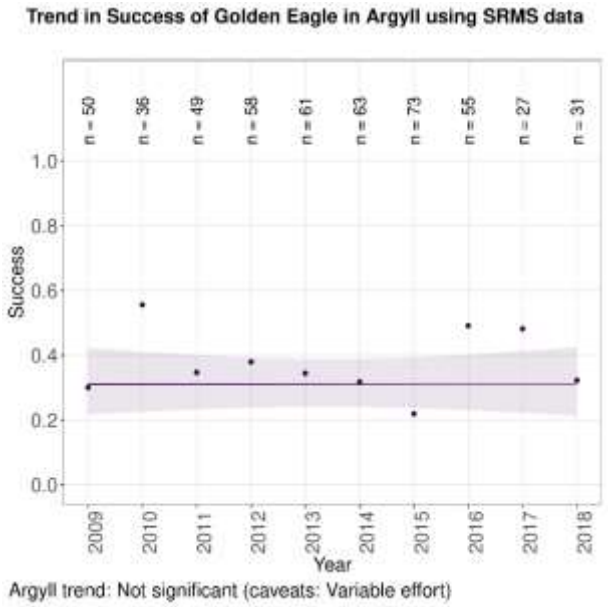


Figure 8: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in Argyll during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

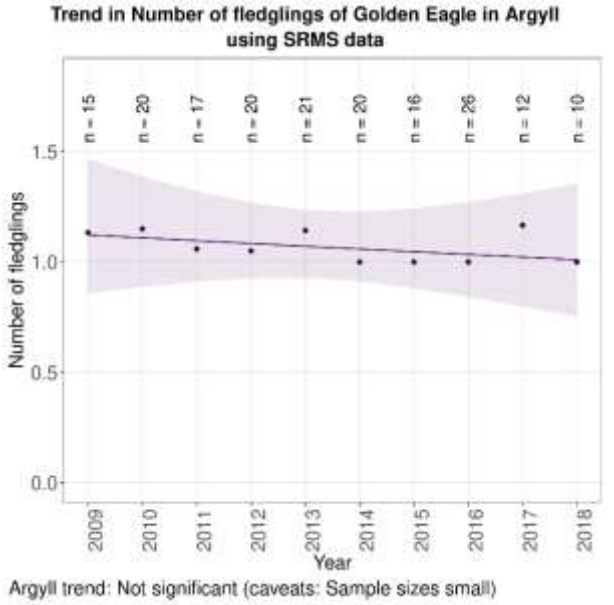
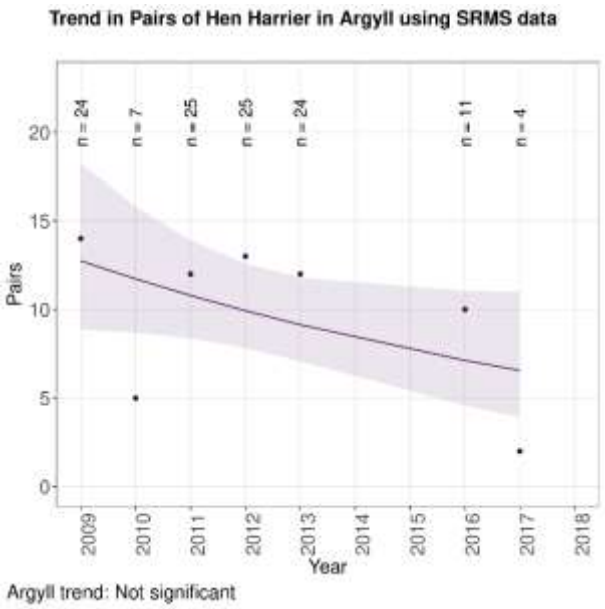
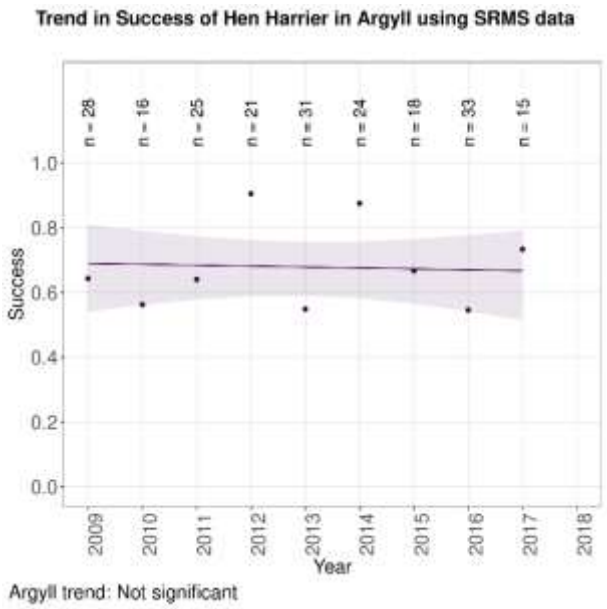


Figure 9: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Argyll during 2009-2018.





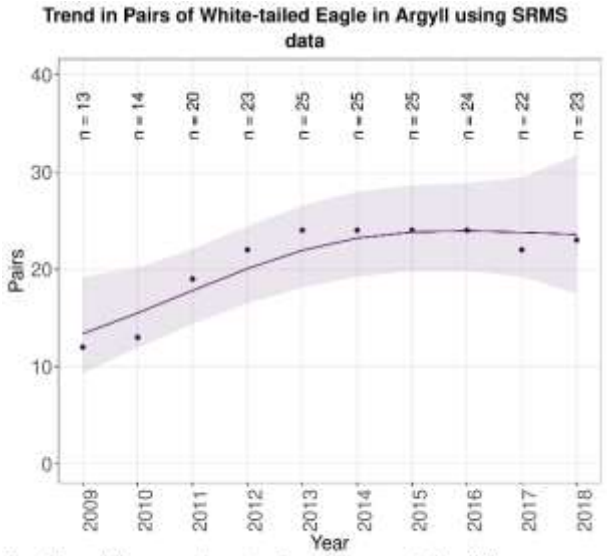
No trend available for clutch size

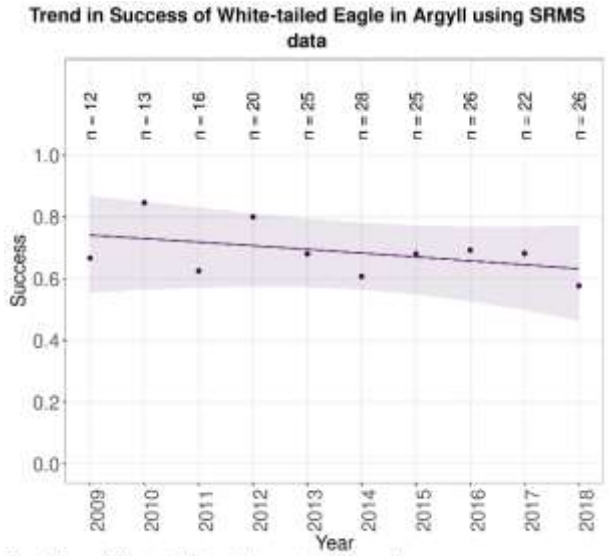
No trend available for brood size

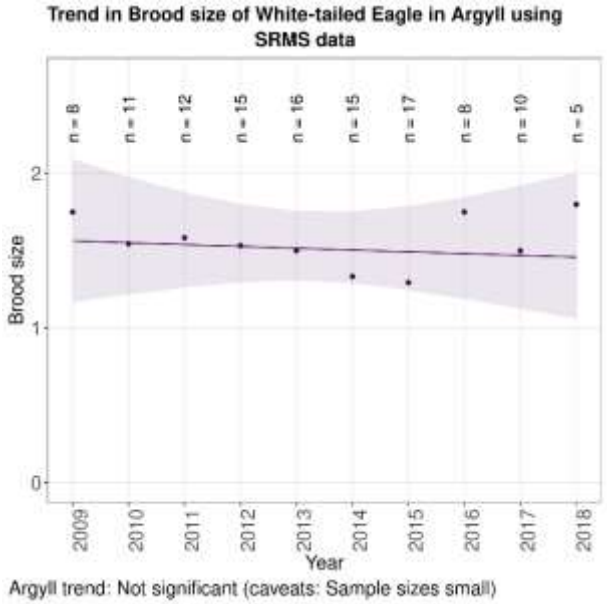
No trend available for number of fledglings

Figure 10: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in Argyll during 2009-2018.

No trend available for clutch size







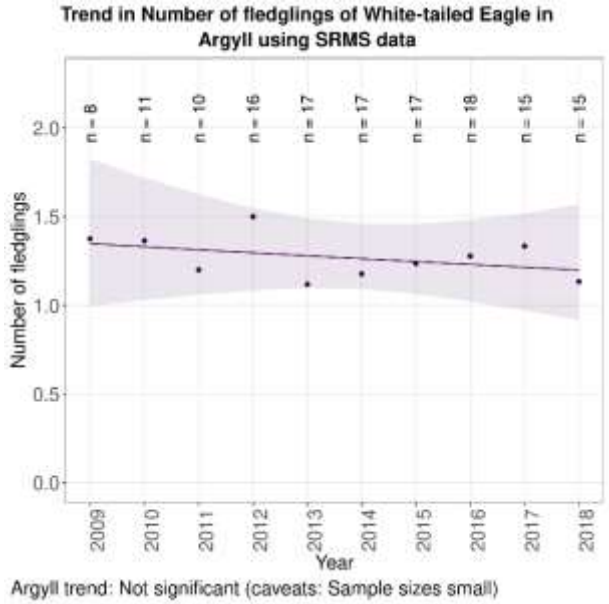
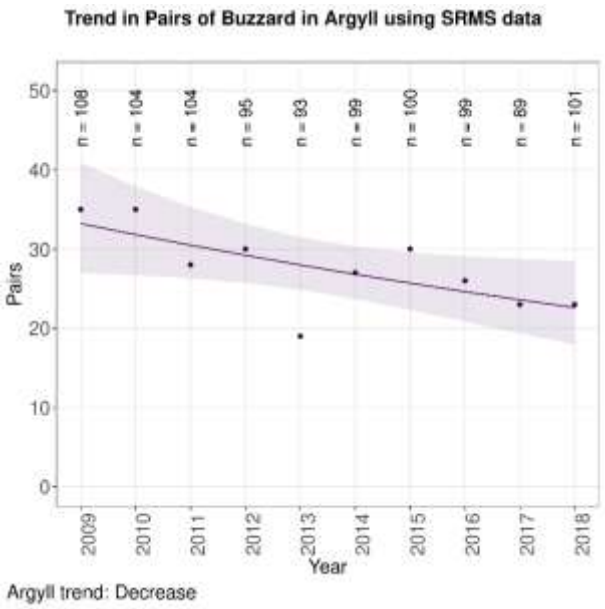
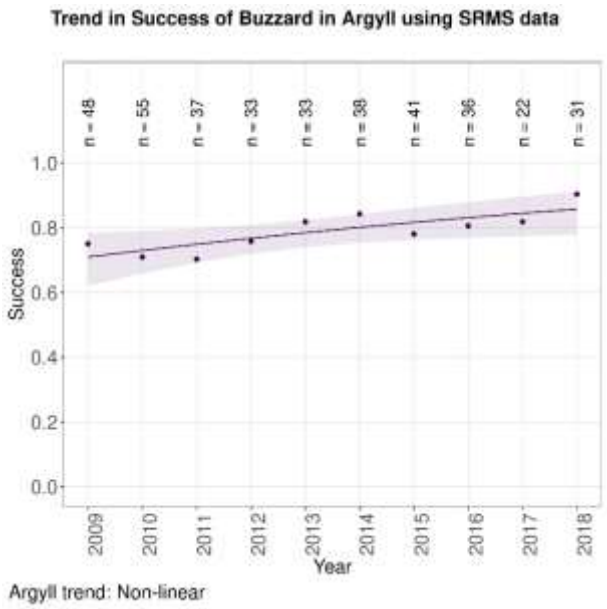


Figure 11: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in Argyll during 2009-2018.





No trend available for clutch size

No trend available for brood size

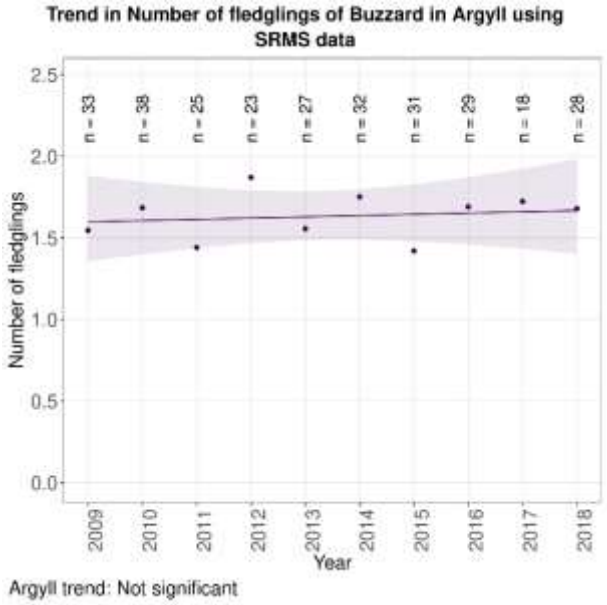
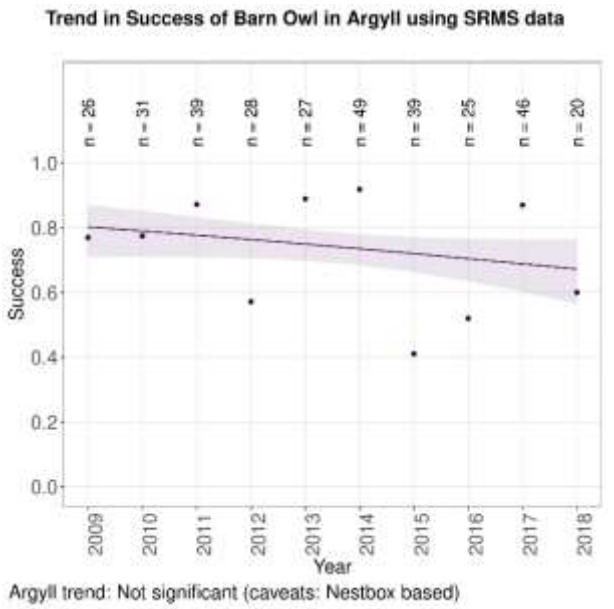


Figure 12: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Argyll during 2009-2018.

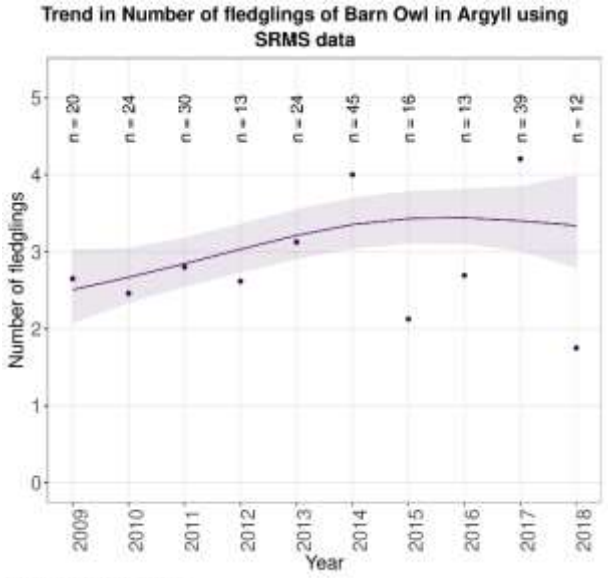
No trend available
for breeding pairs



Argyll trend: Not significant (caveats: Nestbox based)

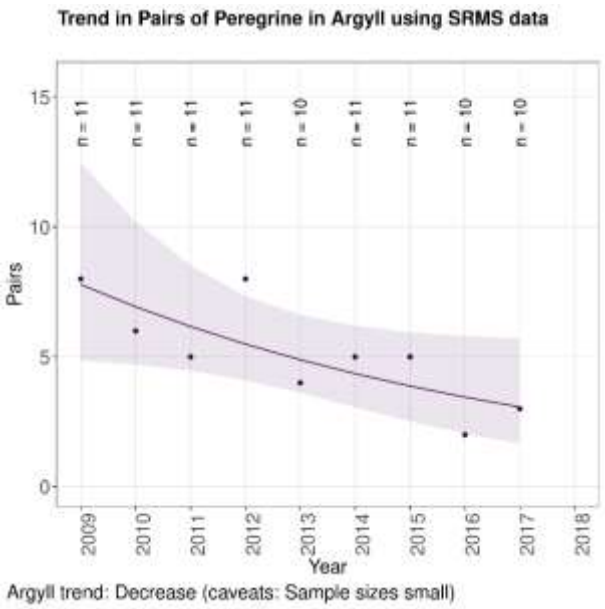
No trend available
for clutch size

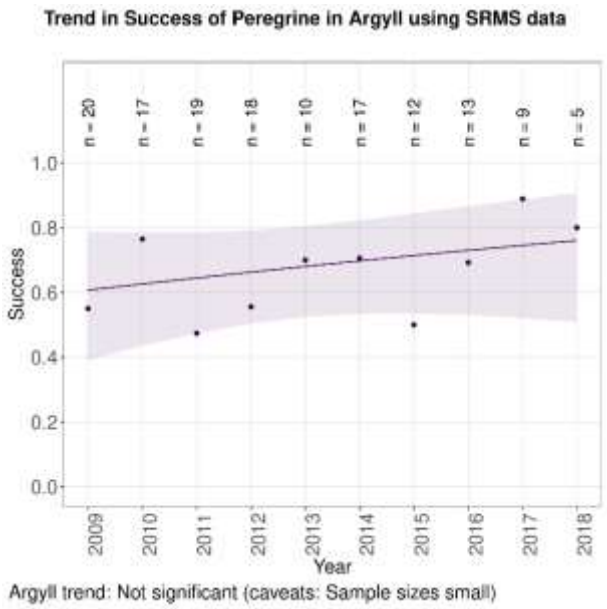
No trend available
for brood size



Argyll trend: Increase

Figure 13: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in Argyll during 2009-2018.



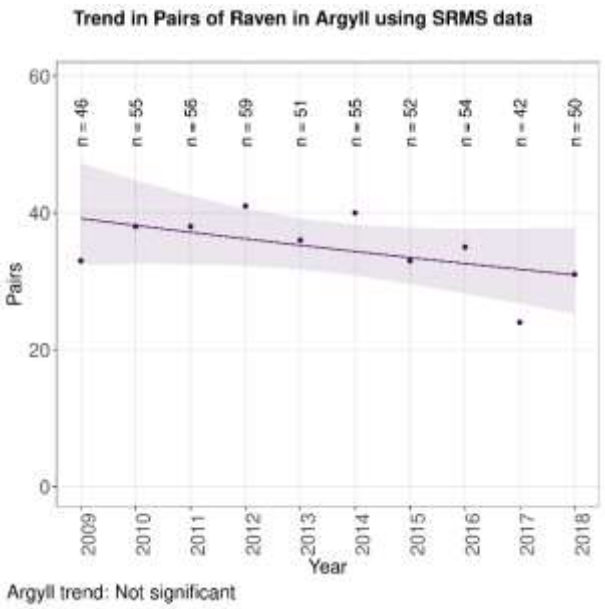


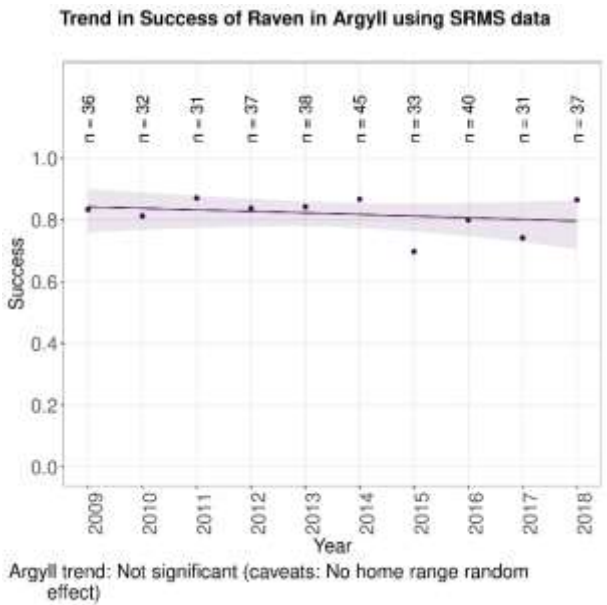
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 14: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in Argyll during 2009-2018.





No trend available for clutch size

No trend available for brood size

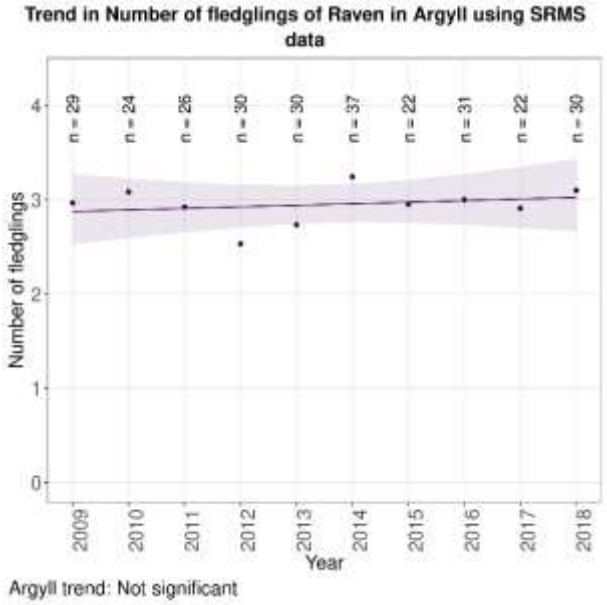


Figure 15: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Argyll during 2009-2018.

Central

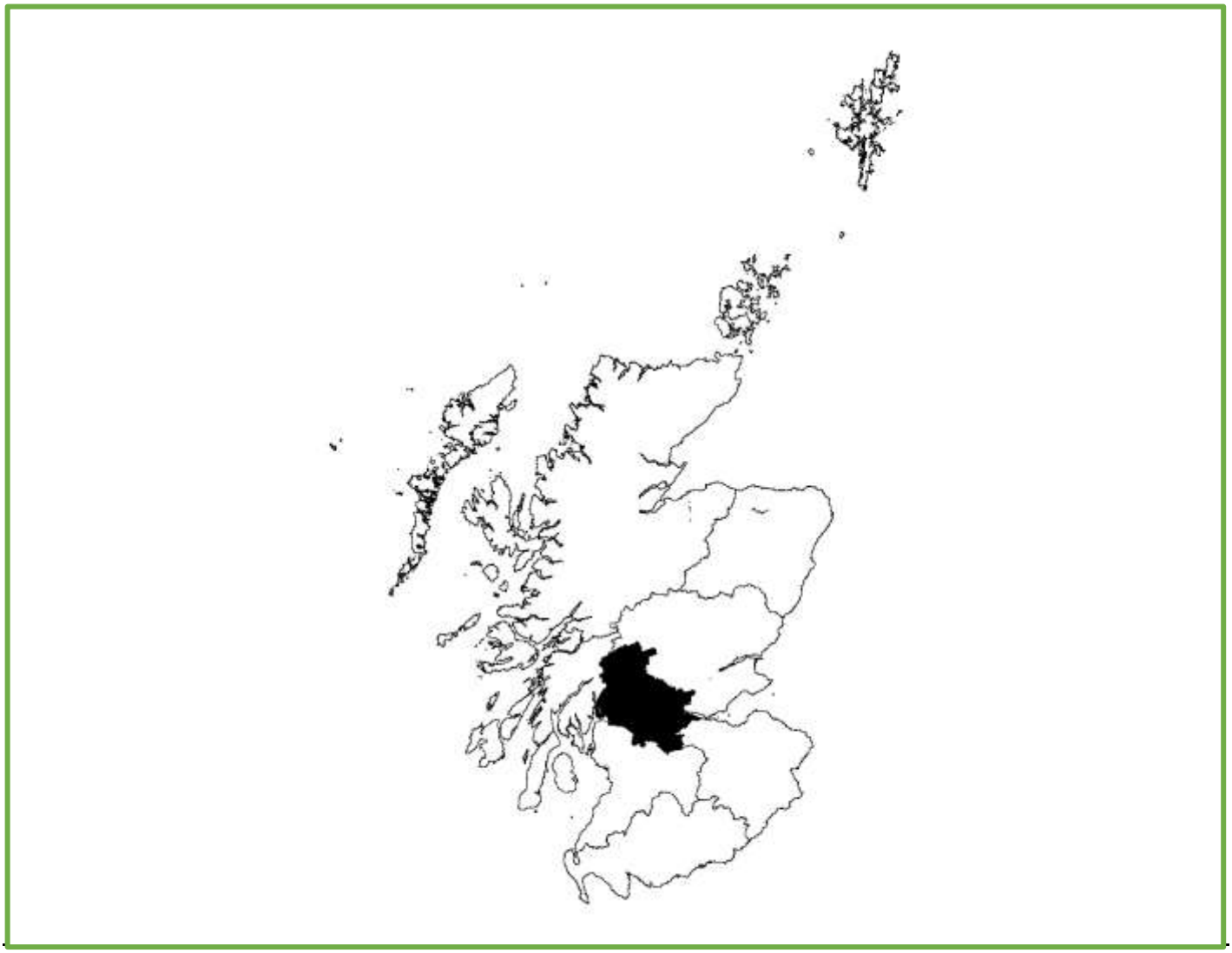


Figure 16: Central.

Trends in breeding numbers are available for five species and trends in breeding success for seven of the 13 species for which the SRMS holds records for Central (Table 3).

Osprey

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 17).

Golden Eagle

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 18).

Red Kite

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 19).

Buzzard

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 20).

Barn Owl

The number of breeding pairs (-42.5%) and breeding success (-0.7%) decreased significantly. Clutch size and the number of fledglings both showed no

significant change while brood size decreased significantly (-2.4%) (Figure 21).

Tawny Owl

No trend is available for the number of breeding pairs. Breeding success increased significantly (5.3%). No trends are available for clutch size, brood size or the number of fledglings (Figure 22).

Peregrine

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 23).

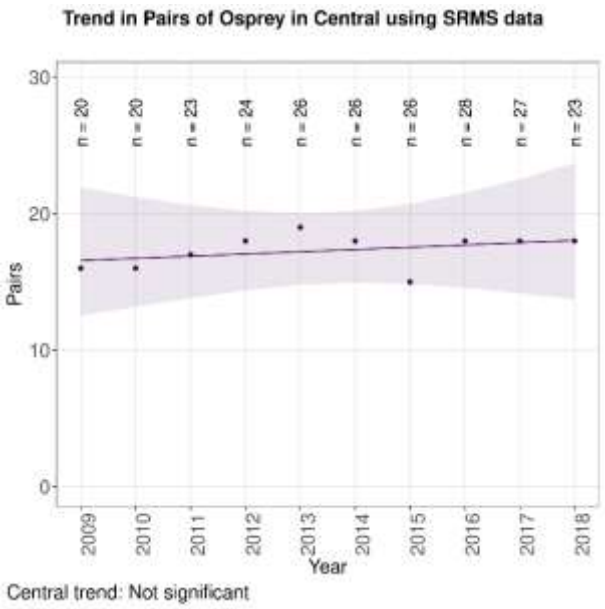
Raven

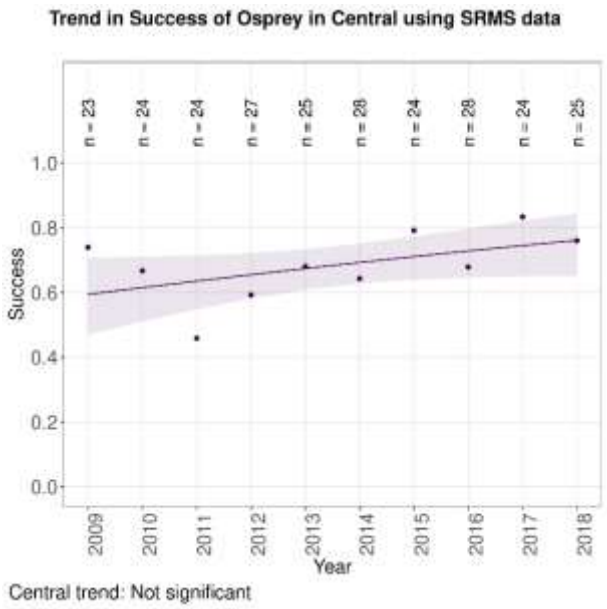
No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 24).

Table 3: Summary of SRMS trends for Central during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Not significant	Not significant	—	—	Not significant
Golden Eagle	Not significant [s]	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	Not significant [x]	Not significant [x]	—	—	Not significant [s]
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	Not significant [v]	—	—	Not significant
Barn Owl	**Decrease [ns] (-42.5%)**	**Decrease [n] (-0.7%)**	Not significant	**Decrease (-2.4%)**	Not significant
Tawny Owl	—	**Increase [n] (5.3%)**	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	Not significant [s]	Not significant [s]	—	—	Not significant [s]
Raven	—	Not significant [r]	—	—	Not significant

[a] All data used, [n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

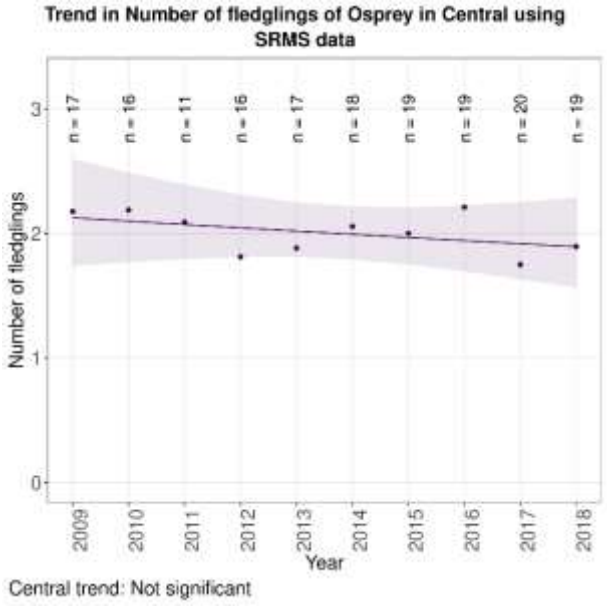
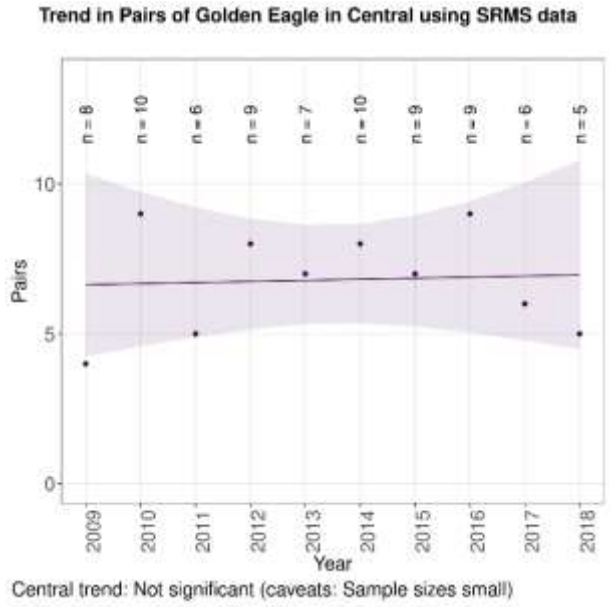


Figure 17: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in Central during 2009-2018.



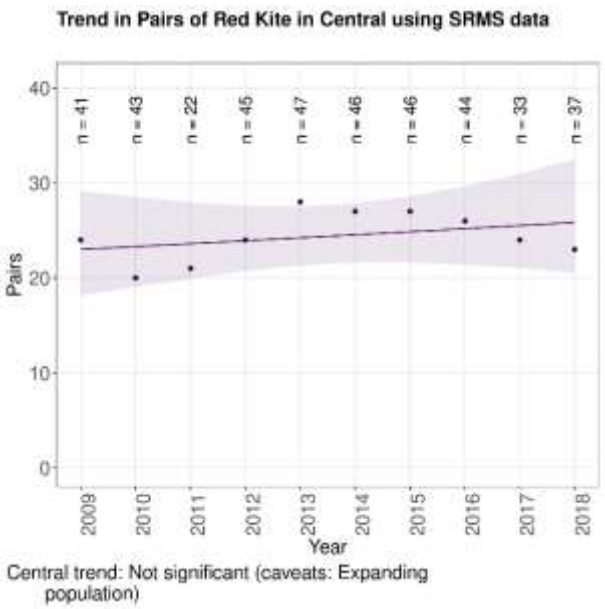
No trend available
for breeding success

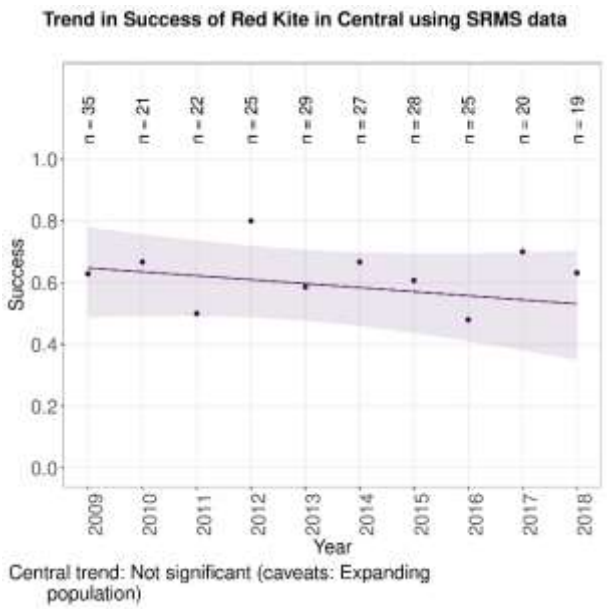
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 18: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Central during 2009-2018.





No trend available for clutch size

No trend available for brood size

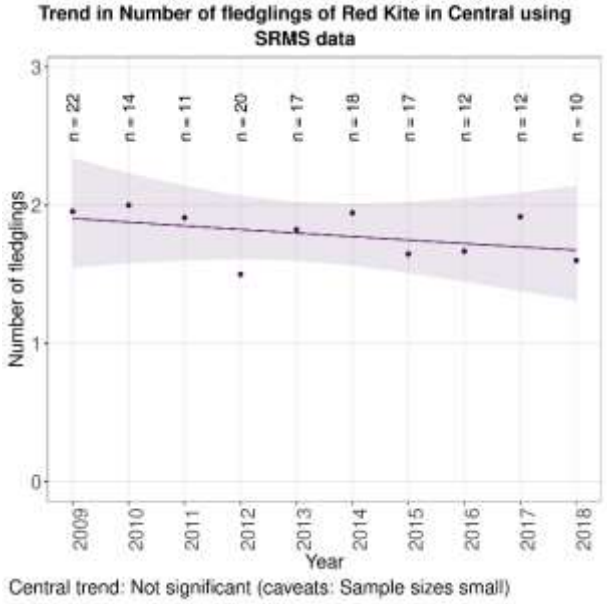
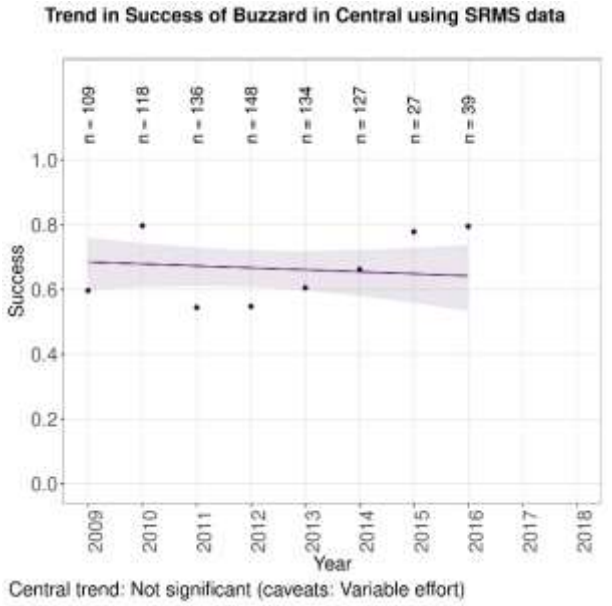


Figure 19: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in Central during 2009-2018.

No trend available for breeding pairs



No trend available for clutch size

No trend available for brood size

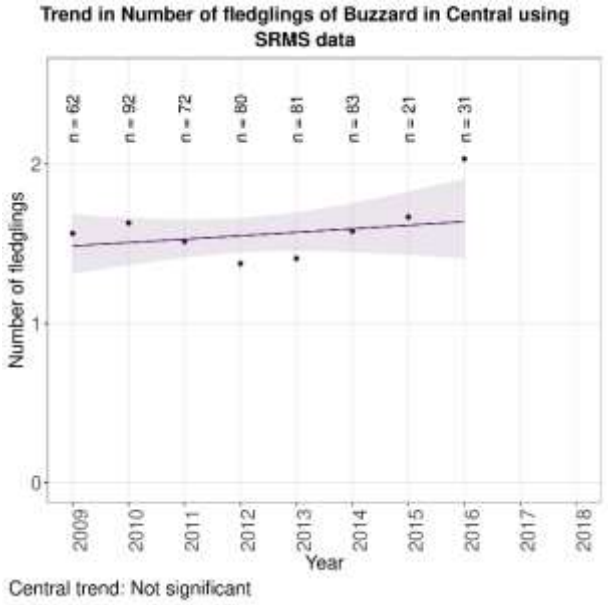
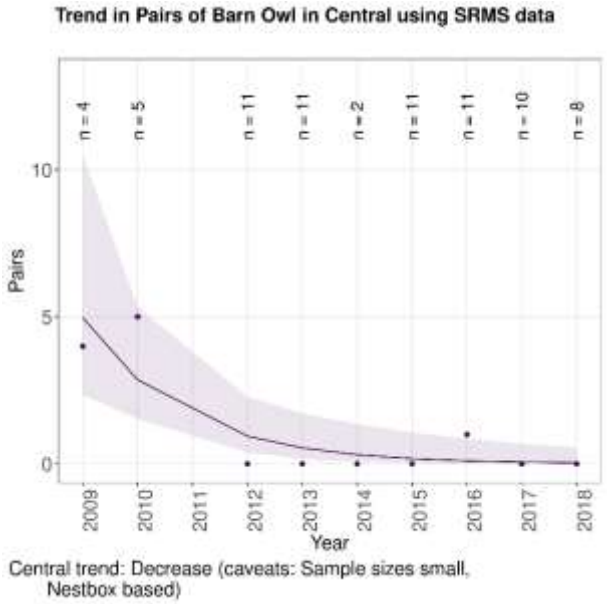
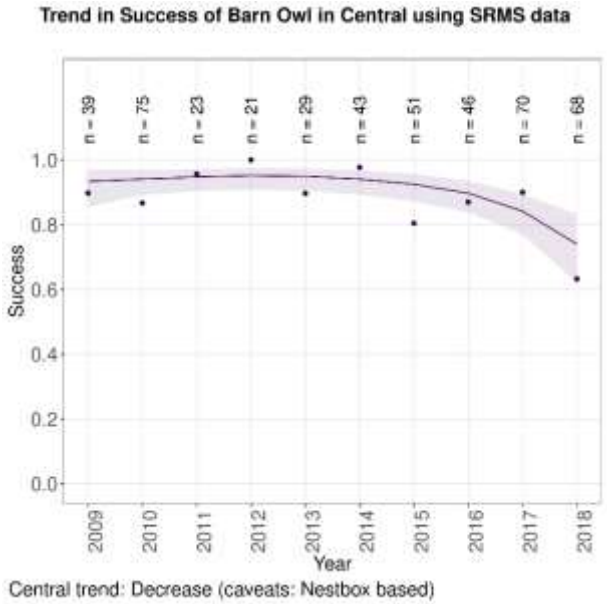
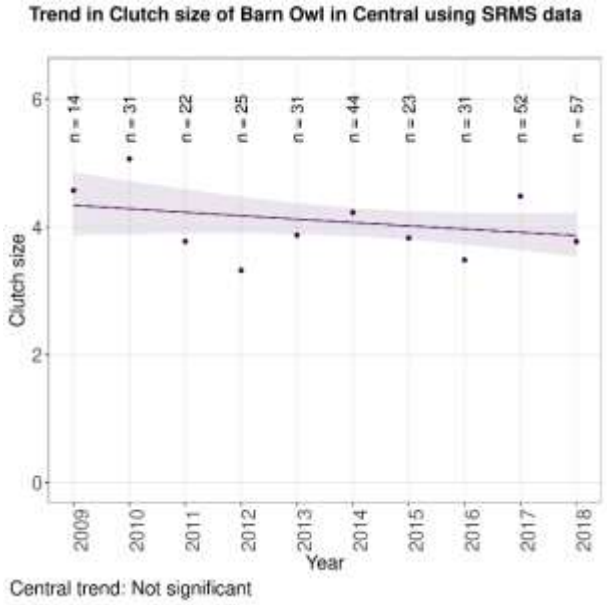
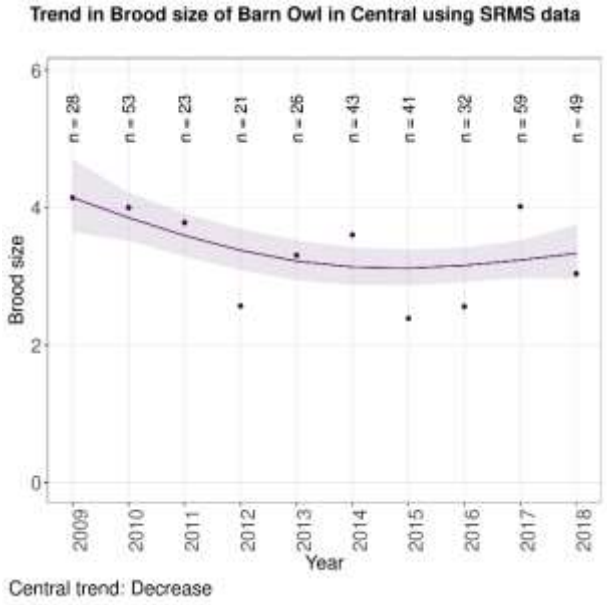


Figure 20: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Central during 2009-2018.









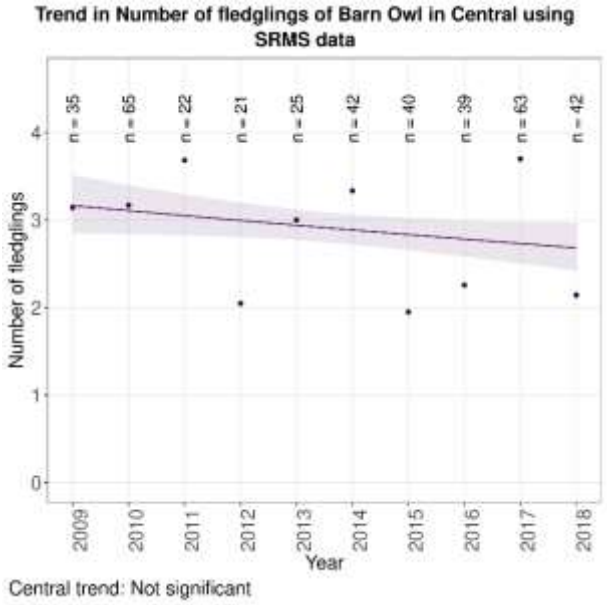
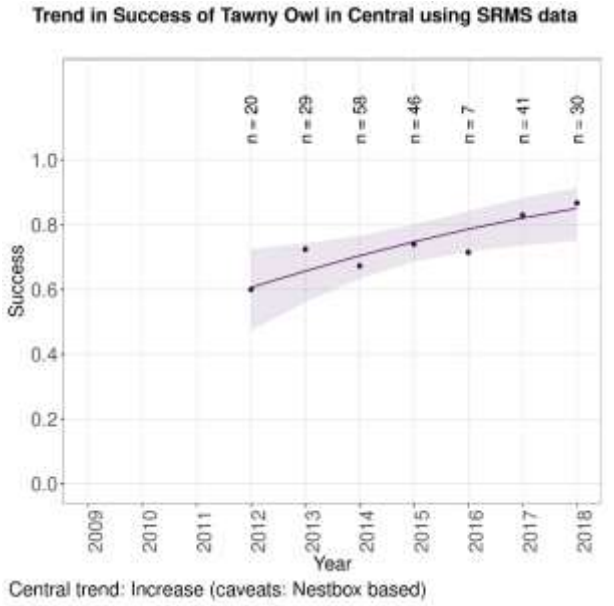


Figure 21: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in Central during 2009-2018.

No trend available
for breeding pairs

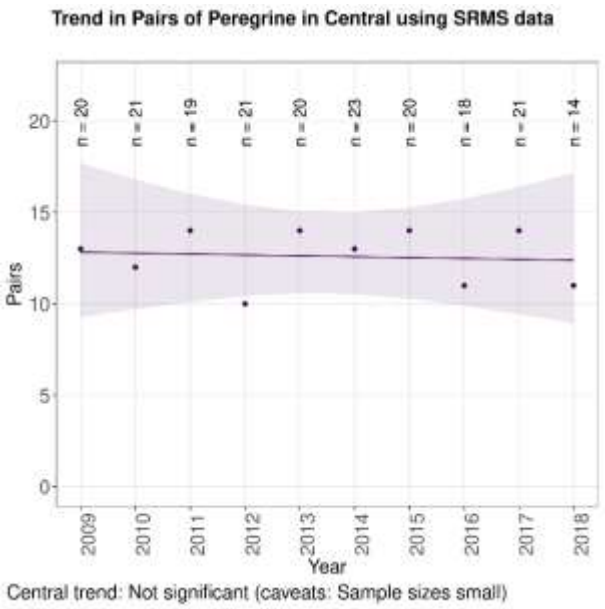


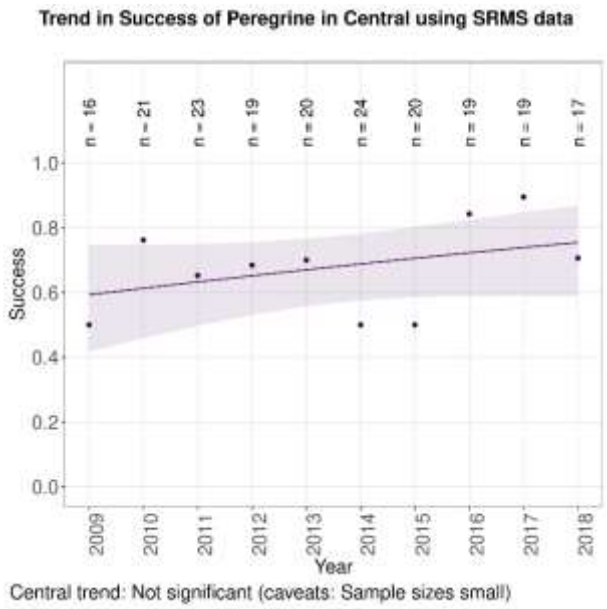
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 22: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Tawny Owl in Central during 2009-2018.





No trend available for clutch size

No trend available for brood size

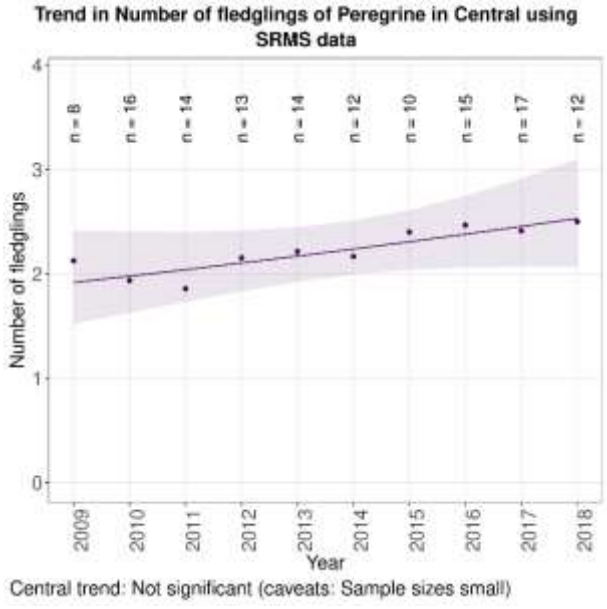
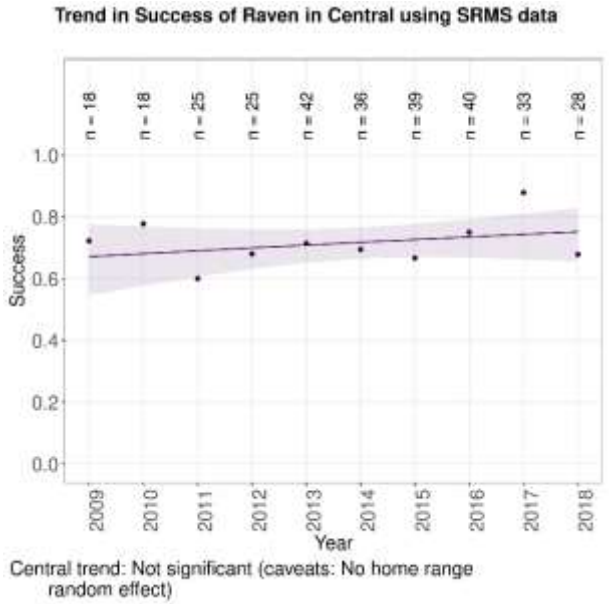


Figure 23: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in Central during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

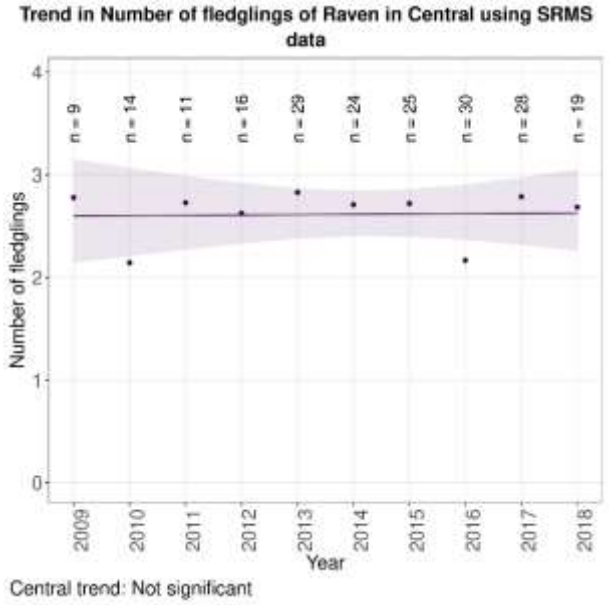


Figure 24: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Central during 2009-2018.

Dumfries & Galloway

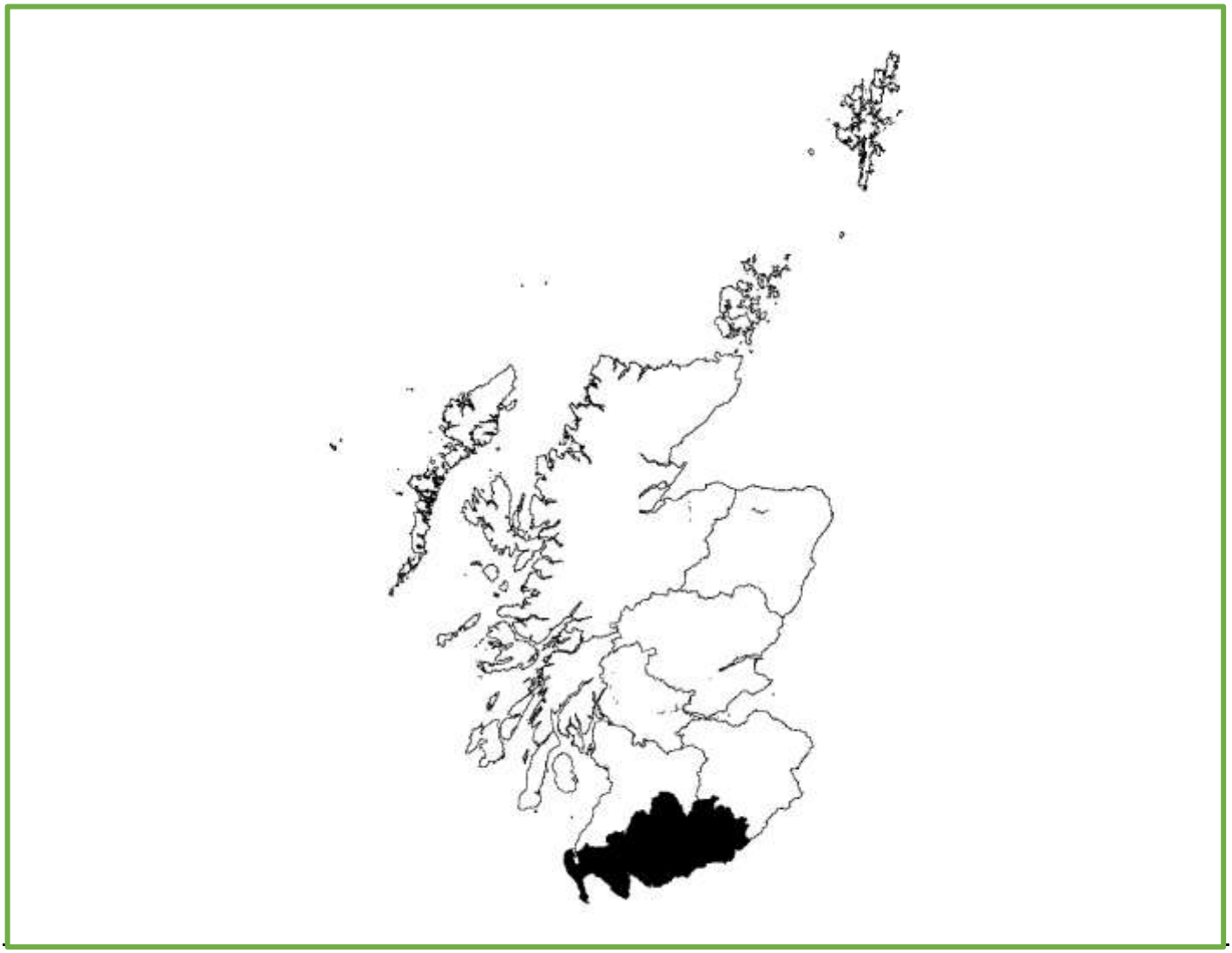


Figure 25: Dumfries & Galloway.

Trends in breeding numbers are available for seven species and trends in breeding success for seven of the 13 species for which the SRMS holds records for Dumfries & Galloway (Table 4).

Goshawk

The number of breeding pairs showed no significant change. Breeding success decreased significantly (-1.4%). No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 26).

Hen Harrier

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 27).

Red Kite

The number of breeding pairs increased significantly (+4%) while breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings decreased significantly (-5.4%) (Figure 28).

Buzzard

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 29).

Barn Owl

The number of breeding pairs (-5.9%) and breeding success (-0.8%) decreased significantly while clutch

size, brood size and the number of fledglings showed no significant change (Figure 30).

Tawny Owl

The number of breeding pairs and breeding success showed no significant change. Clutch size showed no significant change. No trends are available for brood size or the number of fledglings (Figure 31).

Peregrine

The number of breeding pairs and breeding success showed no significant change. Clutch and brood size showed no significant change but the number of fledglings decreased significantly (-2.4%) (Figure 32).

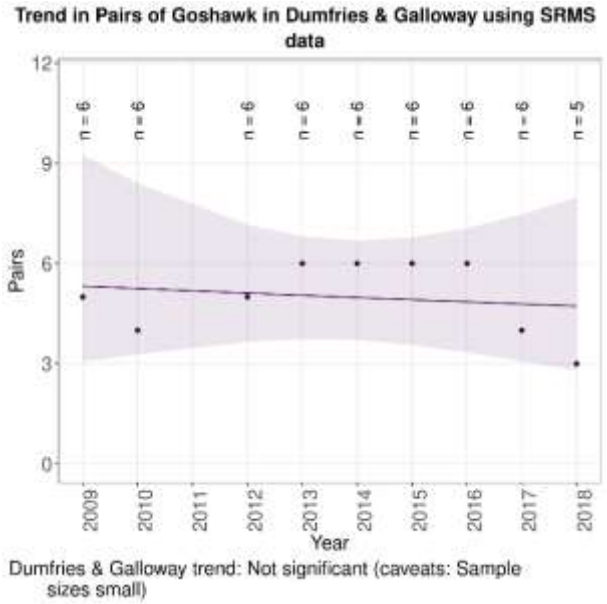
Raven

The number of breeding pairs increased significantly (+5.4%) while breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 33).

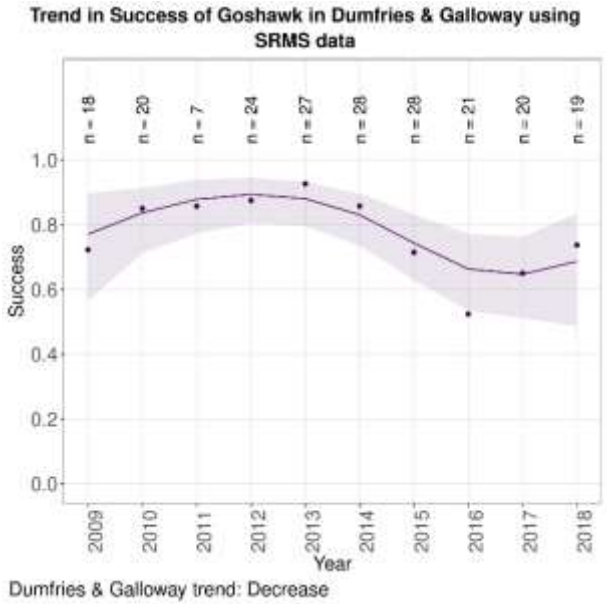
Table 4: Summary of SRMS trends for Dumfries & Galloway during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	Not significant [s]	**Decrease (-1.4%)**	—	—	Not significant
Hen Harrier	Not significant [s]	—	—	—	—
Red Kite	**Increase [x] (4%)**	Not significant [x]	—	—	**Decrease (-5.4%)**
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	Not significant [rs]	—	—	Not significant [s]
Barn Owl	**Decrease [n] (-5.9%)**	**Decrease [n] (-0.8%)**	Not significant	Not significant	Not significant
Tawny Owl	Not significant	Not significant [ns]	Not significant	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	Not significant	Not significant	Not significant [s]	Not significant [s]	**Decrease (-2.4%)**
Raven	**Increase (5.4%)**	Not significant [r]	—	—	Not significant

[a] All data used, [n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [x] Expanding population.



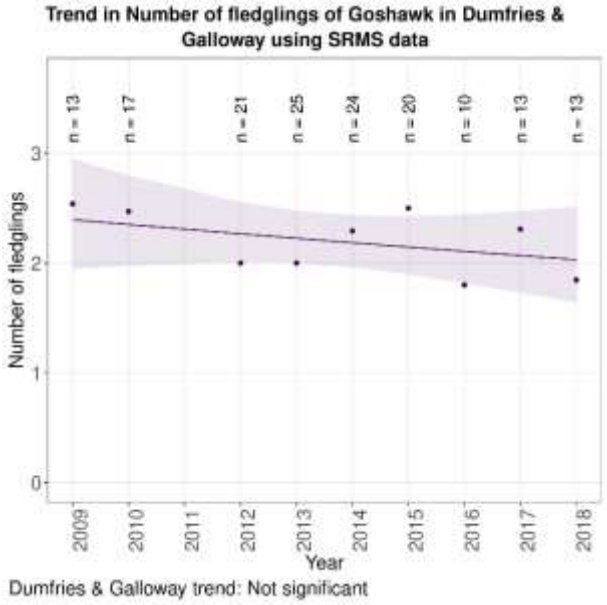
Dumfries & Galloway trend: Not significant (caveats: Sample sizes small)



Dumfries & Galloway trend: Decrease

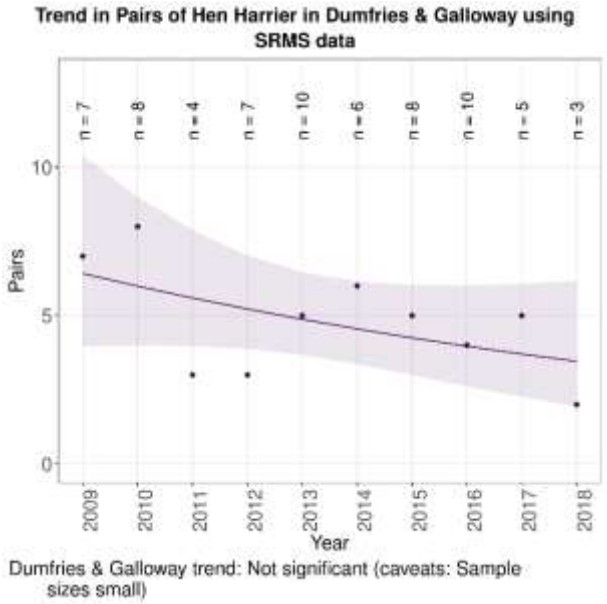
No trend available for clutch size

No trend available for brood size



Dumfries & Galloway trend: Not significant

Figure 26: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Goshawk in Dumfries & Galloway during 2009-2018.



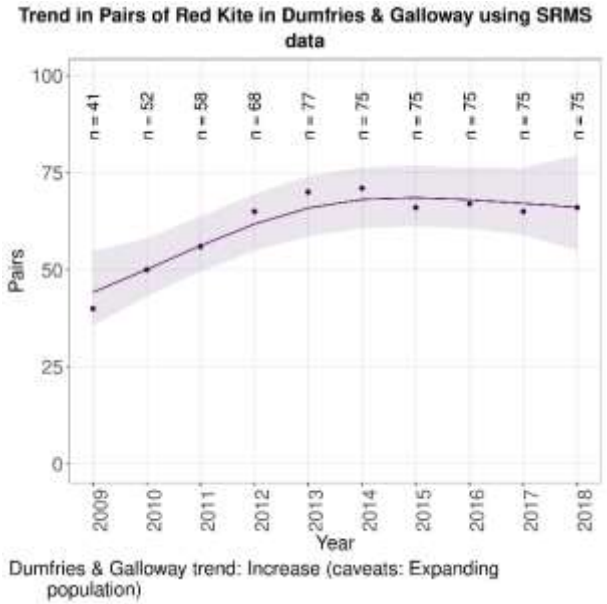
No trend available for breeding success

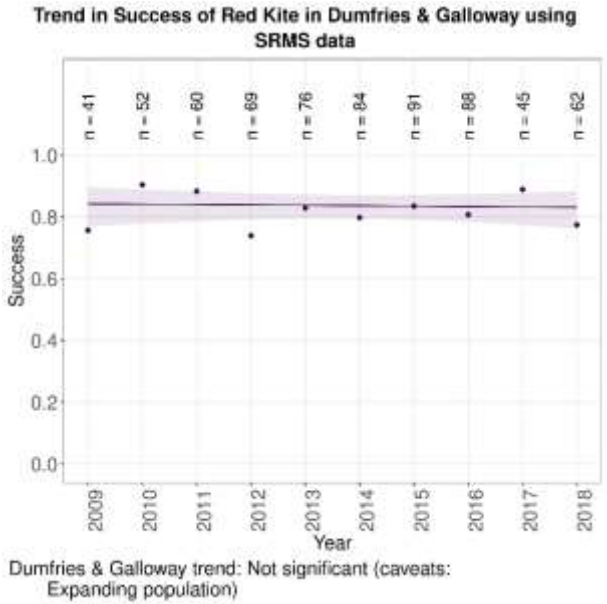
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 27: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in Dumfries & Galloway during 2009-2018.





No trend available for clutch size

No trend available for brood size

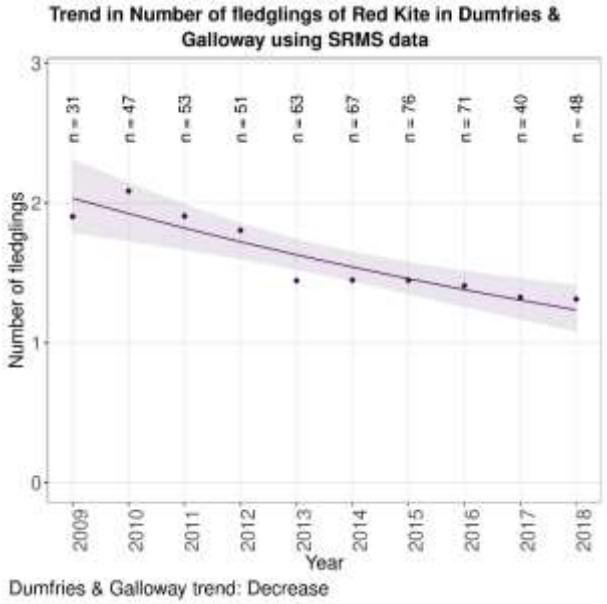
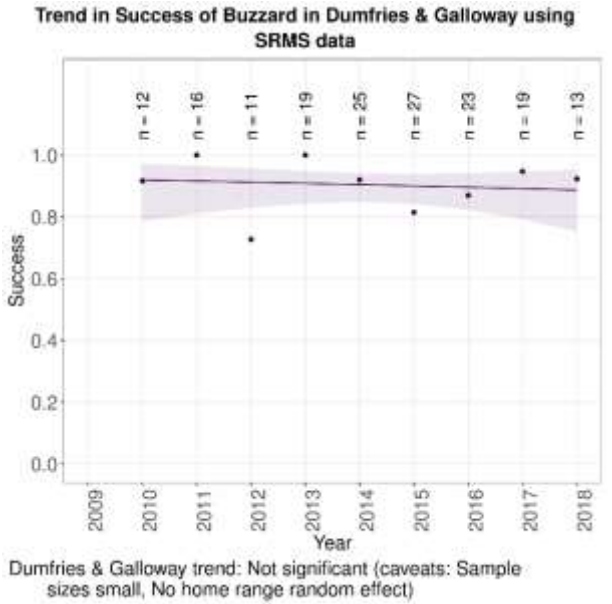


Figure 28: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in Dumfries & Galloway during 2009-2018.

No trend available for breeding pairs



No trend available for clutch size

No trend available for brood size

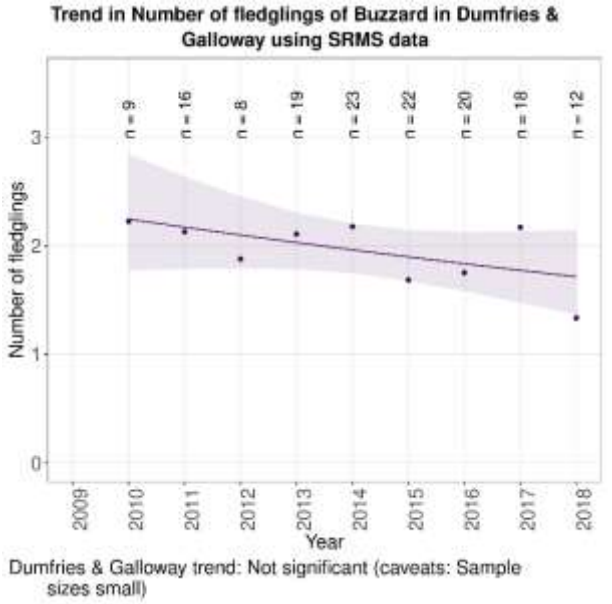
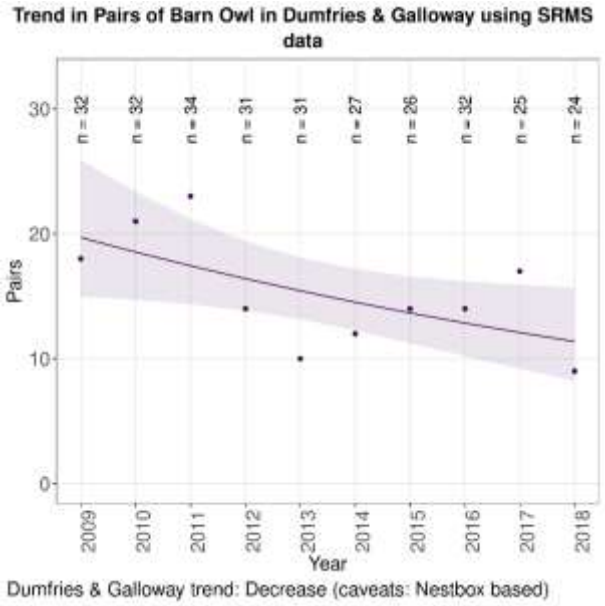
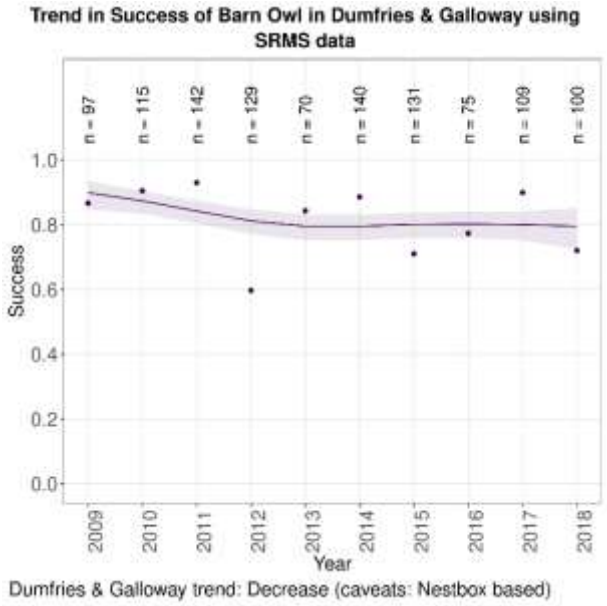
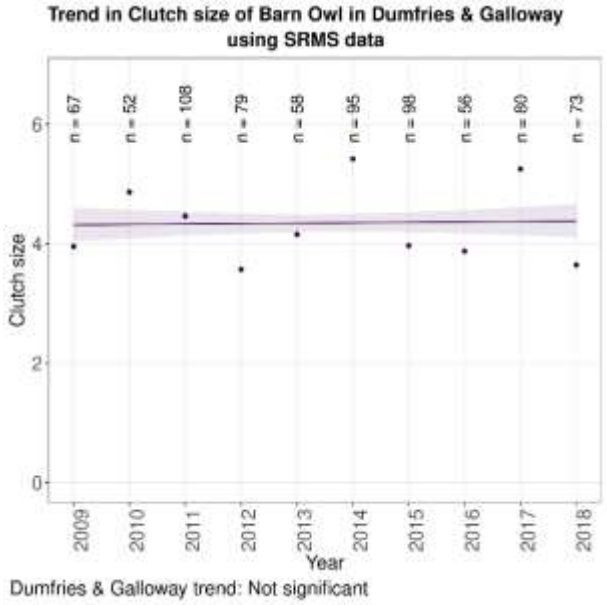
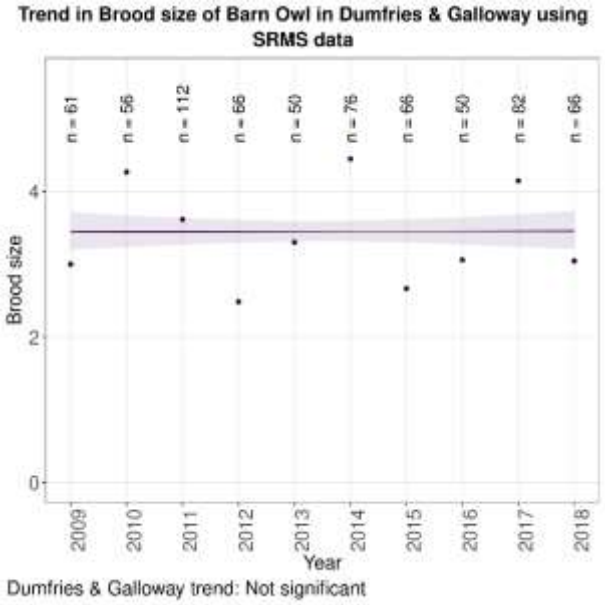


Figure 29: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Dumfries & Galloway during 2009-2018.









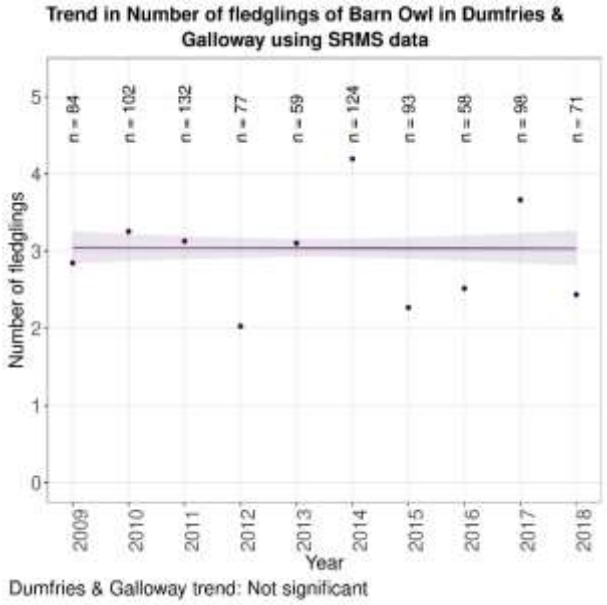
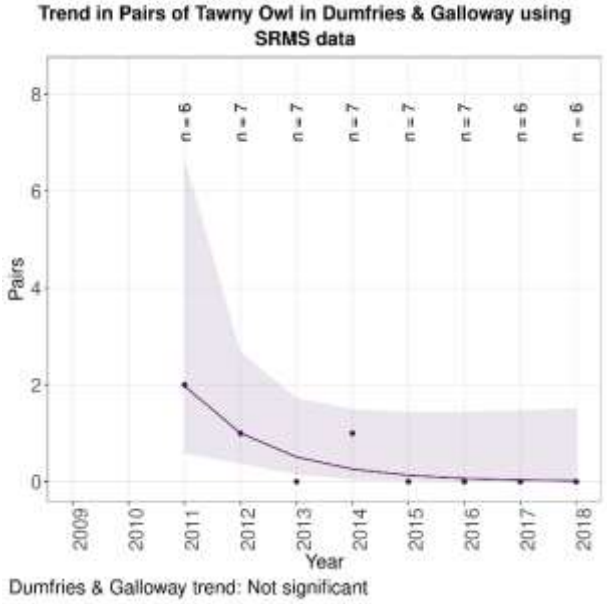
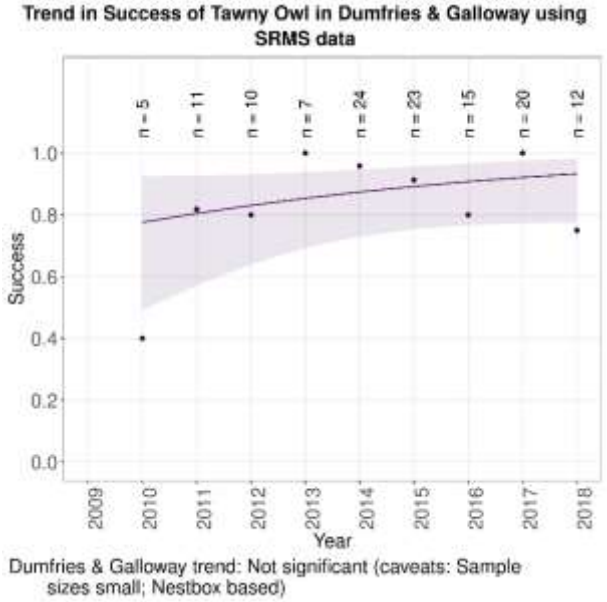
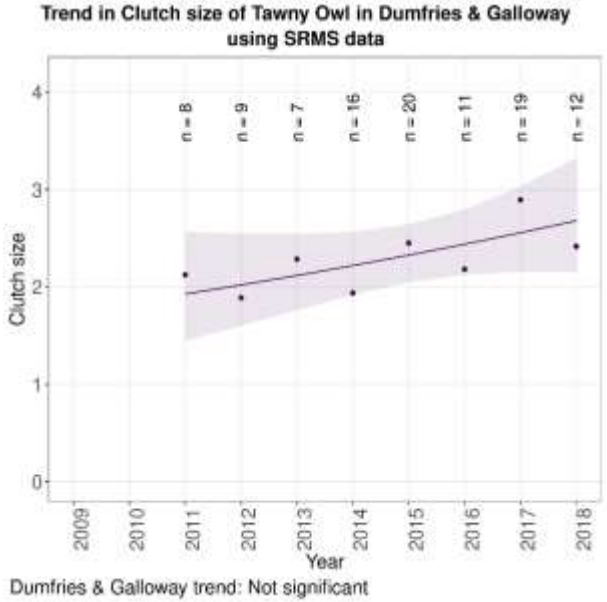


Figure 30: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in Dumfries & Galloway during 2009-2018.



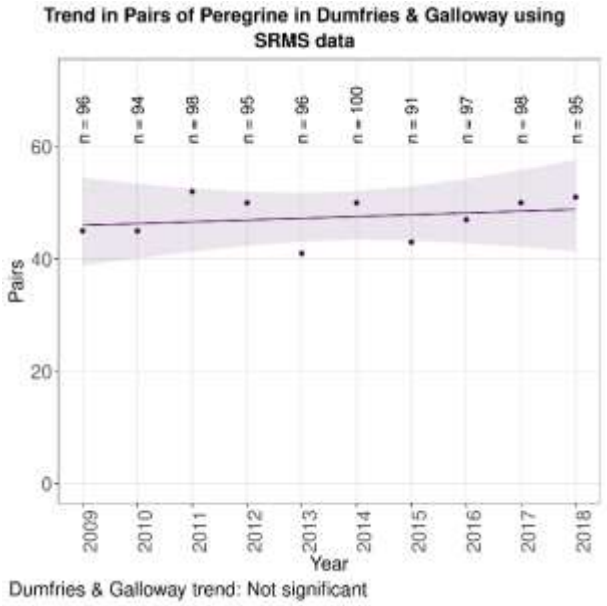


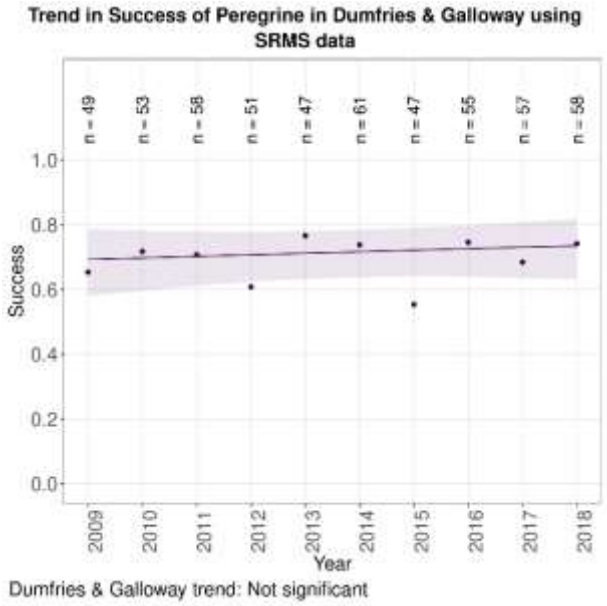


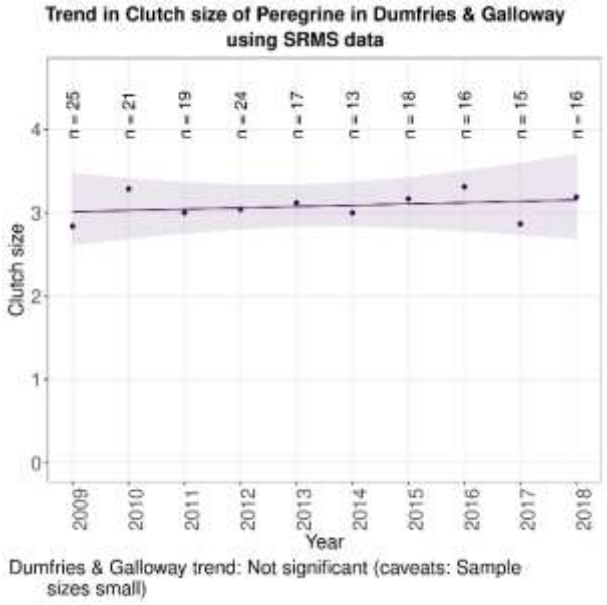
No trend available for brood size

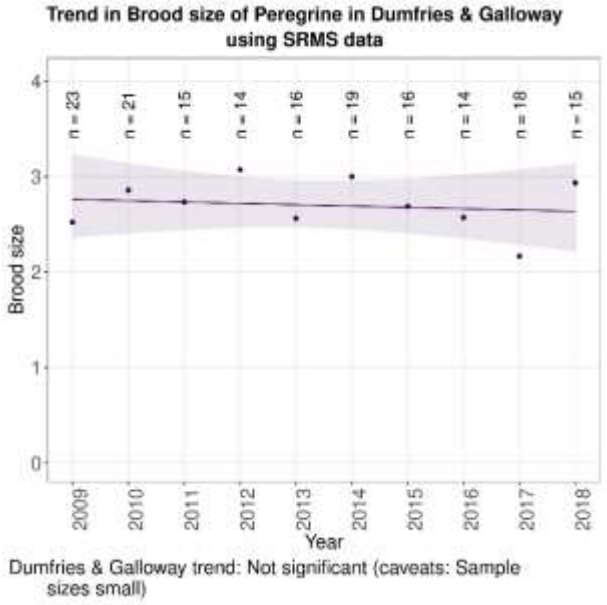
No trend available for number of fledglings

Figure 31: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Tawny Owl in Dumfries & Galloway during 2009-2018.









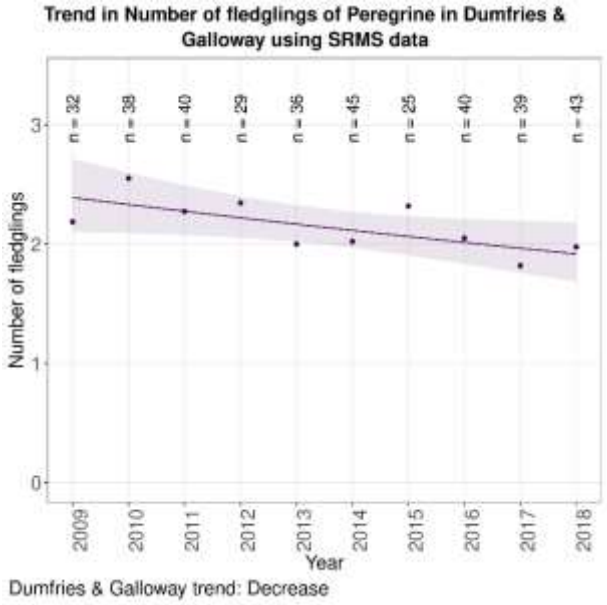
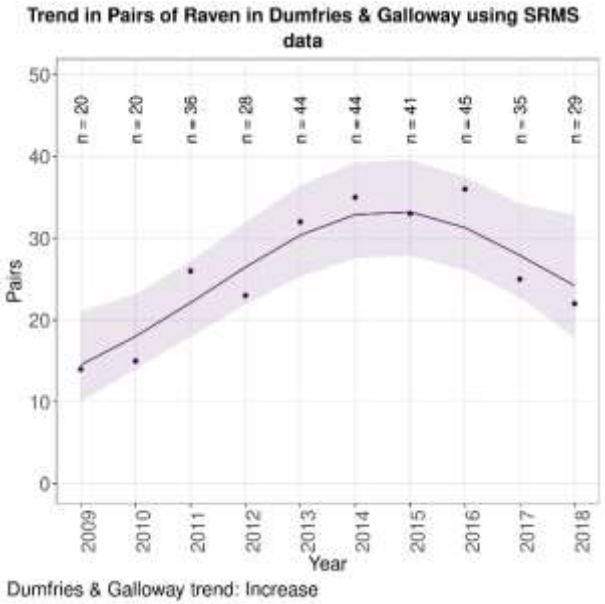
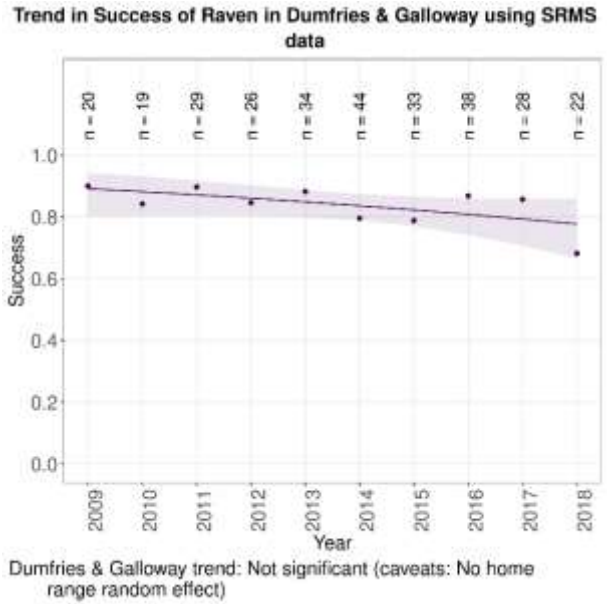


Figure 32: Trends in breeding pairs, success, clutch size, br**o**od size and the number of fledglings of Peregrine in Dumfries & Galloway during 2009-2018.





No trend available for clutch size

No trend available for brood size

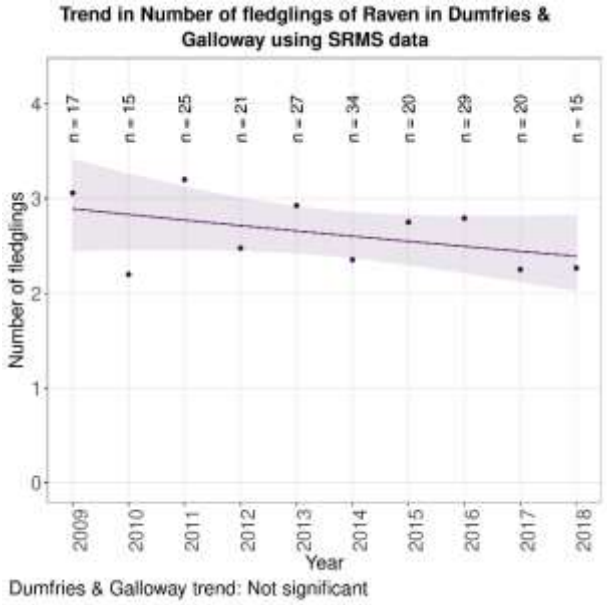


Figure 33: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Dumfries & Galloway during 2009-2018.

Highland

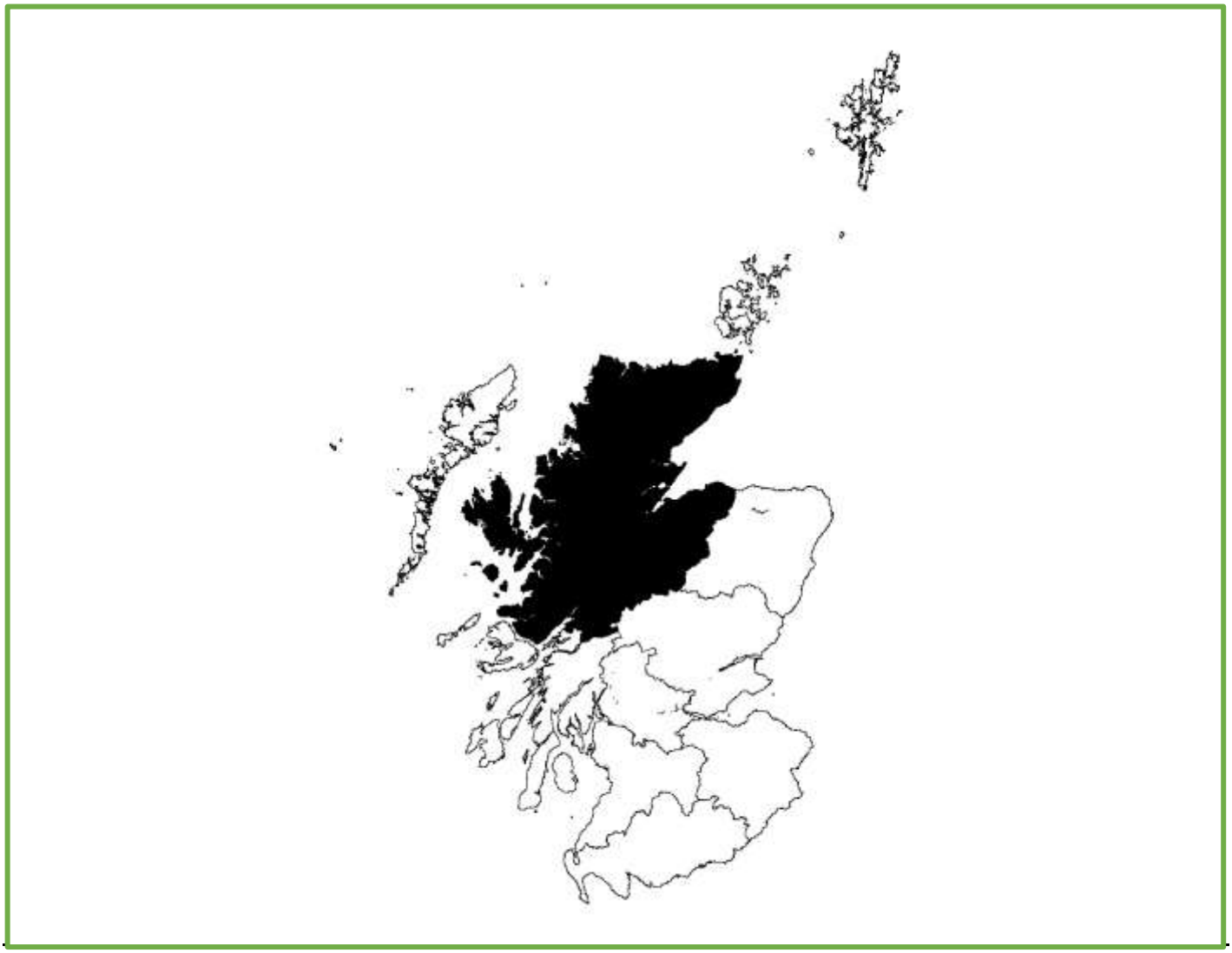


Figure 34: Highland.

Trends in breeding numbers are available for eight species and trends in breeding success for eight of the 14 species for which the SRMS holds records for Highland (Table 5).

Osprey

The number of breeding pairs increased significantly (+4.9%) while breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 35).

Golden Eagle

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 36).

Hen Harrier

The number of breeding pairs decreased significantly (-9.4%) while breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 37).

Red Kite

The number of breeding pairs decreased significantly (-10.8%) while breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 38).

White-tailed Eagle

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 39).

Buzzard

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 40).

Tawny Owl

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 41).

Merlin

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 42).

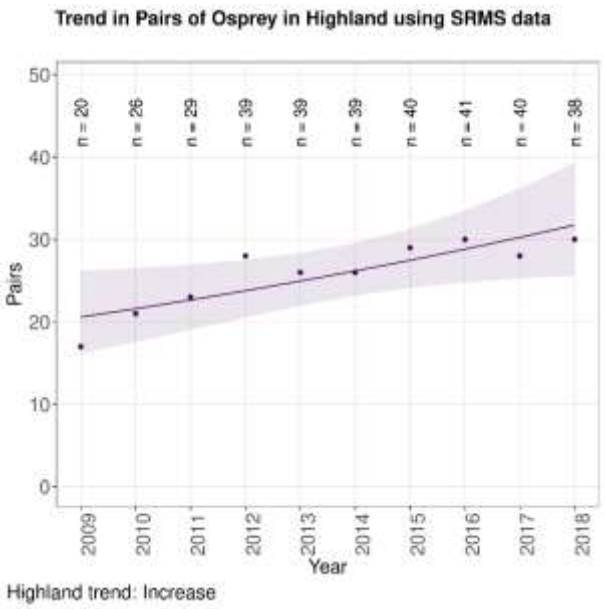
Raven

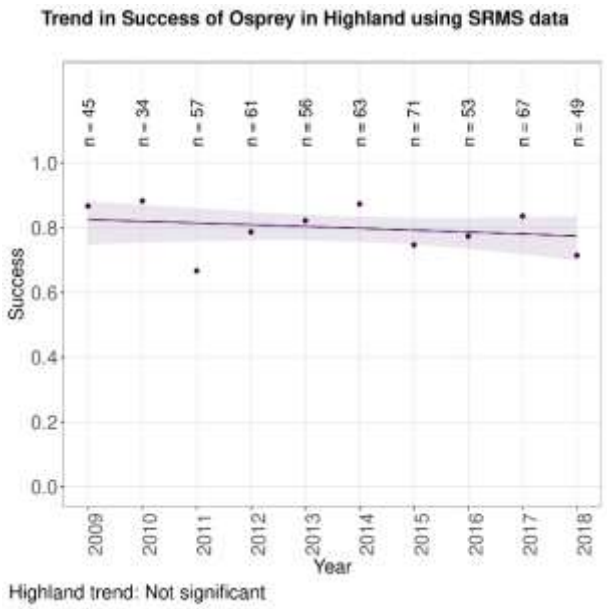
No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 43).

Table 5: Summary of SRMS trends for Highland during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	**Increase (4.9%)**	Not significant	—	—	Not significant
Golden Eagle	Not significant	Not significant	—	—	Not significant
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	**Decrease (-9.4%)**	Not significant [s]	—	—	—
Red Kite	**Decrease (-10.8%)**	Not significant [x]	—	—	Not significant
White-tailed Eagle	Not significant [ax]	Not significant [x]	Not significant [s]	Not significant [s]	Not significant [s]
Buzzard	Not significant	Not significant [r]	Not significant	Not significant	Not significant
Barn Owl	—	—	—	—	—
Tawny Owl	Not significant [ns]	Not significant [n]	Not significant	Not significant [s]	Not significant [s]
Kestrel	—	—	—	—	—
Merlin	Not significant	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	Not significant [s]	—	—	Not significant [s]

[a] All data used, [n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

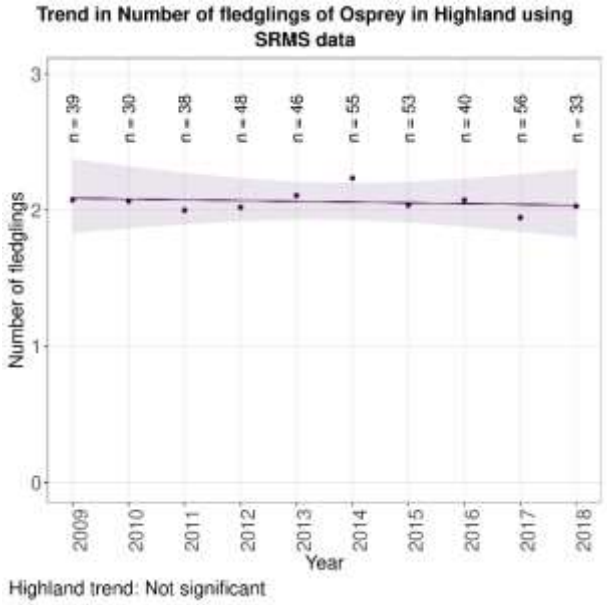
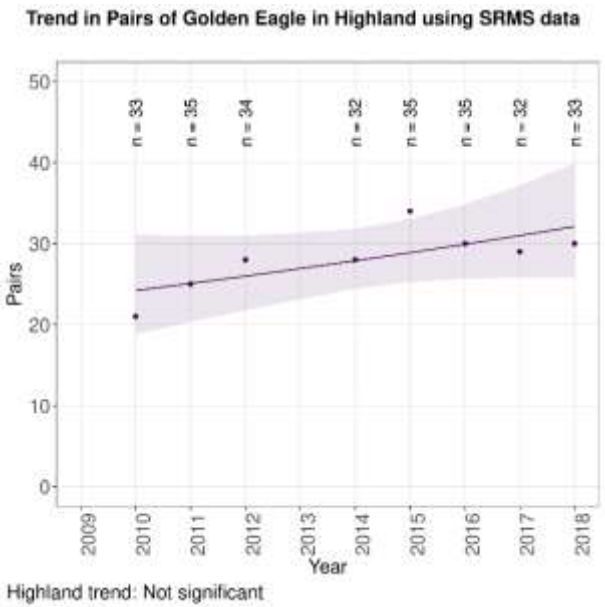
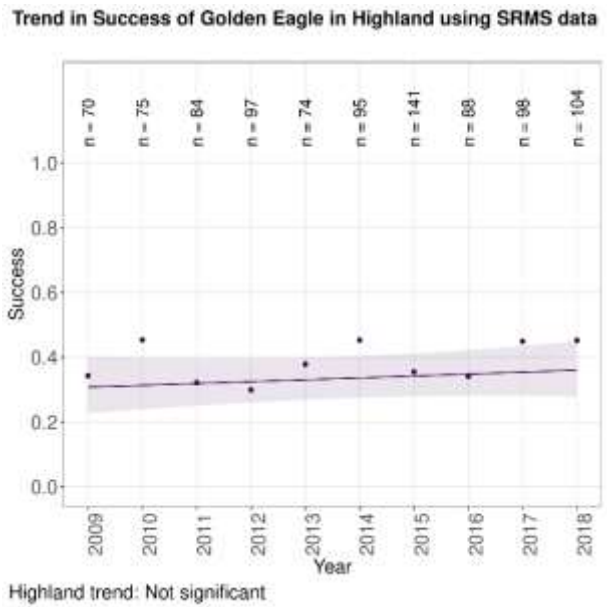


Figure 35: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in Highland during 2009-2018.





No trend available for clutch size

No trend available for brood size

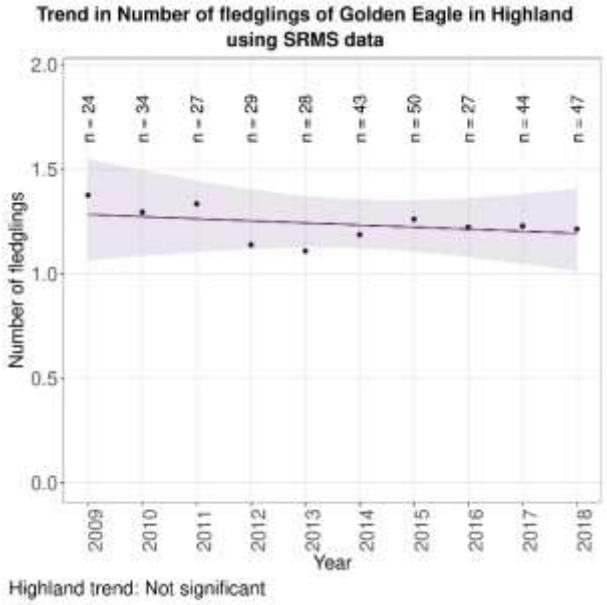
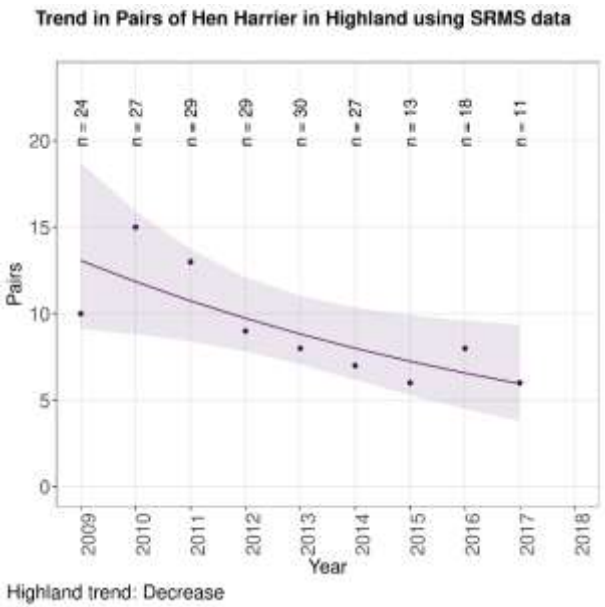
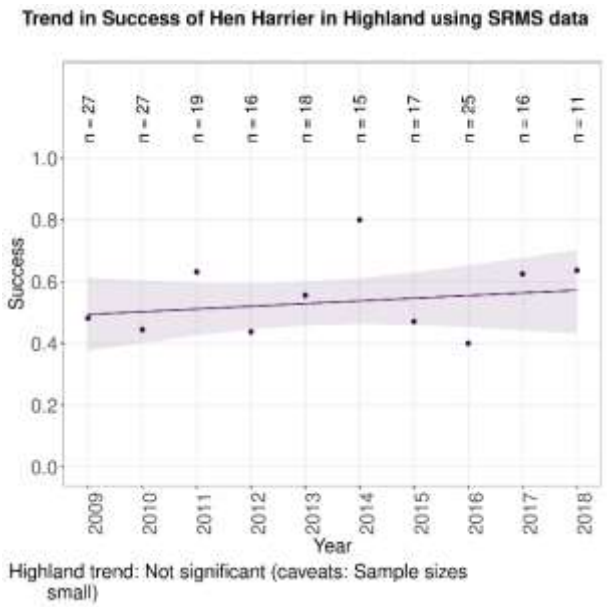


Figure 36: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Highland during 2009-2018.



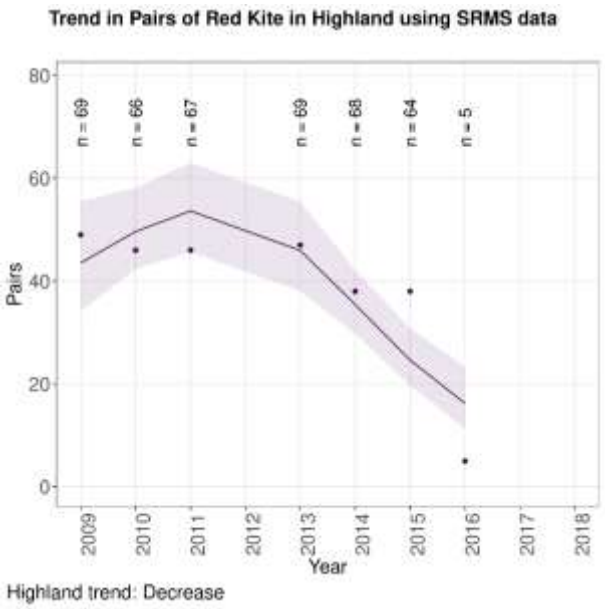


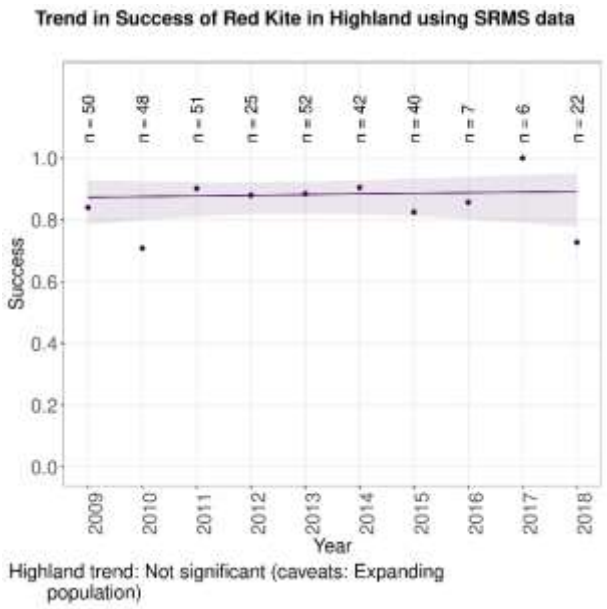
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 37: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in Highland during 2009-2018.





No trend available for clutch size

No trend available for brood size

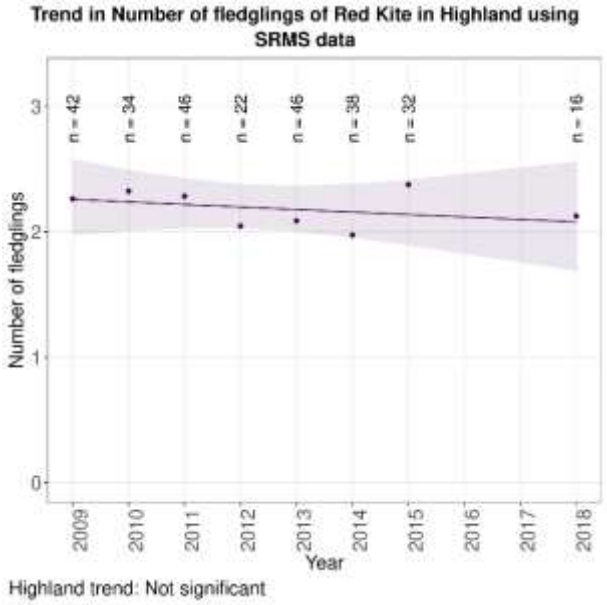
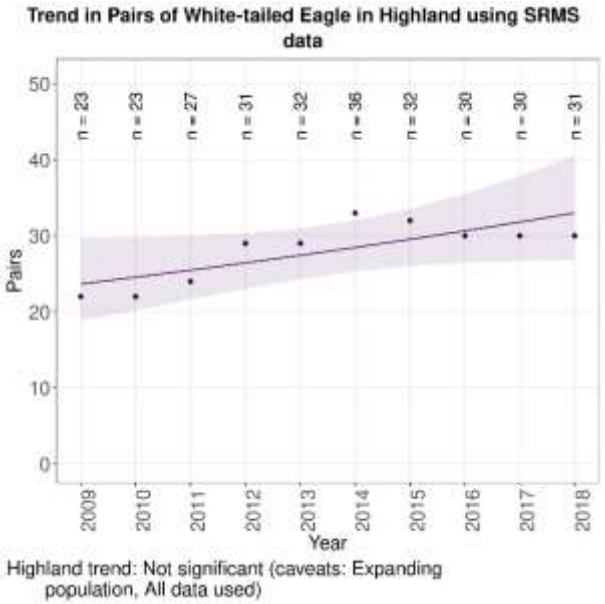
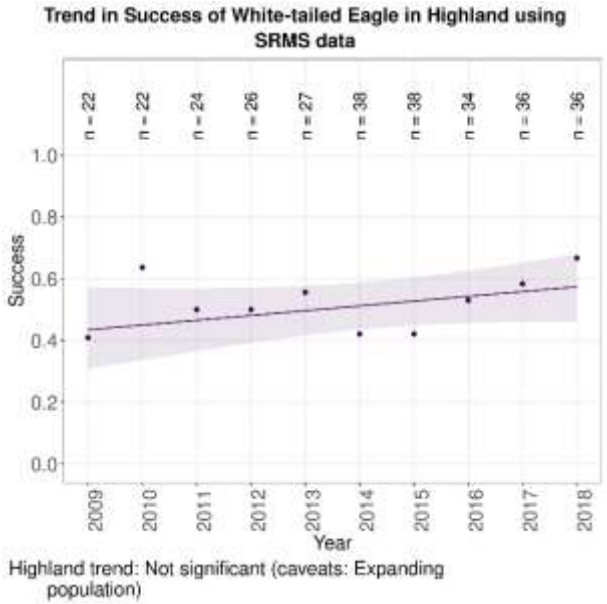


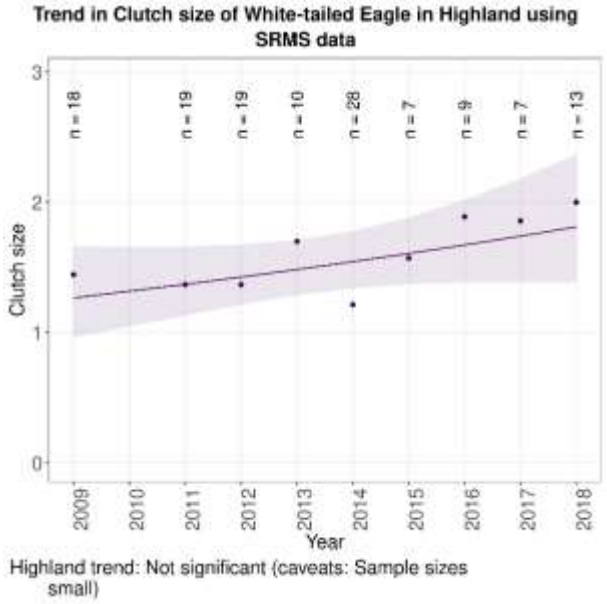
Figure 38: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in Highland during 2009-2018.



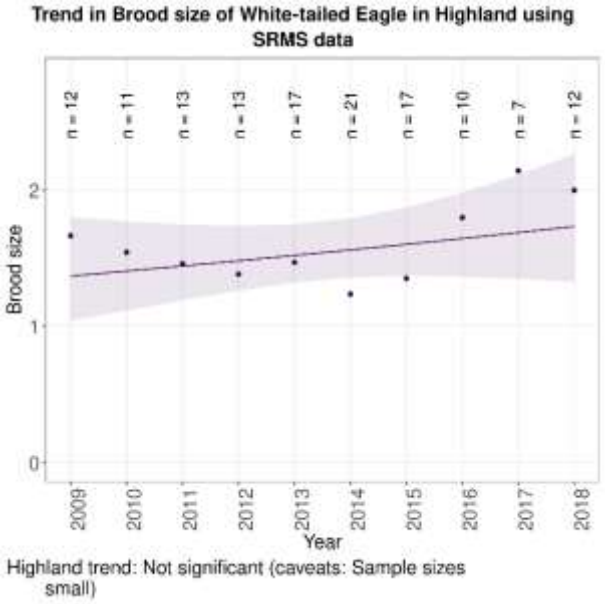
Highland trend: Not significant (caveats: Expanding population, All data used)



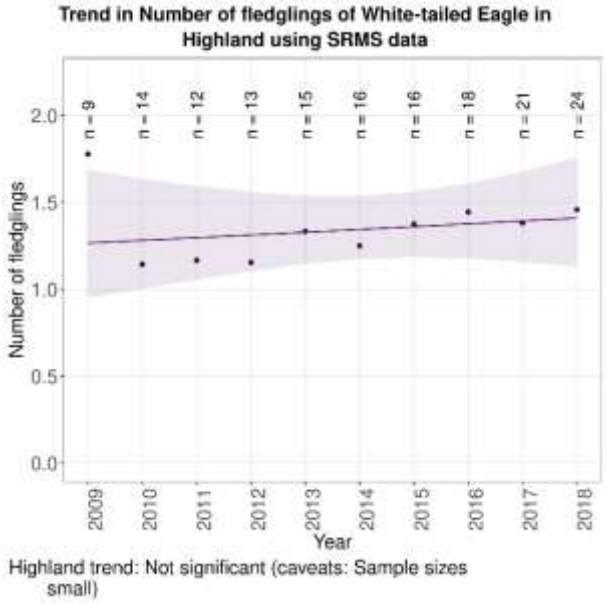
Highland trend: Not significant (caveats: Expanding population)



Highland trend: Not significant (caveats: Sample sizes small)

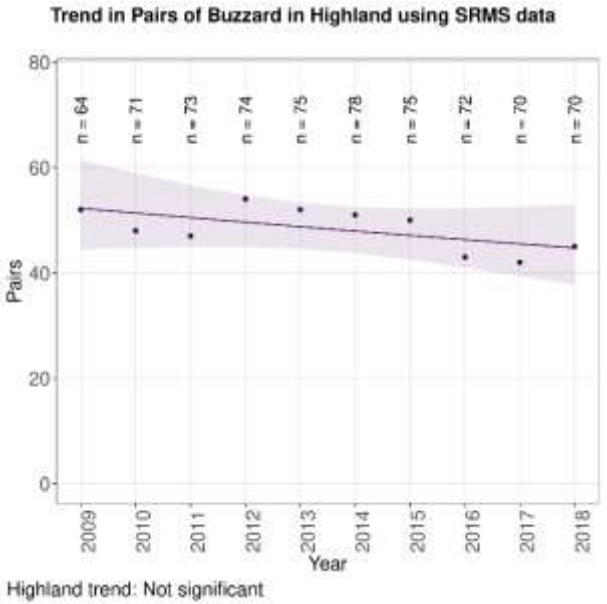


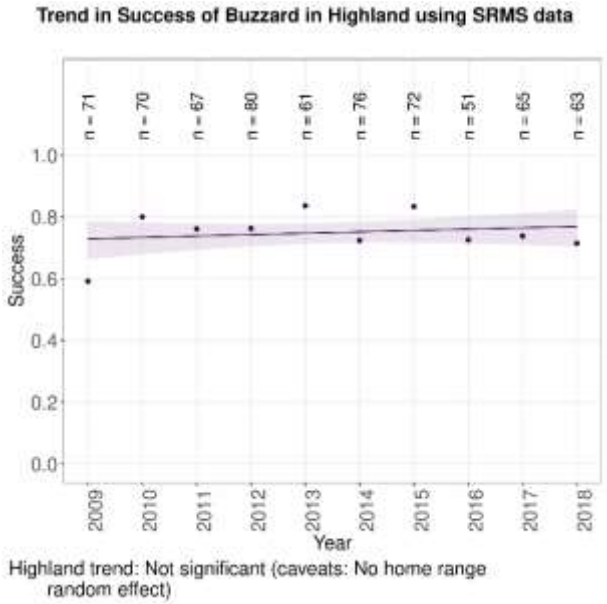
Highland trend: Not significant (caveats: Sample sizes small)

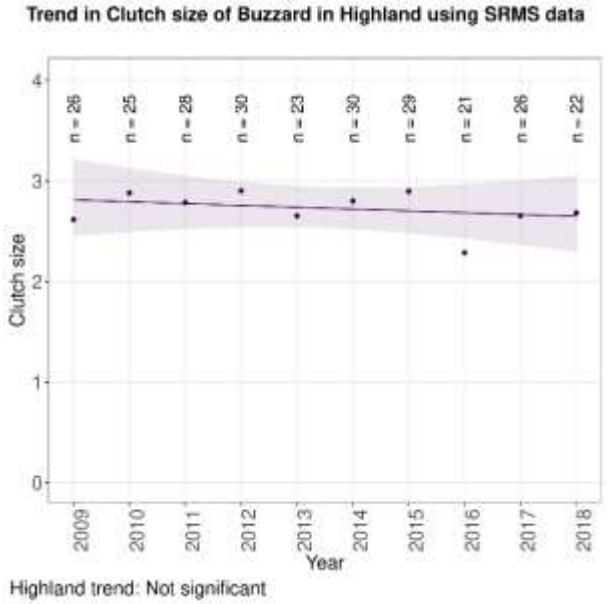


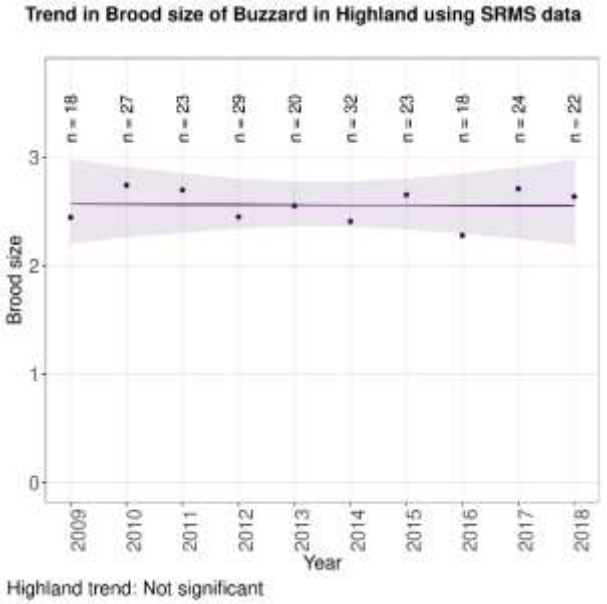
Highland trend: Not significant (caveats: Sample sizes small)

Figure 39: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in Highland during 2009-2018.









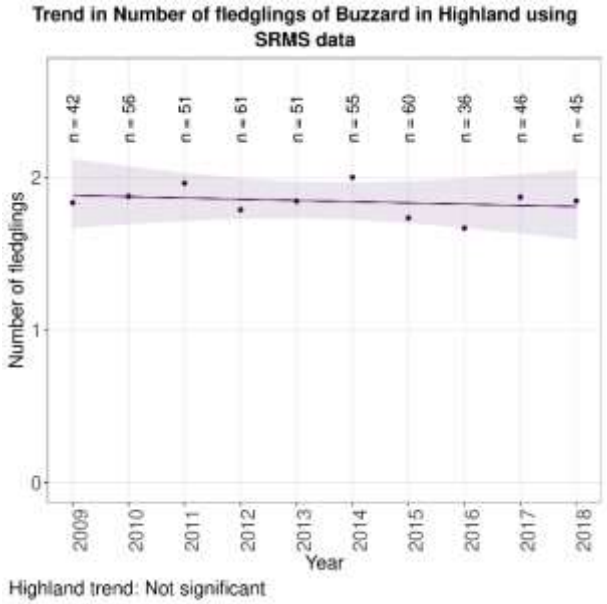
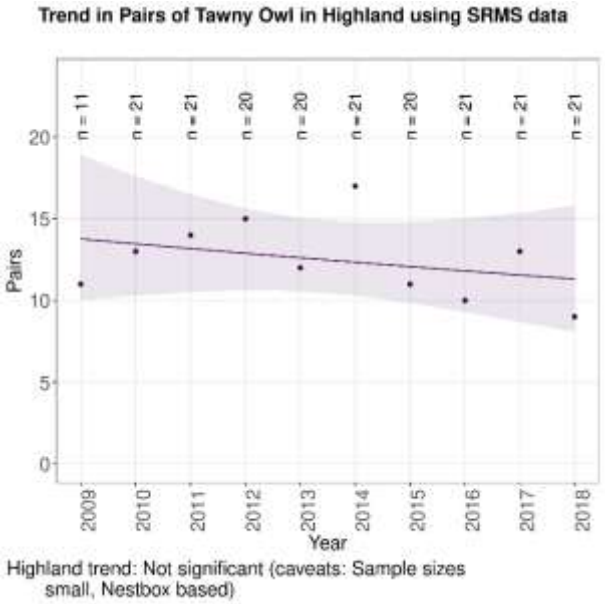
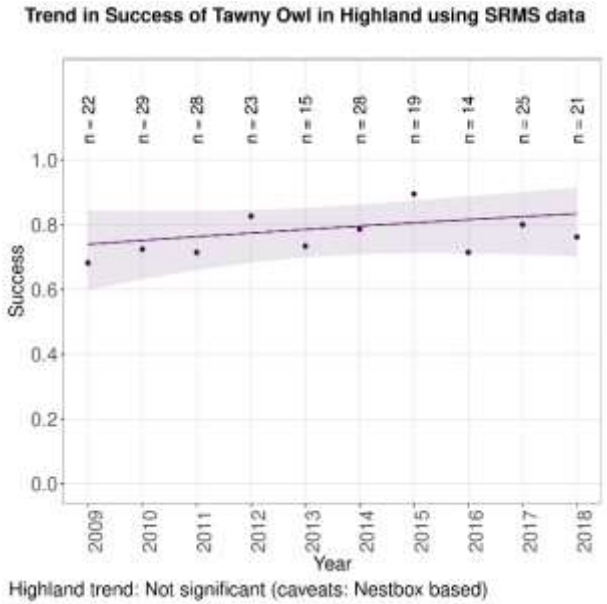
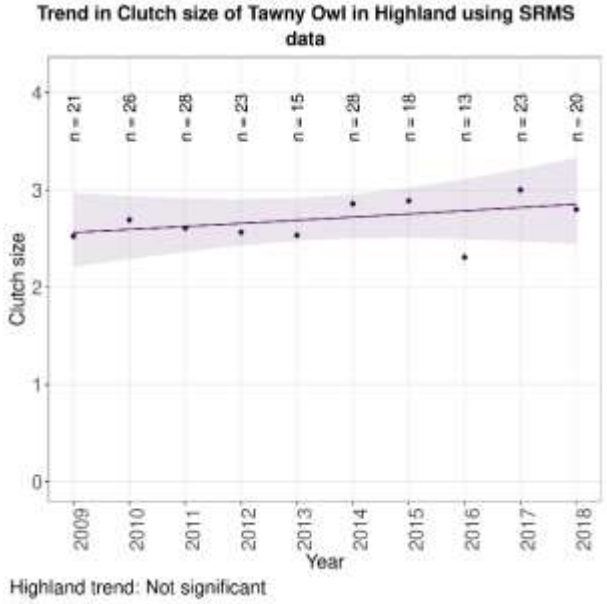
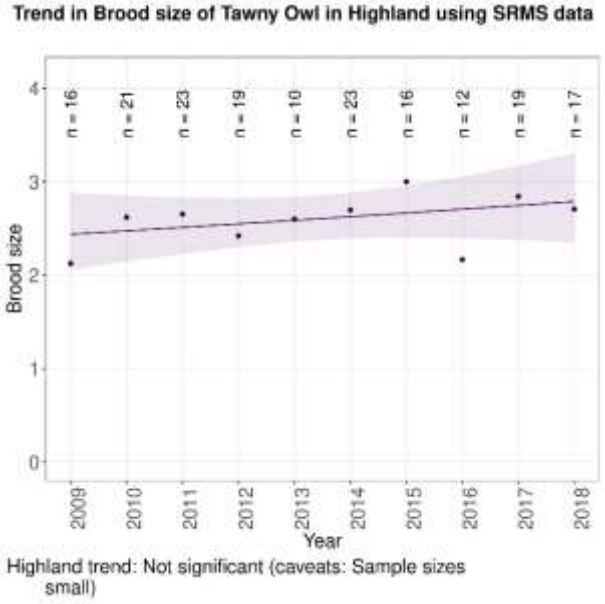


Figure 40: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Highland during 2009-2018.









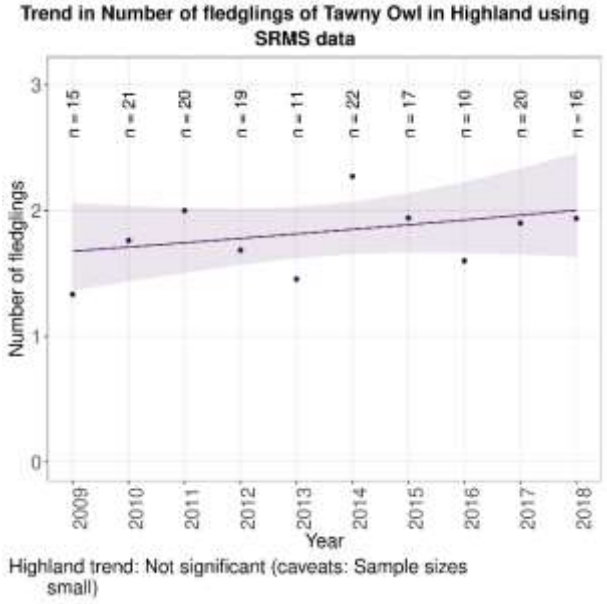
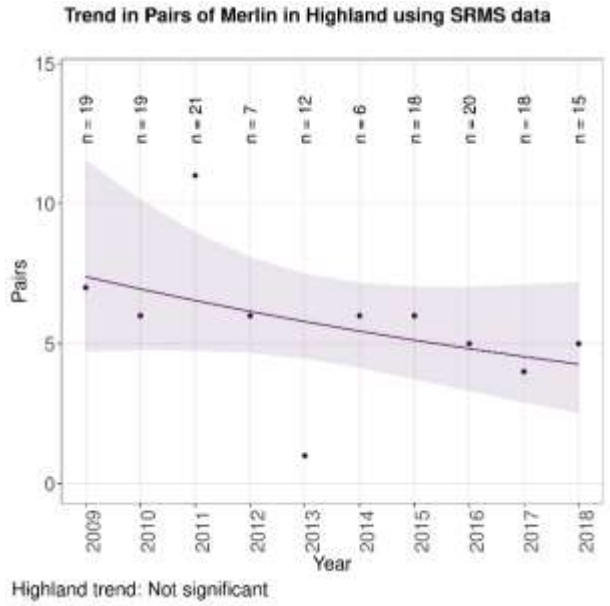


Figure 41: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Tawny Owl in Highland during 2009-2018.



No trend available for breeding success

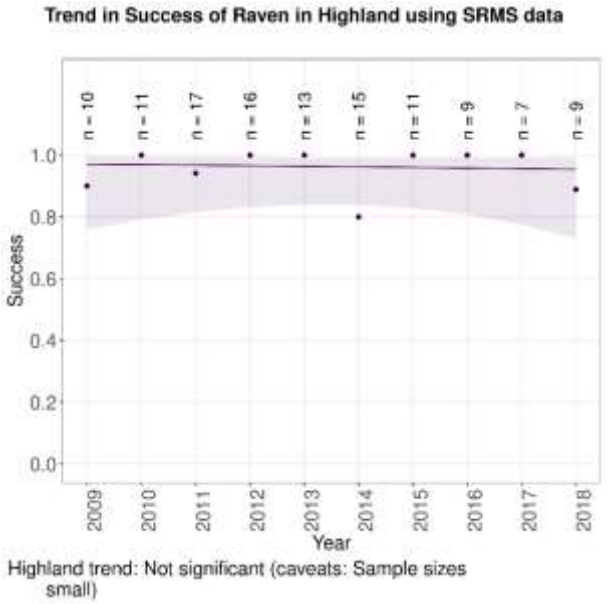
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 42: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin Highland during 2009-2018.

No trend available for breeding pairs



No trend available for clutch size

No trend available for brood size

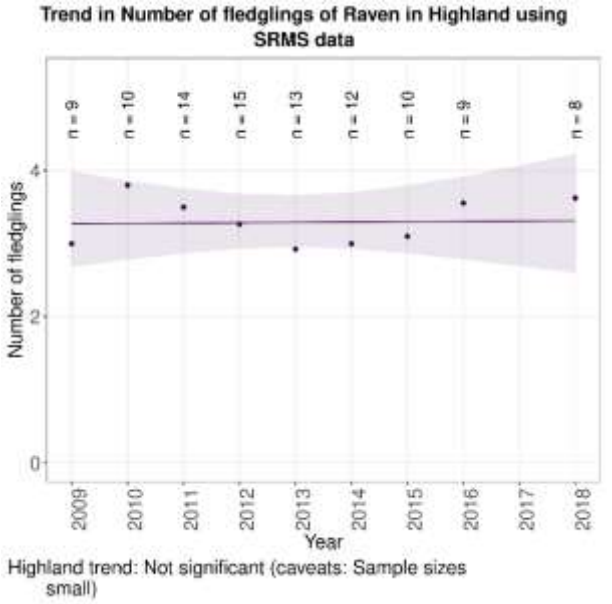


Figure 43: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Highland during 2009-2018.

Lewis & Harris

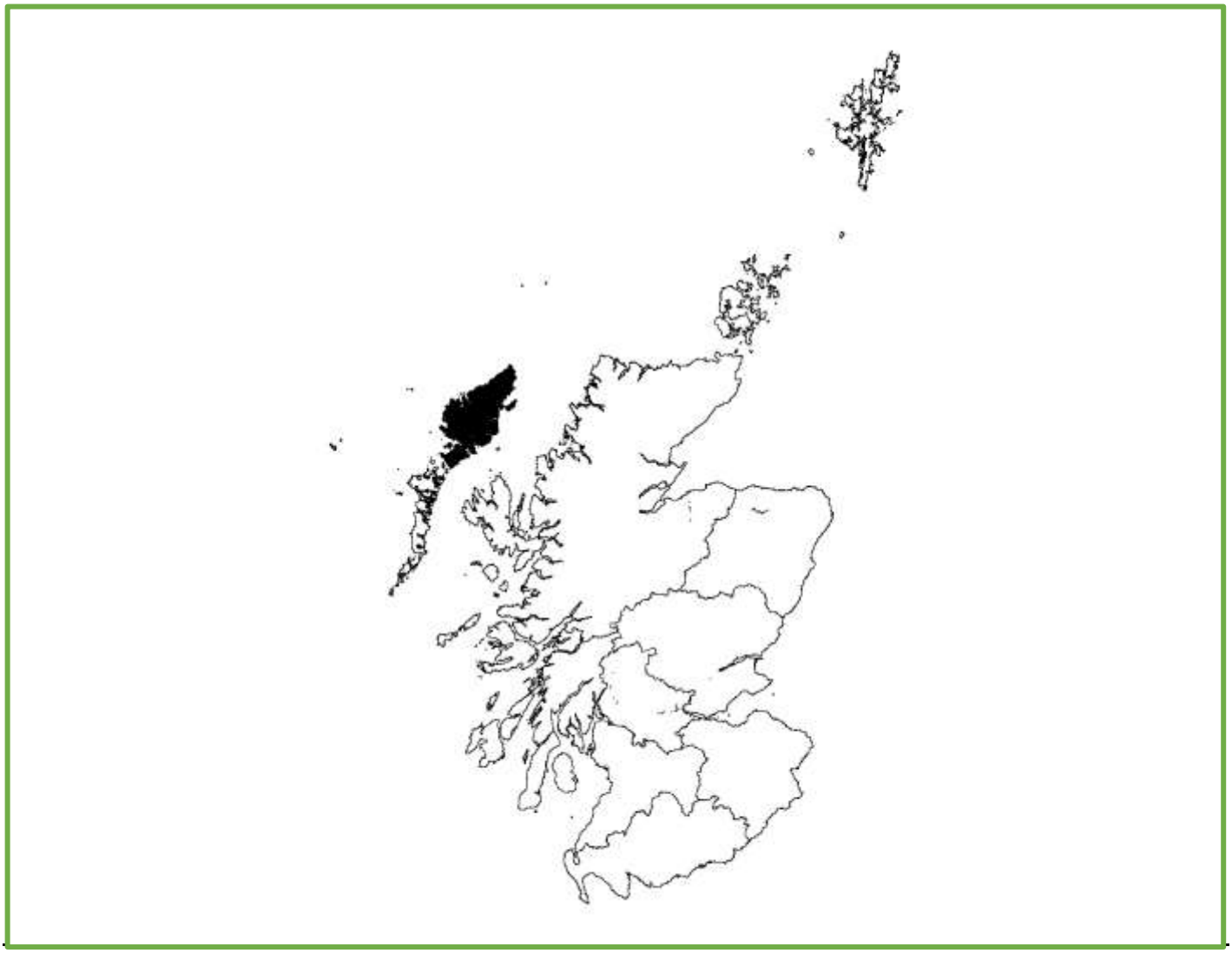


Figure 44: Lewis & Harris.

Trends in breeding numbers are available for one species and trends in breeding success for two of the nine species for which the SRMS holds records for Lewis & Harris (Table 6).

Golden Eagle

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 45).

White-tailed Eagle

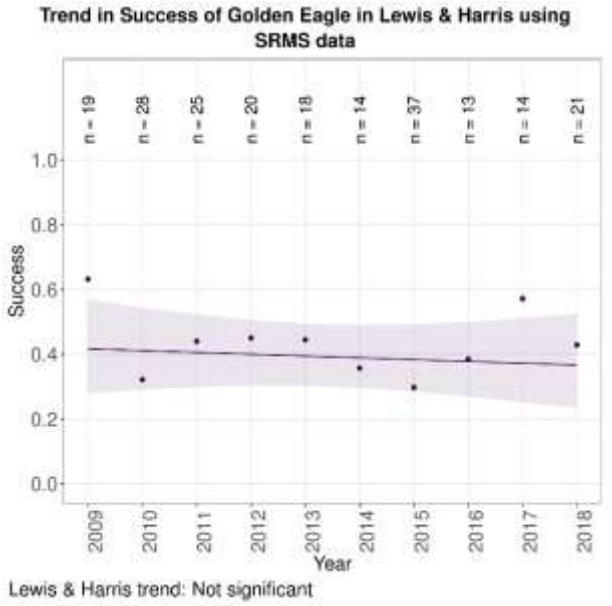
The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 46).

Table 6: Summary of SRMS trends for Lewis & Harris during 2009-2018. Non-significant changes are highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed**.**

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	—	Not significant	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	—	—	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	Not significant [asx]	Not significant [sx]	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	Absent	Absent	Absent	Absent	Absent
Tawny Owl	Absent	Absent	Absent	Absent	Absent
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[a] All data used, [s] Sample sizes small, [x] Expanding population.

No trend available
for breeding pairs

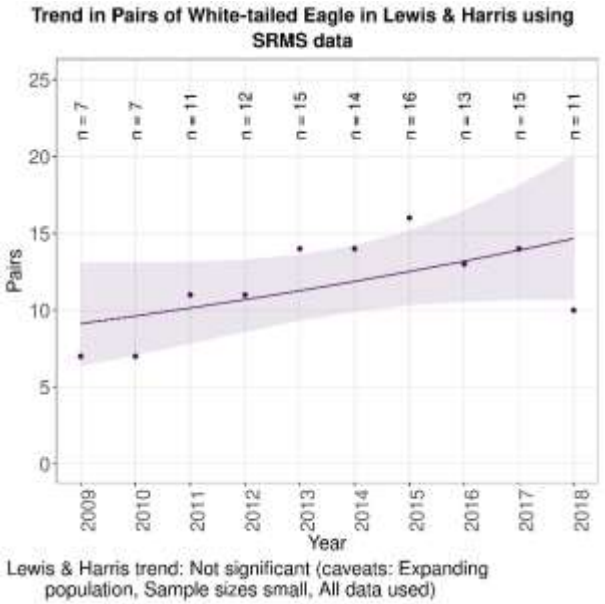


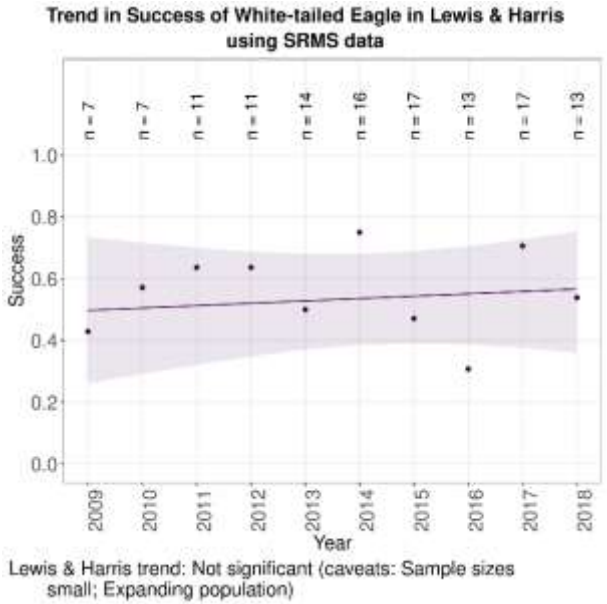
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 45: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Lewis & Harris during 2009-2018.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 46: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in Lewis & Harris during 2009-2018.

Lothian & Borders

Figure 47: Lothian & Borders.

Trends in breeding numbers are available for three species and trends in breeding success for seven of the 13 species for which the SRMS holds records for Lothian & Borders (Table 7).

Osprey

No trend is available for the number of breeding pairs. Breeding success decreased significantly (-1.7%). No trends are available for clutch size, brood size or the number of fledglings (Figure 48).

Goshawk

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 49).

Buzzard

No trend is available for the number of breeding pairs. Breeding success, clutch size, brood size and the number of fledglings showed no significant change (Figure 50).

Barn Owl

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed a significant decrease (-3.4%) (Figure 51).

Tawny Owl

No trend is available for the number of breeding pairs. Breeding success increased significantly (+6.2%). Clutch size showed no significant change.

No trends are available for brood size or number of fledglings (Figure 52).

Merlin

No trend is available for the number of breeding pairs. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 53).

Peregrine

The number of breeding pairs showed no significant change while breeding success decreased in significantly (-2.1%). Clutch size, brood size and the number of fledglings showed no significant change (Figure 54).

Raven

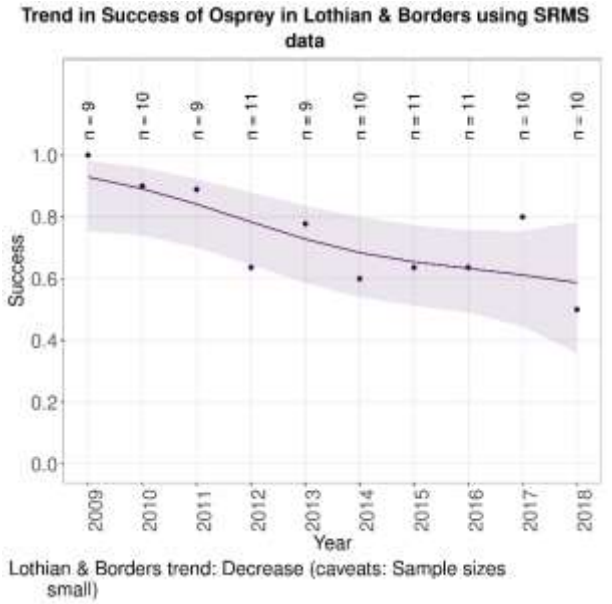
The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 55).

Table 7: Summary of SRMS trends for Lothian & Borders during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	**Decrease [s] (-1.7%)**	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	Not significant	—	—	Not significant
Hen Harrier	—	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	Not significant [r]	Not significant	Not significant	Not significant
Barn Owl	—	Not significant [n]	—	—	**Decrease (-3.4%)**
Tawny Owl	—	**Increase [ns] (6.2%)**	Not significant	—	—
Kestrel	—	—	—	—	—
Merlin	Not significant	—	—	—	—
Peregrine	Not significant	**Decrease (-2.1%)**	Not significant	Not significant [s]	Not significant
Raven	Not significant [s]	Not significant [r]	—	—	Not significant

[a] All data used, [n] Nestbox based, [r] No home range random effect, [s] Sample sizes small.

No trend available
for breeding pairs



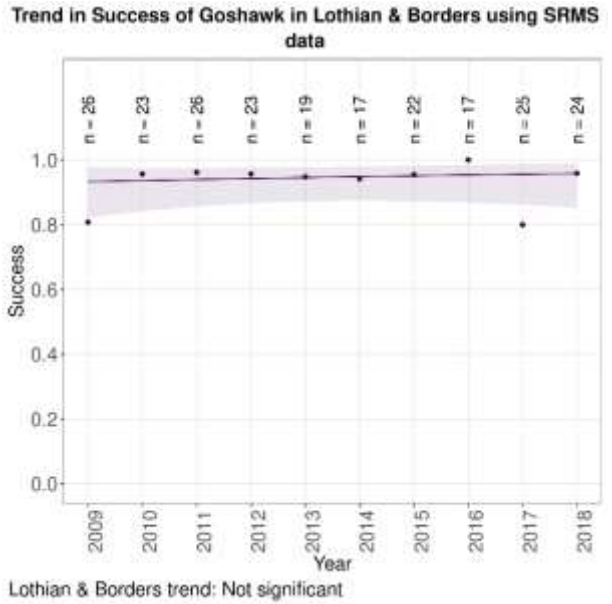
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 48: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in Lothian & Borders during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

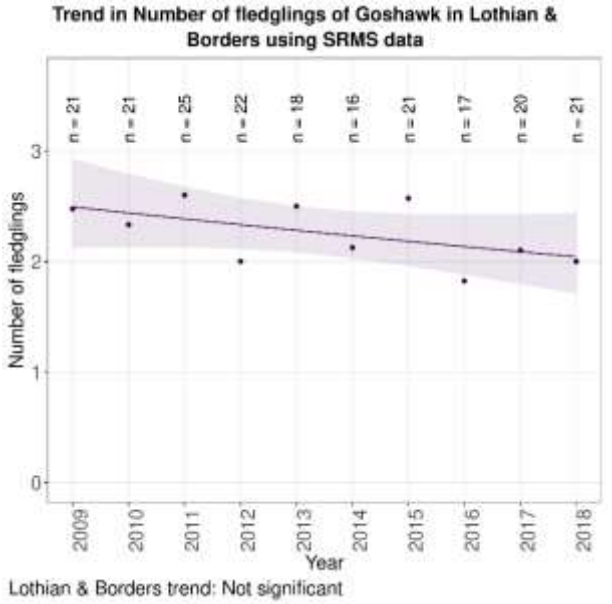
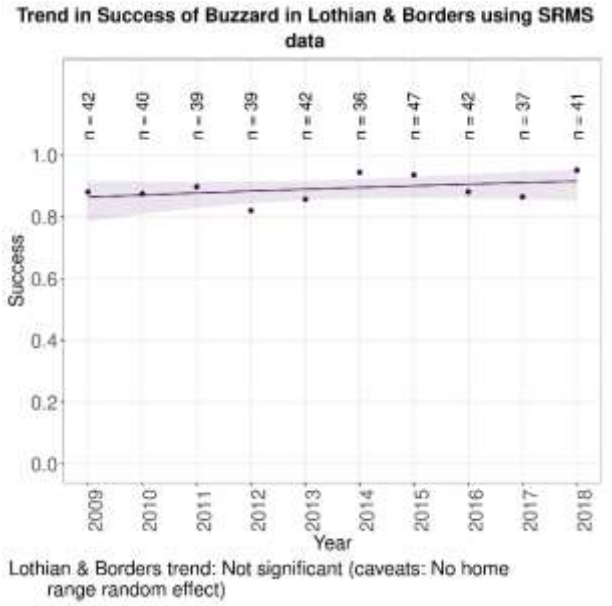
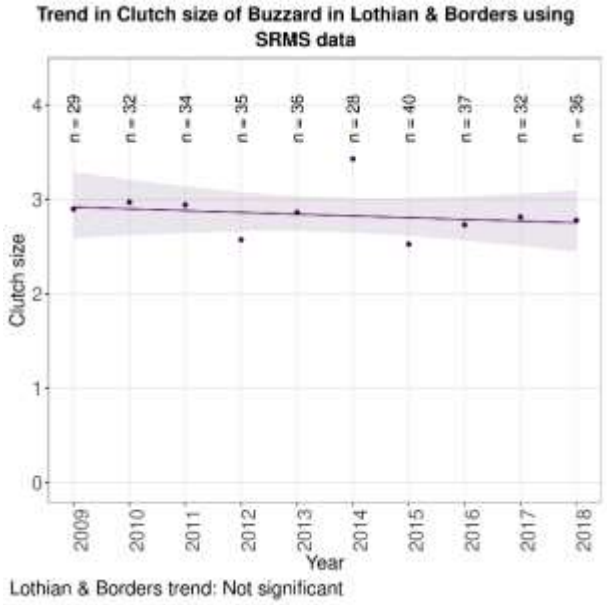
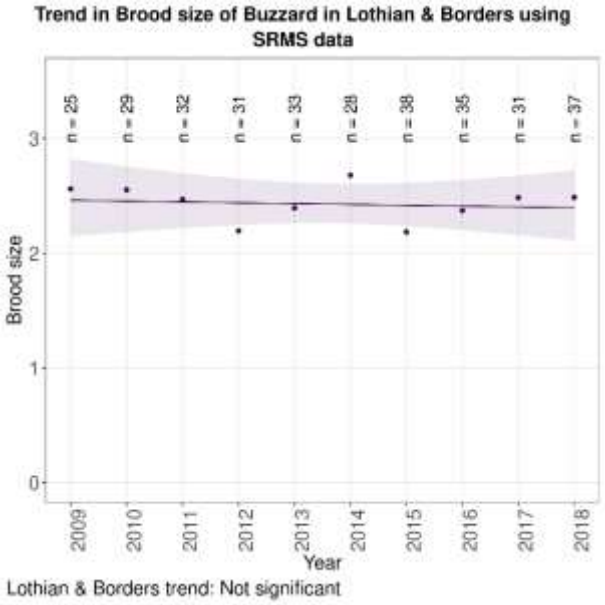


Figure 49: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Goshawk in Lothian & Borders during 2009-2018.

No trend available for breeding pairs







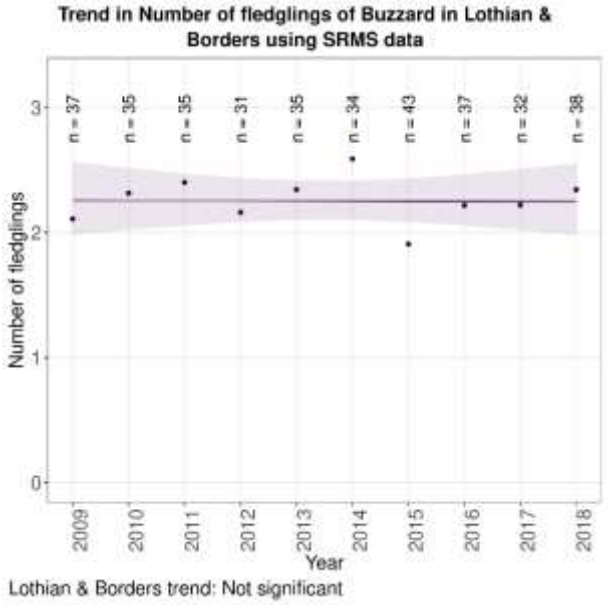
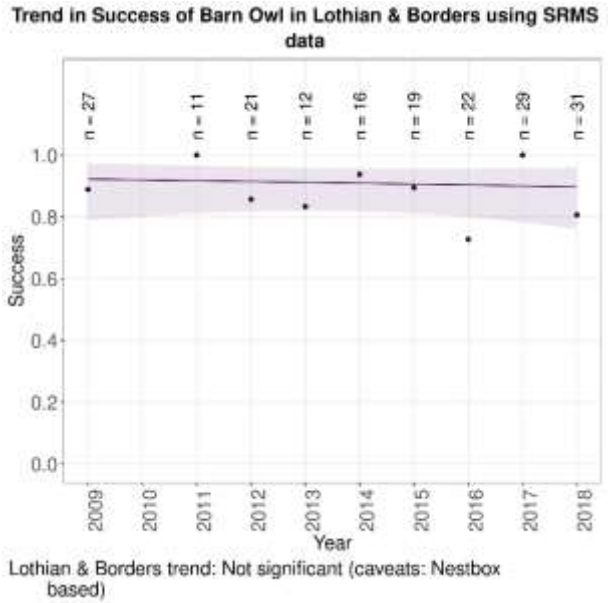


Figure 50: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Lothian & Borders during 2009-2018.

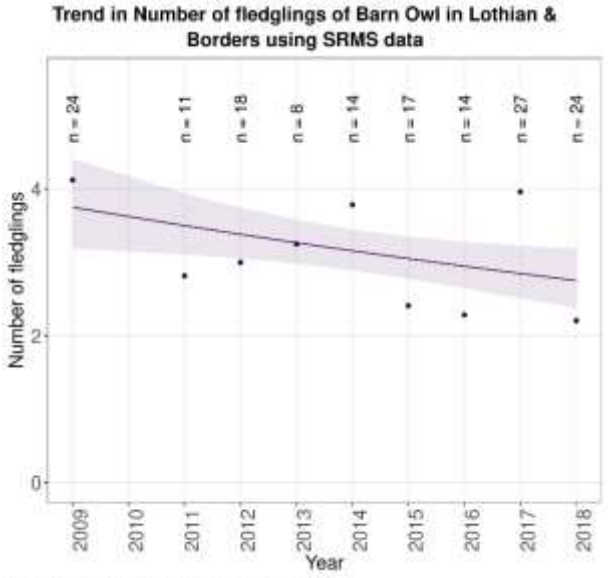
No trend available for breeding pairs



Lothian & Borders trend: Not significant (caveats: Nestbox based)

No trend available for clutch size

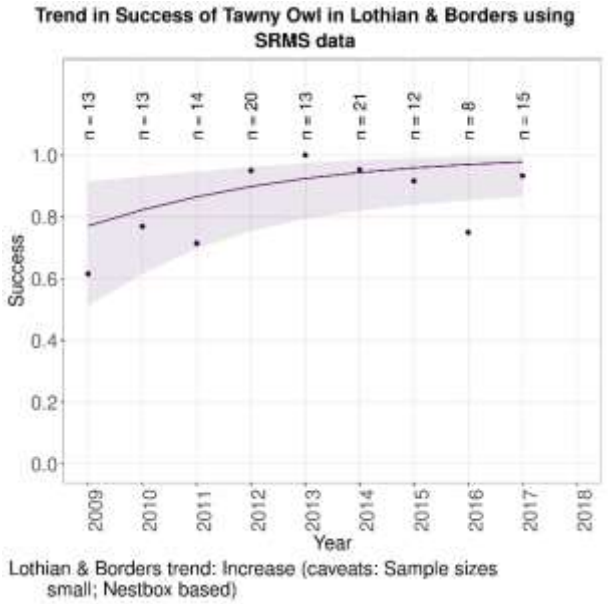
No trend available for brood size



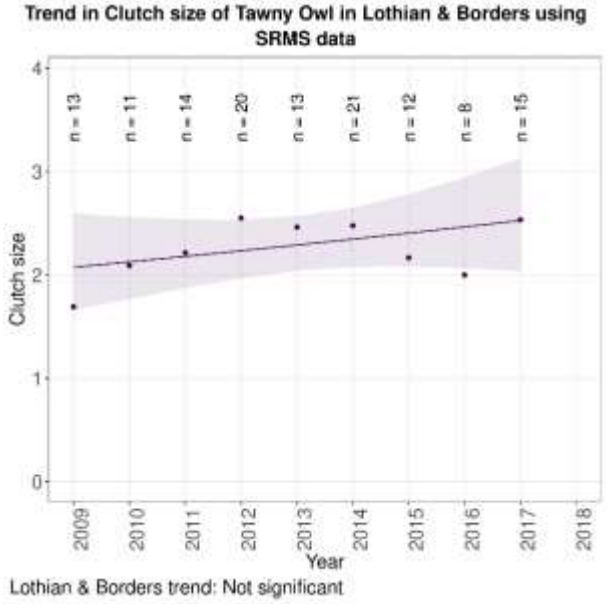
Lothian & Borders trend: Decrease

Figure 51: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in Lothian & Borders during 2009-2018.

No trend available for breeding pairs



Lothian & Borders trend: Increase (caveats: Sample sizes small; Nestbox based)

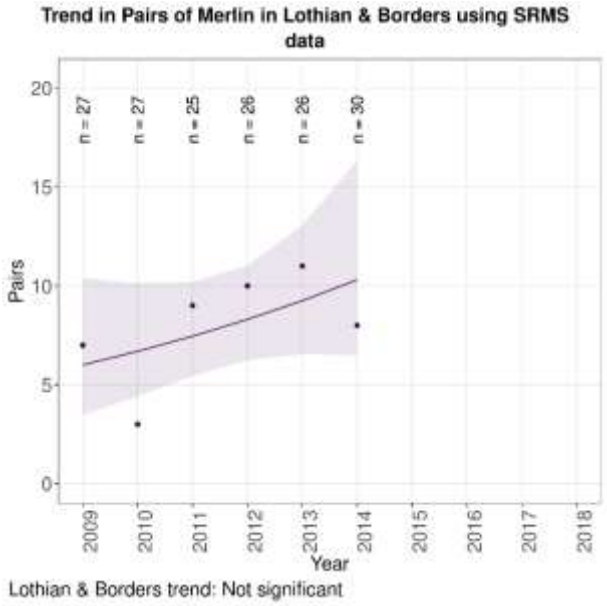


Lothian & Borders trend: Not significant

No trend available for brood size

No trend available for number of fledglings

Figure 52: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Tawny Owl in Lothian & Borders during 2009-2018.



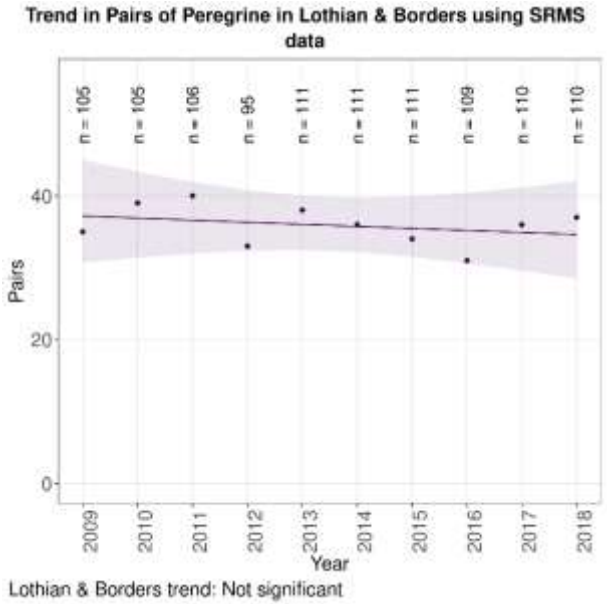
No trend available for breeding success

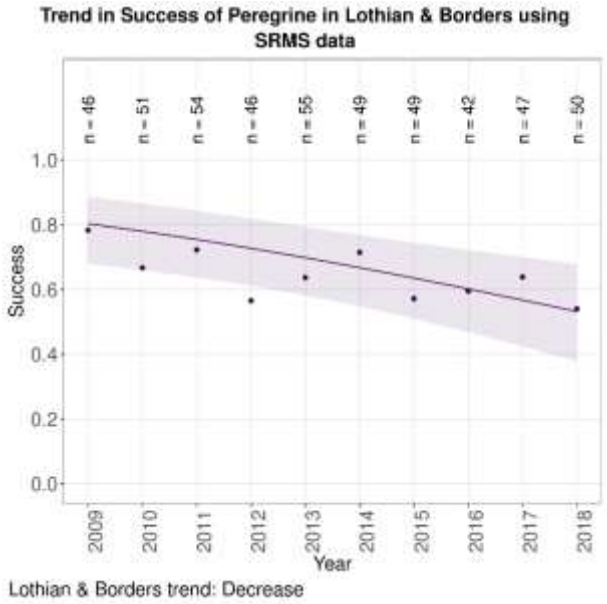
No trend available for clutch size

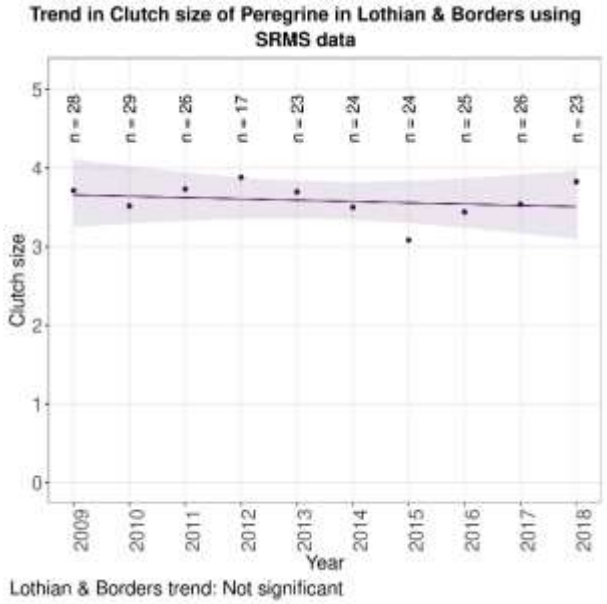
No trend available for brood size

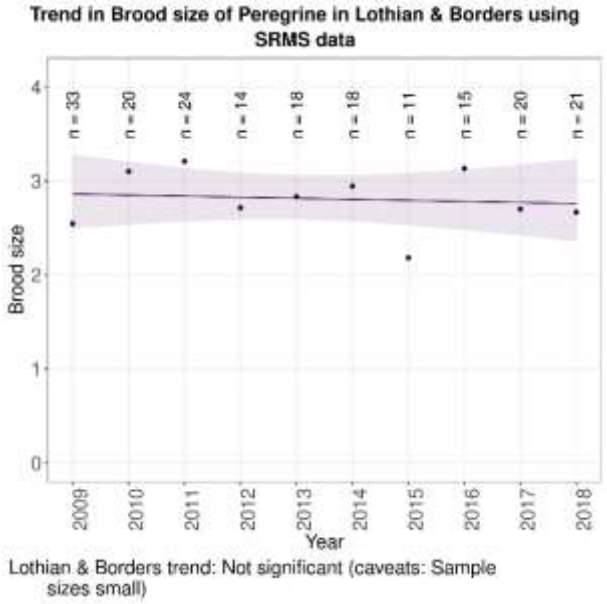
No trend available for number of fledglings

Figure 53: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin Lothian & Borders during 2009-2018.









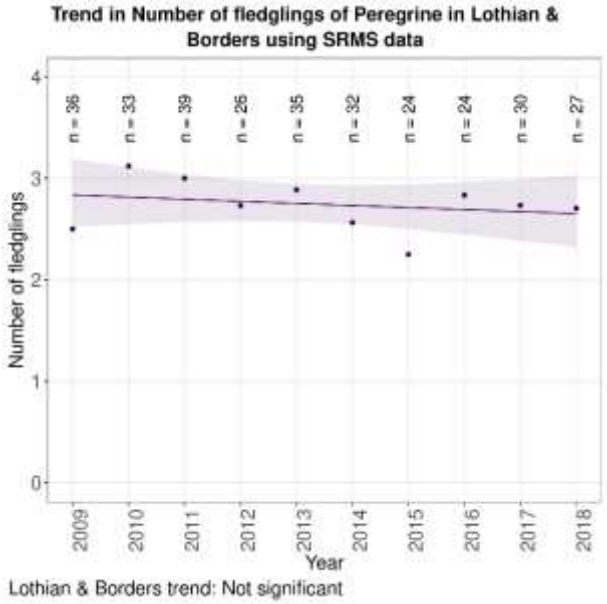
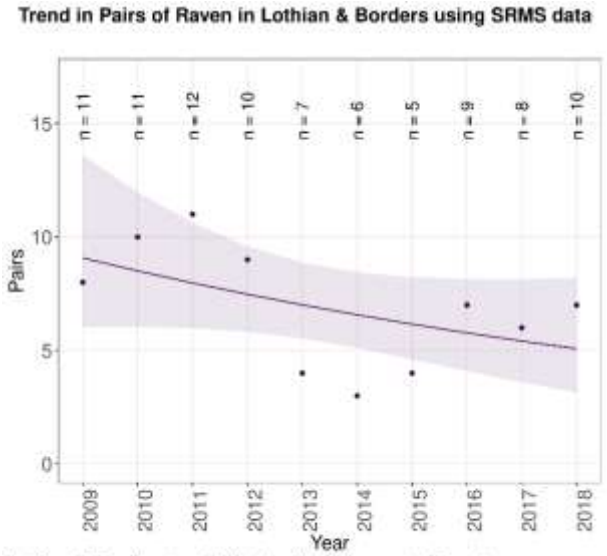
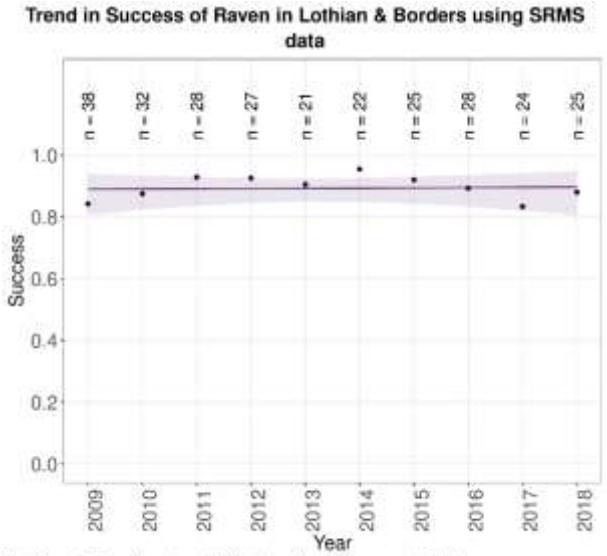


Figure 54: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in Lothian & Borders during 2009-2018.



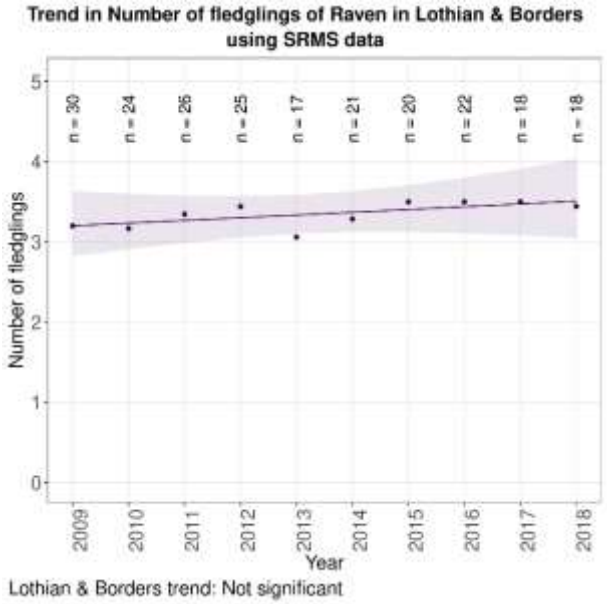
Lothian & Borders trend: Not significant (caveats: Sample sizes small)



Lothian & Borders trend: Not significant (caveats: No home range random effect)

No trend available for clutch size

No trend available for brood size



Lothian & Borders trend: Not significant

Figure 55: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Lothian & Borders during 2009-2018.

North East Scotland

Figure 56: North East Scotland.

Trends in breeding numbers are available for four species and trends in breeding success for four of the 14 species for which the SRMS holds records for North East Scotland (Table 8).

Osprey

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 57).

Red Kite

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 58).

Merlin

The number of breeding pairs showed no significant change while breeding success showed a non-linear trend. Clutch size, brood size and the number of fledglings showed no significant change (Figure 59).

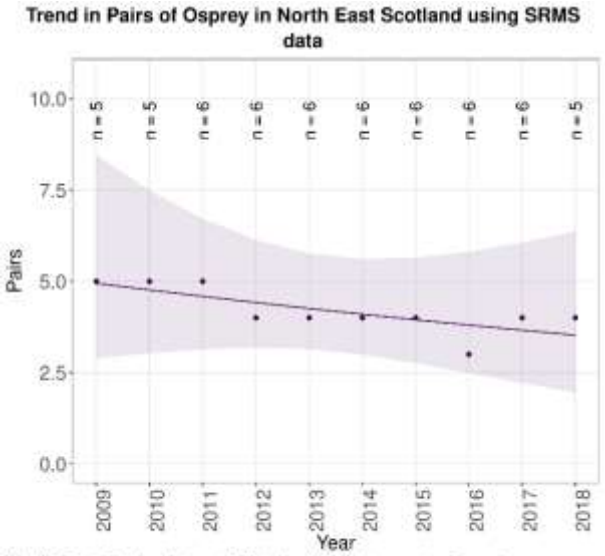
Peregrine

The number of breeding pairs showed no significant change while breeding success increased significantly (+8.3%). No trends are available for clutch size, brood size or the number of fledglings (Figure 60).

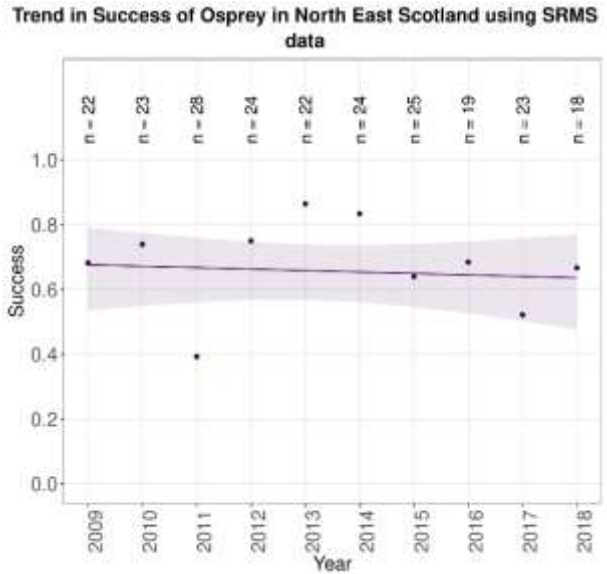
Table 8: Summary of SRMS trends for North East Scotland during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Not significant [s]	Not significant	—	—	Not significant
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	Not significant [sx]	Not significant [sx]	Not significant [s]	Not significant [s]	Not significant [s]
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	Not significant	Non-linear	Not significant	Not significant	Not significant
Peregrine	Not significant	**Increase (8.3%)**	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small, [x] Expanding population.



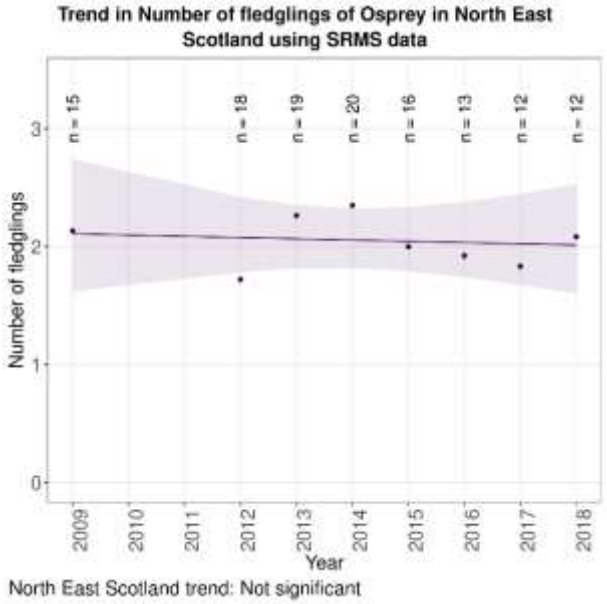
North East Scotland trend: Not significant (caveats: Sample sizes small)



North East Scotland trend: Not significant

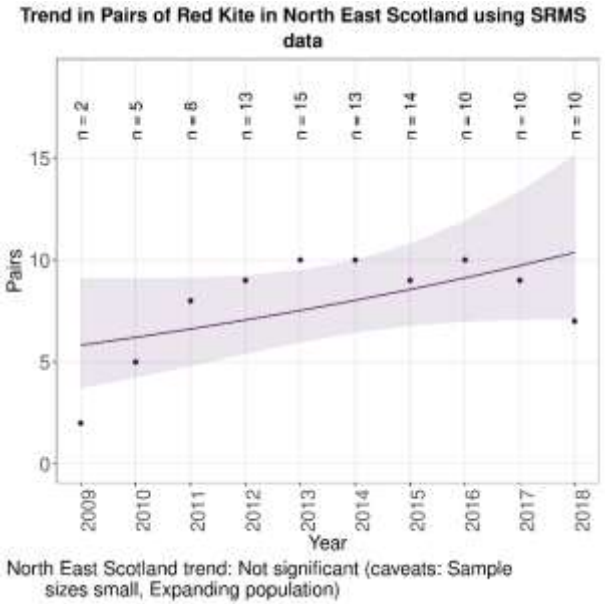
No trend available for clutch size

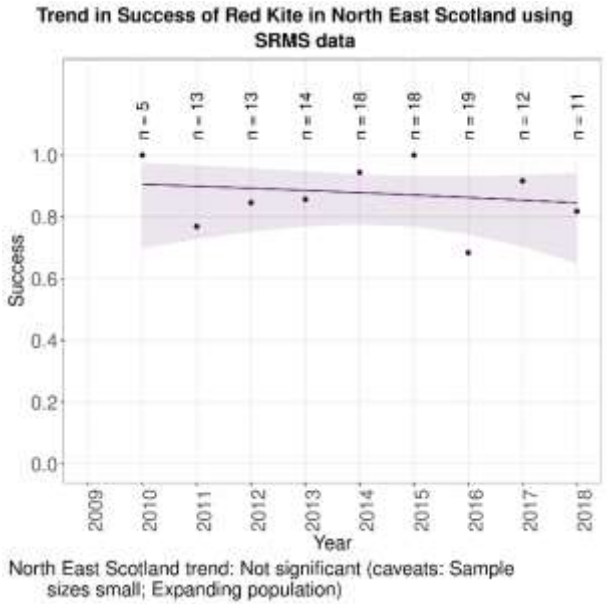
No trend available for brood size

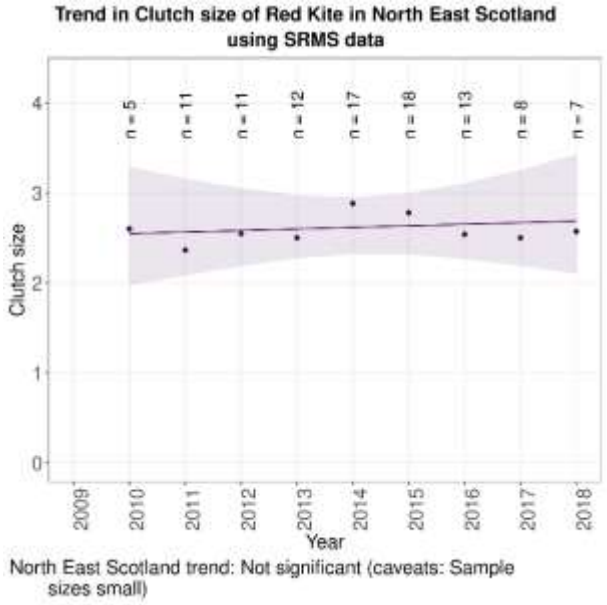


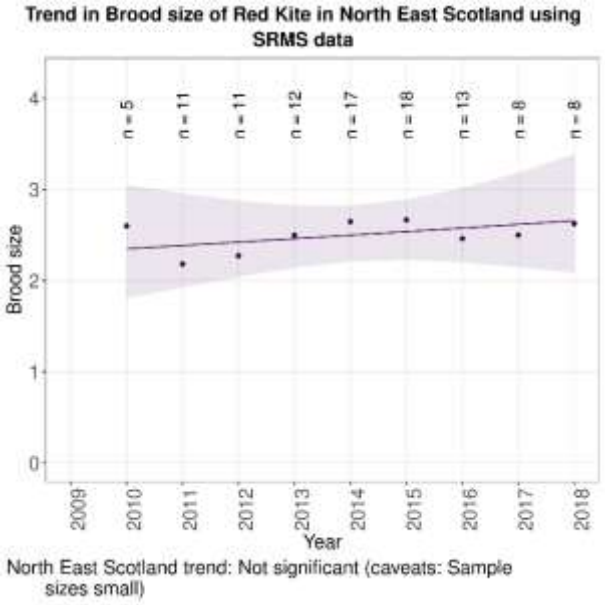
North East Scotland trend: Not significant

Figure 57: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in North East Scotland during 2009-2018.









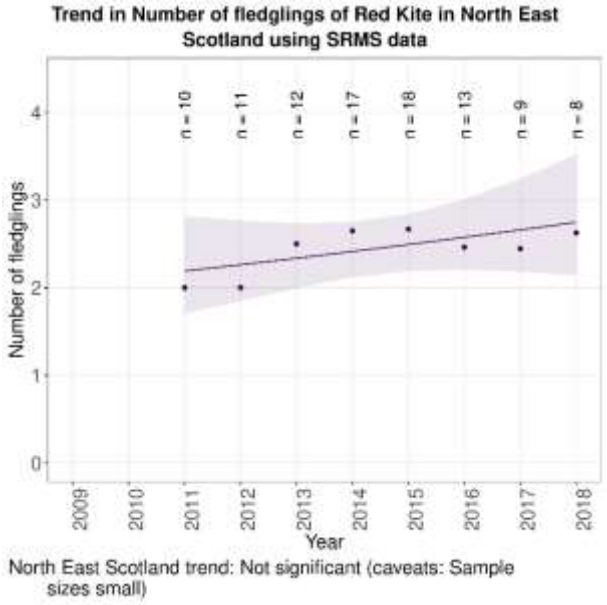
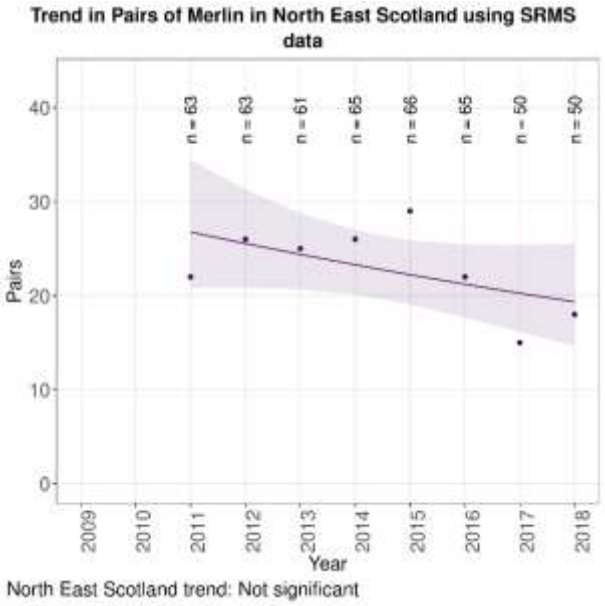
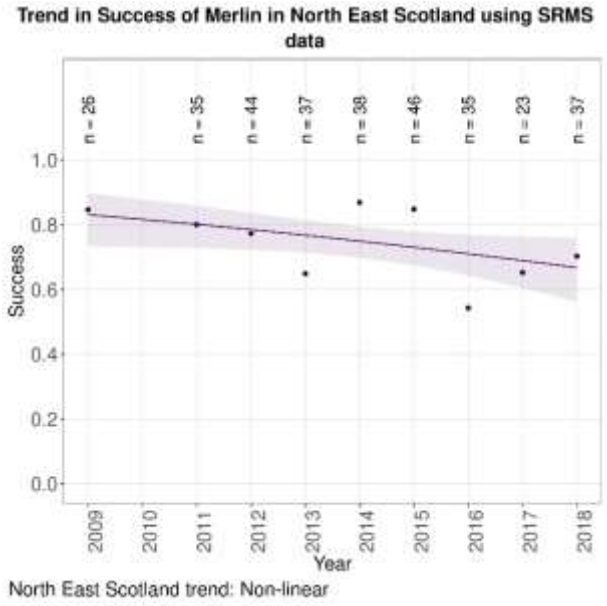
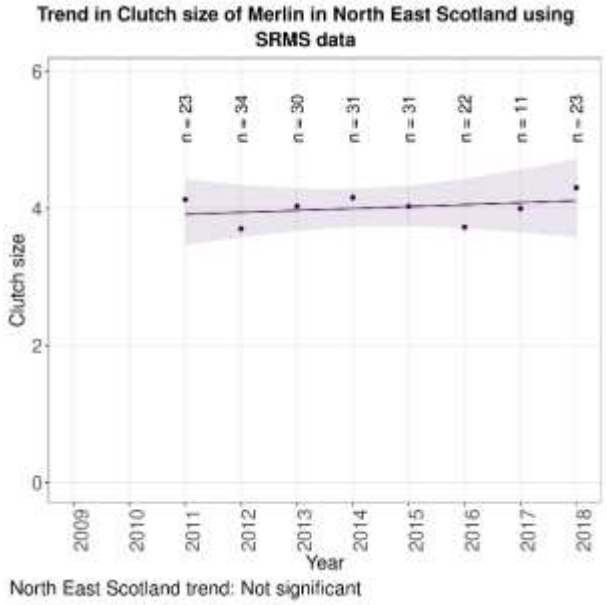
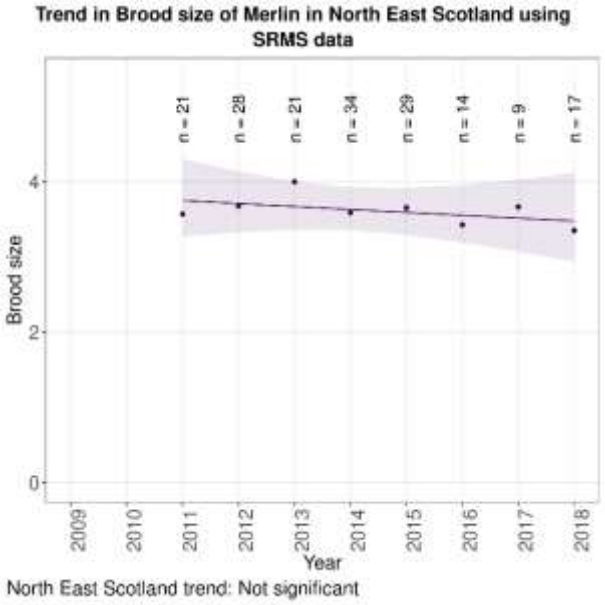


Figure 58: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in North East Scotland during 2009-2018.









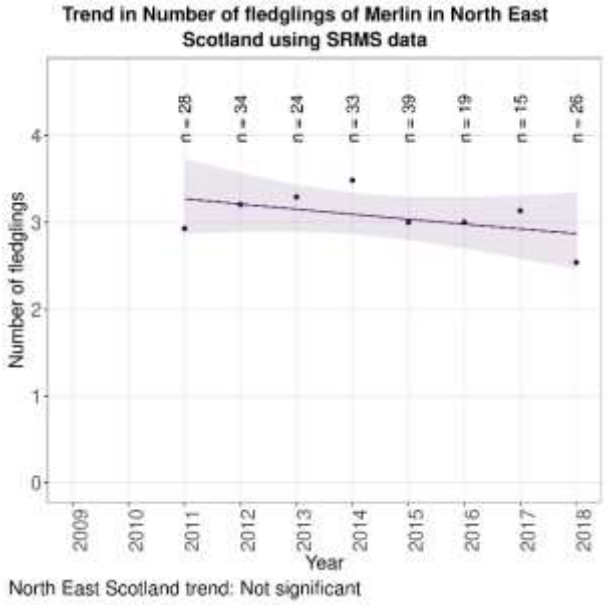
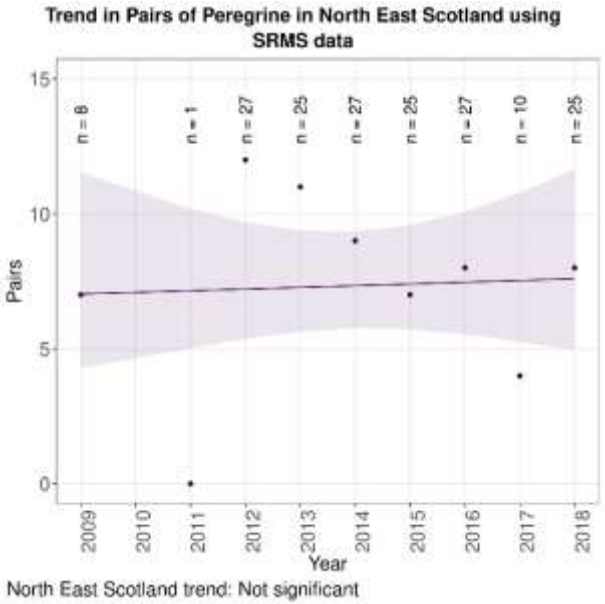
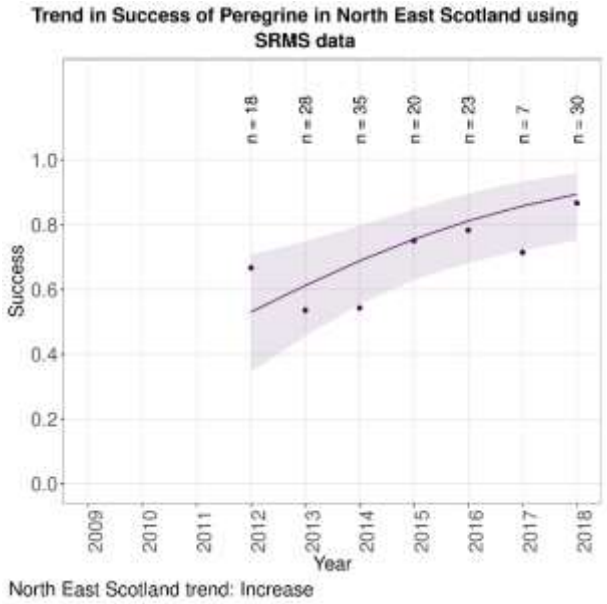


Figure 59: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin North East Scotland during 2009-2018.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 60: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in North East Scotland during 2009-2018.

Orkney

Figure 61: Orkney**.**

Trends in breeding numbers are available for four species and trends in breeding success for three of the eight species for which the SRMS holds records for Orkney (Table 9).

Hen Harrier

The number of breeding pairs and breeding success showed non-linear variation. Clutch size decreased significantly (-2.2%) while brood size showed no significant change. No trend is available for the number of fledglings (Figure 62).

Kestrel

The number of breeding pairs showed non-linear variation while breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 63).

Merlin

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 64).

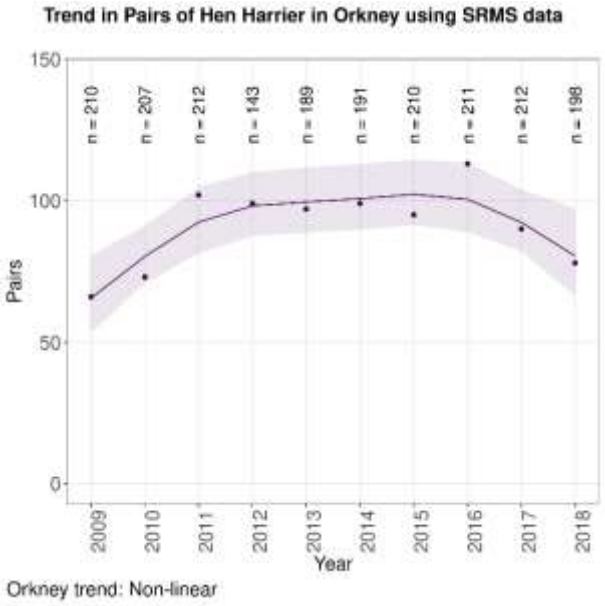
Peregrine

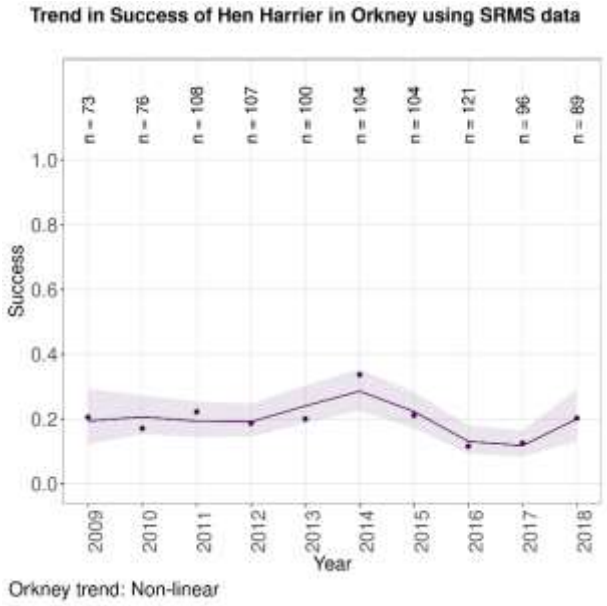
The number of breeding pairs showed no significant change. Breeding success significantly (-2.4%). No trends are available for clutch size, brood size or the number of fledglings (Figure 65).

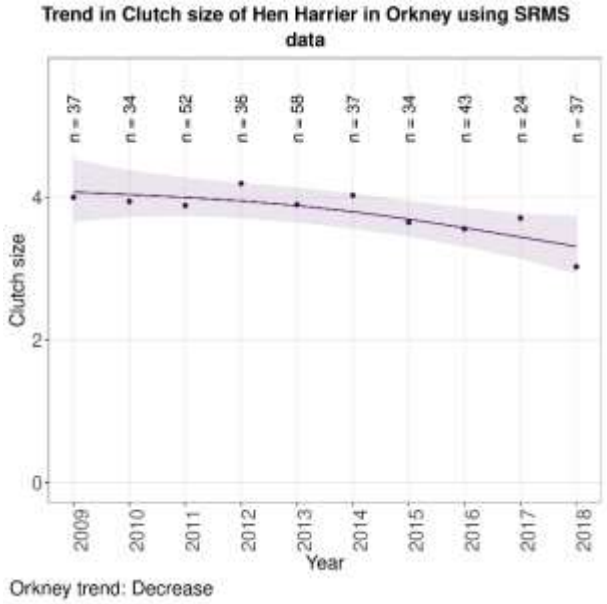
Table 9: Summary of SRMS trends for Orkney during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

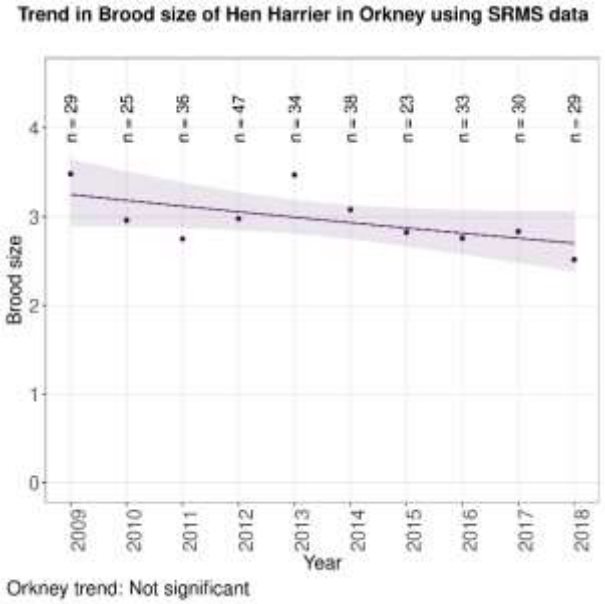
Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	Non-linear	Non-linear	**Decrease (-2.2%)**	Not significant	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	Absent	Absent	Absent	Absent	Absent
Tawny Owl	Absent	Absent	Absent	Absent	Absent
Kestrel	Non-linear	Not significant	—	—	—
Merlin	Not significant	—	—	—	—
Peregrine	Not significant [s]	**Decrease [s] (-2.4%)**	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small.



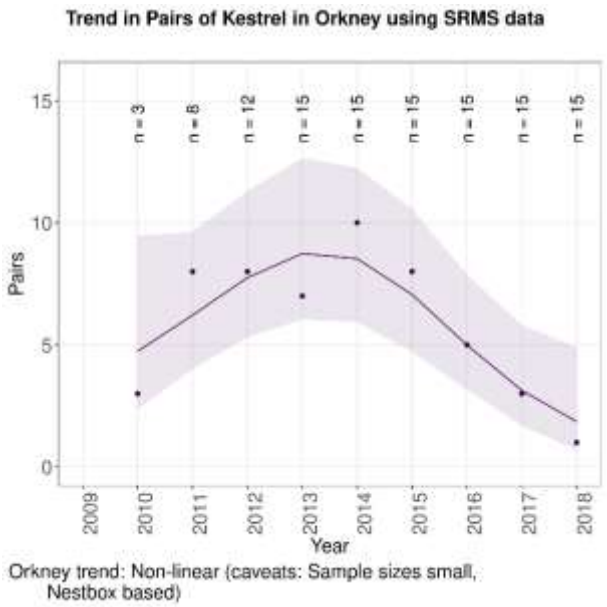


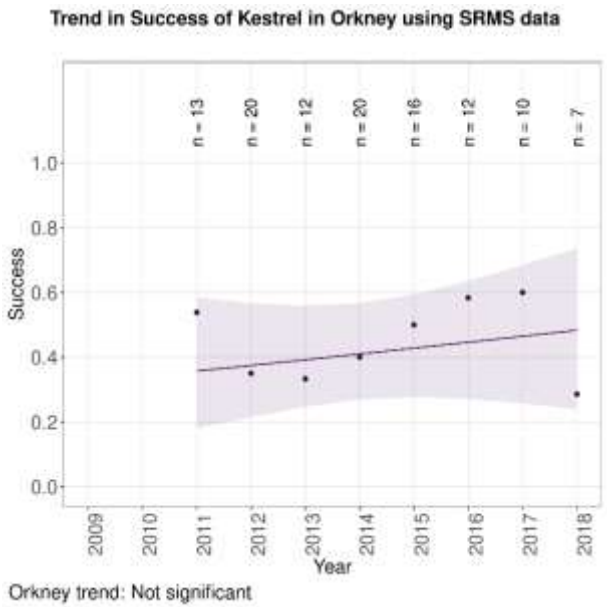




No trend available
for number of fledglings

Figure 62: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in Orkney during 2009-2018.



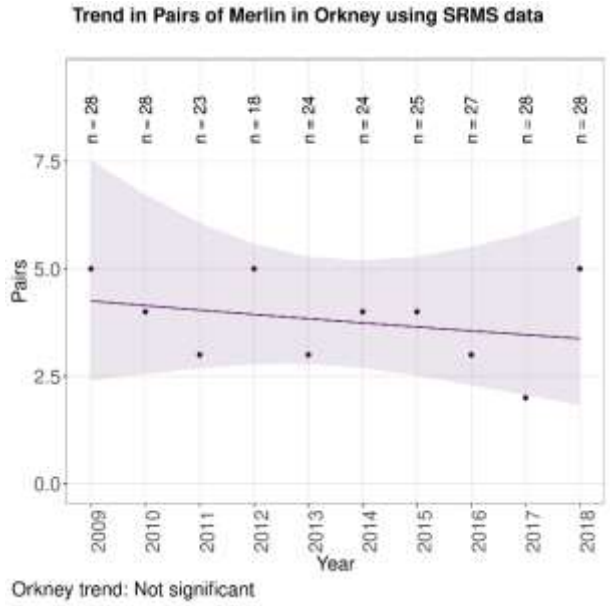


No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 63: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Kestrel in Orkney during 2009-2018.



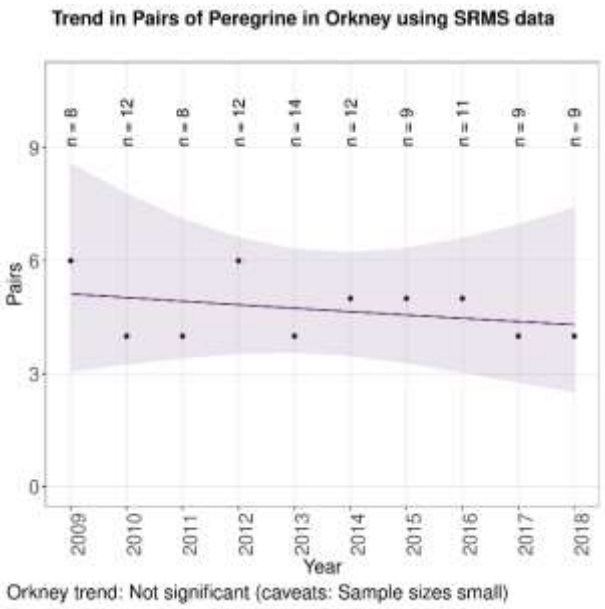
No trend available
for breeding success

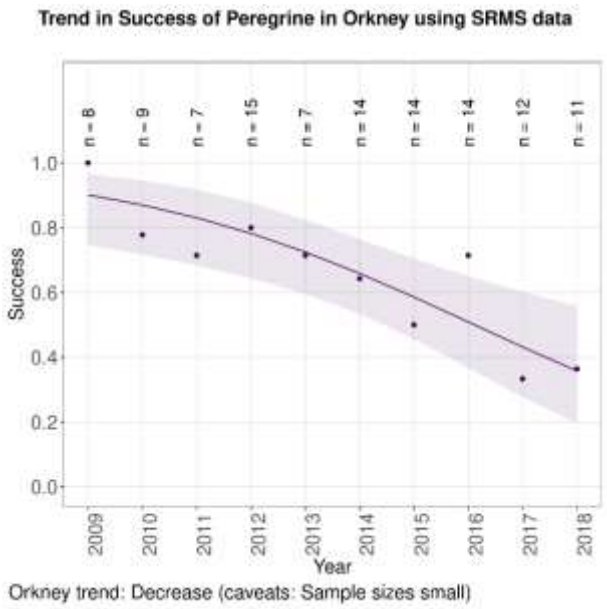
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 64: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin Orkney during 2009-2018.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 65: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in Orkney during 2009-2018.

Shetland

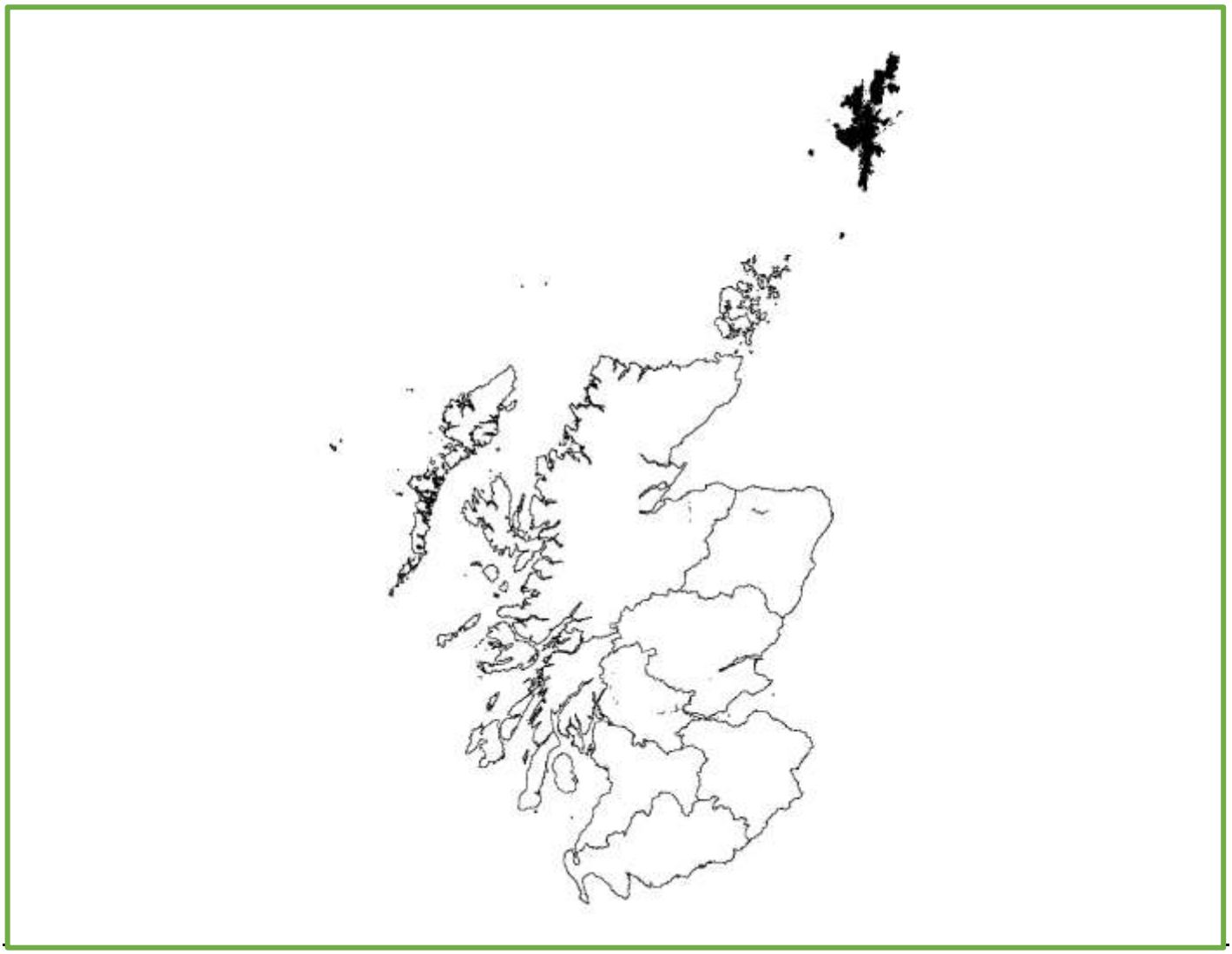


Figure 66: Shetland.

Trends in breeding numbers or breeding success are available for none of the four species for which the SRMS holds records for Shetland (Table 10).

Table 10: Summary of SRMS trends for Shetland during 2009-2018. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	Absent	Absent	Absent	Absent	Absent
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	Absent	Absent	Absent	Absent	Absent
Barn Owl	Absent	Absent	Absent	Absent	Absent
Tawny Owl	Absent	Absent	Absent	Absent	Absent
Kestrel	Absent	Absent	Absent	Absent	Absent
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

South Strathclyde

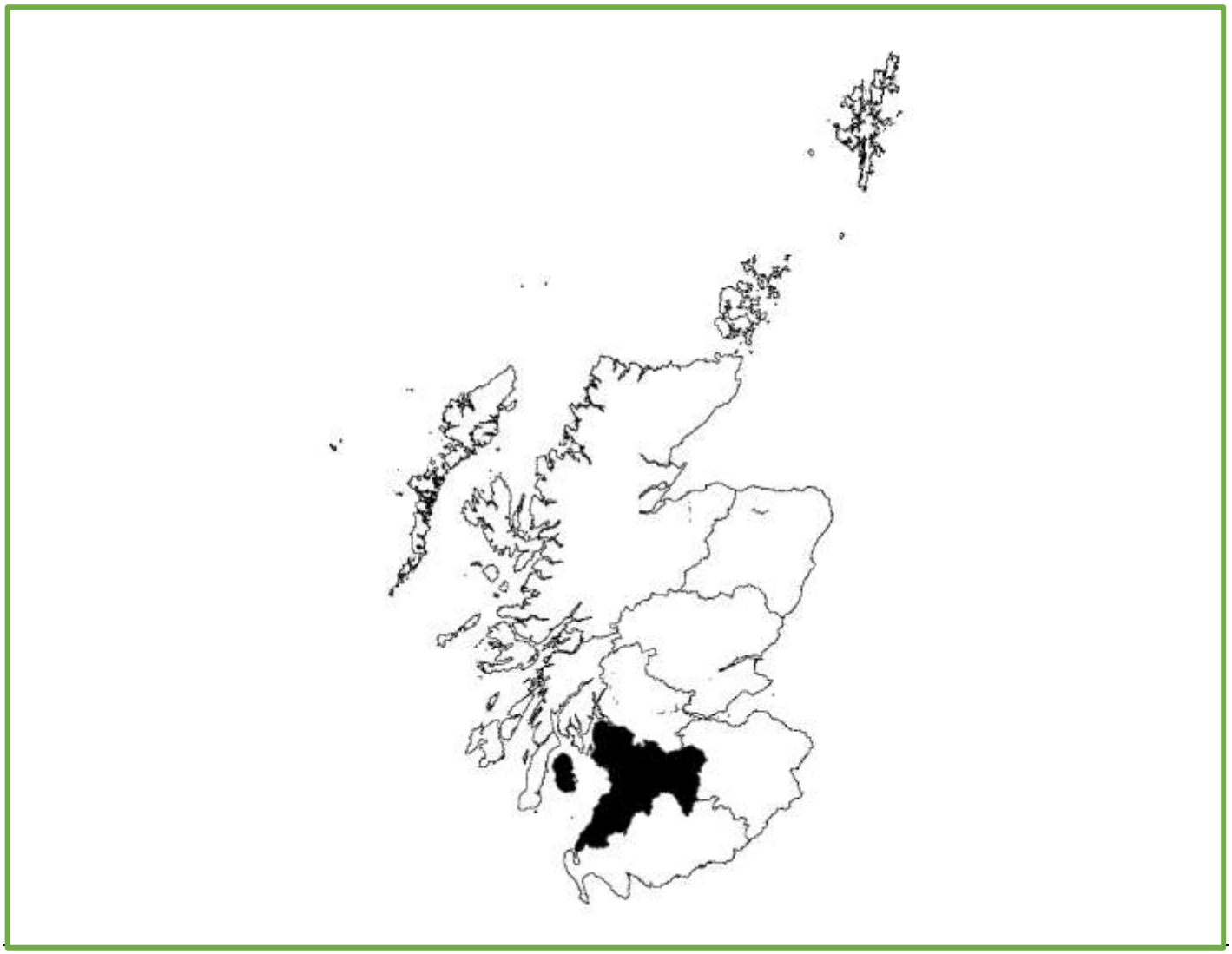


Figure 67: South Strathclyde.

Trends in breeding numbers are available for four species and trends in breeding success for three of the 13 species for which the SRMS holds records for South Strathclyde (Table 11).

Hen Harrier

The number of breeding pairs decreased significantly (-27%). No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 68).

Barn Owl

The number of breeding pairs and breeding success showed no significant change. No trends were available for clutch size and brood size but number of fledglings showed no significant change (Figure 69).

Kestrel

No trend is available for the number of breeding pairs. Breeding success, showed no significant change. No trends are available for clutch size, brood size or number of fledglings (Figure 70).

Peregrine

The number of breeding pairs showed no significant change while breeding success showed non-linear variation. No trends are available for clutch size and brood size but number of fledglings showed no significant change (Figure 71).

Raven

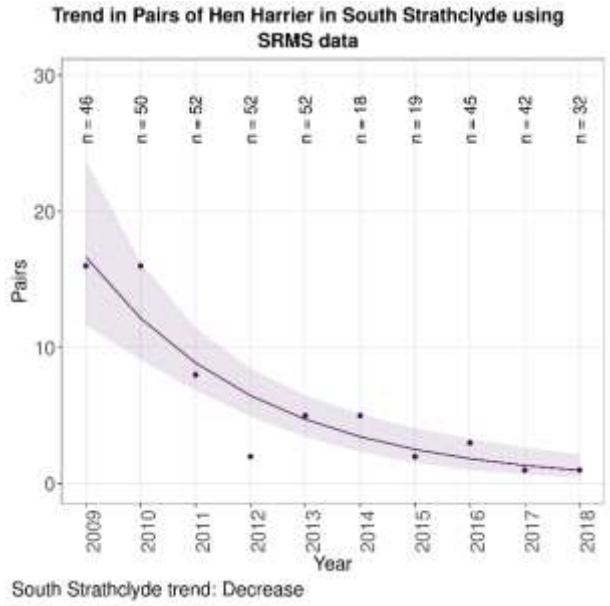
The number of breeding pairs showed no significant change while breeding success decreased significantly (-1%). No trends were available for

clutch size and brood size but number of fledglings showed no significant change (Figure 72).

Table 11: Summary of SRMS trends for South Strathclyde during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	**Decrease (-27%)**	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	—	—	—	—
Barn Owl	Not significant [ns]	Not significant [nrs]	—	—	Not significant [s]
Tawny Owl	—	—	—	—	—
Kestrel	—	Not significant [ns]	—	—	—
Merlin	—	—	—	—	—
Peregrine	Not significant	Non-linear	—	—	Not significant
Raven	Not significant	**Decrease [r] (-1%)**	—	—	Not significant

[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small.



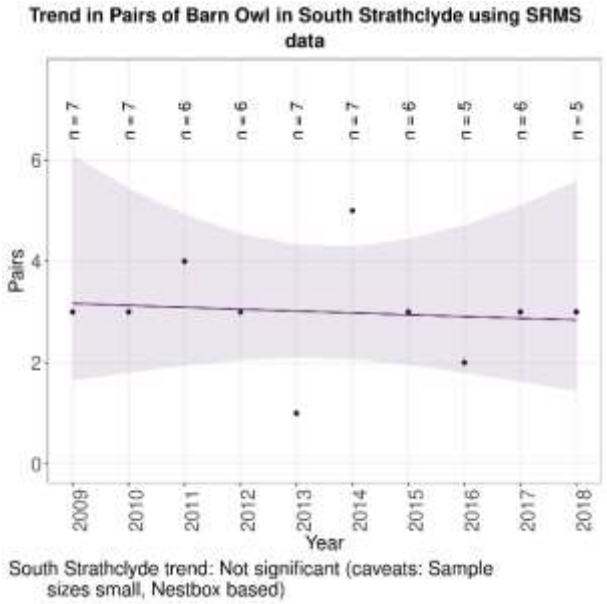
No trend available for breeding success

No trend available for clutch size

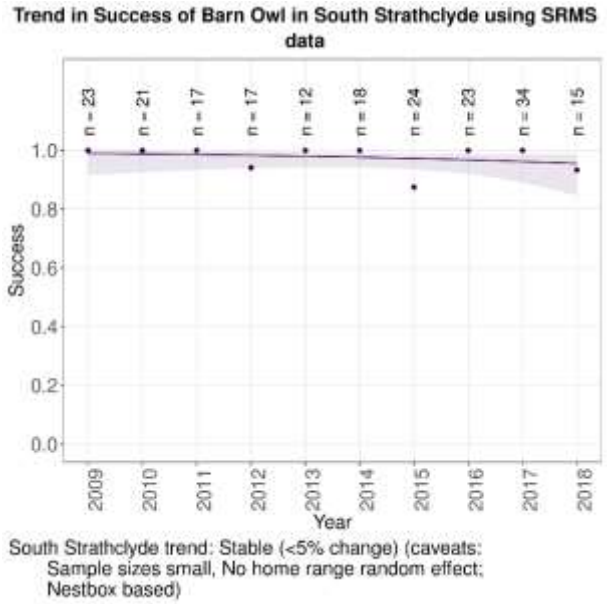
No trend available for brood size

No trend available for number of fledglings

Figure 68: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in South Strathclyde during 2009-2018.



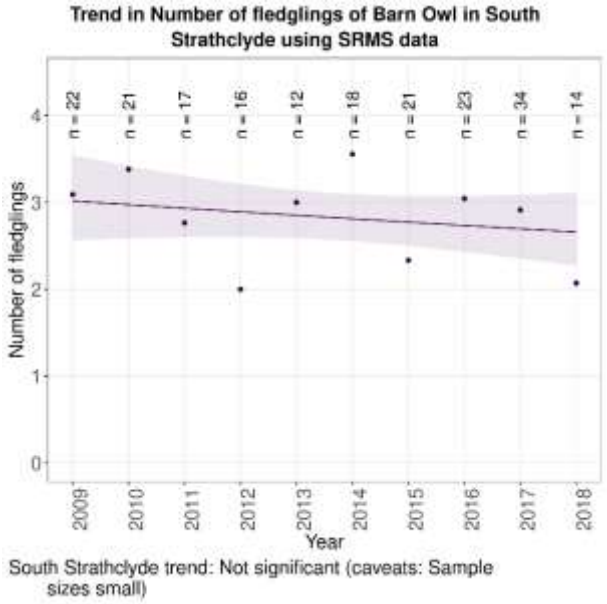
South Strathclyde trend: Not significant (caveats: Sample sizes small, Nestbox based)



South Strathclyde trend: Stable (<5% change) (caveats: Sample sizes small, No home range random effect; Nestbox based)

No trend available for clutch size

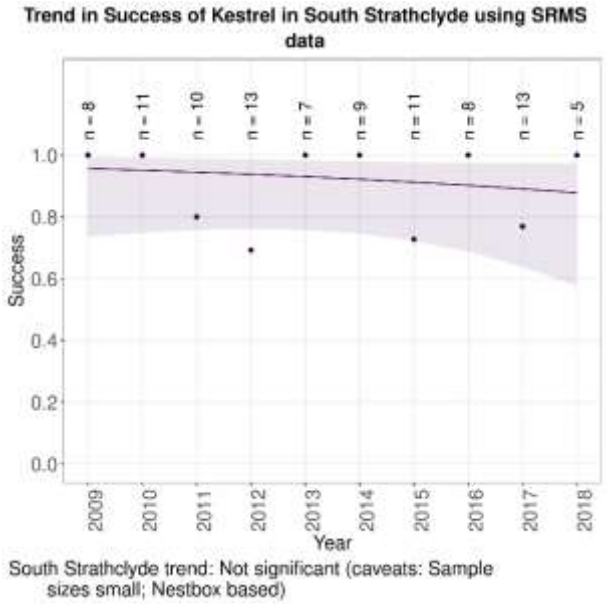
No trend available for brood size



South Strathclyde trend: Not significant (caveats: Sample sizes small)

Figure 69: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in South Strathclyde during 2009-2018.

No trend available
for breeding pairs

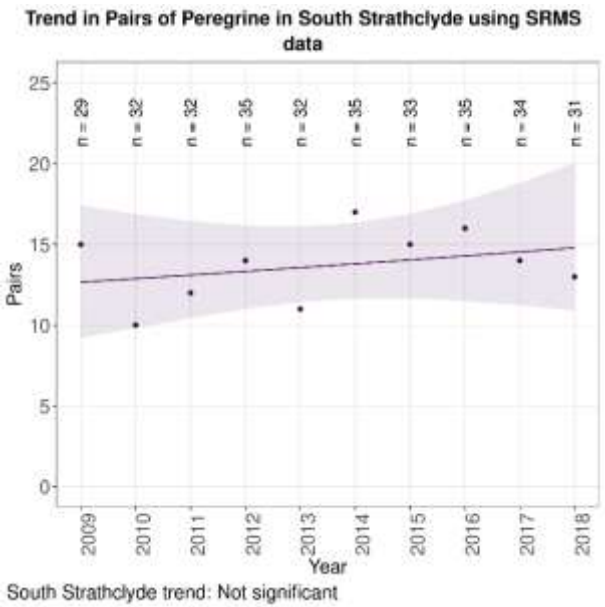


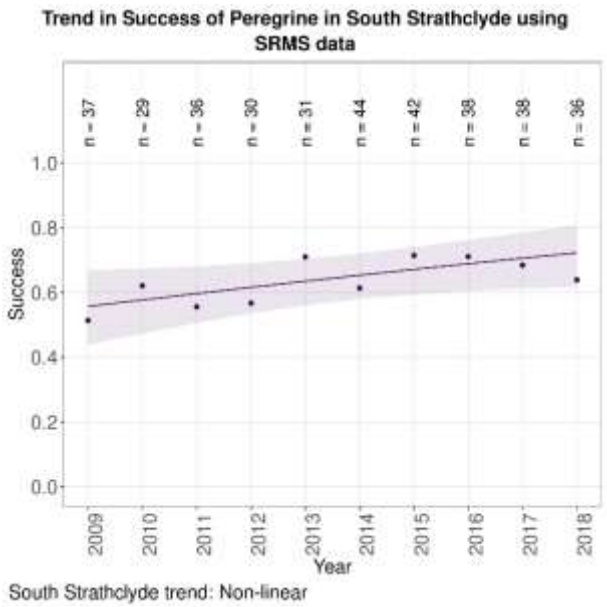
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 70: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Kestrel in South Strathclyde during 2009-2018.





No trend available for clutch size

No trend available for brood size

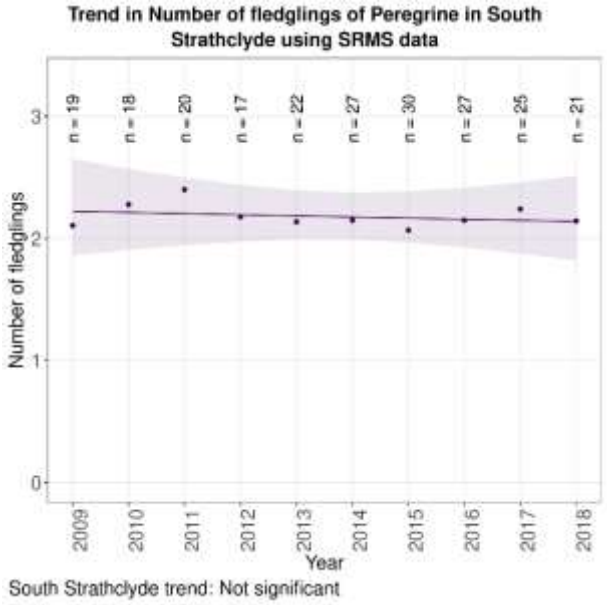
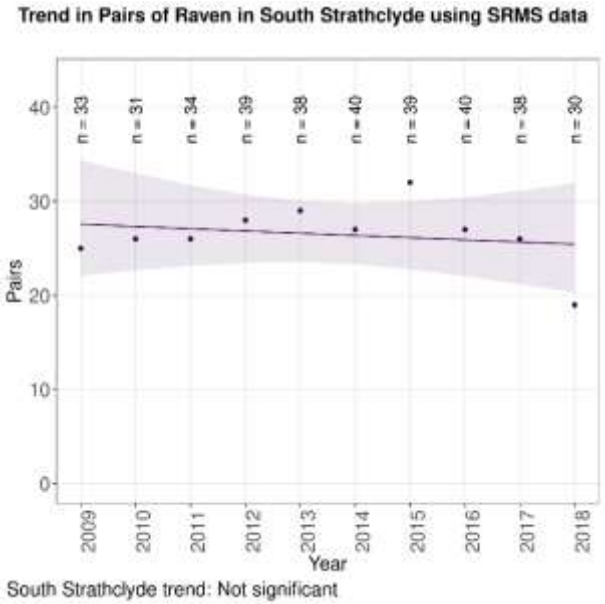
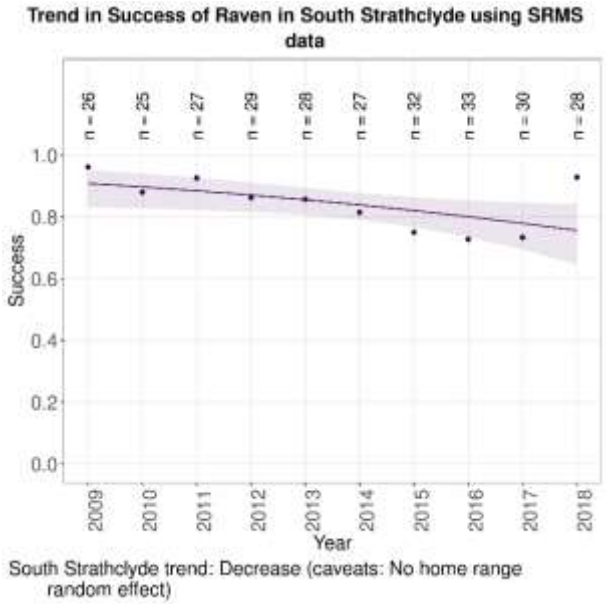


Figure 71: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in South Strathclyde during 2009-2018.





No trend available for clutch size

No trend available for brood size

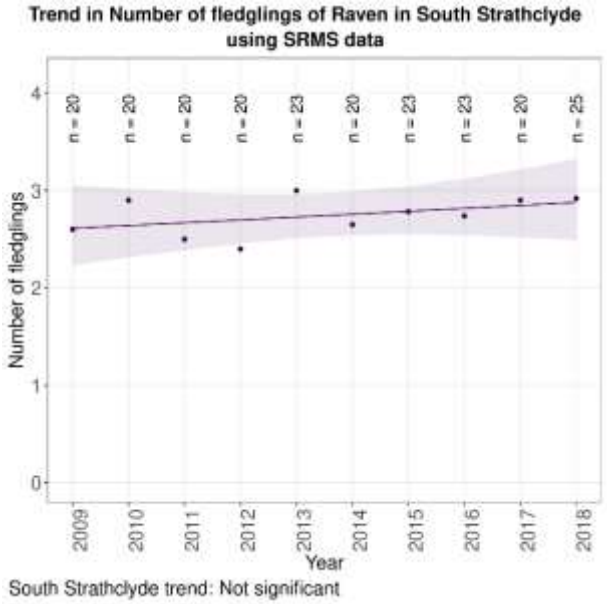


Figure 72: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in South Strathclyde during 2009-2018.

Tayside & Fife

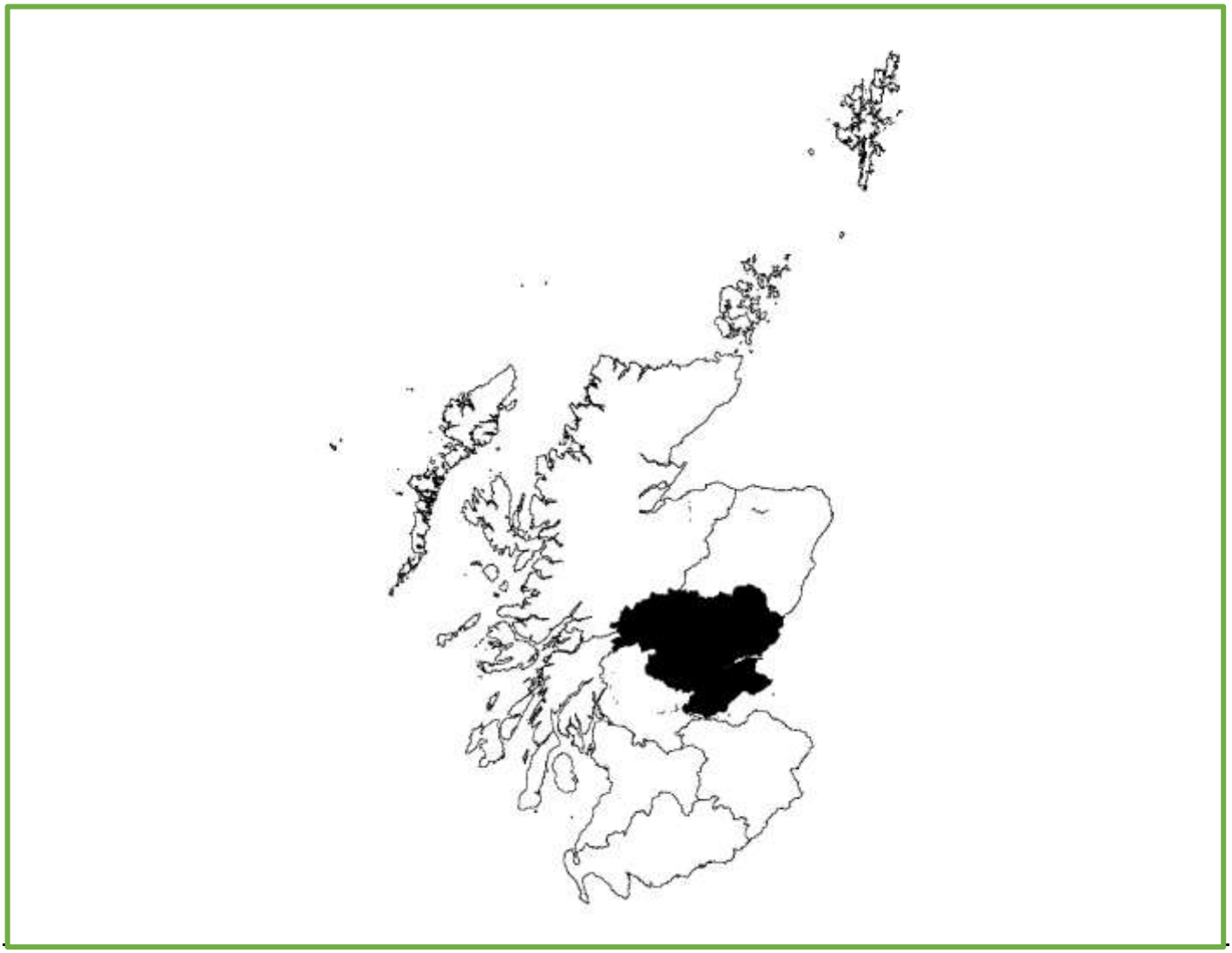


Figure 73: Tayside & Fife.

Trends in breeding numbers are available for eight species and trends in breeding success for eight of the 14 species for which the SRMS holds records for Tayside & Fife (Table 12)**.**

Osprey

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 74).

Golden Eagle

The number of breeding pairs and breeding success showed no significant change. No trends were available for clutch size and brood size but number of fledglings showed no significant change (Figure 75).

Hen Harrier

The number of breeding pairs showed no significant change while breeding success decreased significantly (-3.9%). Clutch size showed no significant change. No trends are available for brood size or the number of fledglings (Figure 76).

Red Kite

The number of breeding pairs showed non-linear variation. Breeding success showed no significant change. No trends were available for clutch size and brood size but number of fledglings showed no significant change (Figure 77).

Buzzard

The number of breeding pairs decreased significantly (-4.5%) while breeding success showed no significant change. No trends were available for

clutch size and brood size but number of fledglings showed no significant change (Figure 78).

Merlin

The number of breeding pairs and breeding success showed no significant change. No trends were available for clutch size, brood size or the number of fledglings (Figure 79).

Peregrine

The number of breeding pairs decreased significantly (-4.1%) while breeding success showed no significant change. No trends were available for clutch size and brood size but number of fledglings showed no significant change (Figure 80).

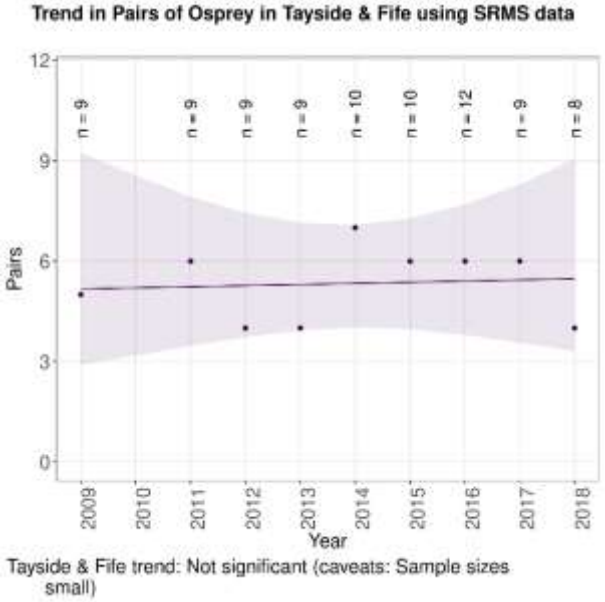
Raven

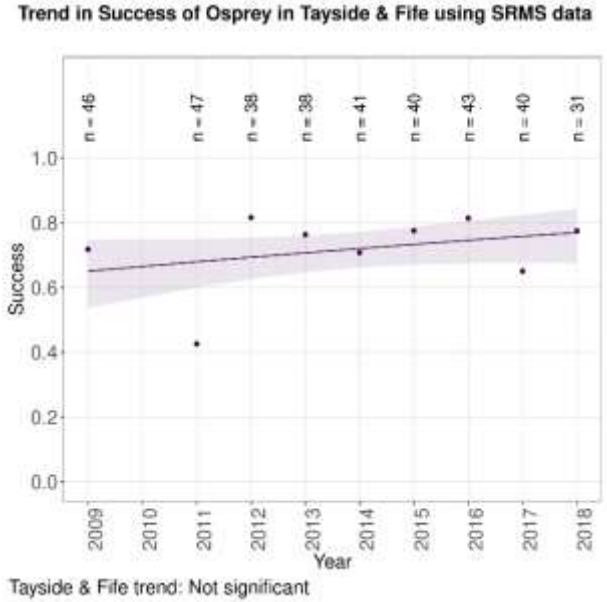
The number of breeding pairs and breeding success showed no significant change. No trends were available for clutch size and brood size but number of fledglings showed no significant change (Figure 81).

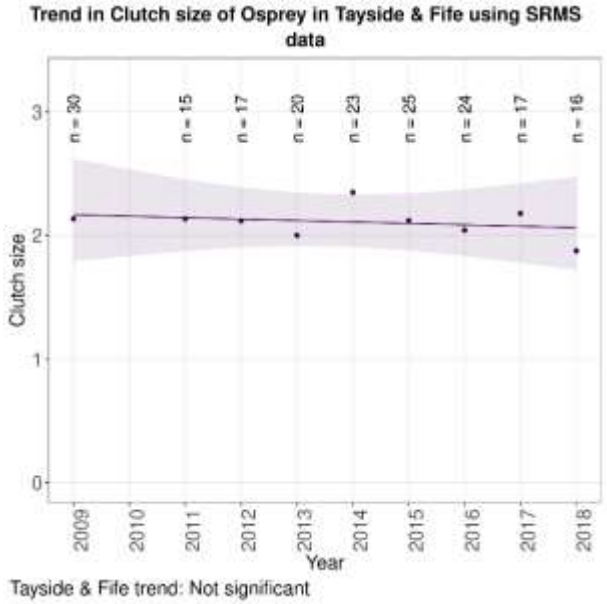
Table 12: Summary of SRMS trends for Tayside & Fife during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

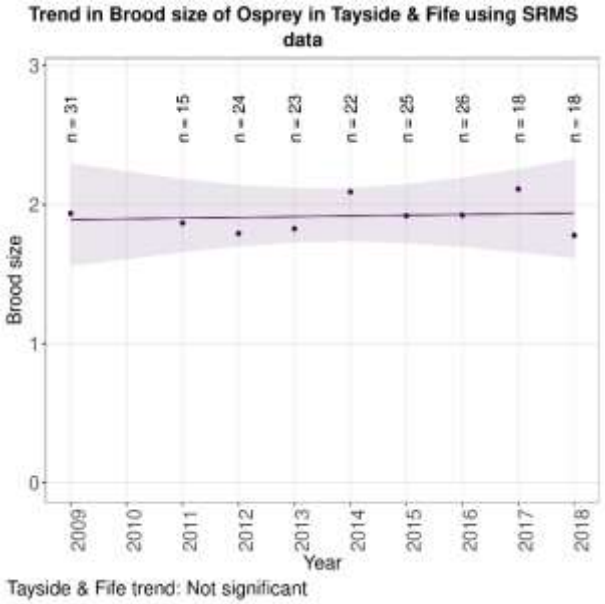
Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Not significant [s]	Not significant	Not significant	Not significant	Not significant
Golden Eagle	Not significant [s]	Not significant	—	—	Not significant [s]
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant	**Decrease (-3.9%)**	Not significant [s]	—	—
Red Kite	Non-linear	Not significant [x]	—	—	Not significant
White-tailed Eagle	—	—	—	—	—
Buzzard	**Decrease (-4.5%)**	Not significant	—	—	Not significant
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	Not significant [sv]	Not significant [rs]	—	—	—
Peregrine	**Decrease (-4.1%)**	Not significant	—	—	Not significant
Raven	Not significant	Not significant	—	—	Not significant

[r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.









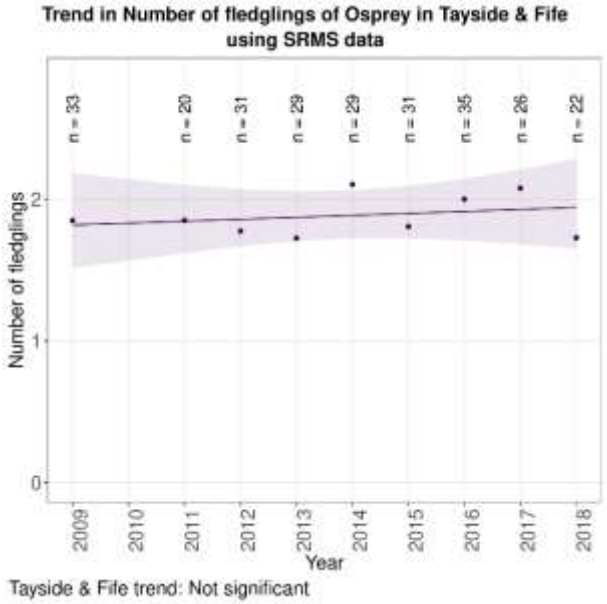
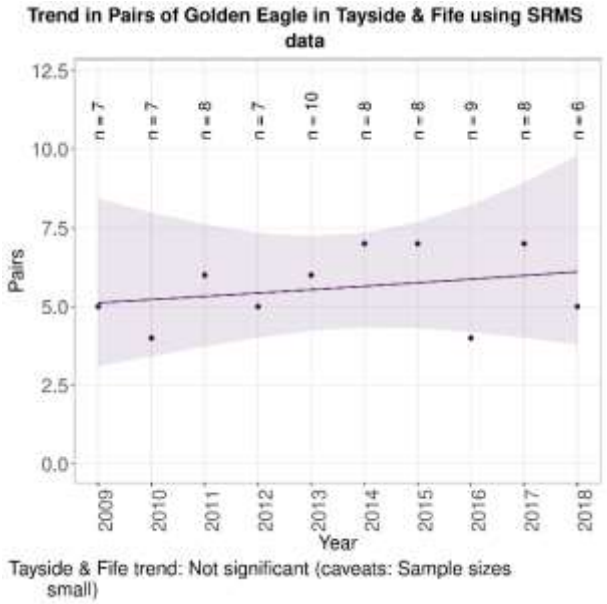
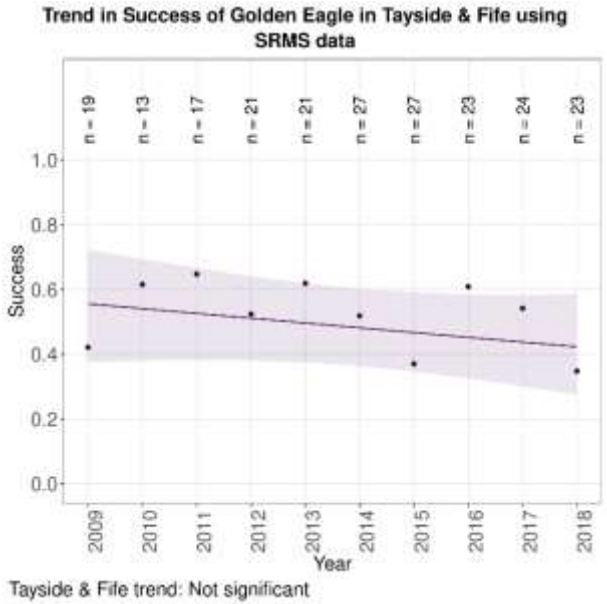


Figure 74: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in Tayside & Fife during 2009-2018.





No trend available for clutch size

No trend available for brood size

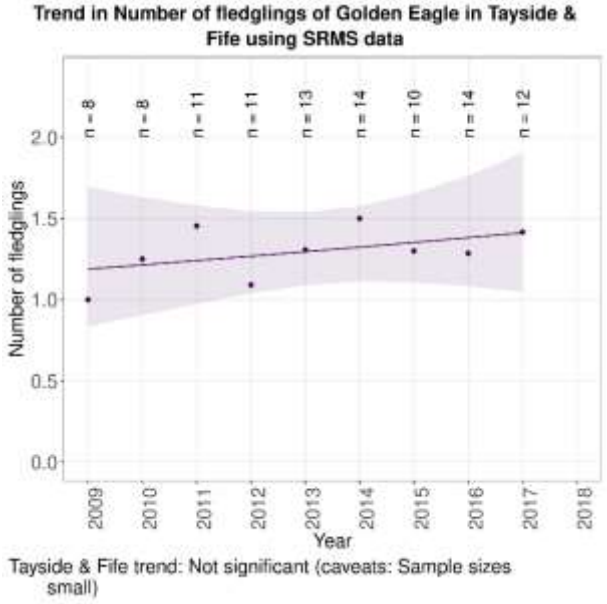
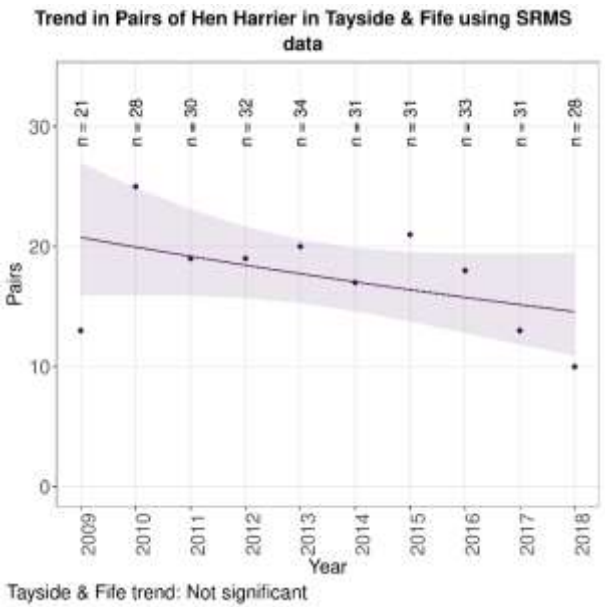
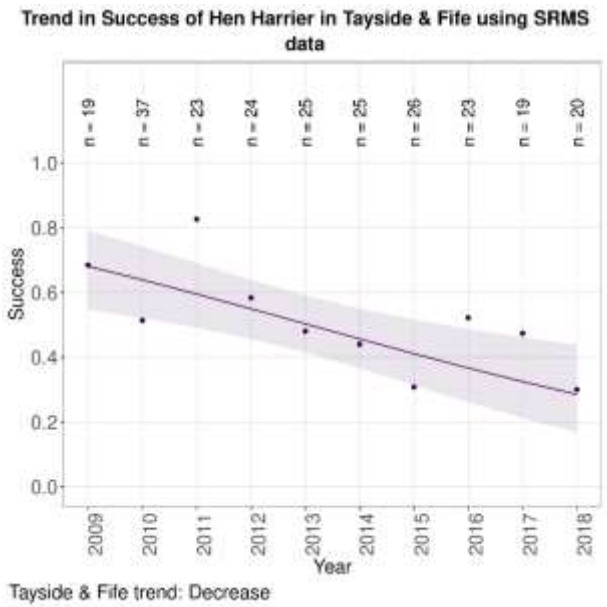
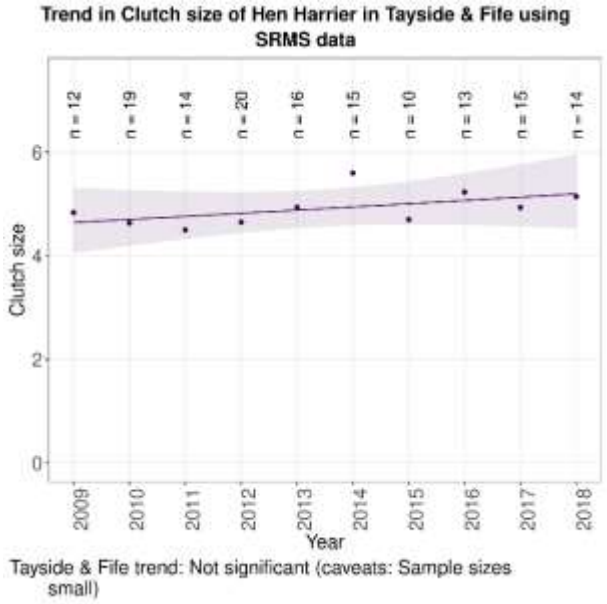


Figure 75: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Tayside & Fife during 2009-2018.



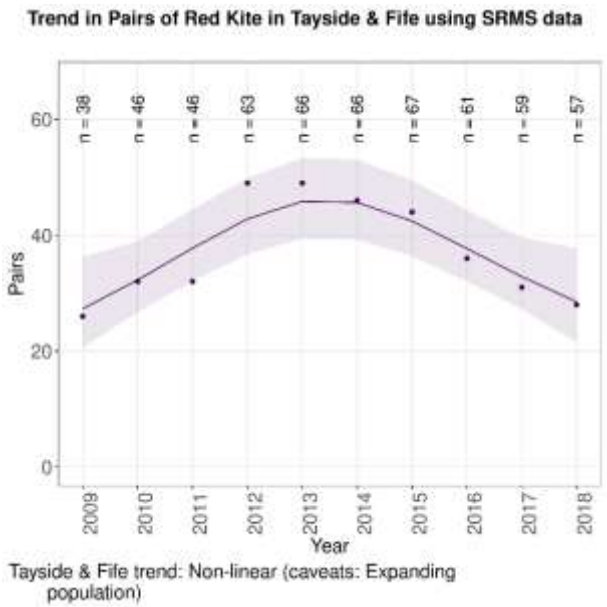


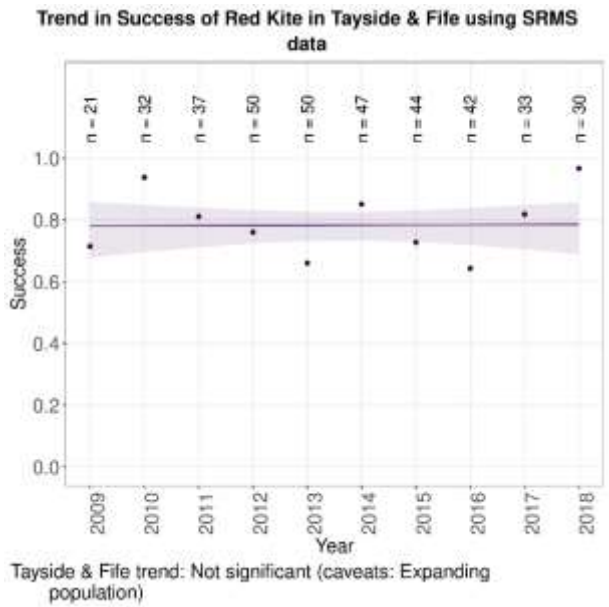


No trend available for brood size

No trend available for number of fledglings

Figure 76: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in Tayside & Fife during 2009-2018.





No trend available for clutch size

No trend available for brood size

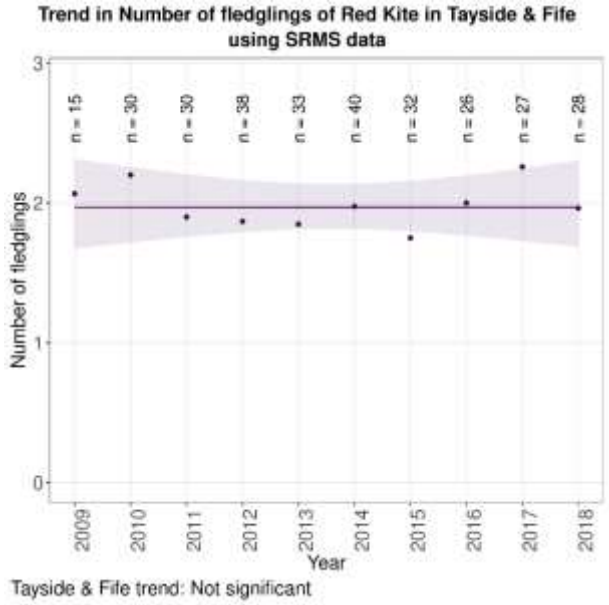
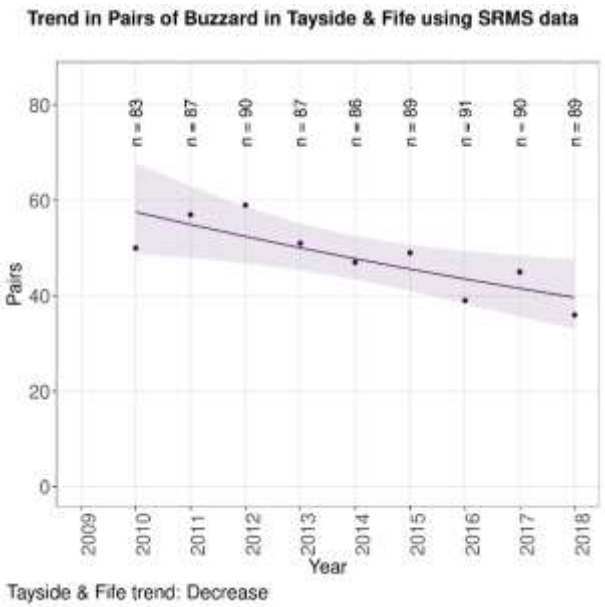
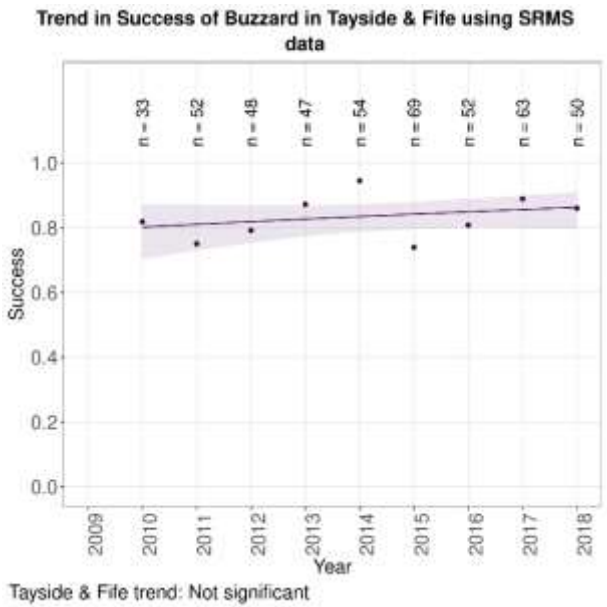


Figure 77: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in Tayside & Fife during 2009-2018.





No trend available for clutch size

No trend available for brood size

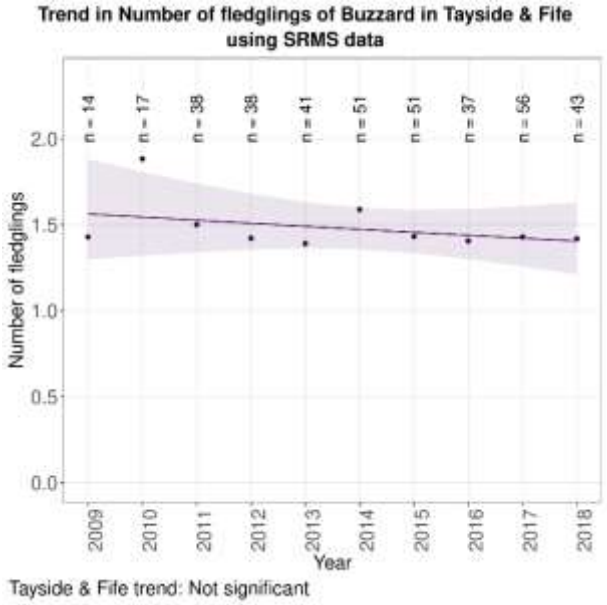
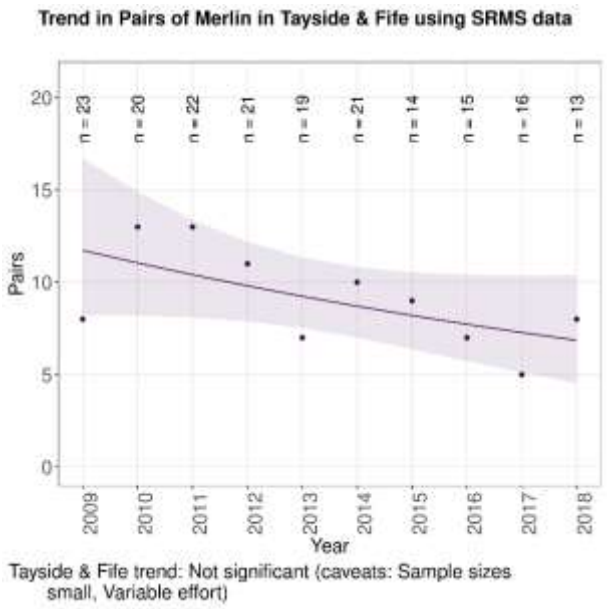
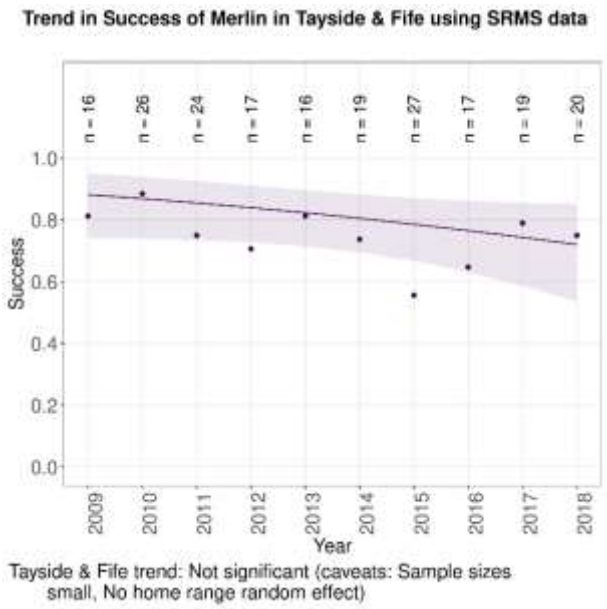


Figure 78: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Tayside & Fife during 2009-2018.



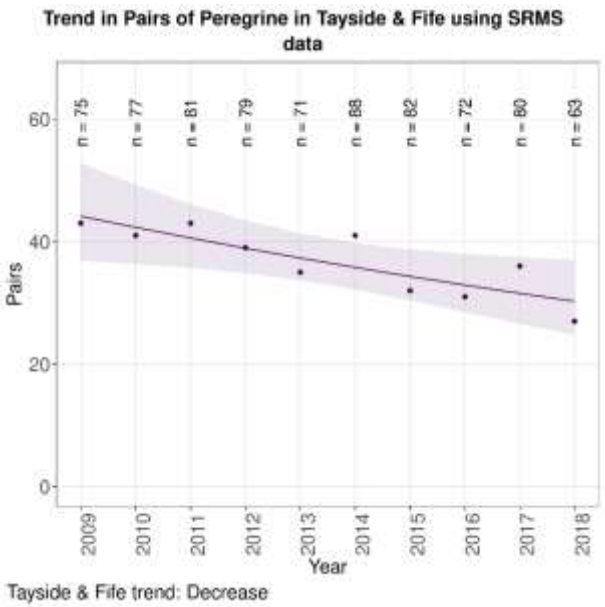


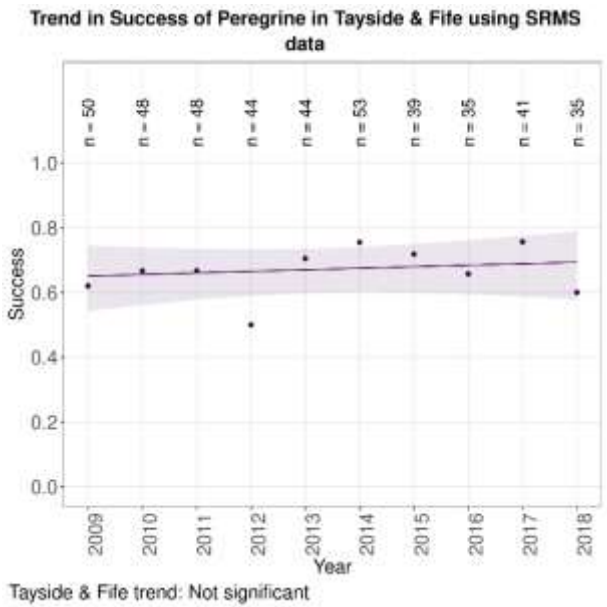
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 79: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in Tayside & Fife during 2009-2018.





No trend available for clutch size

No trend available for brood size

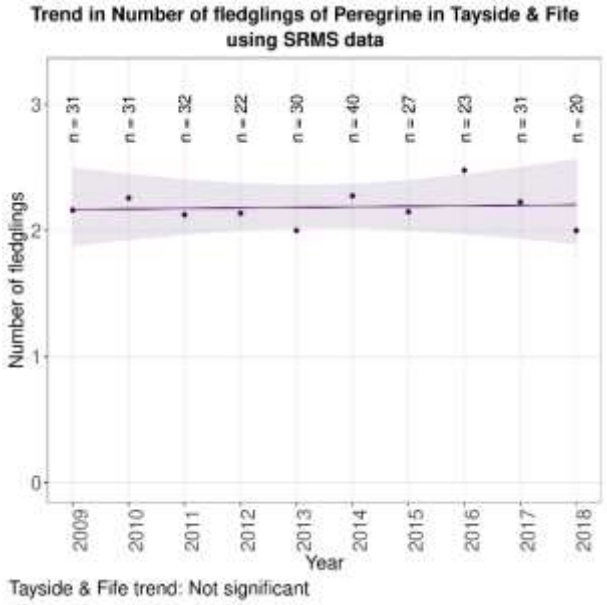
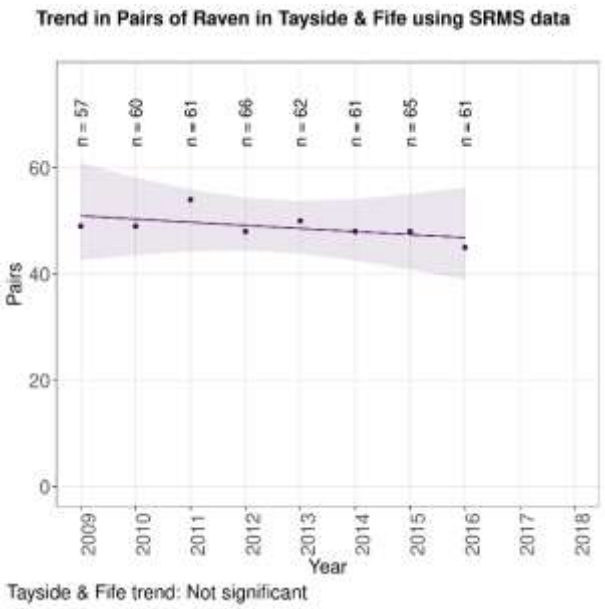
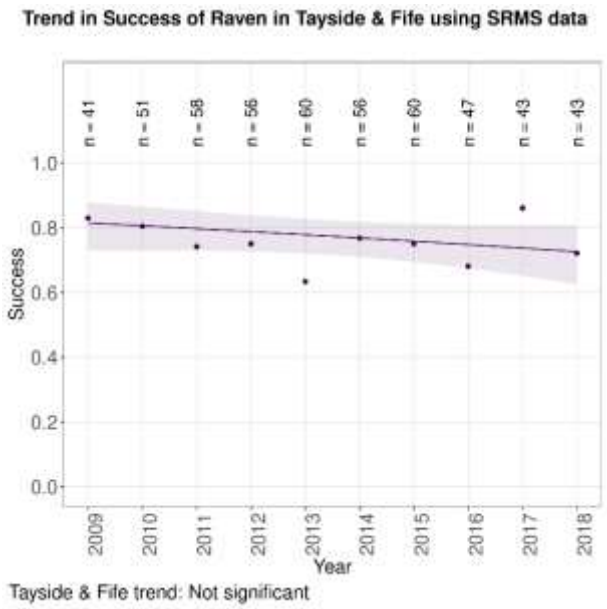


Figure 80: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in Tayside & Fife during 2009-2018.





No trend available for clutch size

No trend available for brood size

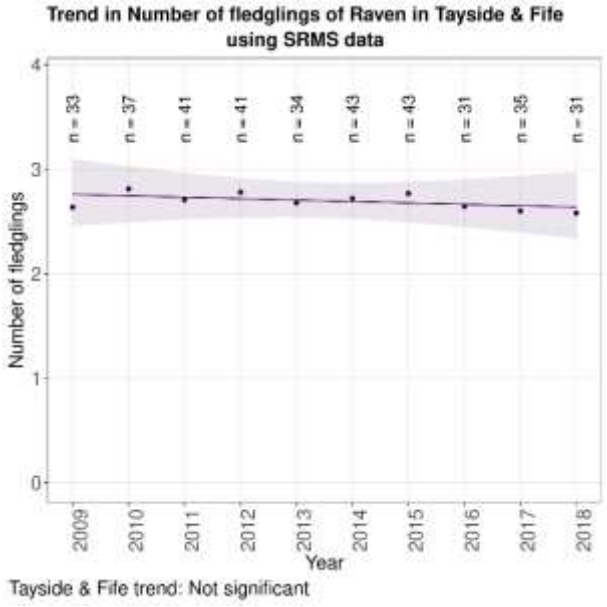


Figure 81: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Tayside & Fife during 2009-2018.

Uist

Figure 82: Uist.

Trends in breeding numbers are available for three species and trends in breeding success for three of the nine species for which the SRMS holds records for Uist (Table 13).

Golden Eagle

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 83).

White-tailed Eagle

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 84).

Buzzard

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or number of fledglings (Figure 85).

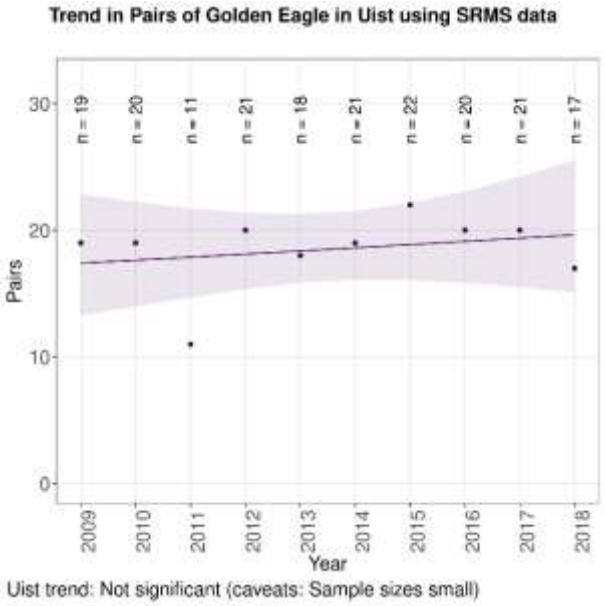
Raven

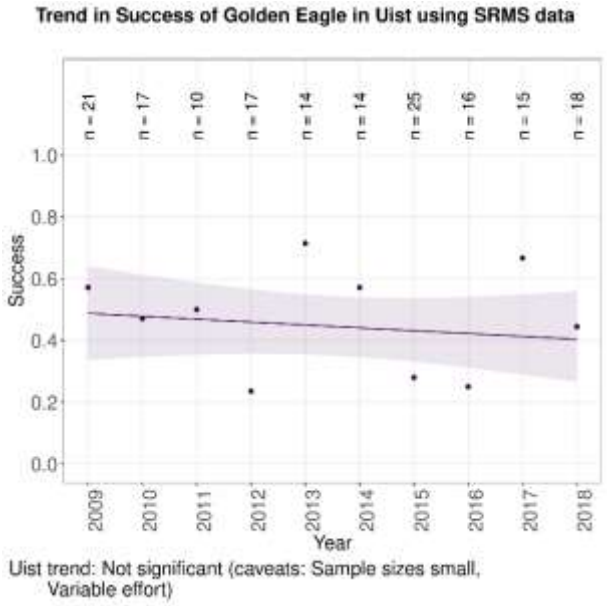
The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 86).

Table 13: Summary of SRMS trends for Uist during 2009-2018. Non-significant changes are highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	Not significant [s]	Not significant [sv]	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	—	—	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	Not significant	—	—	—	—
Buzzard	—	Not significant	—	—	—
Barn Owl	Absent	Absent	Absent	Absent	Absent
Tawny Owl	Absent	Absent	Absent	Absent	Absent
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	Not significant [sv]	Not significant [s]	—	—	Not significant [s]

[s] Sample sizes small, [v] Variable effort.



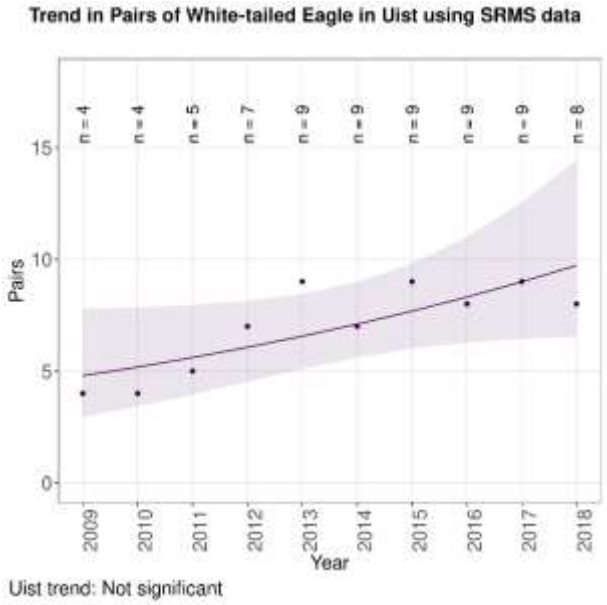


No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 83: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in Uist during 2009-2018.



No trend available
for breeding success

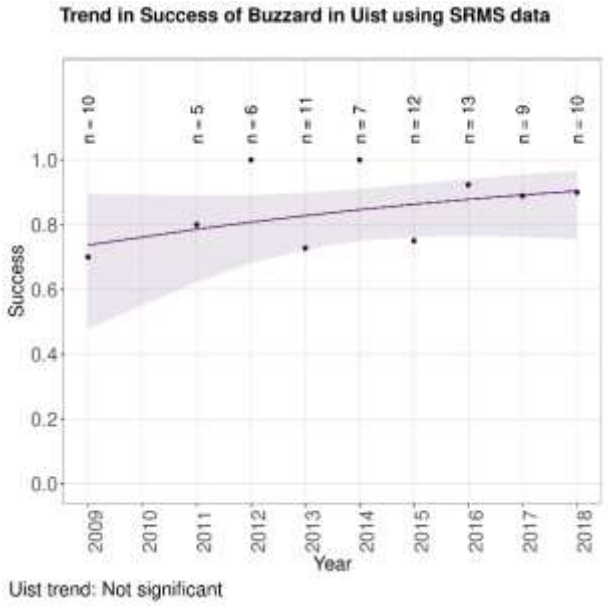
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 84: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in Uist during 2009-2018.

No trend available
for breeding pairs

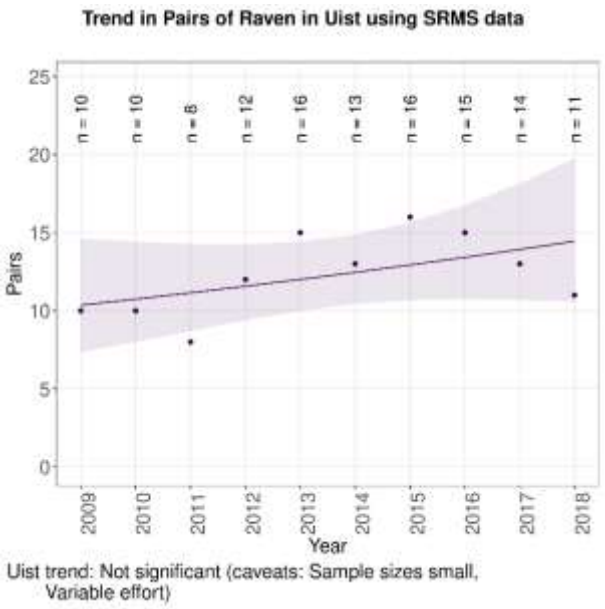


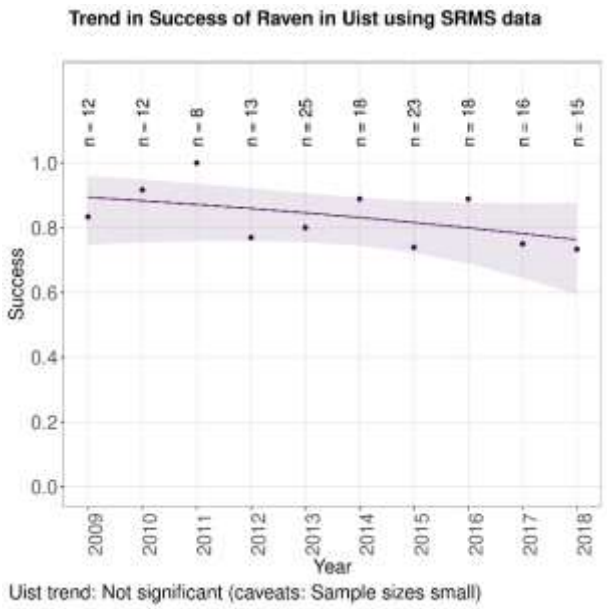
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 85: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in Uist during 2009-2018.





No trend available for clutch size

No trend available for brood size

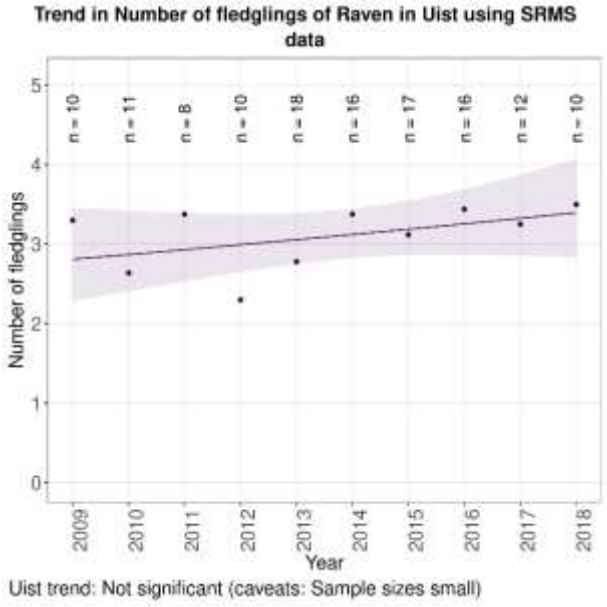


Figure 86: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in Uist during 2009-2018.

NHZ 01. Shetland

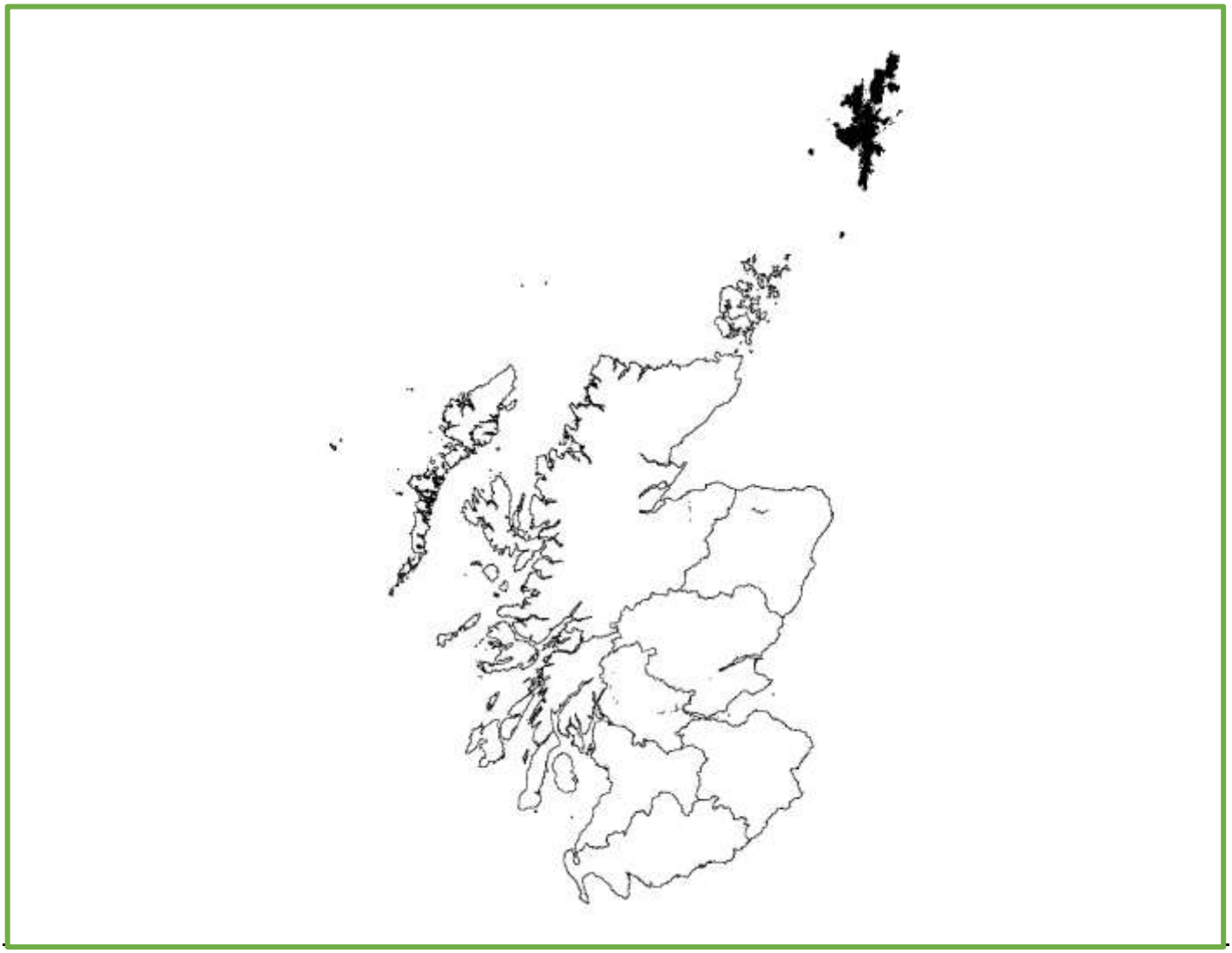


Figure 87: NHZ 01. Shetland.

No trends in breeding numbers or breeding success are available for any of the four species for which the SRMS holds records for NHZ 01. Shetland (Table 14).

Table 14: Summary of SRMS trends for NHZ 01. Shetland during 2009-2018. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	Absent	Absent	Absent	Absent	Absent
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	Absent	Absent	Absent	Absent	Absent
Barn Owl	Absent	Absent	Absent	Absent	Absent
Tawny Owl	Absent	Absent	Absent	Absent	Absent
Kestrel	Absent	Absent	Absent	Absent	Absent
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

NHZ 02. North Caithness and Orkney

Figure 88: NHZ 02. North Caithness and Orkney**.**

Trends in breeding numbers are available for four species and trends in breeding success for three of the 11 species for which the SRMS holds records for NHZ 02. North Caithness and Orkney (Table 15).

Hen Harrier

The number of breeding pairs and breeding success showed non-linear variation. Clutch size showed a significant decrease (-2.2%) while there was no significant change in brood size. No trend is available for the number of fledglings (Figure 89).

Kestrel

The number of breeding pairs decreased significantly (-14.8%) while breeding success showed no significant change. No trends are available for clutch size, brood size or number of fledglings (Figure 90).

Merlin

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 91).

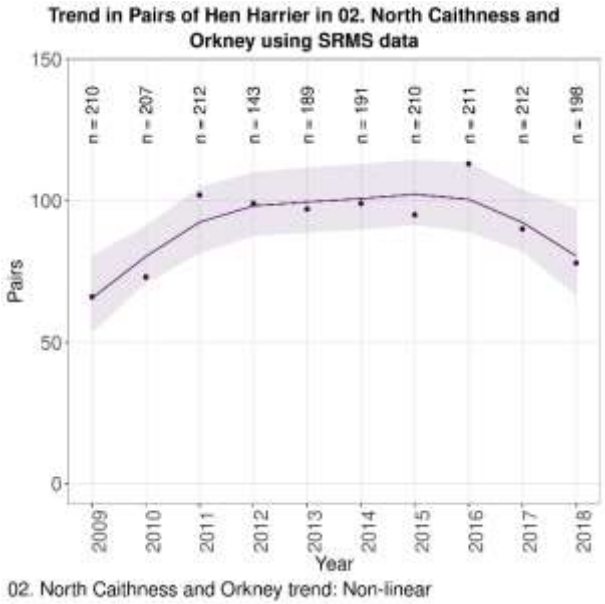
Peregrine

The number of breeding pairs showed no significant change while breeding success decreased significantly (-2.4%). No trends are available for clutch size, brood size or number of fledglings (Figure 92).

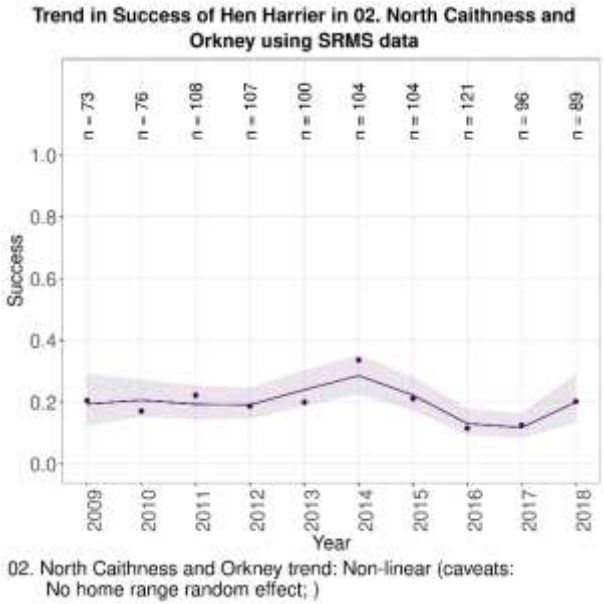
Table 15: Summary of SRMS trends for NHZ 02. North Caithness & Orkney during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	Non-linear	Non-linear	**Decrease [r] (-2.2%)**	Not significant [r]	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Kestrel	**Decrease [s] (-14.8%)**	Not significant [s]	—	—	—
Merlin	Not significant	—	—	—	—
Peregrine	Not significant [s]	**Decrease [s] (-2.4%)**	—	—	—
Raven	—	—	—	—	—

[r] No home range random effect, [s] Sample sizes small.

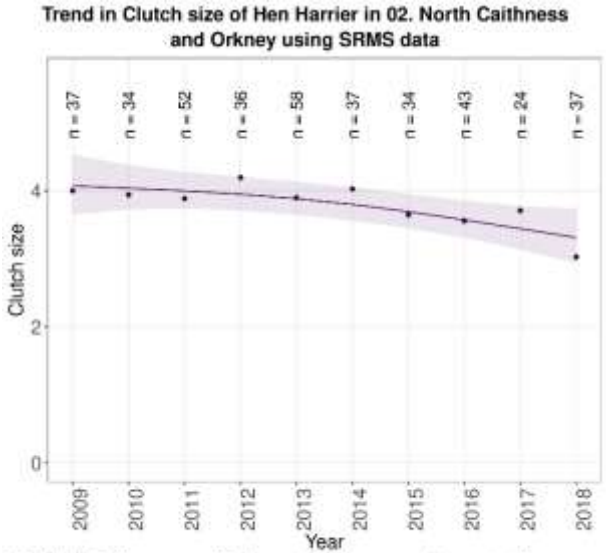


02. North Caithness and Orkney trend: Non-linear

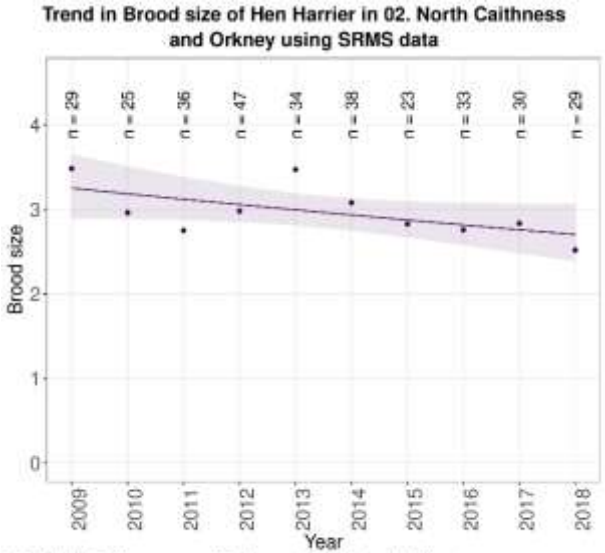


02. North Caithness and Orkney trend: Non-linear (caveats: No home range random effect;)

No trend available for number of fledglings

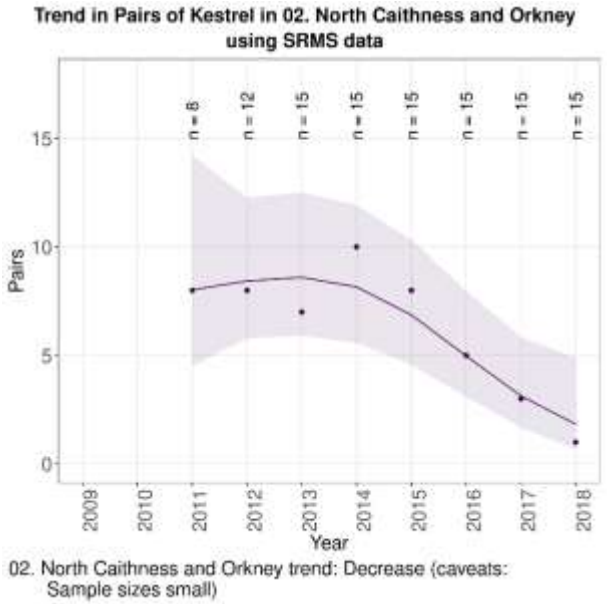


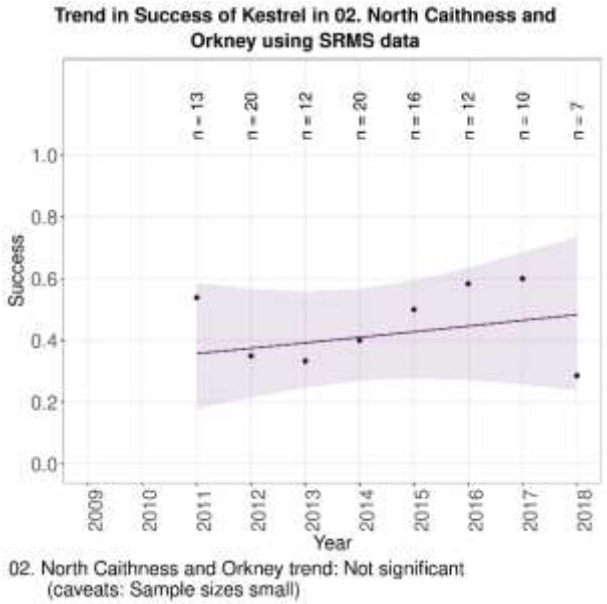
02. North Caithness and Orkney trend: Decrease (caveats: No home range random effect;)



02. North Caithness and Orkney trend: Not significant (caveats: No home range random effect)

Figure 89: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 02. North Caithness & Orkney during 2009-2018.



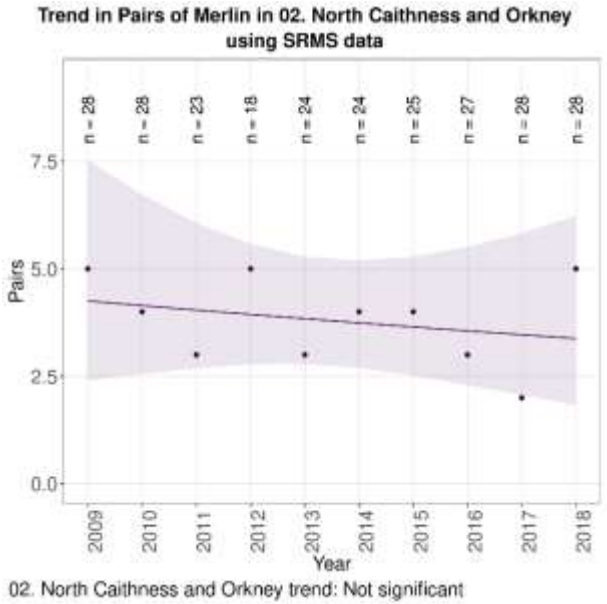


No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 90: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Kestrel in NHZ 02. North Caithness & Orkney during 2009-2018.



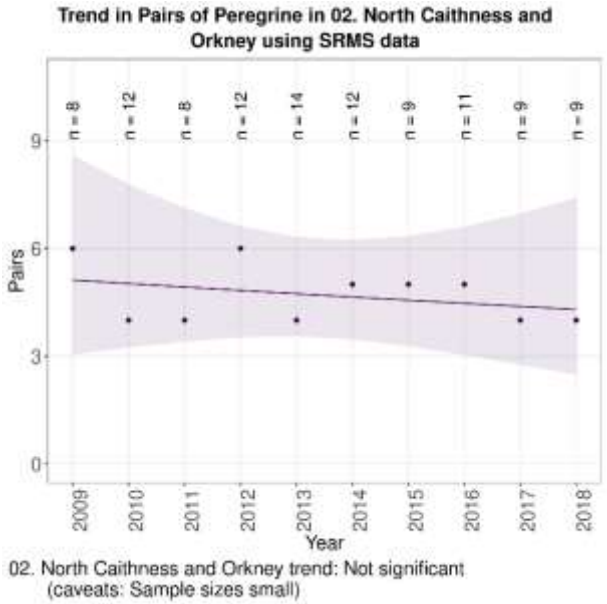
No trend available for breeding success

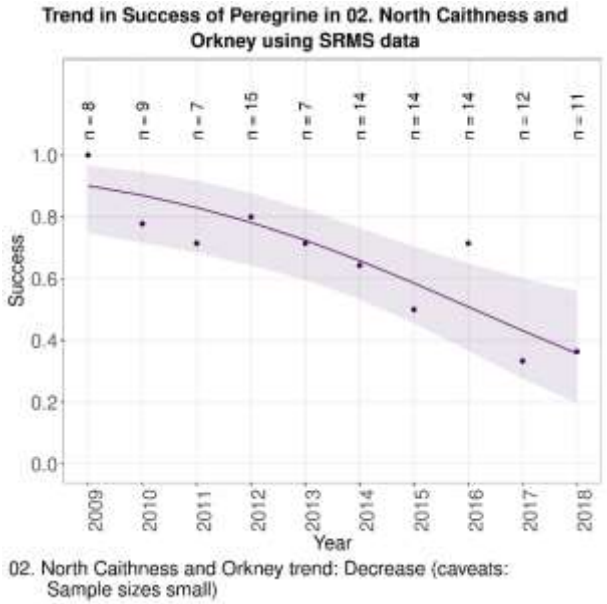
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 91: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in NHZ 02. North Caithness & Orkney during 2009-2018.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 92: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 02. North Caithness & Orkney during 2009-2018.

NHZ 03. Coll, Tiree and the Western Isles

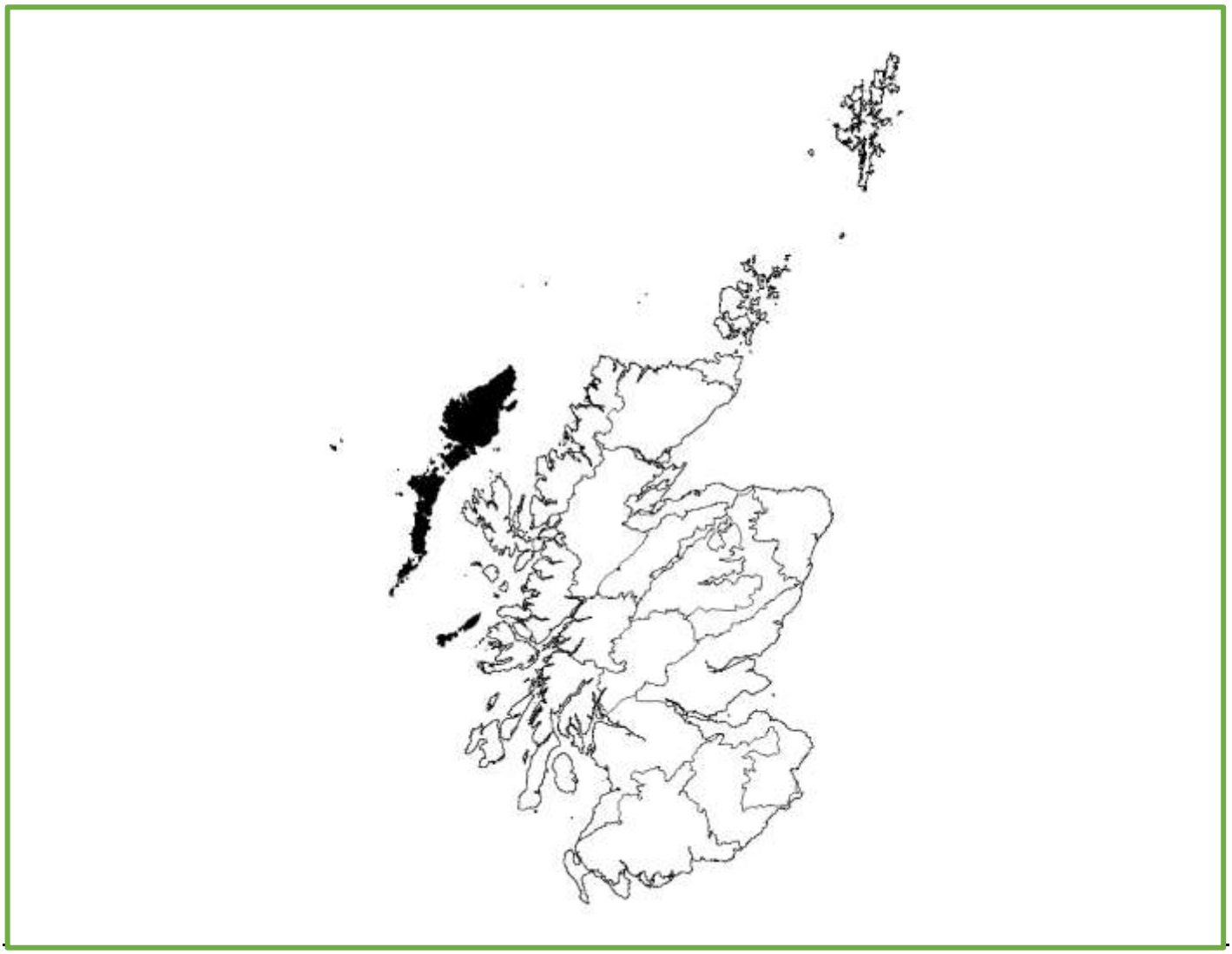


Figure 93: NHZ 03. Coll, Tiree and the Western Isles.

Trends in breeding numbers are available for three species and trends in breeding success for four of the nine species for which the SRMS holds records for NHZ 03. Coll, Tiree and the Western Isles (Table 16).

Golden Eagle

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 94).

White-tailed Eagle

The number of breeding pairs increased (+6.4%) while breeding success showed no significant change. Clutch size and the number of fledglings showed no significant change. No trend was available for brood size (Figure 95).

Buzzard

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends in clutch size or brood size were available but the number of fledglings showed no significant change (Figure 96).

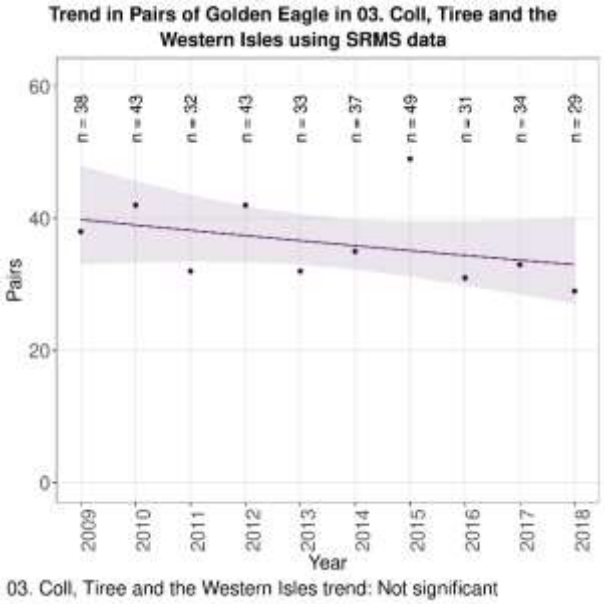
Raven

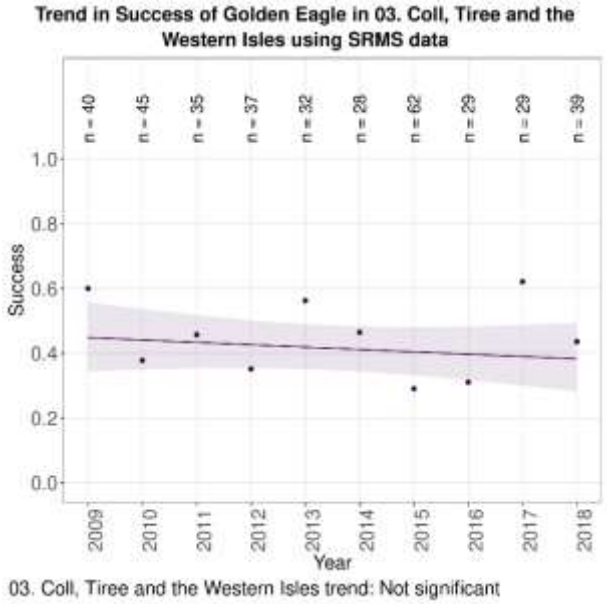
The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size or brood size but the number of fledglings showed no significant change (Figure 97).

Table 16: Summary of SRMS trends for NHZ 03. Coll, Tiree and the Western Isles during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	Not significant	Not significant	—	—	Not significant [rs]
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	—	—	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	**Increase [ax] (6.4%)**	Not significant [x]	Not significant [rsx]	—	Not significant [sx]
Buzzard	—	Not significant [s]	—	—	Not significant [rs]
Barn Owl	Absent	Absent	Absent	Absent	Absent
Tawny Owl	Absent	Absent	Absent	Absent	Absent
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	Not significant [v]	Not significant	—	—	Not significant [rs]

[a] All data used, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

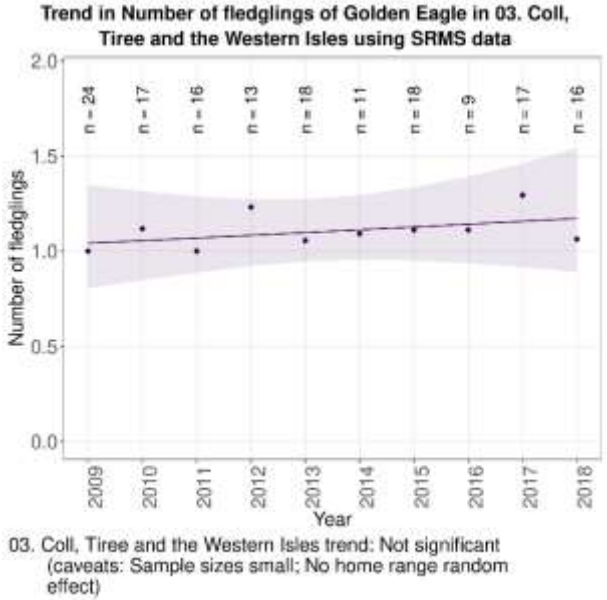
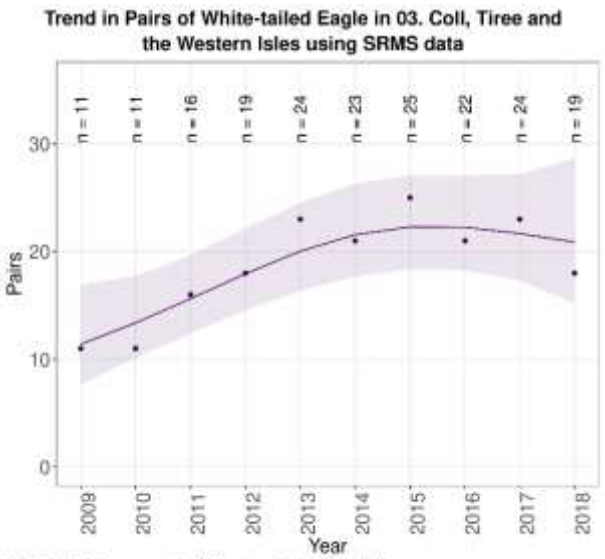
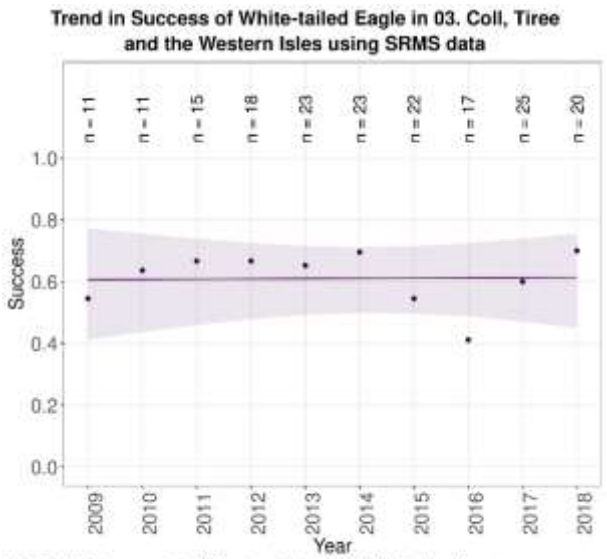


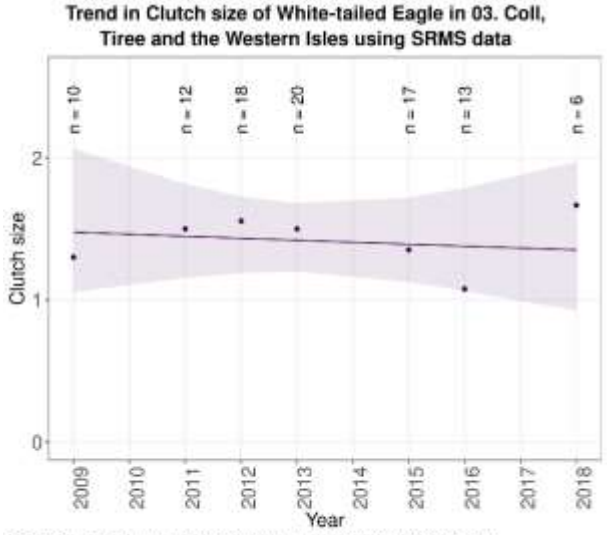
Figure 94: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 03. Coll, Tiree and the Western Isles during 2009-2018.



03. Coll, Tiree and the Western Isles trend: Increase
(caveats: Expanding population, All data used)

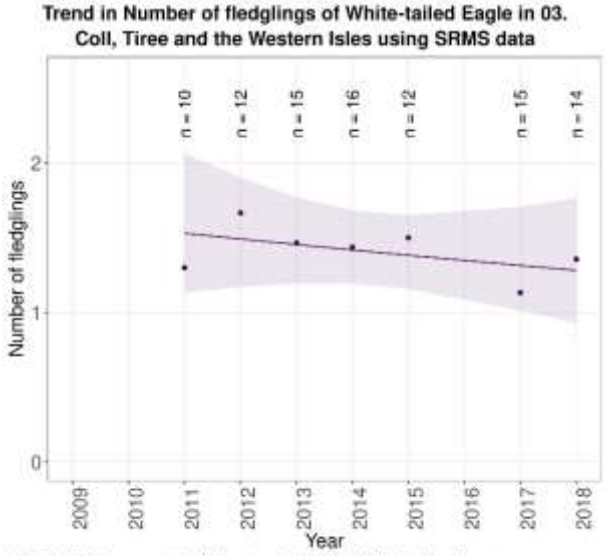


03. Coll, Tiree and the Western Isles trend: Not significant
(caveats: Expanding population)



03. Coll, Tiree and the Western Isles trend: Not significant
(caveats: Expanding population; Sample sizes small;
No home range random effect)

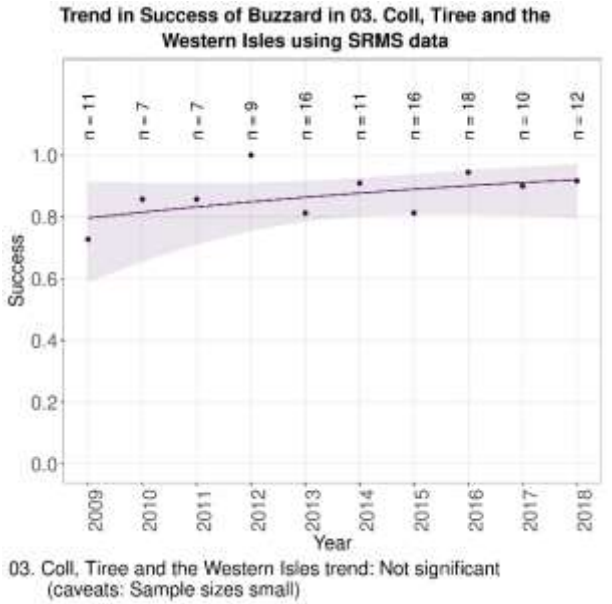
No trend available
for brood size



03. Coll, Tiree and the Western Isles trend: Not significant
(caveats: Expanding population; Sample sizes small)

Figure 95: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in NHZ 03. Coll, Tiree and the Western Isles during 2009-2018.

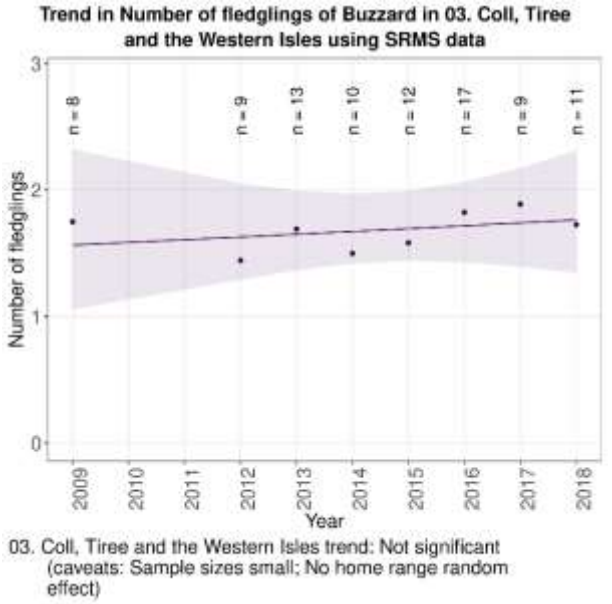
No trend available for breeding pairs



03. Coll, Tiree and the Western Isles trend: Not significant (caveats: Sample sizes small)

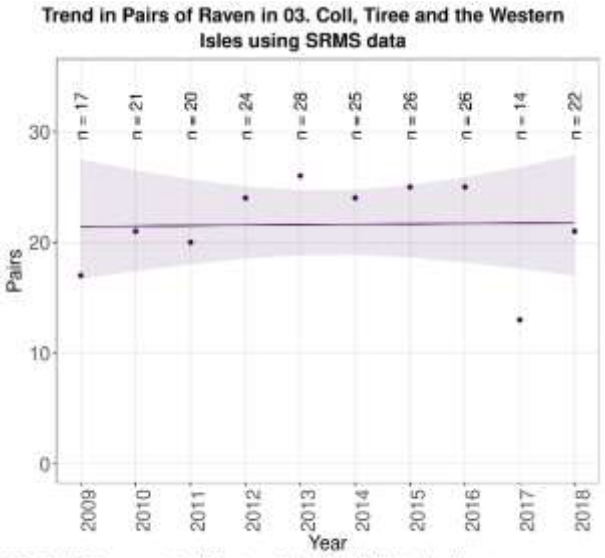
No trend available for clutch size

No trend available for brood size

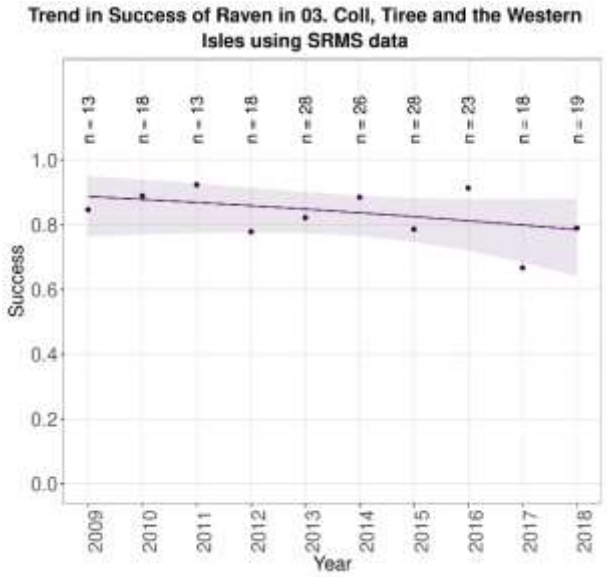


03. Coll, Tiree and the Western Isles trend: Not significant (caveats: Sample sizes small; No home range random effect)

Figure 96: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 03. Coll, Tiree and the Western Isles during 2009-2018.



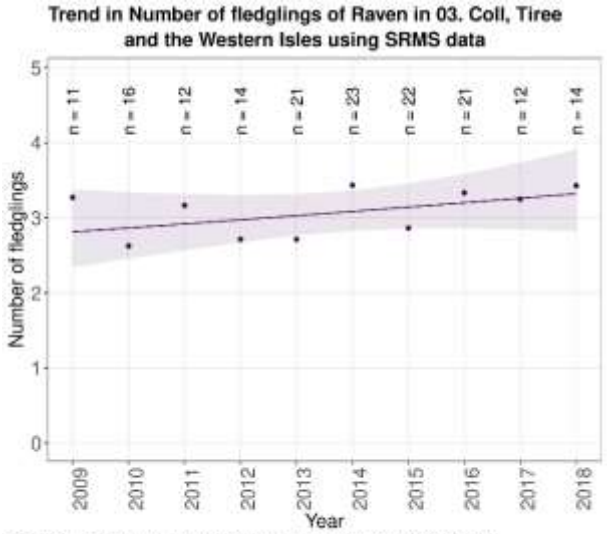
03. Coll, Tiree and the Western Isles trend: Not significant (caveats: Variable effort)



03. Coll, Tiree and the Western Isles trend: Not significant

No trend available for clutch size

No trend available for brood size



03. Coll, Tiree and the Western Isles trend: Not significant (caveats: Sample sizes small; No home range random effect)

Figure 97: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 03. Coll, Tiree and the Western Isles during 2009-2018.

NHZ 04. North West Seaboard

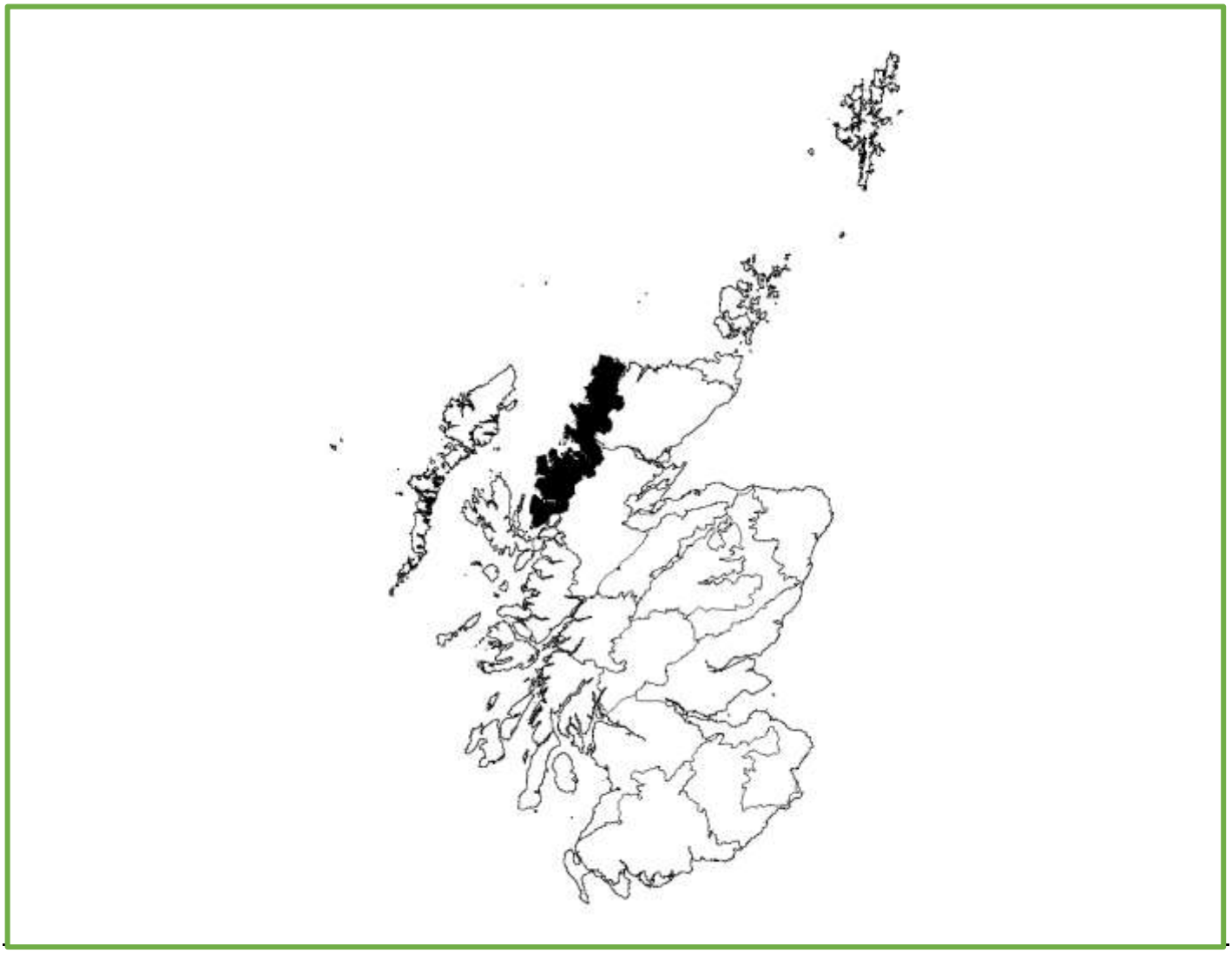


Figure 98: NHZ 04. North West Seaboard**.**

Trends in breeding numbers are available for one species and trends in breeding success for one of the 11 species for which the SRMS holds records for NHZ 04. North West Seaboard (Table 17).

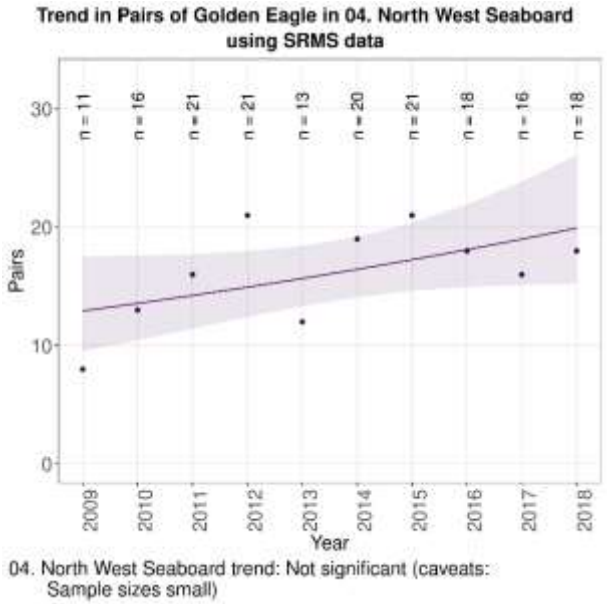
Golden Eagle

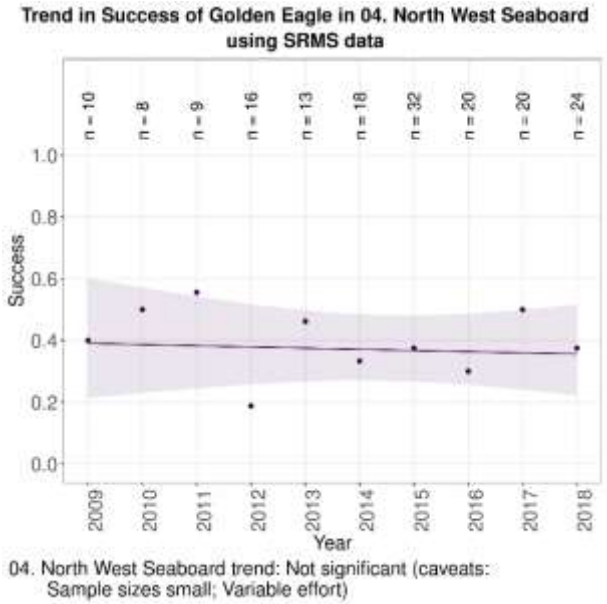
The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 99).

Table 17: Summary of SRMS trends for NHZ 04. Northwest Seaboard during 2009-2018. Non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	Not significant [s]	Not significant [sv]	—	—	—
Sparrowhawk	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	Absent	Absent	Absent	Absent	Absent
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small, [v] Variable effort.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 99: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 04. North West Seaboard during 2009-2018.

NHZ 05. The Peatlands of Caithness and Sutherland

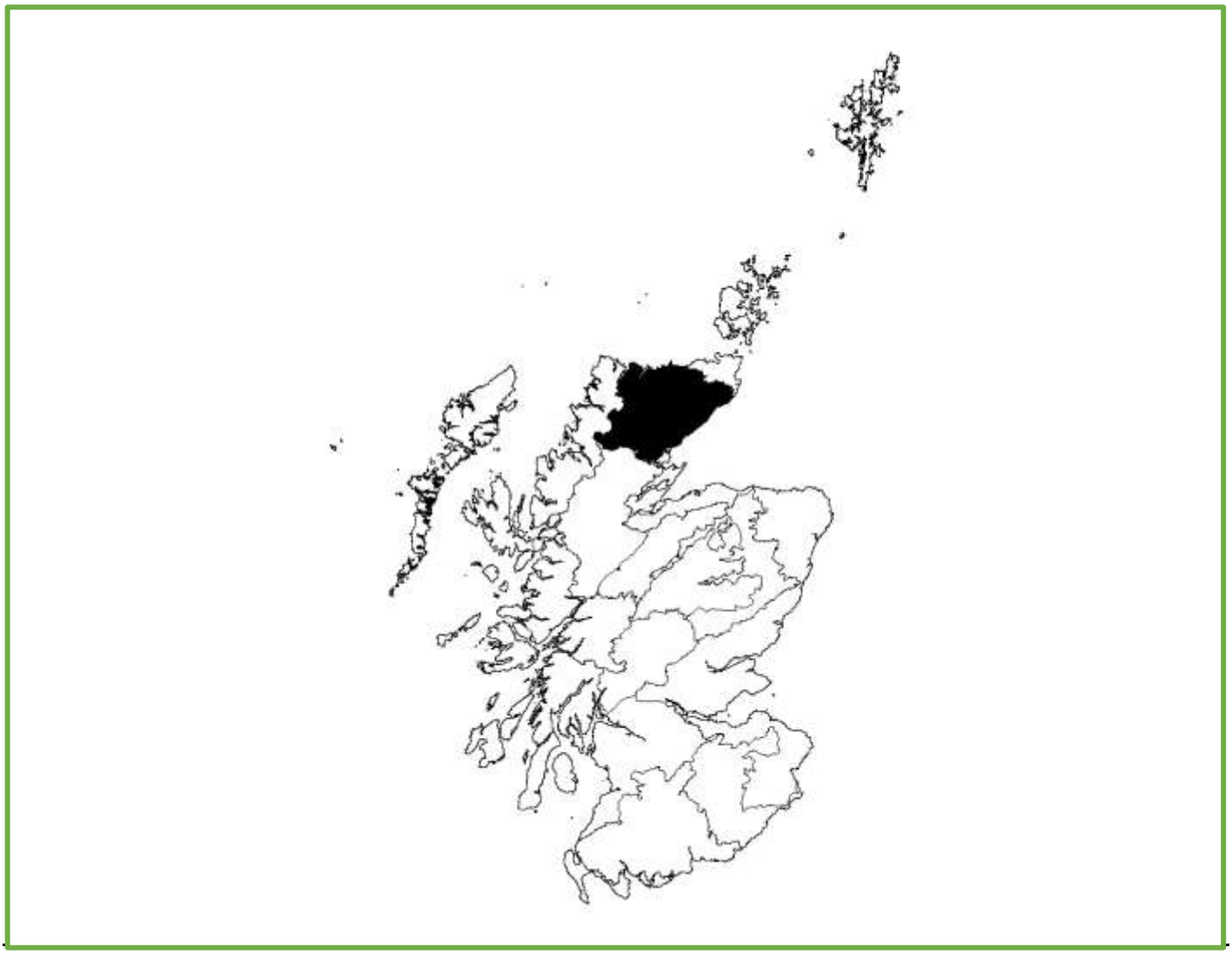


Figure 100: NHZ 05. The Peatlands of Caithness and Sutherland.

Trends in breeding numbers are available for one species and trends in breeding success for none of the 14 species for which the SRMS holds records for NHZ 05. The Peatlands of Caithness and Sutherland (Table 18).

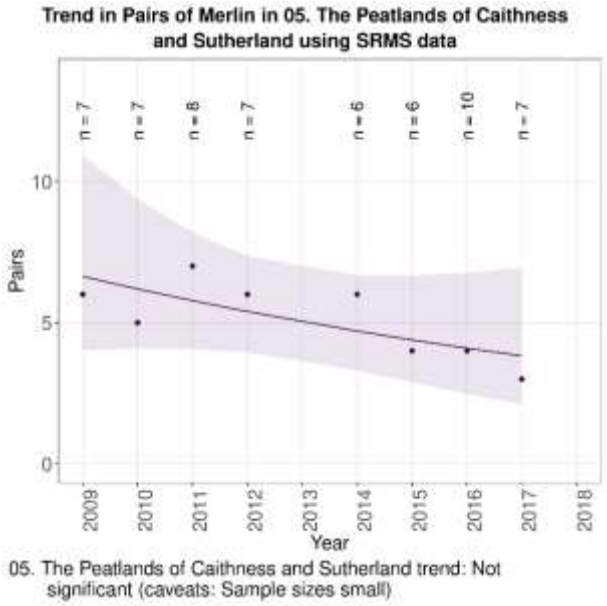
Merlin

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 101).

Table 18: Summary of SRMS trends for NHZ 05. The Peatlands of Caithness and Sutherland. Non-significant changes are highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	Not significant [s]	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small.



05. The Peatlands of Caithness and Sutherland trend: Not significant (caveats: Sample sizes small)

No trend available for breeding success

No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 101: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in NHZ 05. The Peatlands of Caithness and Sutherland during 2009-2018.

NHZ 06. Western Seaboard

Figure 102: NHZ 06. Western Seaboard.

Trends in breeding numbers are available for one species and trends in breeding success for three of the 12 species for which the SRMS holds records for NHZ 06. Western Seaboard (Table 19).

Golden Eagle

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or number of fledglings (Figure 103).

Hen Harrier

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or number of fledglings (Figure 104).

White-tailed Eagle

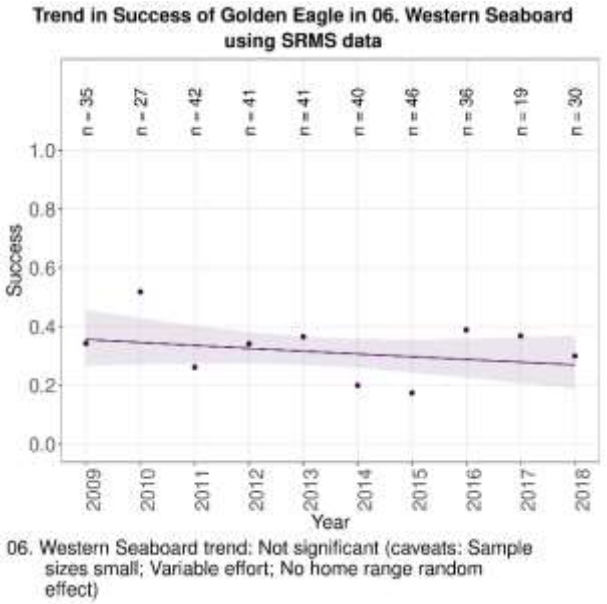
The number of breeding pairs increased significantly (+4.9%) while breeding success, clutch size, brood size and the number of fledglings showed no significant change (Figure 105).

Table 19: Summary of SRMS trends for NHZ 06. Western Seaboard during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Absent	Absent	Absent	Absent	Absent
Golden Eagle	—	Not significant [rsv]	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	—	Not significant [s]	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	**Increase [ax] (4.9%)**	Not significant [x]	Not significant [rsx]	Not significant [rsx]	Not significant [sx]
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[a] All data used, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.

No trend available
for breeding pairs



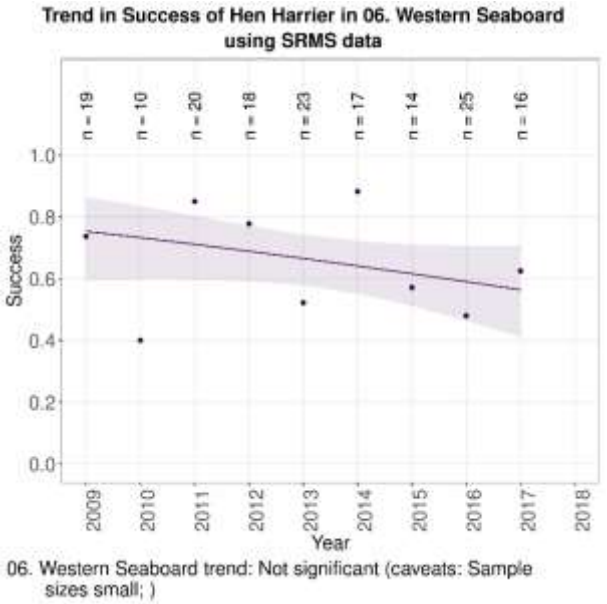
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 103: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 06. Western Seaboard during 2009-2018.

No trend available
for breeding pairs

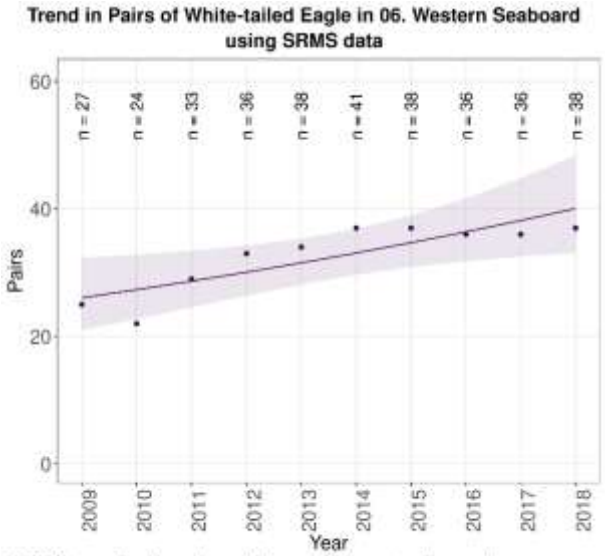


No trend available
for clutch size

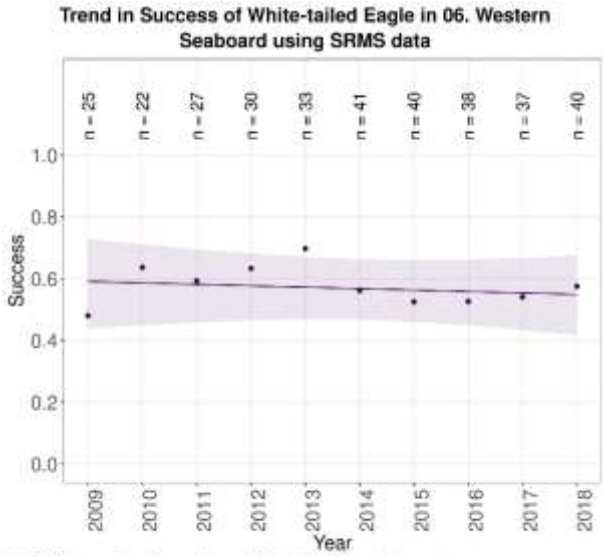
No trend available
for brood size

No trend available
for number of fledglings

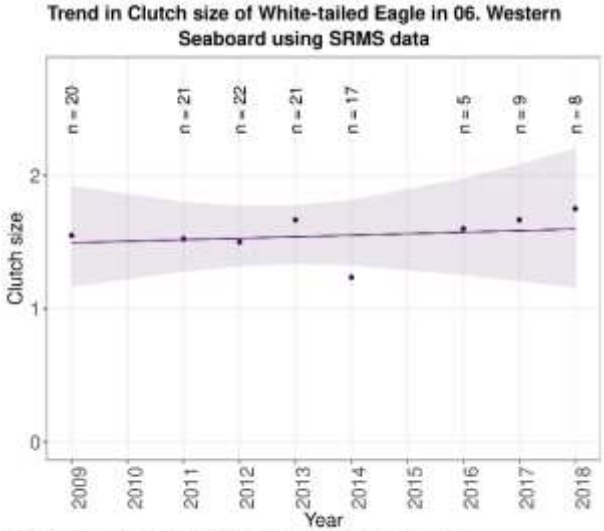
Figure 104: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 06. Western Seaboard during 2009-2018.



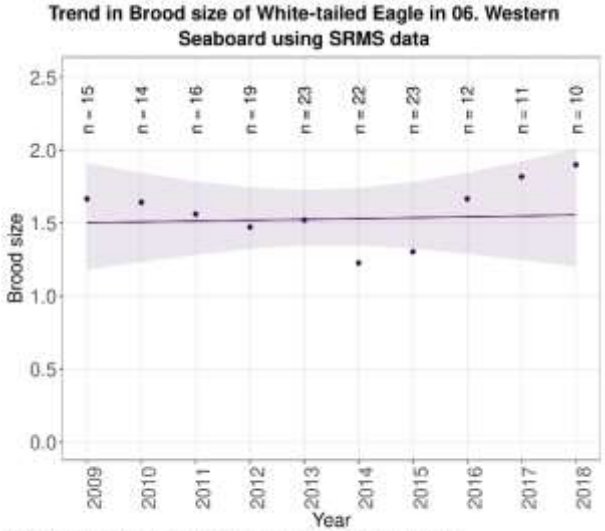
06. Western Seaboard trend: Increase (caveats: Expanding population, All data used)



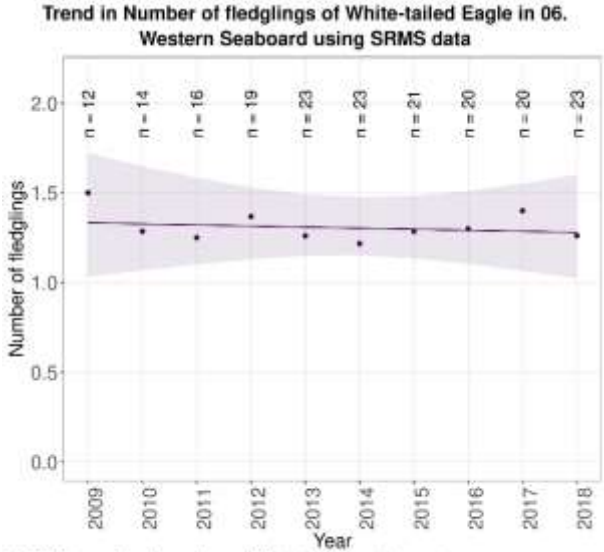
06. Western Seaboard trend: Not significant (caveats: Expanding population)



06. Western Seaboard trend: Not significant (caveats: Expanding population; Sample sizes small; No home range random effect)



06. Western Seaboard trend: Not significant (caveats: Expanding population; Sample sizes small; No home range random effect)



06. Western Seaboard trend: Not significant (caveats: Expanding population; Sample sizes small)

Figure 105: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in NHZ 06. Western Seaboard during 2009-2018.

NHZ 07. Northern Highland

Figure 106: NHZ 07. Northern Highland.

Trends in breeding numbers are available for one species and trends in breeding success for one of the 14 species for which the SRMS holds records for NHZ 07. Northern Highland (Table 20).

Golden Eagle

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 107).

Red Kite

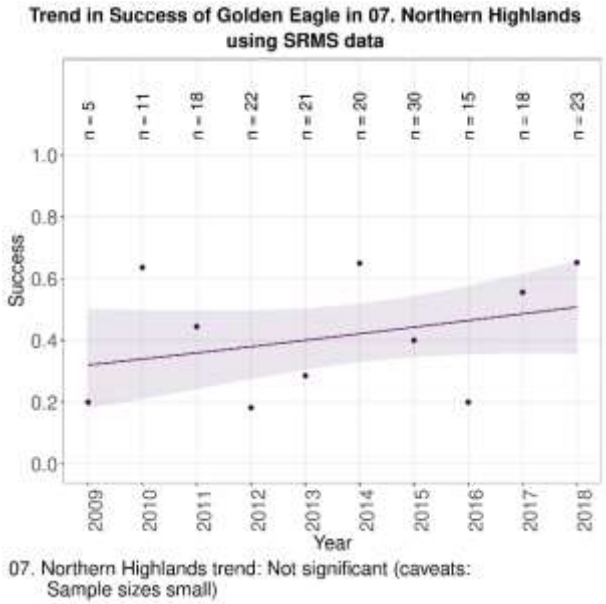
The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 108).

Table 20: Summary of SRMS trends for NHZ 07. Northern Highland during 2009-2018. Non-significant changes are highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	Not significant [s]	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Hen Harrier	—	—	—	—	—
Red Kite	Not significant [svx]	—	—	—	—
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small, [v] Variable effort, [x] Expanding population.

No trend available
for breeding pairs

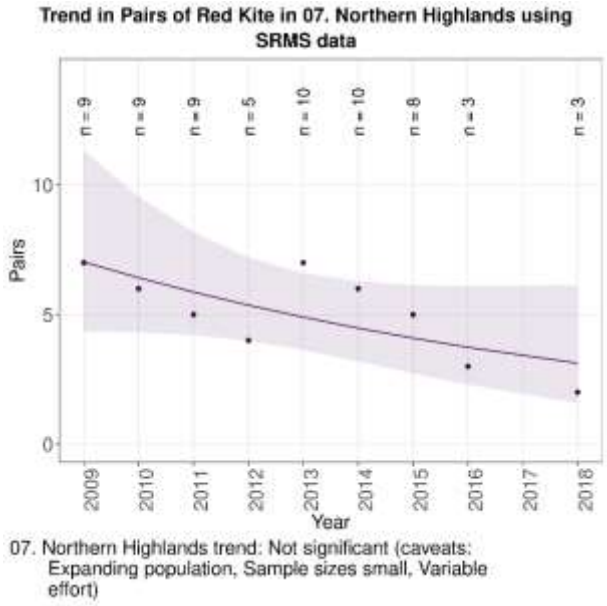


No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 107: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 07. Northern Highland during 2009-2018.



No trend available for breeding success

No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 108: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in NHZ 07. Northern Highland during 2009-2018.

NHZ 08. Western Highlands

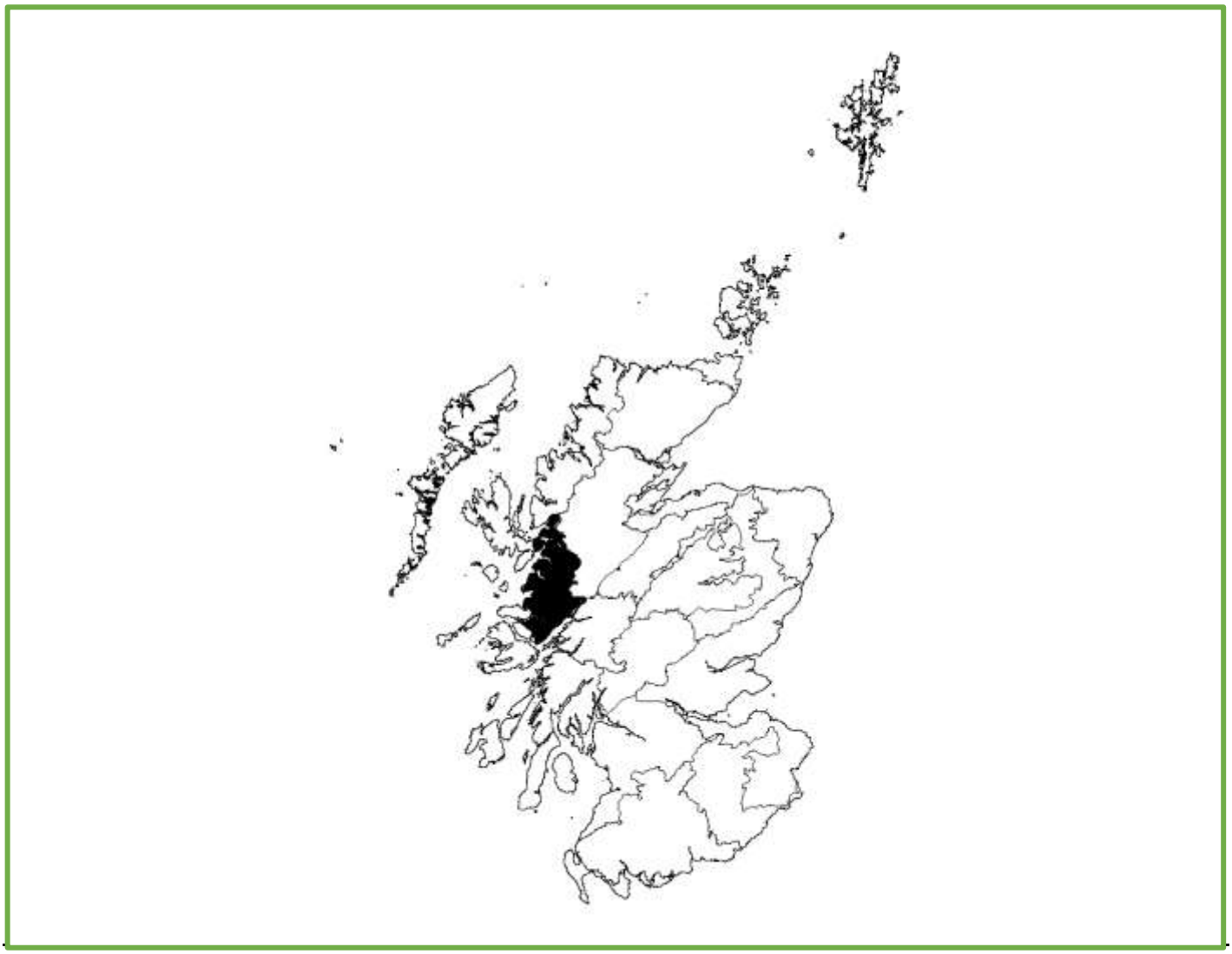


Figure 109: NHZ 08.Western Highlands.

Trends in breeding numbers are available for one species and trends in breeding success for one of the 12 species for which the SRMS holds records for NHZ 08. Western Highland (Table 21).

Golden Eagle

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 110).

White-tailed Eagle

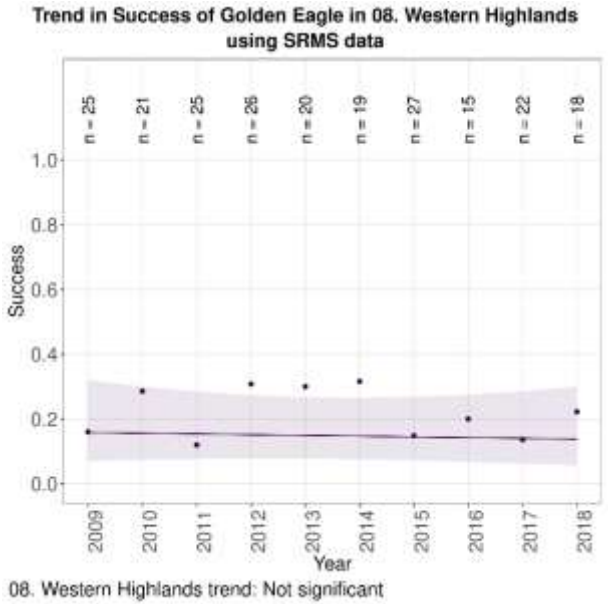
The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 111).

Table 21: Summary of SRMS trends for NHZ 08. Western Highlands during 2009-2018. Non-significant changes are highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	Not significant	—	—	—
Sparrowhawk	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	—	—	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	Not significant [ax]	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[a] All data used, [x] Expanding population.

No trend available
for breeding pairs

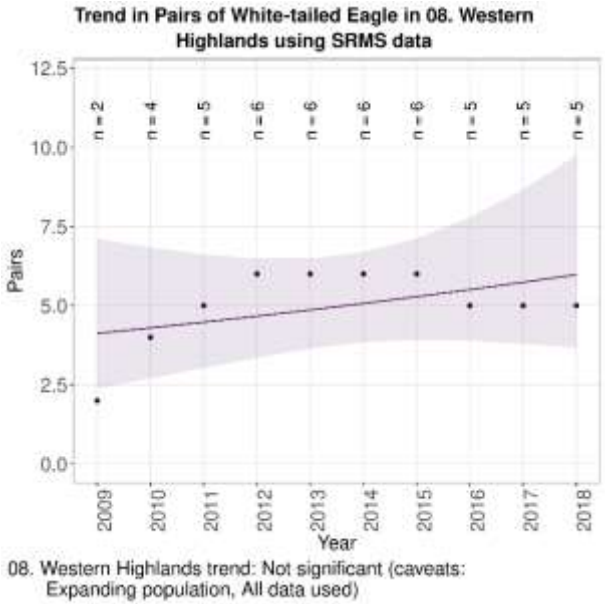


No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 110: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 08. Western Highlands during 2009-2018.



No trend available for breeding success

No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 111: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in NHZ 08. Western Highlands during 2009-2018.

NHZ 09. North East Coastal Plain

Figure 112: NHZ 09. North East Coastal Plain.

Trends in breeding numbers are available for one species and trends in breeding success for one of the 12 species for which the SRMS holds records for NHZ 09. North East Coastal Plain (Table 22).

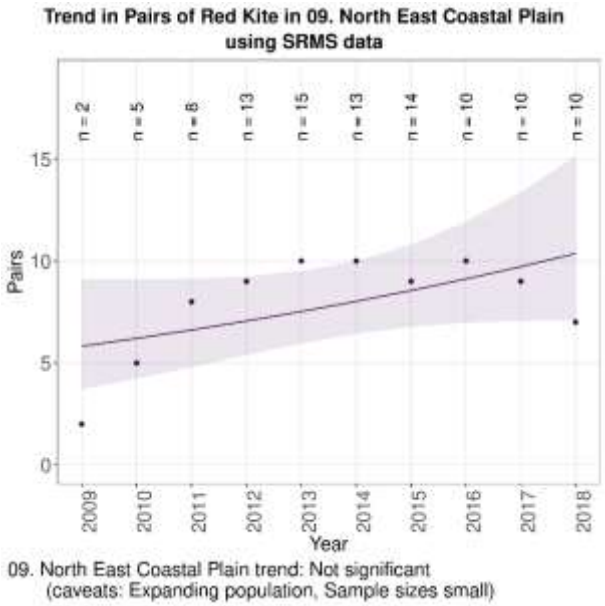
Red Kite

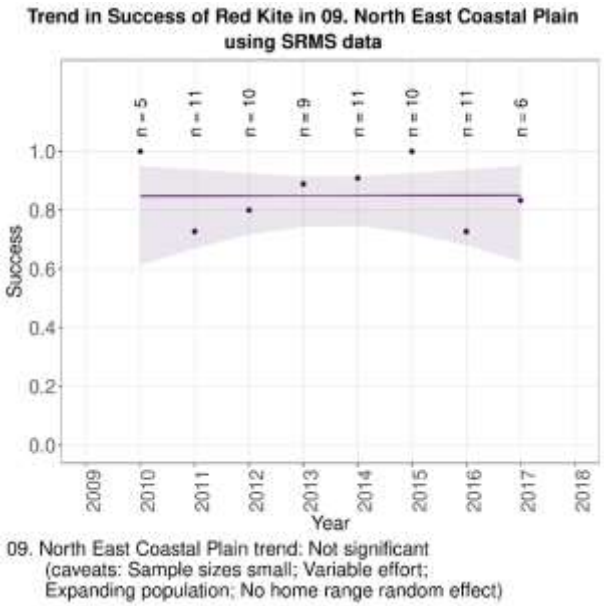
The number of breeding pairs and breeding success showed no significant change. No trends in clutch size, brood size or number of fledglings are available (Figure 113).

Table 22: Summary of SRMS trends for NHZ 09. North East Coastal Plain during 2009-2018. Non-significant changes are highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	Not significant [sx]	Not significant [rsvx]	—	—	—
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 113: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in NHZ 09. North East Coastal Plain during 2009-2018.

NHZ 10. Central Highlands

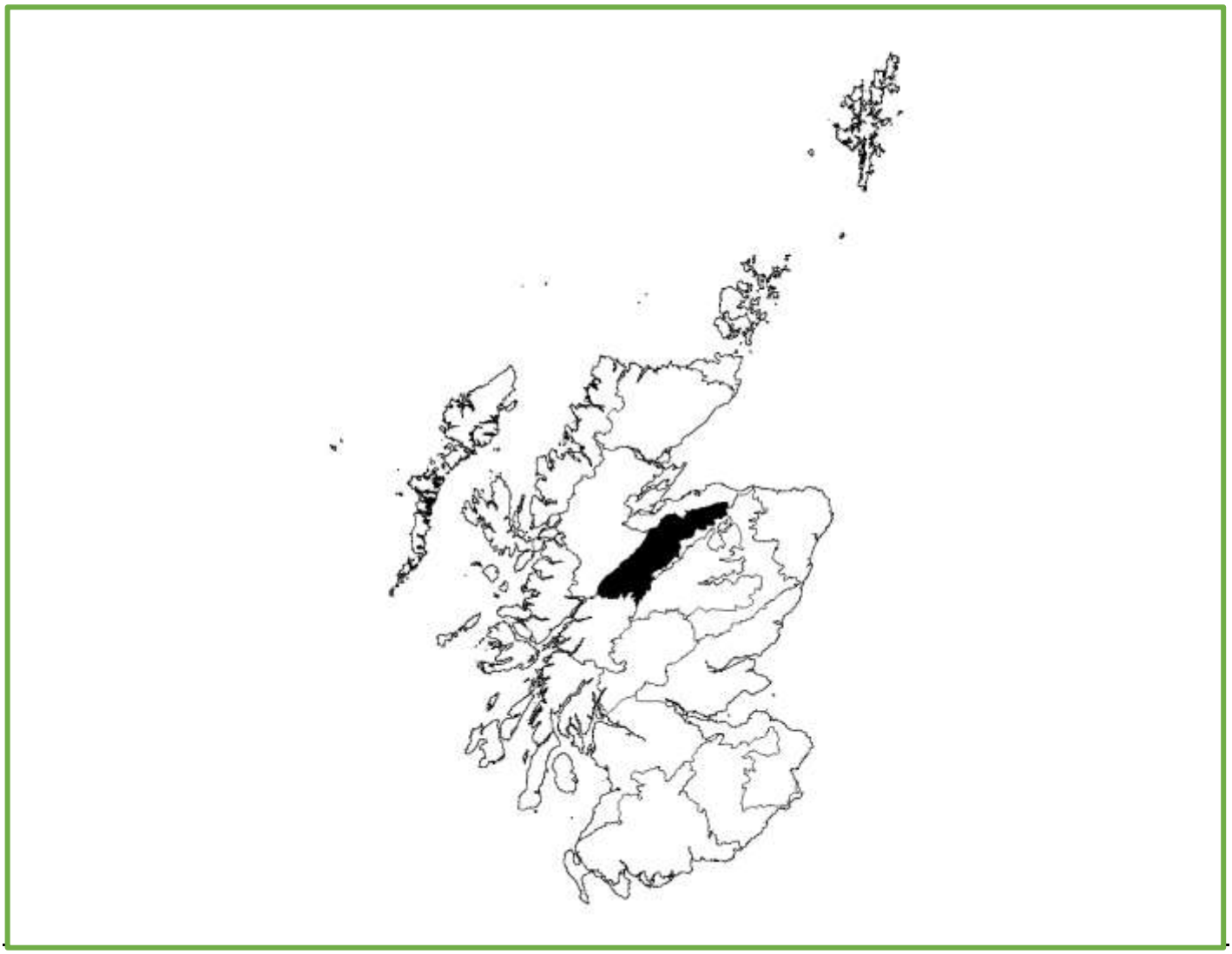


Figure 114: NHZ 10. Central Highlands.

Trends in breeding numbers are available for two species and trends in breeding success for one of the 14 species for which the SRMS holds records for NHZ 10. Central Highlands (Table 23).

Golden Eagle

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 115).

Hen Harrier

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 116).

Merlin

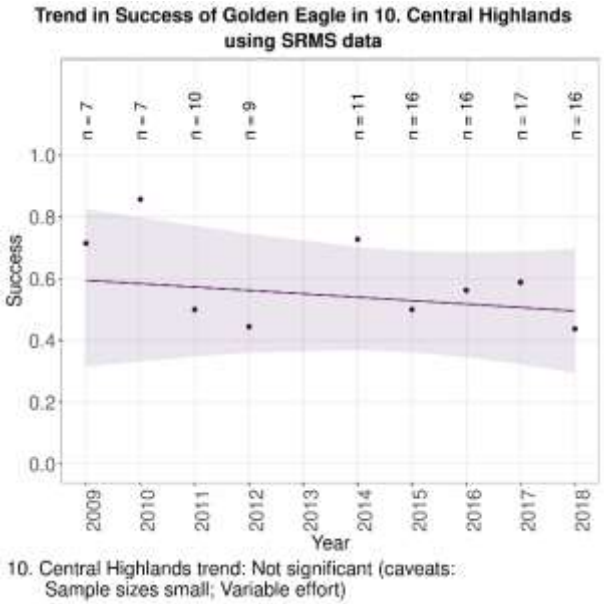
The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 117).

Table 23: Summary of SRMS trends for NHZ 10. Central Highlands during 2009-2018. Non-significant changes are highlighted in grey '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	Not significant [sv]	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant [sv]	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	Not significant [s]	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small, [v] Variable effort.

No trend available
for breeding pairs

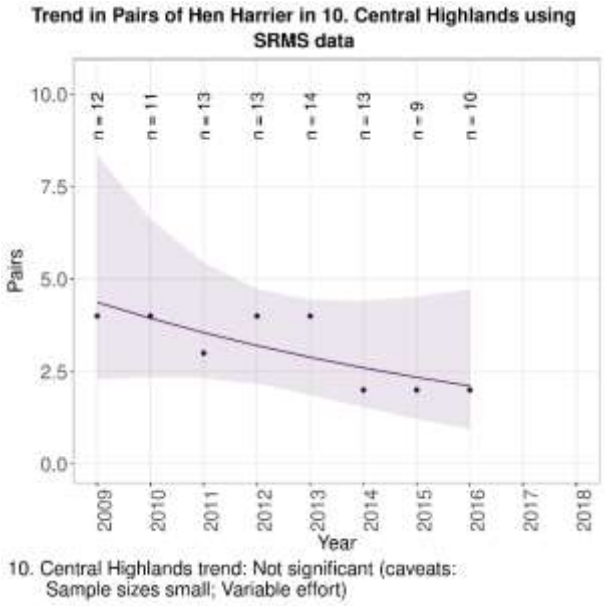


No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 115: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 10. Central Highlands during 2009-2018.



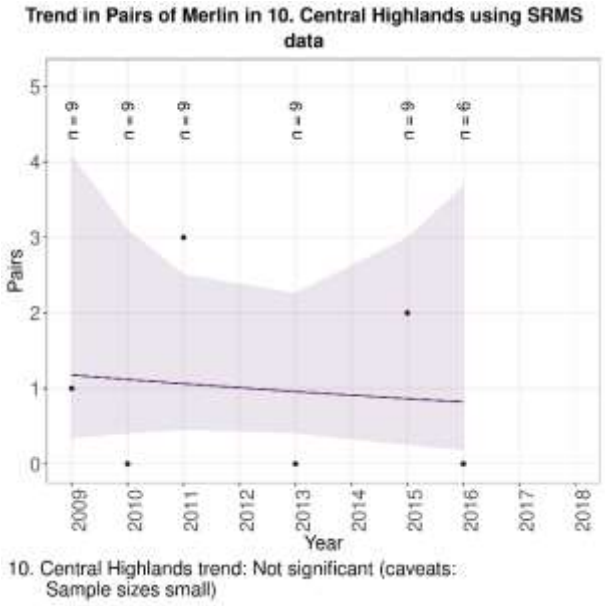
No trend available for breeding success

No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 116: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 10. Central Highlands during 2009-2018.



No trend available for breeding success

No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 117: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in NHZ 10. Central Highlands during 2009-2018.

NHZ 11. Cairngorm Massif

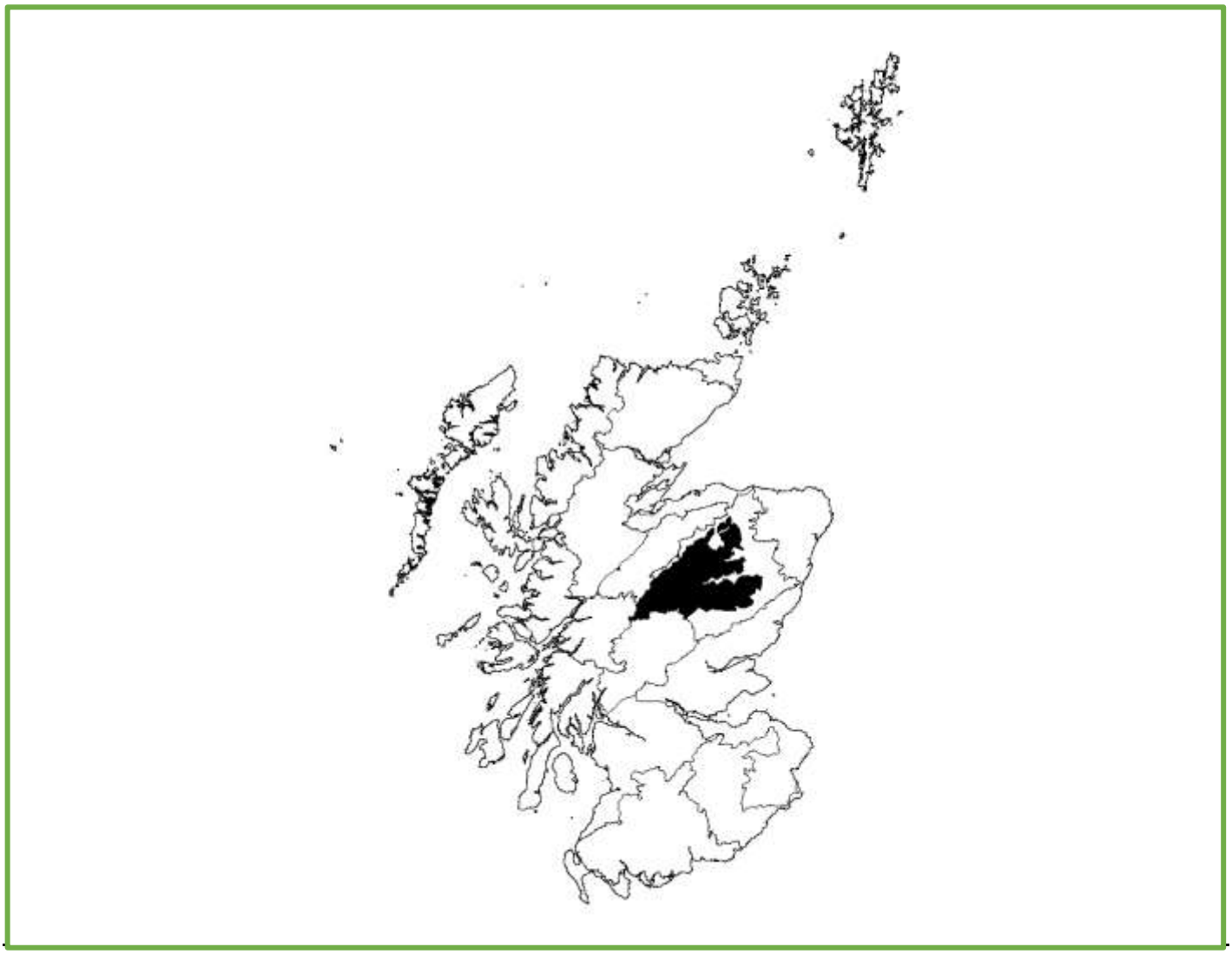


Figure 118: NHZ 11.Cairngorm Massif.

Trends in breeding numbers are available for four species and trends in breeding success for three of the 14 species for which the SRMS holds records for NHZ 11. Cairngorm Massif (Table 24).

Golden Eagle

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 119).

Hen Harrier

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 120).

Merlin

The number of breeding pairs (-6.7%) and breeding success (-1.3%) decreased significantly. Clutch size and the number of fledglings showed no significant change. No trend in brood size is available (Figure 121).

Peregrine

The number of breeding pairs decreased significantly (-6.7%) while breeding success showed non-linear variation. No trends are available for clutch size, brood size or the number of fledglings (Figure 122).

Raven

The number of breeding pairs decreased significantly (-8.4%). No trends are available for

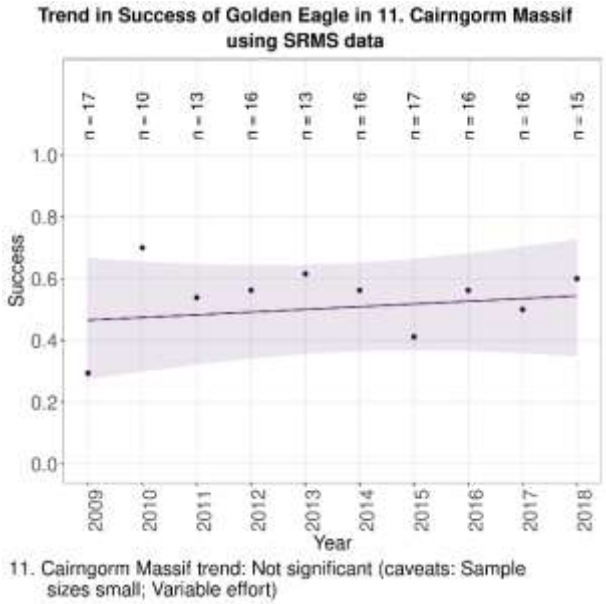
breeding success, clutch size, brood size or the number of fledglings (Figure 123).

Table 24: Summary of SRMS trends for NHZ 11. Cairngorm Massif during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	Not significant [sv]	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant [s]	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	**Decrease (-6.7%)**	**Decrease (-1.3%)**	Not significant [r]	—	Not significant [r]
Peregrine	**Decrease (-6.7%)**	Non-linear	—	—	—
Raven	**Decrease [s] (-8.4%)**	—	—	—	—

[r] No home range random effect, [s] Sample sizes small, [v] Variable effort.

No trend available
for breeding pairs

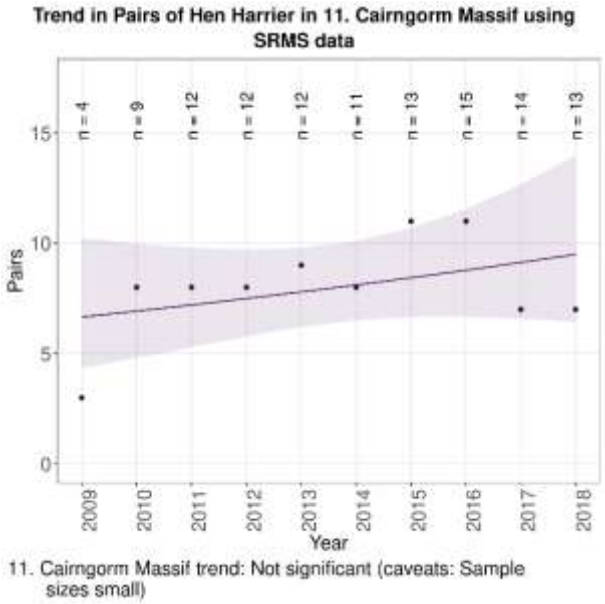


No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 119: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 11. Cairngorm Massif during 2009-2018.



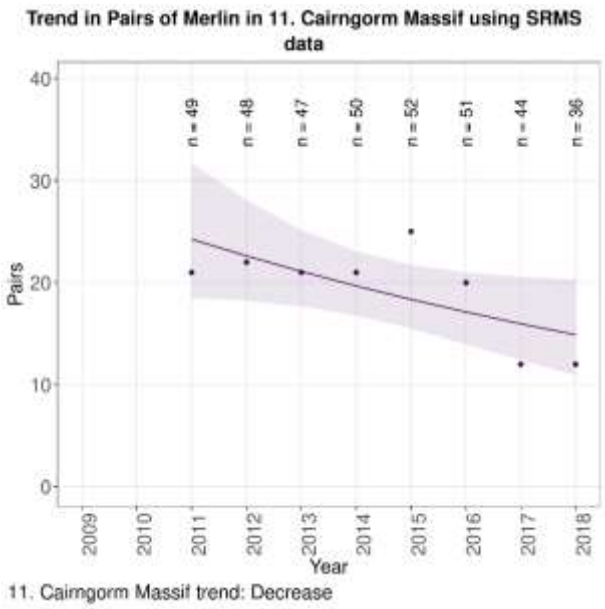
No trend available
for breeding success

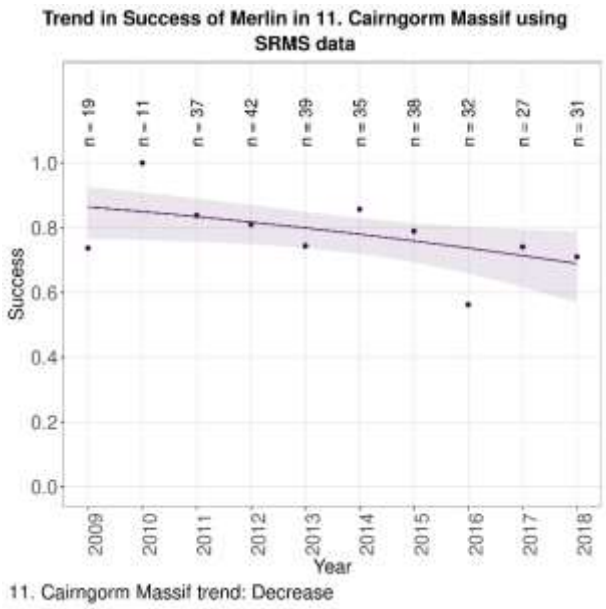
No trend available
for clutch size

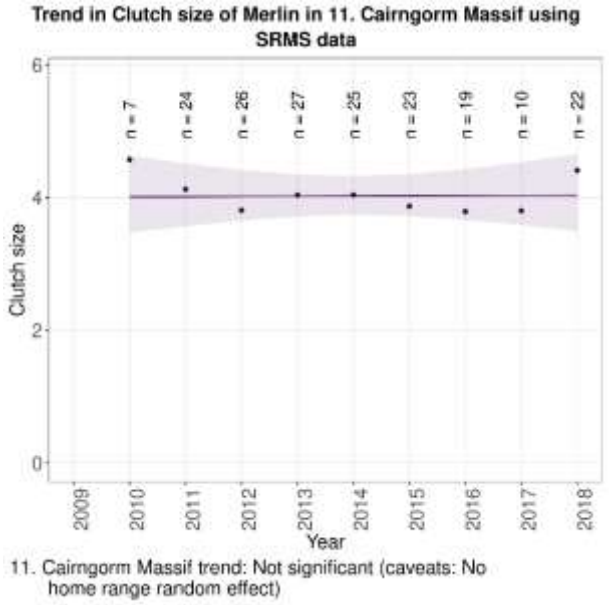
No trend available
for brood size

No trend available
for number of fledglings

Figure 120: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 11. Cairngorm Massif during 2009-2018.







No trend available for brood size

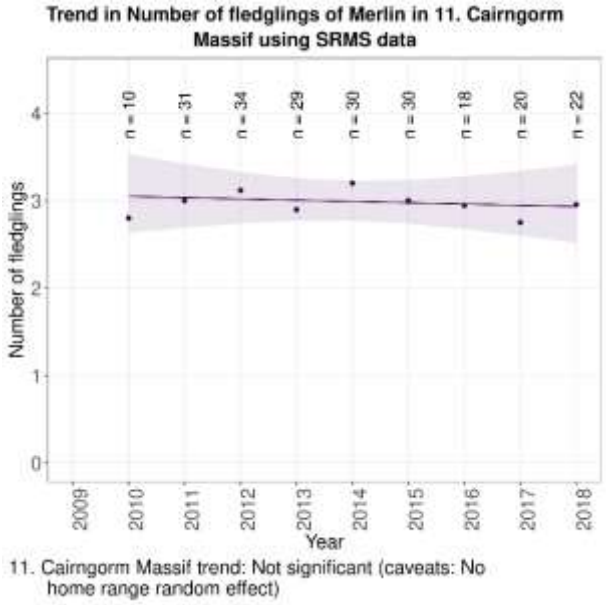
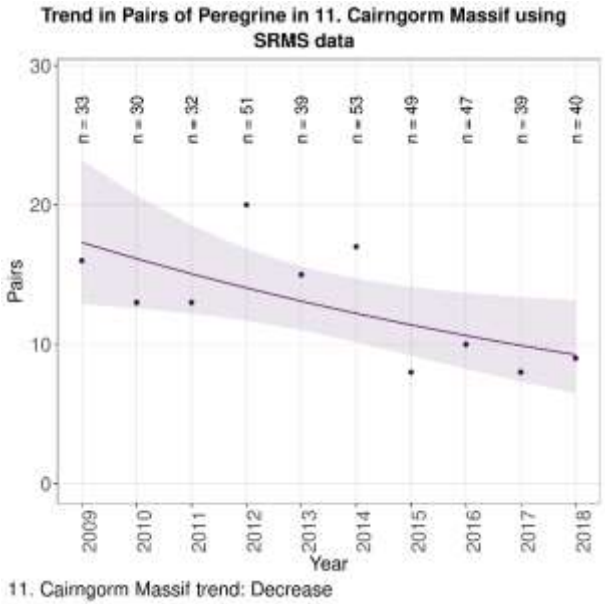
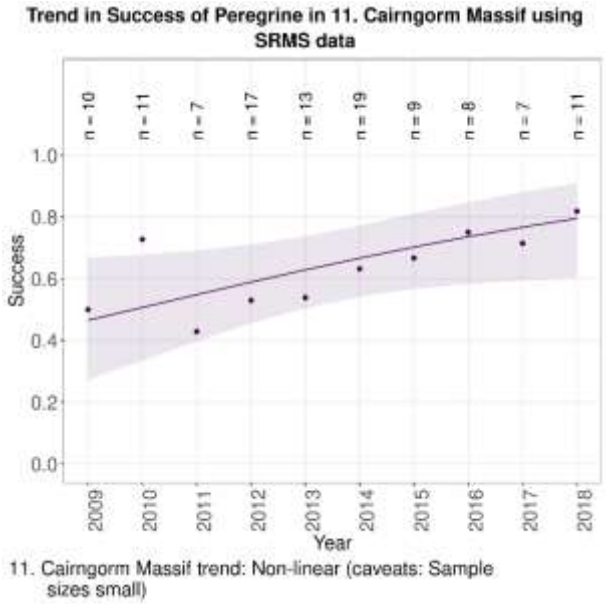


Figure 121: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in NHZ 11. Cairngorm Massif during 2009-2018.



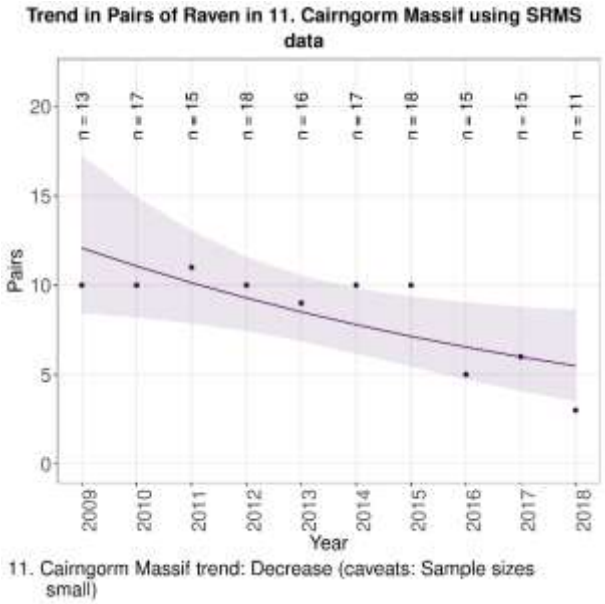


No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 122: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 11. Cairngorm Massif during 2009-2018.



No trend available for breeding success

No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 123: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 11. Cairngorm Massif during 2009-2018.

NHZ 12. North East Glens

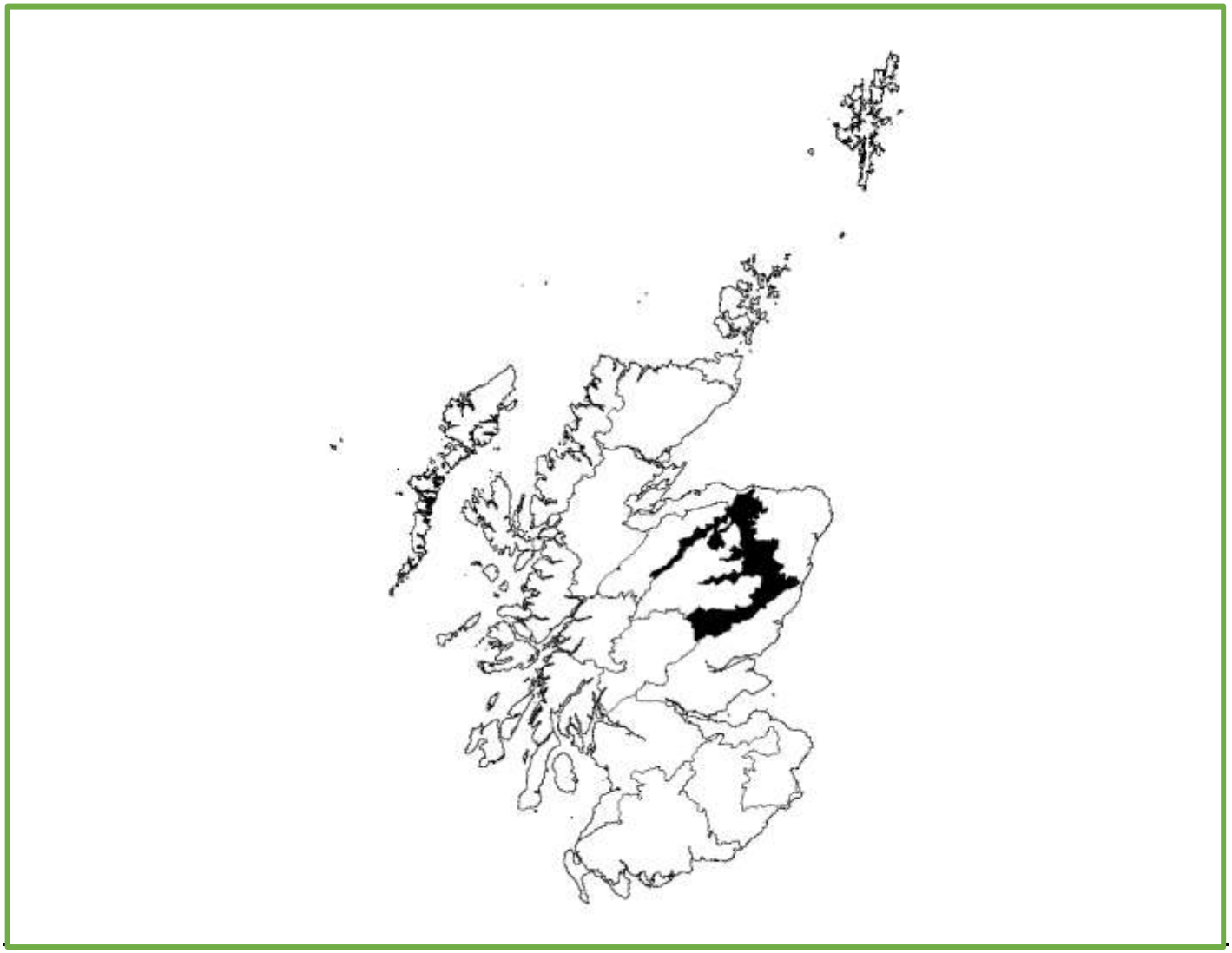


Figure 124: NHZ 12.North East Glens**.**

Trends in breeding numbers are available for three species and trends in breeding success for three of the 14 species for which the SRMS holds records for NHZ 12. North East Glens (Table 25).

Osprey

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 125).

Hen Harrier

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 126).

Merlin

The number of breeding pairs showed no significant change while breeding success decreased significantly (-1.4%). No trends are available for clutch size, brood size or the number of fledglings (Figure 127).

Peregrine

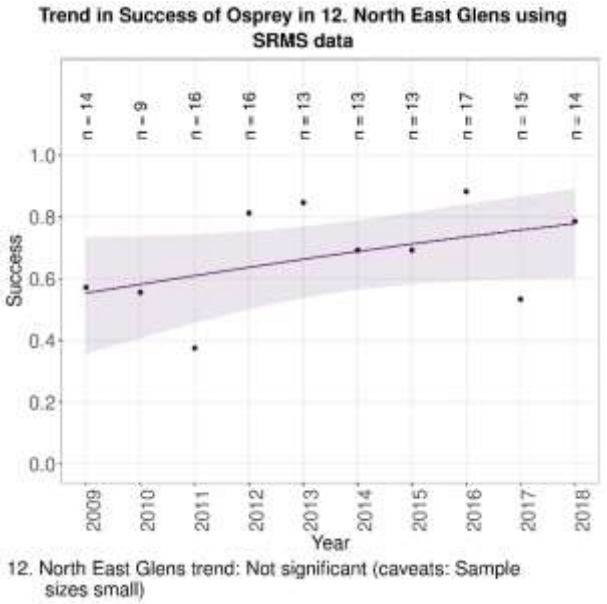
The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 128).

Table 25: Summary of SRMS trends for NHZ 12. North East Glens during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	Not significant [s]	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant [sv]	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	Not significant	**Decrease [s] (-1.4%)**	—	—	—
Peregrine	Not significant [s]	Not significant [s]	—	—	—
Raven	—	—	—	—	—

[s] Sample sizes small, [v] Variable effort.

No trend available
for breeding pairs

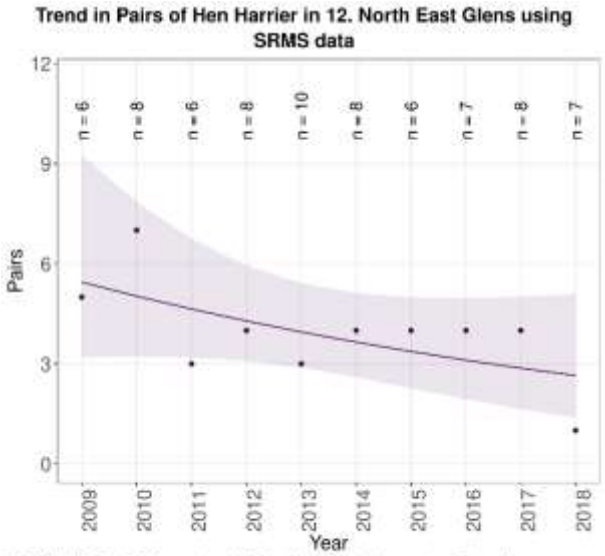


No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 125: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in NHZ 12. North East Glens during 2009-2018.



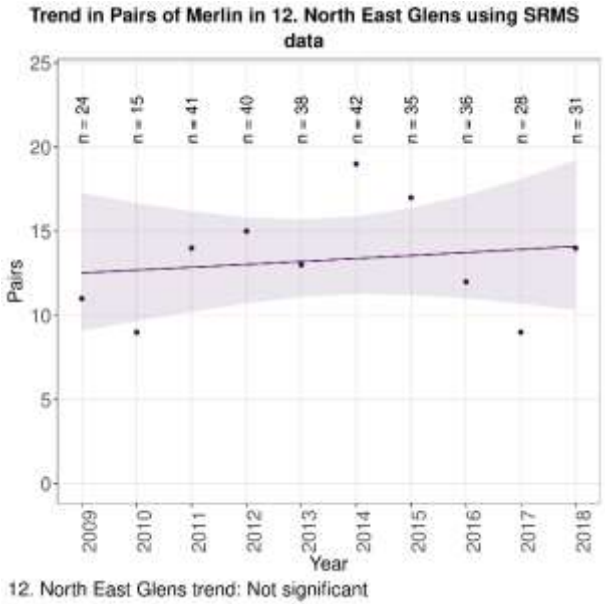
No trend available
for breeding success

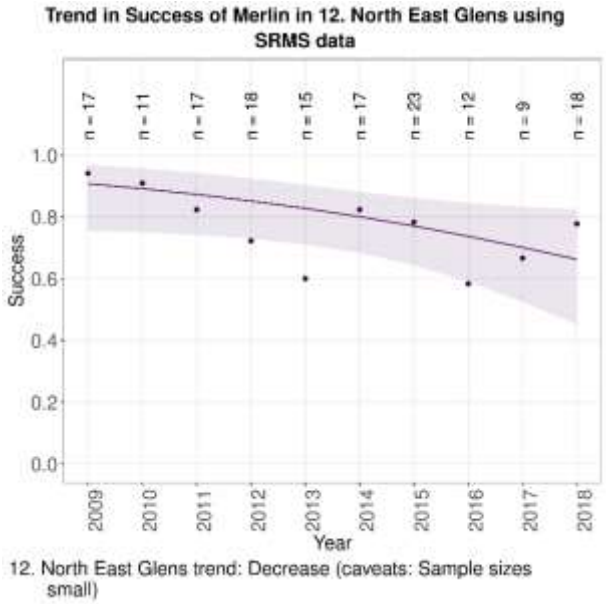
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 126: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 12. North East Glens during 2009-2018.



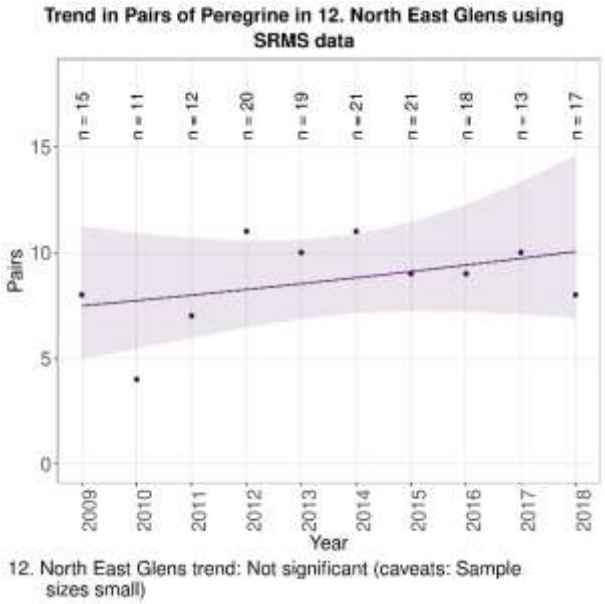


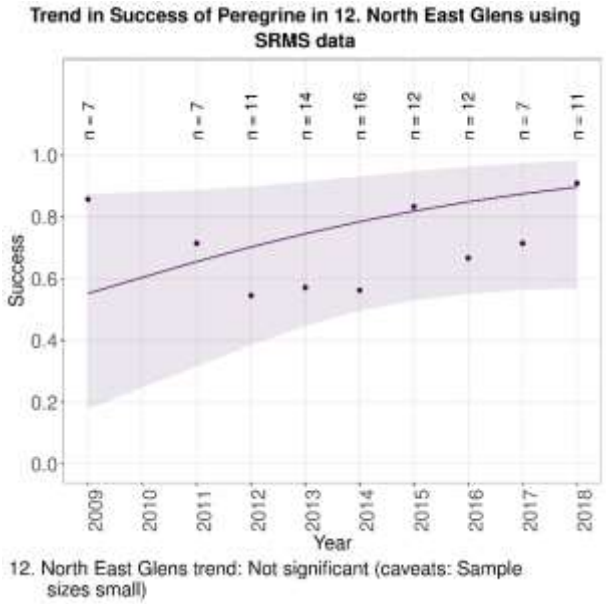
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 127: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in NHZ 12. North East Glens during 2009-2018.





No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 128: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 12. North East Glens during 2009-2018.

NHZ 13. East Lochaber

Figure 129: NHZ 13. East Lochaber.

No tends in breeding numbers or breeding success are available for three of the 13 species for which the SRMS holds records for NHZ 13. East Lochaber (Table 26).

Table 26: Summary of SRMS trends for NHZ 13. East Lochaber during 2009-2018. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	—	—	—	—	—
Buzzard	—	—	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	No SRMS data	No SRMS data	No SRMS data	No SRMS data	No SRMS data
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

NHZ 14. Argyll West and Islands

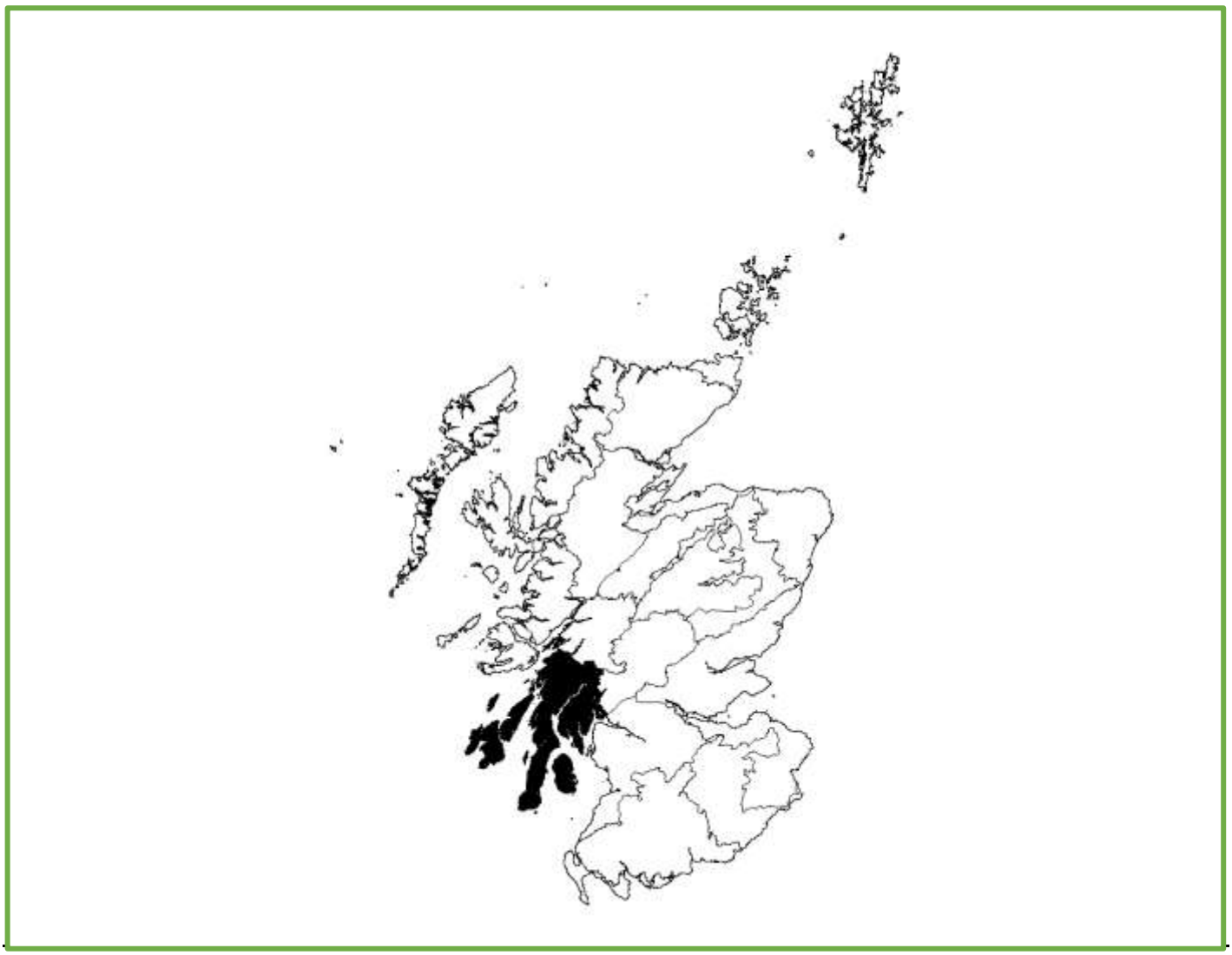


Figure 130: NHZ 14. Argyll West and Islands.

Trends in breeding numbers are available for six species and trends in breeding success for seven of the 13 species for which the SRMS holds records for NHZ 14. Argyll West and Islands (Table 27).

Osprey

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size but the number of fledglings showed no significant change (Figure 131).

Golden Eagle

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 132).

Hen Harrier

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 133).

White-tailed Eagle

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 134).

Buzzard

The number of breeding pairs decreased significantly (-4.2%) while breeding success showed non-linear variation. Trends are not available for clutch size or brood size but the number of

fledglings showed no significant change (Figure 135).

Barn Owl

No trend is available for the number of breeding pairs. Breeding success showed no significant change. No trends are available for clutch size or brood size but there was a significant increase in the number of fledglings (3.6%) (Figure 136).

Peregrine

The number of breeding pairs decreased significantly (-11%) while breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 137).

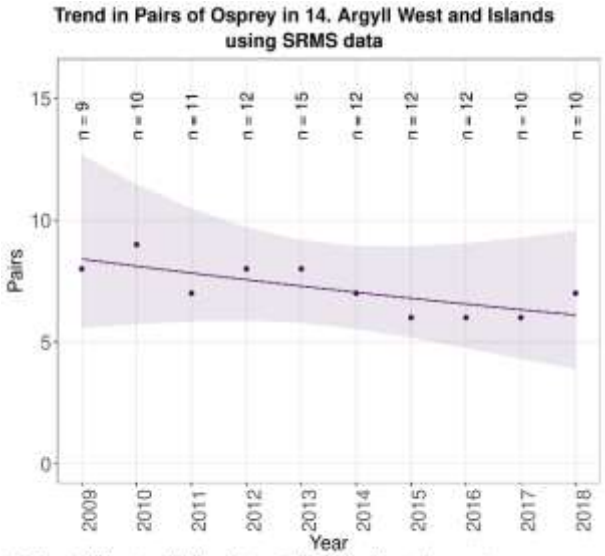
Raven

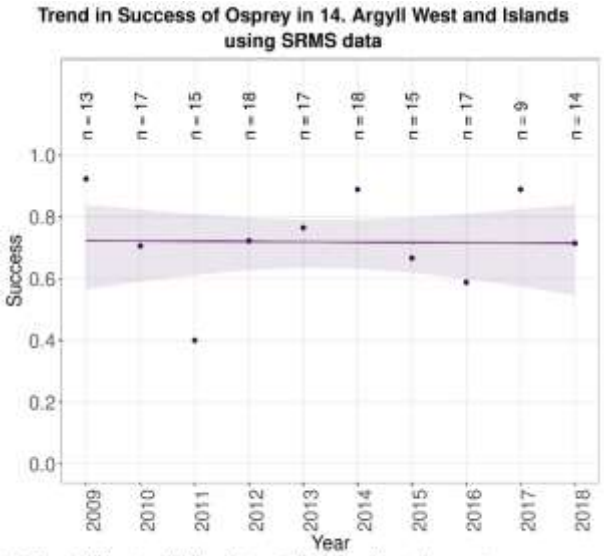
The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 138).

Table 27: Summary of SRMS trends for NHZ 14. Argyll West and Islands during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Not significant [s]	Not significant [s]	—	—	Not significant
Golden Eagle	Not significant [s]	Not significant	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	—	Not significant [sv]	—	—	—
Red Kite	Absent	Absent	Absent	Absent	Absent
White-tailed Eagle	Not significant [ax]	—	—	—	—
Buzzard	**Decrease (-4.2%)**	Non-linear	—	—	Not significant [r]
Barn Owl	—	Not significant [nr]	—	—	**Increase [nr] (3.6%)**
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	**Decrease [s] (-11%)**	Not significant [s]	—	—	—
Raven	Not significant [v]	Not significant	—	—	Not significant [r]

[a] All data used, [n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

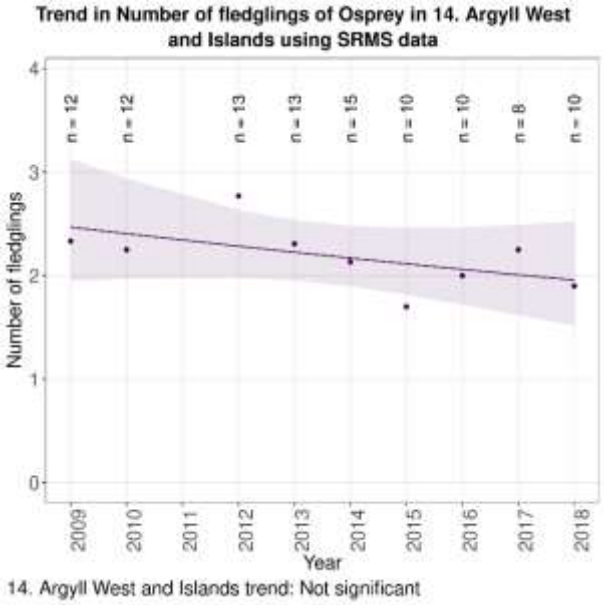
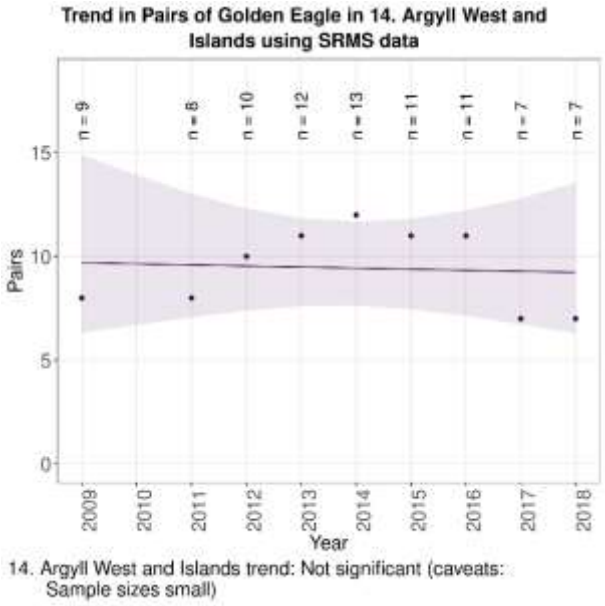
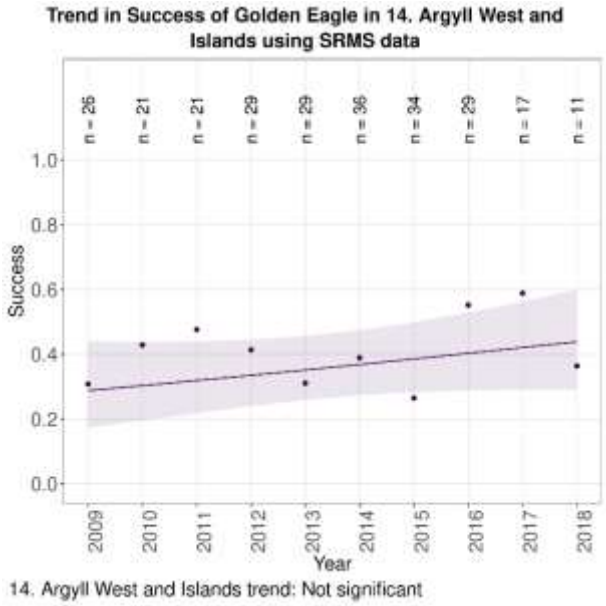


Figure 131: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in NHZ 14. Argyll West and Islands during 2009-2018.





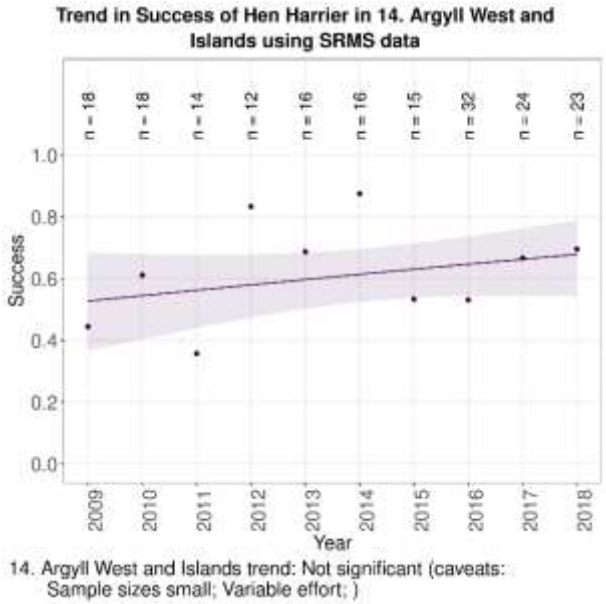
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 132: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 14. Argyll West and Islands during 2009-2018.

No trend available
for breeding pairs

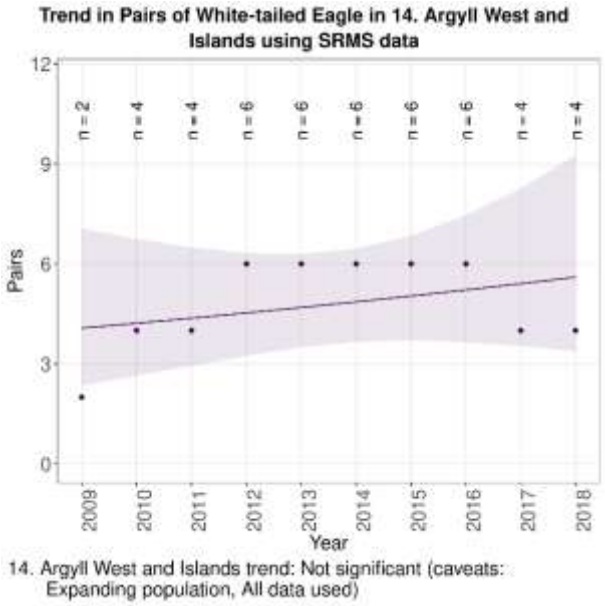


No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 133: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 14. Argyll West and Islands during 2009-2018.



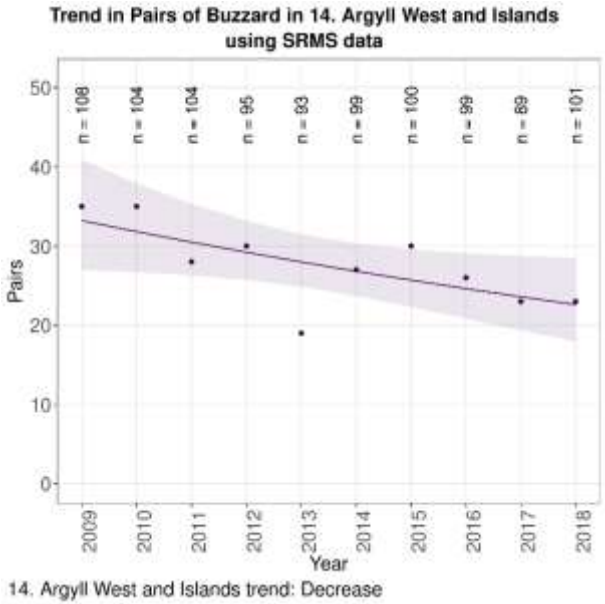
No trend available for breeding success

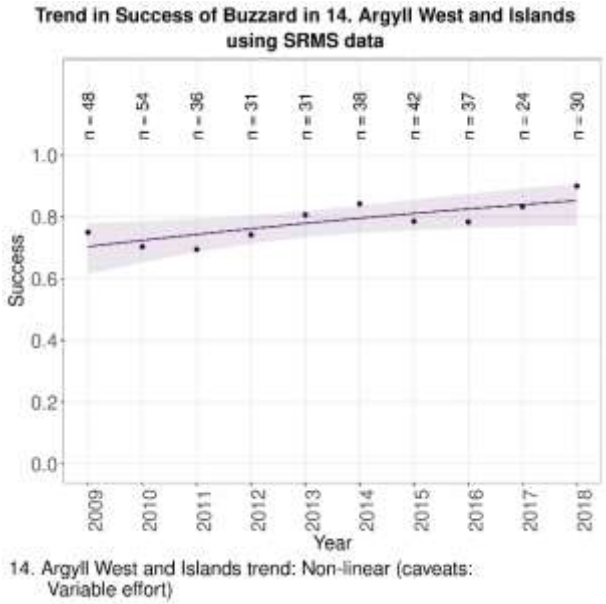
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 134: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of White-tailed Eagle in NHZ 14. Argyll West and Islands during 2009-2018.





No trend available for clutch size

No trend available for brood size

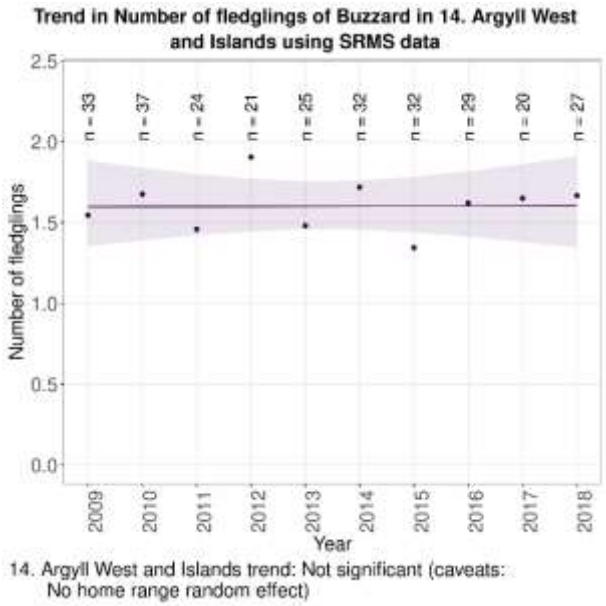
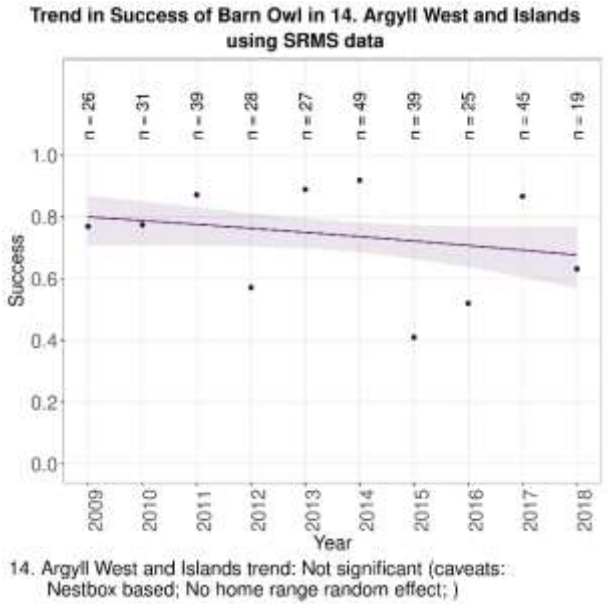


Figure 135: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 14. Argyll West and Islands during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

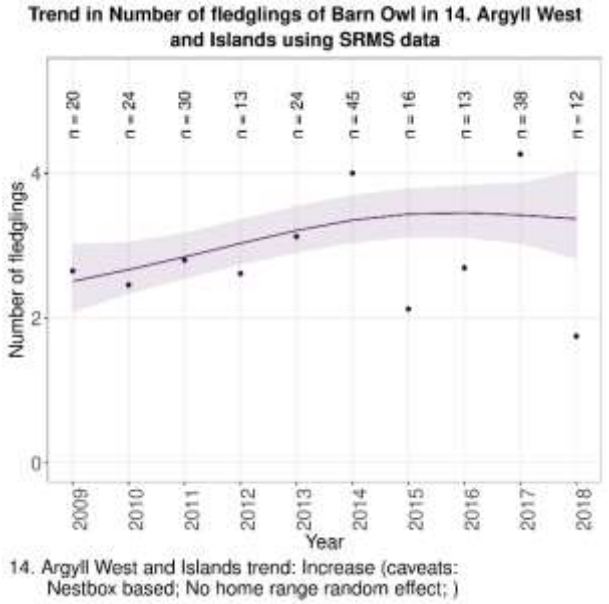
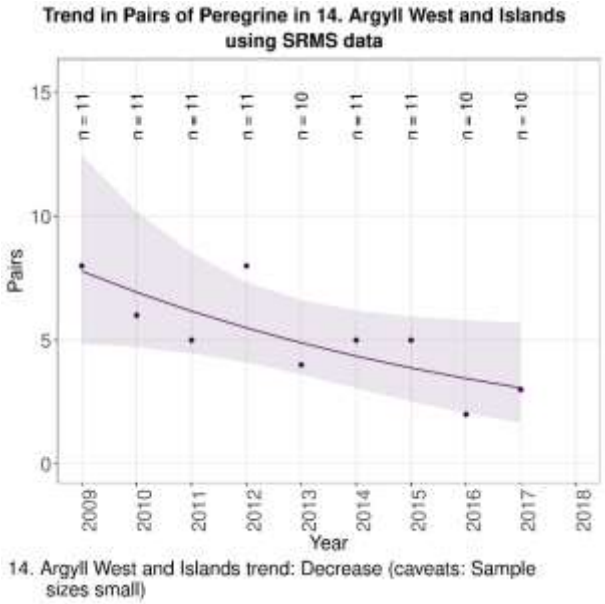
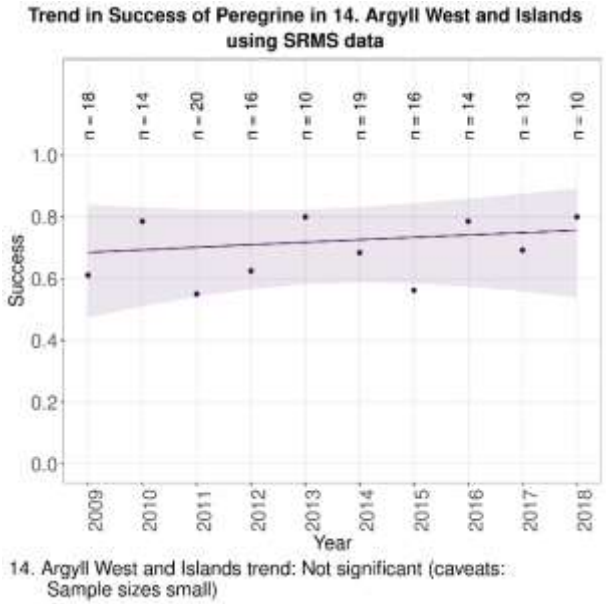


Figure 136: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in NHZ 14. Argyll West and Islands during 2009-2018.



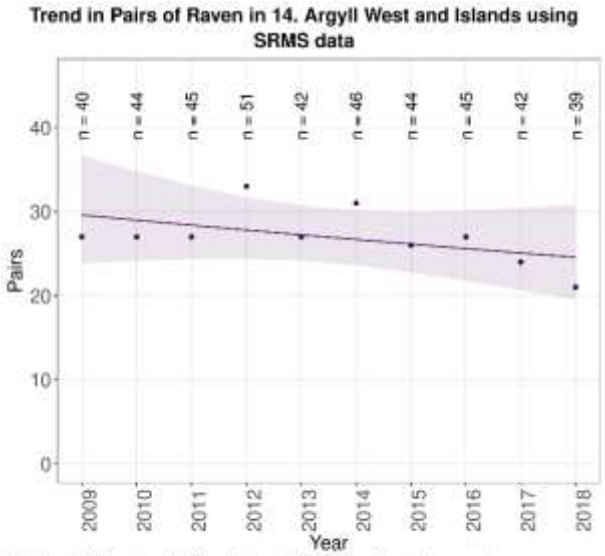


No trend available for clutch size

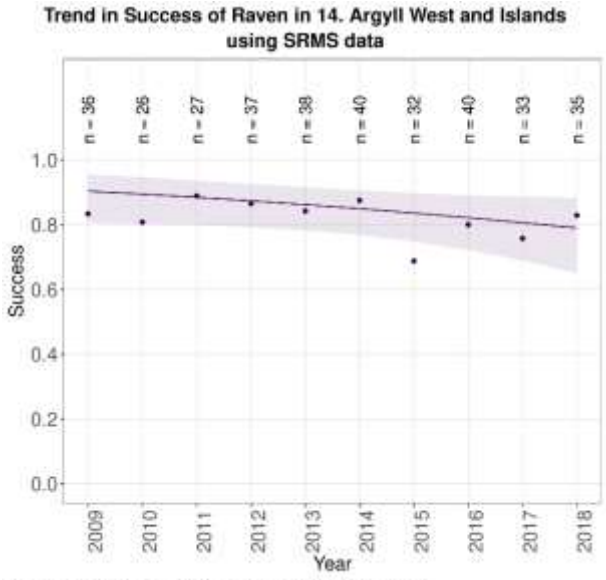
No trend available for brood size

No trend available for number of fledglings

Figure 137: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 14. Argyll West and Islands during 2009-2018.



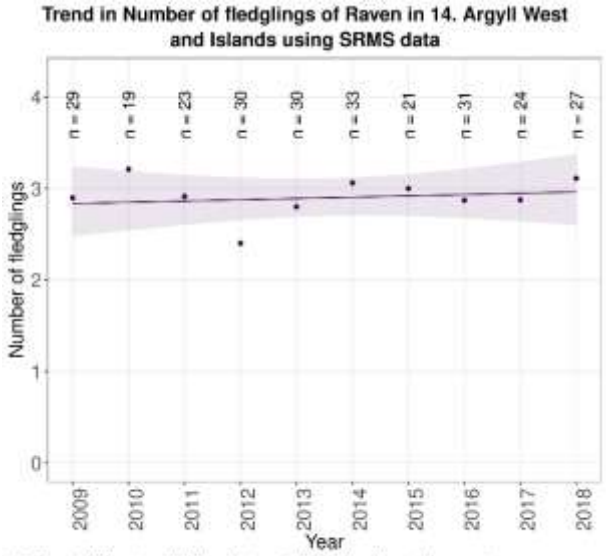
14. Argyll West and Islands trend: Not significant (caveats: Variable effort)



14. Argyll West and Islands trend: Not significant

No trend available for clutch size

No trend available for brood size



14. Argyll West and Islands trend: Not significant (caveats: No home range random effect)

Figure 138: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 14. Argyll West and Islands during 2009-2018.

NHZ 15. Loch Lomand, The Trossachs and Breadalbane

Figure 139: NHZ 15. Loch Lomand, The Trossachs and Breadalbane.

Trends in breeding numbers are available for six species and trends in breeding success for seven of the 13 species for which the SRMS holds records for NHZ 15. Loch Lomand, The Trossachs and Breadalbane (Table 28).

Osprey

No trend is available for the number of breeding pairs. Breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 140).

Golden Eagle

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 141).

Hen Harrier

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 142).

Red Kite

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 143).

Buzzard

The number of breeding pairs and breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 144).

Peregrine

The number of breeding pairs decreased significantly (-11.1%) while breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 145).

Raven

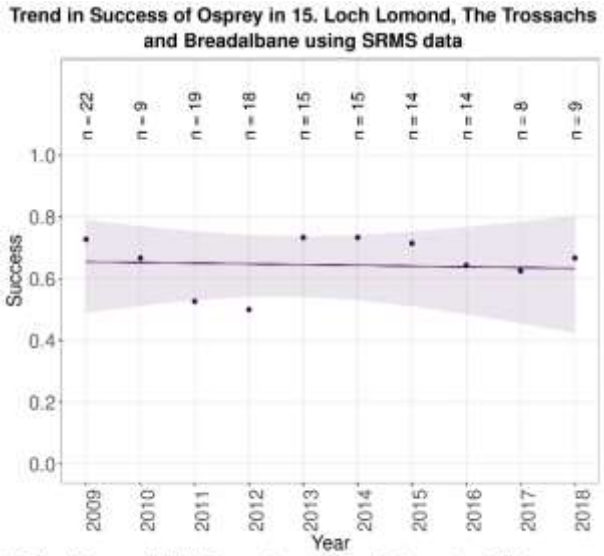
The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 146).

Table 28: Summary of SRMS trends for NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	Not significant [s]	—	—	Not significant
Golden Eagle	Not significant [s]	Not significant [s]	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant [s]	Not significant [s]	—	—	—
Red Kite	Not significant	Not significant [svx]	—	—	Not significant [sx]
White-tailed Eagle	—	—	—	—	—
Buzzard	Not significant [s]	Not significant	—	—	—
Barn Owl	—	—	—	—	—
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	**Decrease (-11.1%)**	Not significant [rs]	—	—	—
Raven	Not significant [v]	Not significant	—	—	Not significant [r]

[r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.

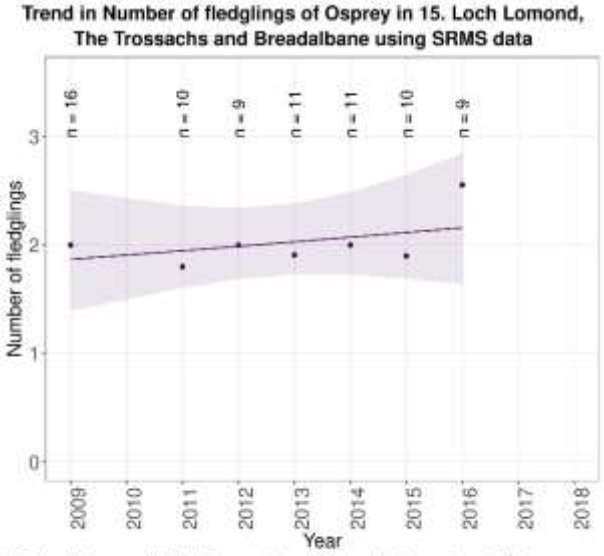
No trend available for breeding pairs



15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant (caveats: Sample sizes small)

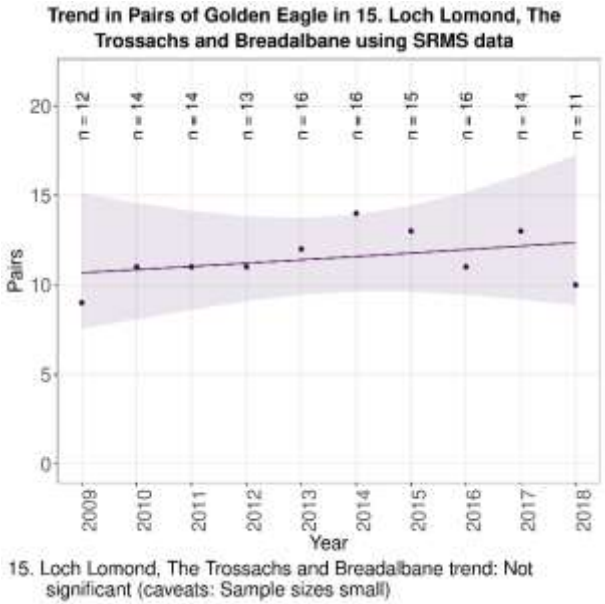
No trend available for clutch size

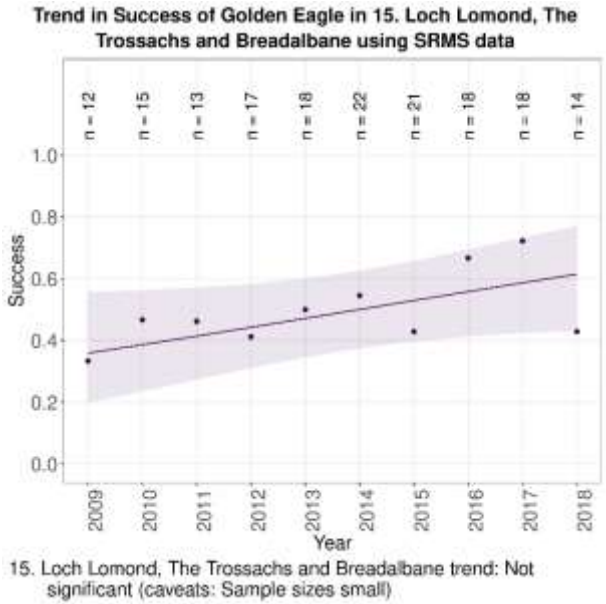
No trend available for brood size



15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant

Figure 140: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.



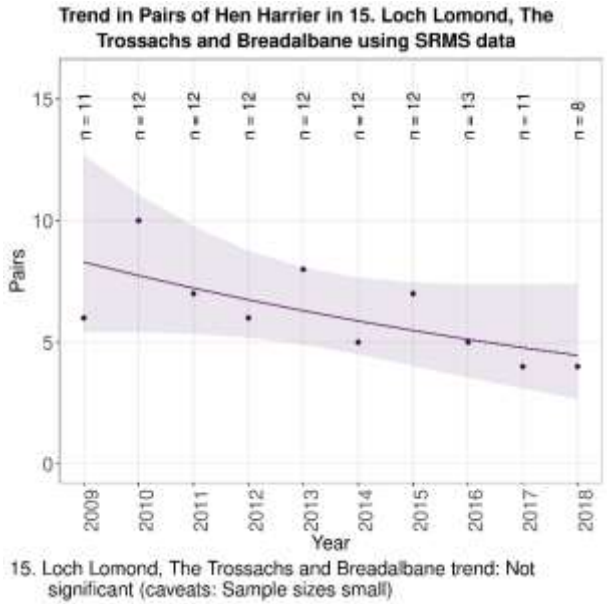


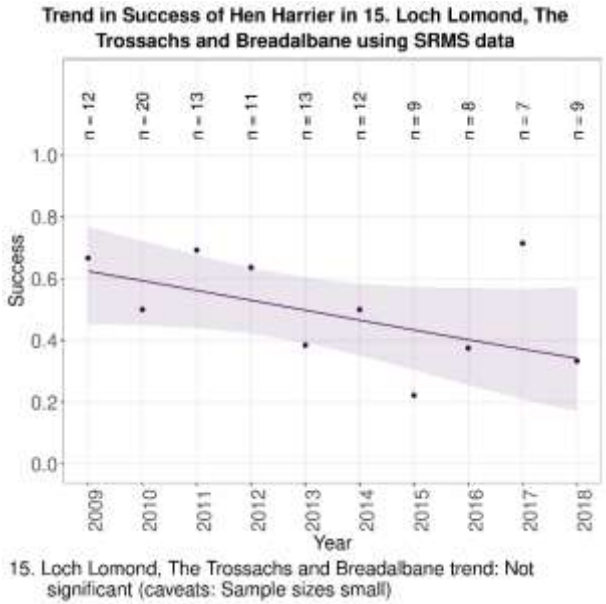
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 141: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Golden Eagle in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.



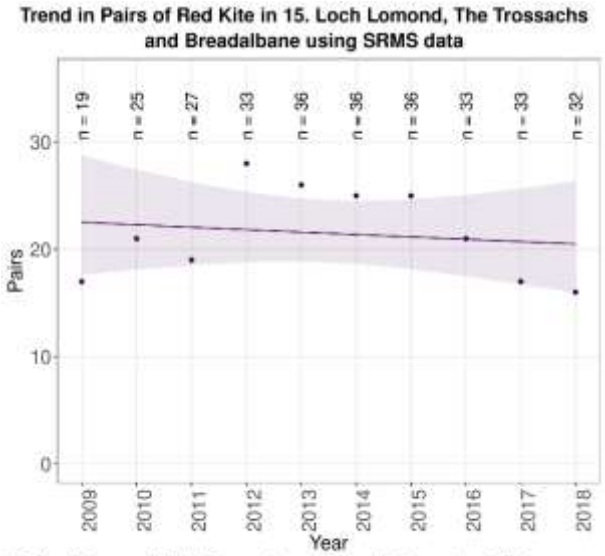


No trend available for clutch size

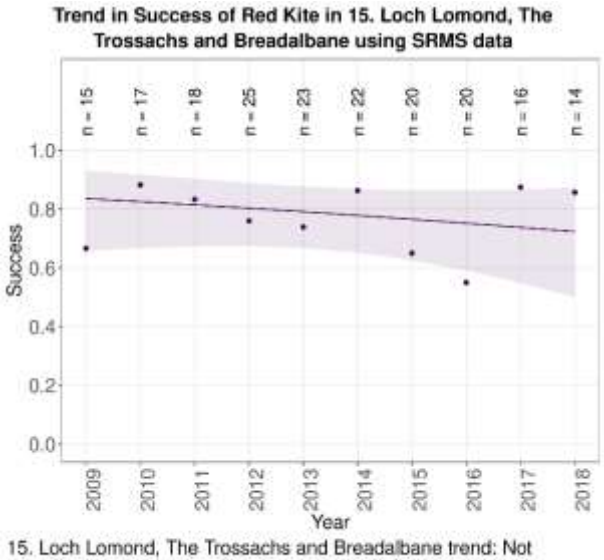
No trend available for brood size

No trend available for number of fledglings

Figure 142: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.



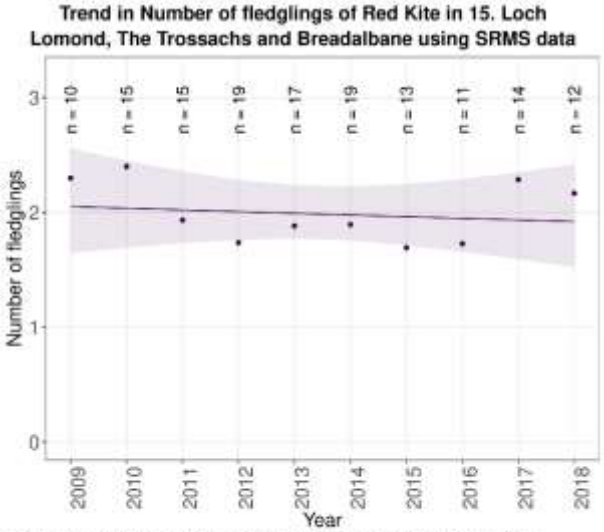
15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant



15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant (caveats: Sample sizes small; Variable effort; Expanding population)

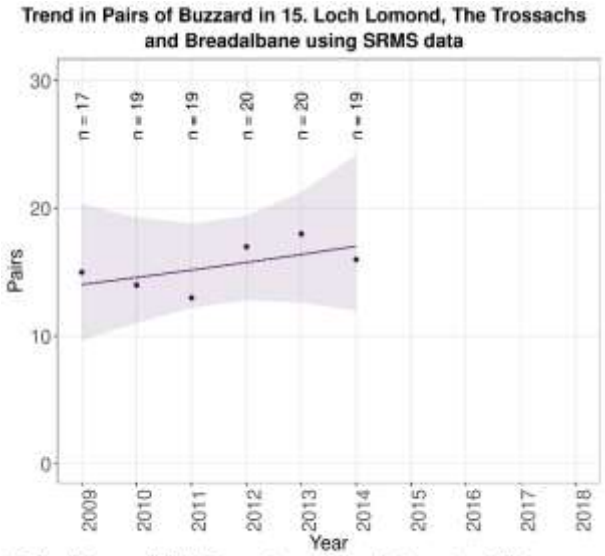
No trend available for clutch size

No trend available for brood size

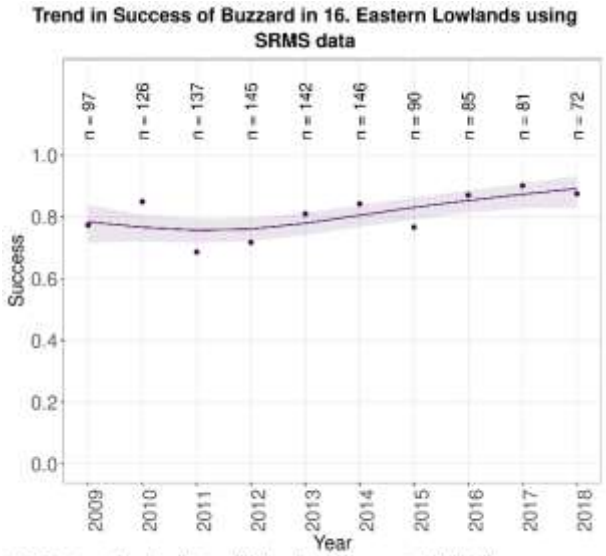


15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant (caveats: Expanding population; Sample sizes small)

Figure 143: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.



15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant (caveats: Sample sizes small)



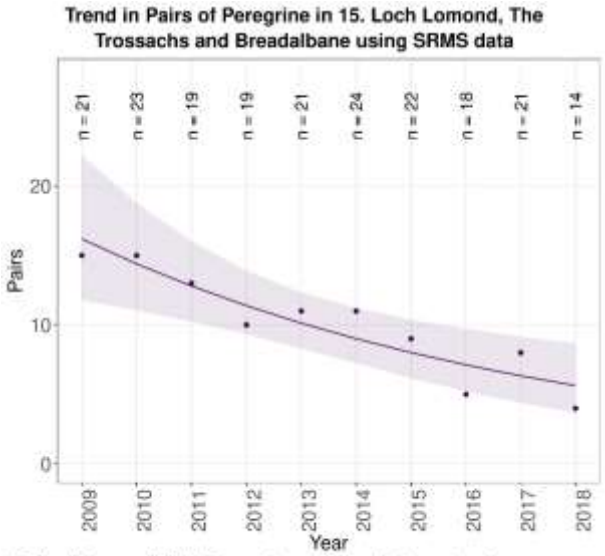
16. Eastern Lowlands trend: Non-linear (caveats: Variable effort)

No trend available for clutch size

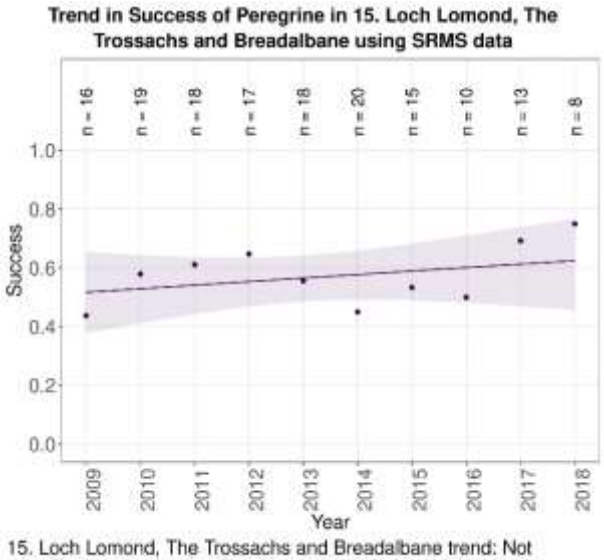
No trend available for brood size

No trend available for number of fledglings

Figure 144: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.



15. Loch Lomond, The Trossachs and Breadalbane trend: Decrease



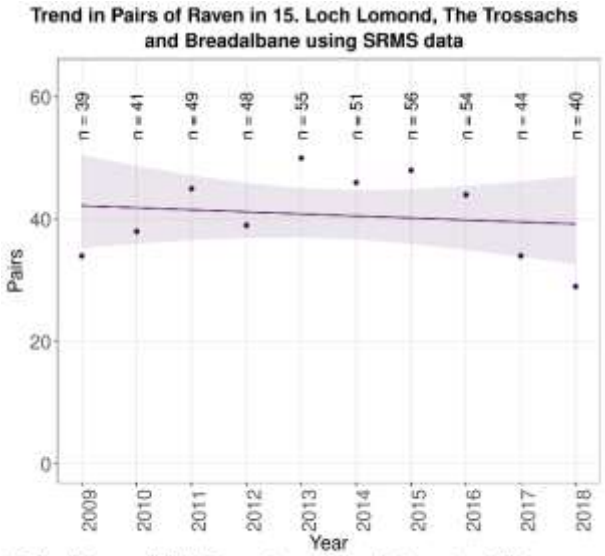
15. Loch Lomond, The Trossachs and Breadalbane trend: Not significant (caveats: Sample sizes small; No home range random effect)

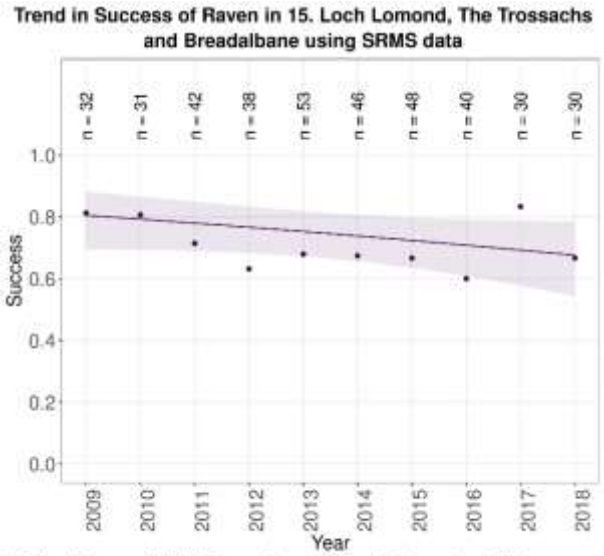
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 145: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.





No trend available for clutch size

No trend available for brood size

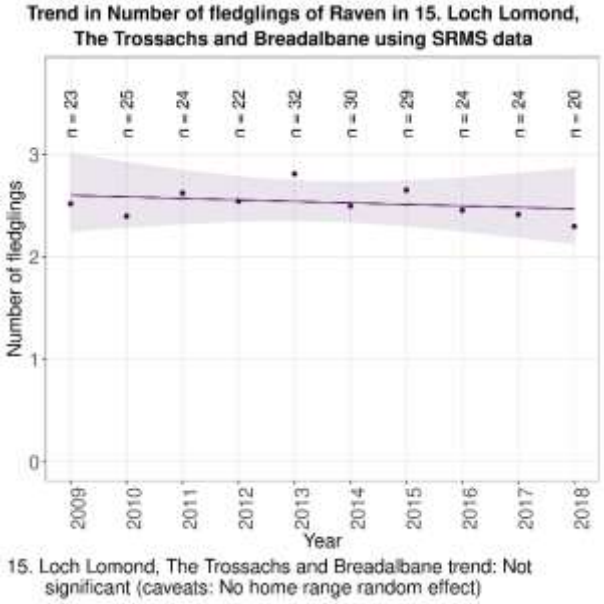


Figure 146: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 15. Loch Lomond, The Trossachs and Breadalbane during 2009-2018.

NHZ 16. Eastern Lowlands

Figure 147: NHZ 16. Eastern Lowlands.

Trends in breeding numbers are available for five species and trends in breeding success for eight of the 14 species for which the SRMS holds records for NHZ 16. Eastern Lowlands (Table 29).

Osprey

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 148).

Sparrowhawk

No trend is available for the number of breeding pairs. Breeding success showed no significant change. Trends are not available for clutch size, brood size or the number of fledglings (Figure 149).

Goshawk

No trend is available for the number of breeding pairs. Breeding success showed no significant change. Trends are not available for clutch size, brood size or the number of fledglings (Figure 150).

Red Kite

The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 151).

Buzzard

No trend is available for the number of breeding pairs but breeding success showed non-linear variation. Trends in clutch size, brood size and the

number of fledglings all showed no significant change (Figure 152).

Barn Owl

The number of breeding pairs (-42.5%) and breeding success (-0.5%) decreased significantly. Trends are not available for clutch size but the brood size and the number of fledglings showed no significant change (Figure 153).

Peregrine

The number of breeding pairs showed no significant change while breeding success decreased significantly (-1.3%). Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 154).

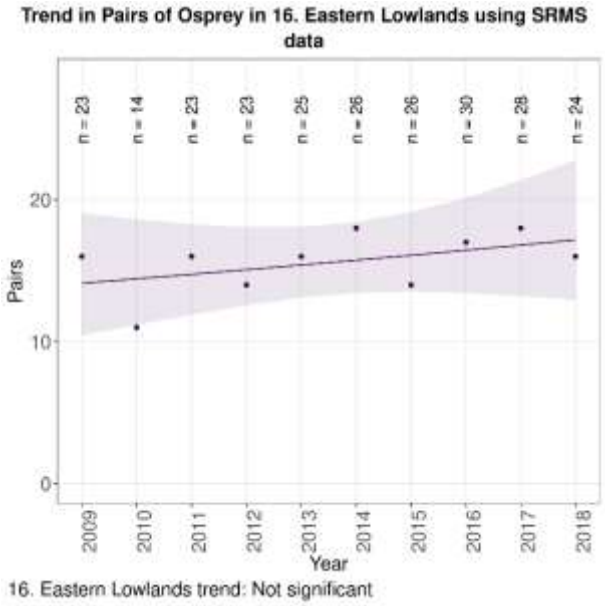
Raven

The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 155).

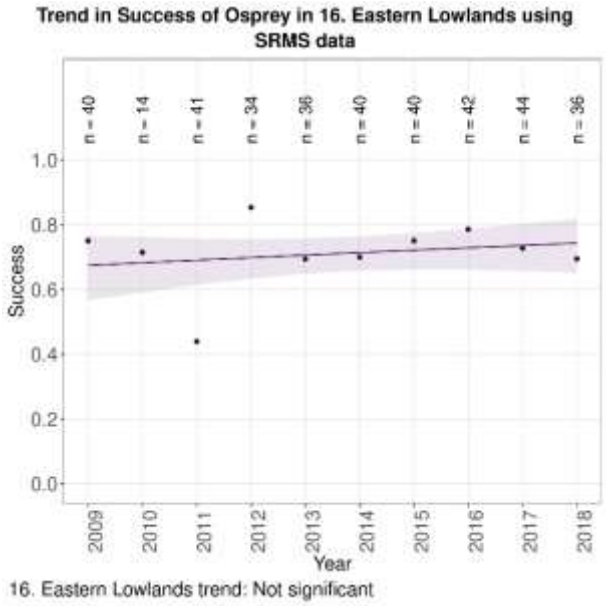
Table 29: Summary of SRMS trends for NHZ 16. Eastern Lowlands during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	Not significant	Not significant	Not significant [rs]	Not significant [rs]	Not significant
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	Not significant [sv]	—	—	—
Goshawk	—	Not significant [sv]	—	—	Not significant [rs]
Hen Harrier	—	—	—	—	—
Red Kite	Not significant	Not significant [vx]	—	—	Not significant [rx]
White-tailed Eagle	—	—	—	—	—
Buzzard	—	Non-linear	Not significant [r]	Not significant [r]	Not significant
Barn Owl	**Decrease [s] (-42.5%)**	**Decrease [nv] (-0.5%)**	—	Not significant [nr]	Not significant [nr]
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	Not significant	**Decrease (-1.3%)**	Not significant [rs]	Not significant [rs]	Not significant
Raven	Not significant [sv]	Not significant	—	—	Not significant [r]

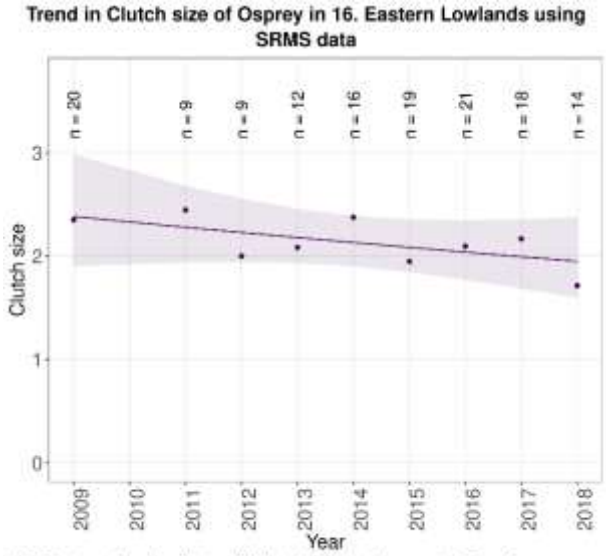
[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.



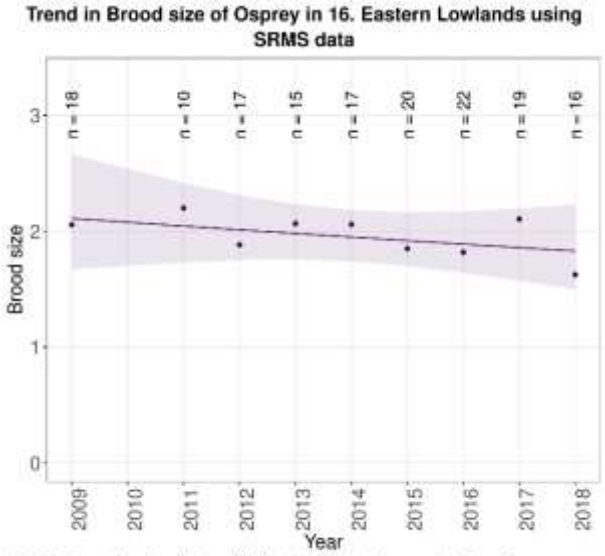
16. Eastern Lowlands trend: Not significant



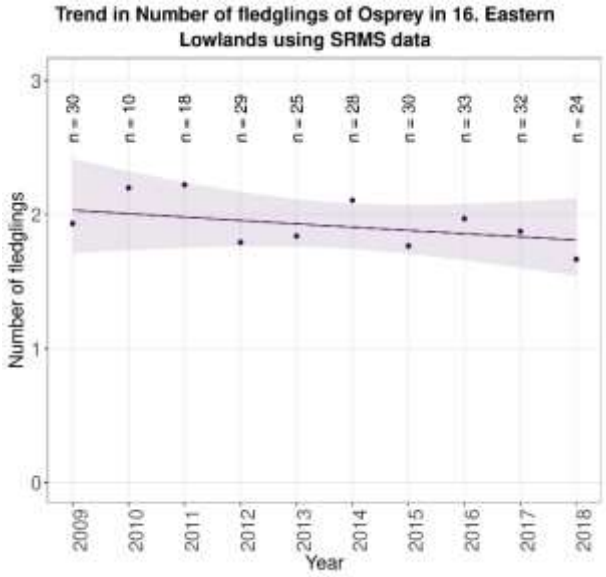
16. Eastern Lowlands trend: Not significant



16. Eastern Lowlands trend: Not significant (caveats: Sample sizes small; No home range random effect)



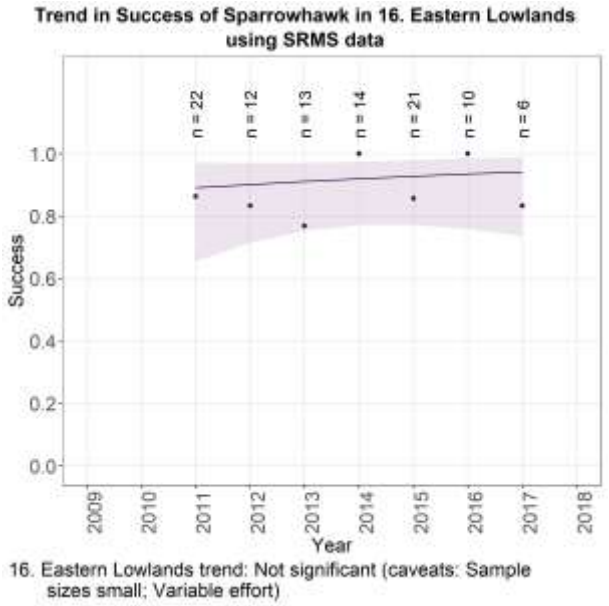
16. Eastern Lowlands trend: Not significant (caveats: Sample sizes small; No home range random effect)



16. Eastern Lowlands trend: Not significant

Figure 148: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in NHZ 16. Eastern Lowlands during 2009-2018.

No trend available
for breeding pairs



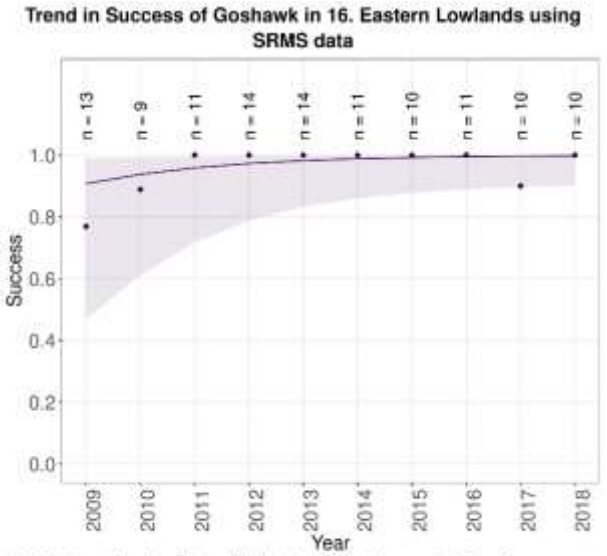
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 149: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Sparrowhawk in NHZ 16. Eastern Lowlands during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

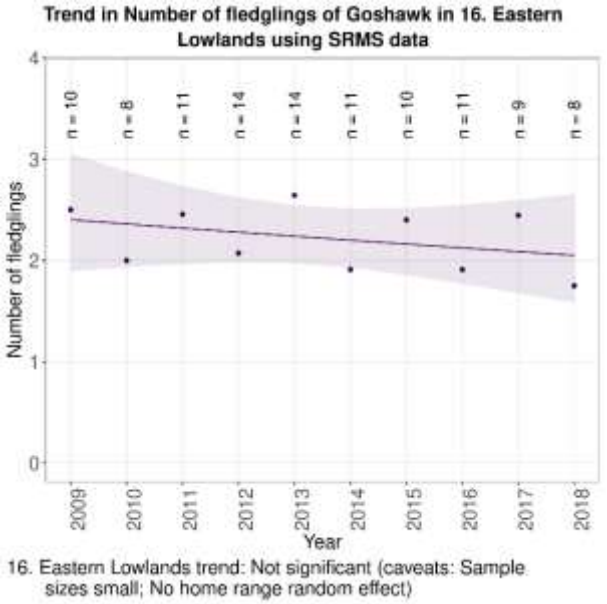
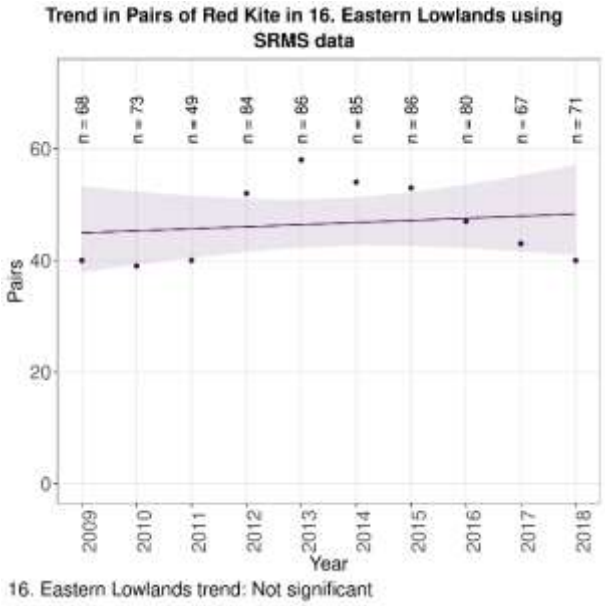
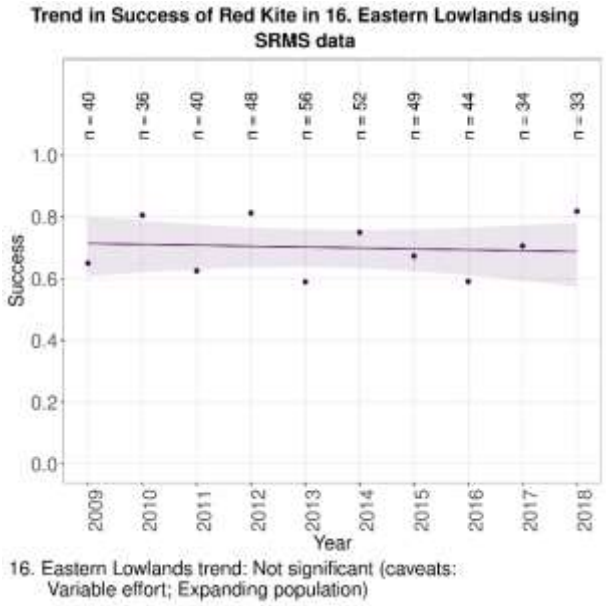


Figure 150: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Goshawk in NHZ 16. Eastern Lowlands during 2009-2018.





No trend available for clutch size

No trend available for brood size

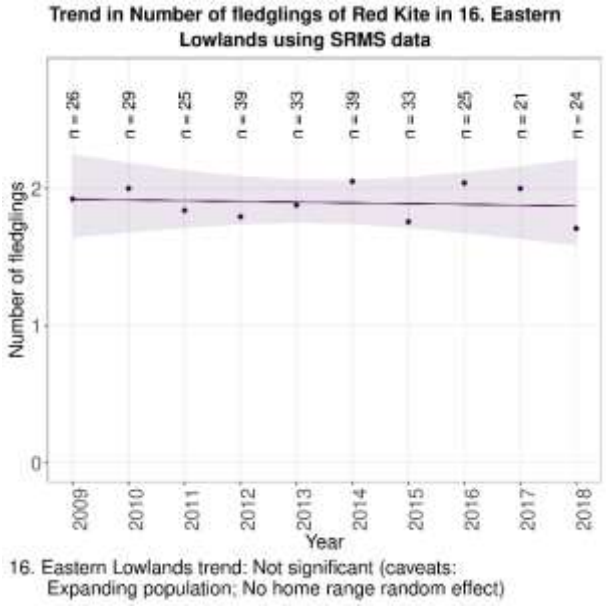
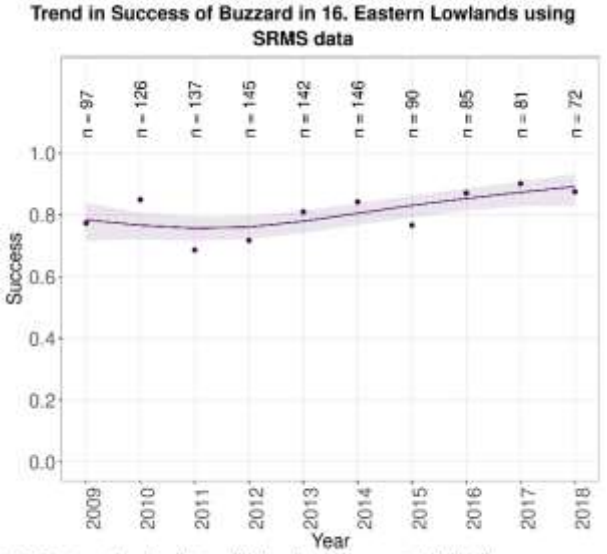
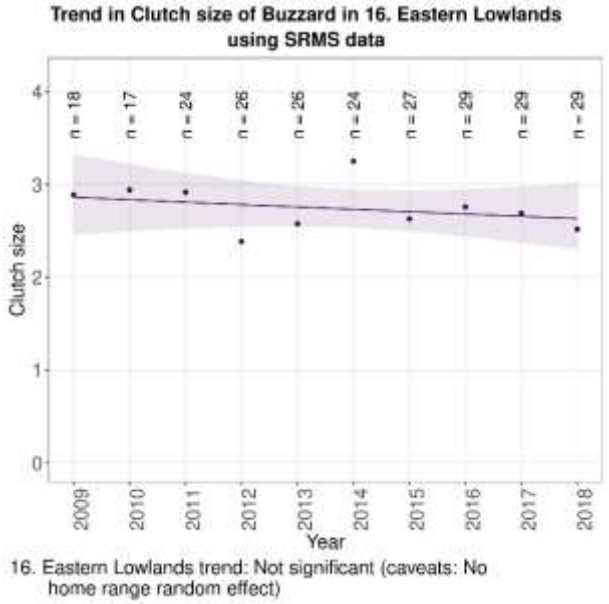
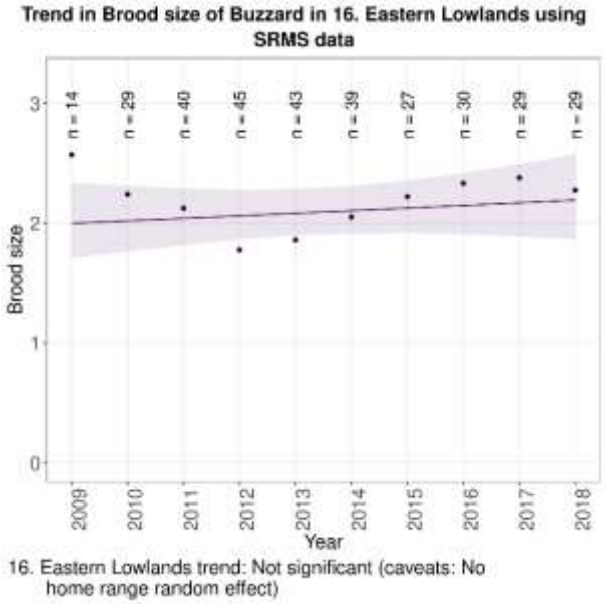


Figure 151: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in NHZ 16. Eastern Lowlands during 2009-2018.

No trend available
for breeding pairs







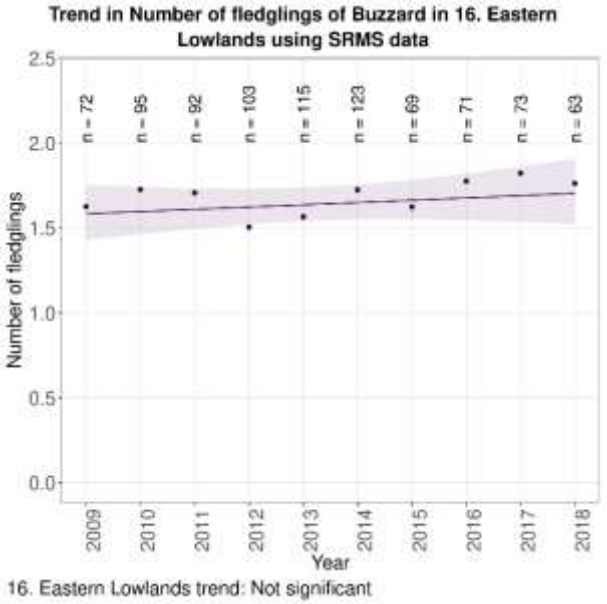
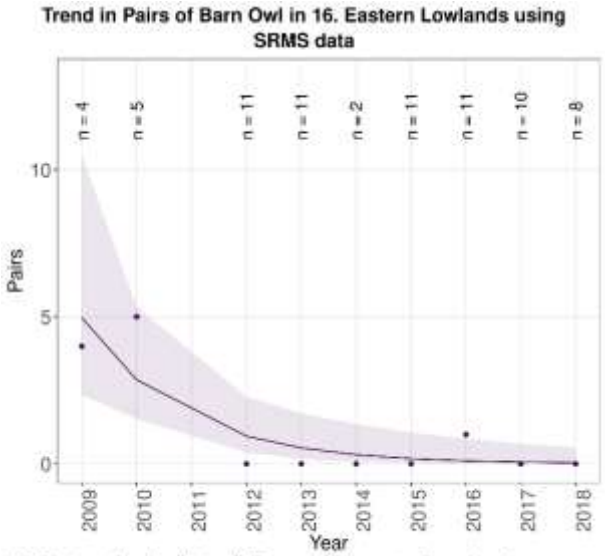
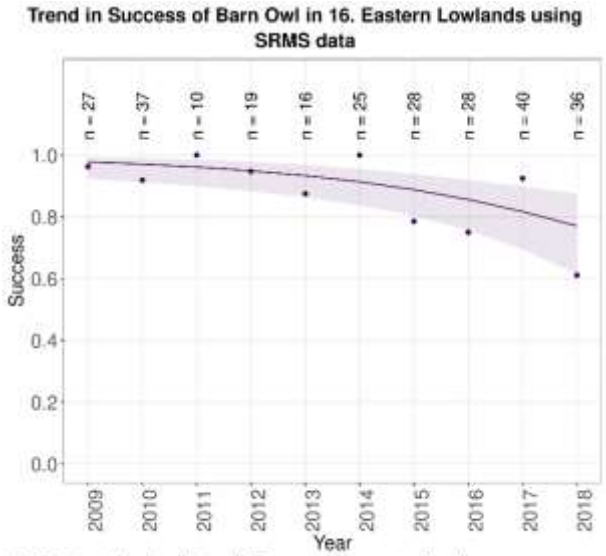
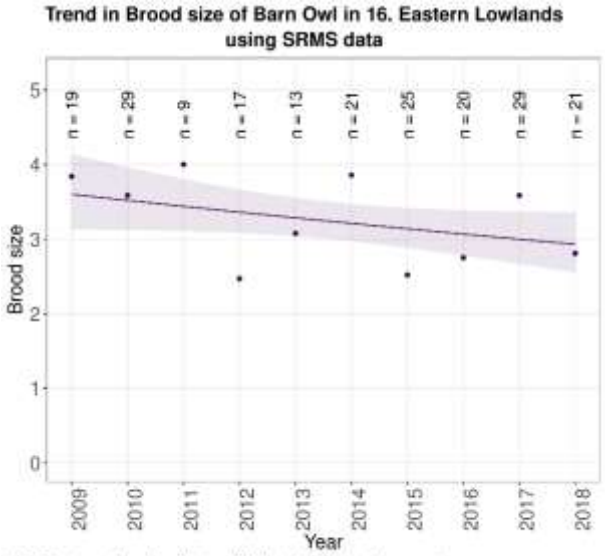


Figure 152: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 16. Eastern Lowlands during 2009-2018.

No trend available for clutch size







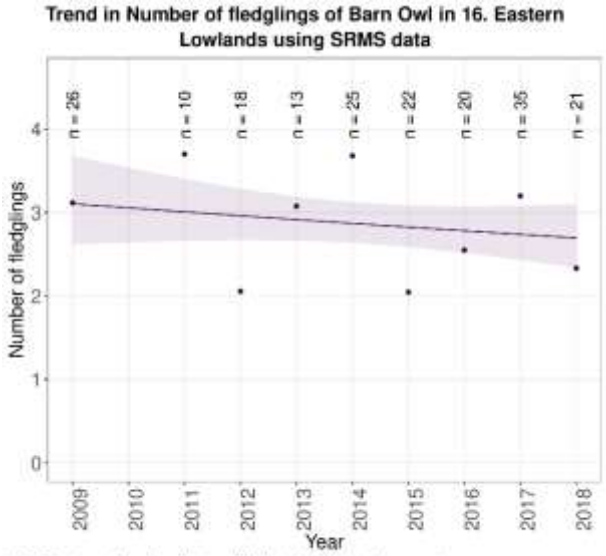
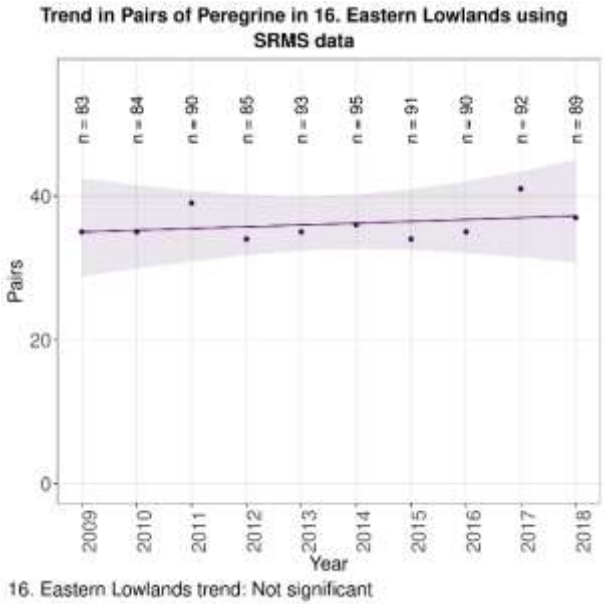
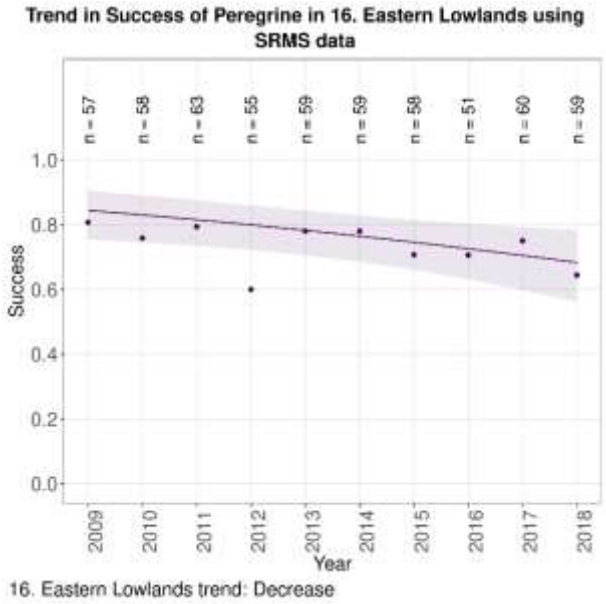
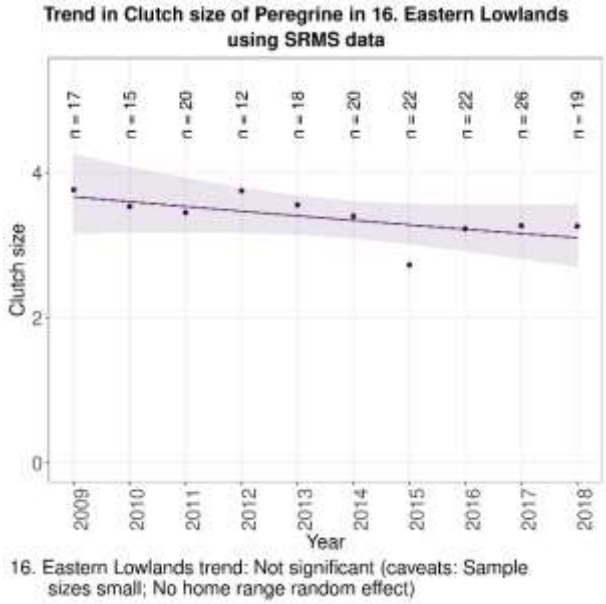
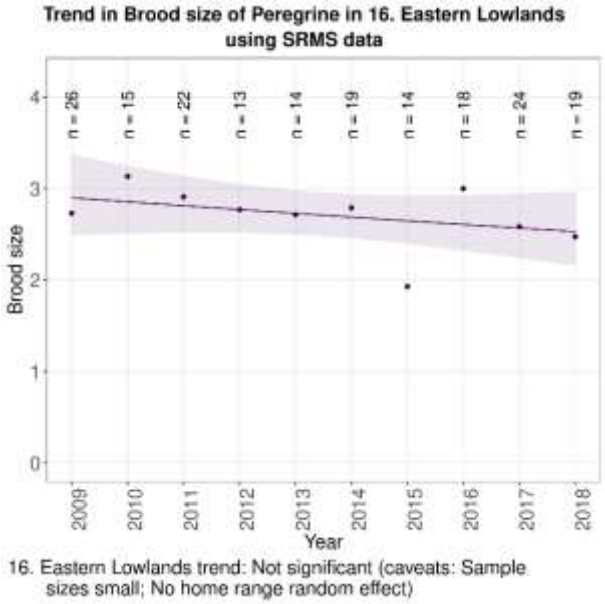


Figure 153: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in NHZ 16. Eastern Lowlands during 2009-2018.









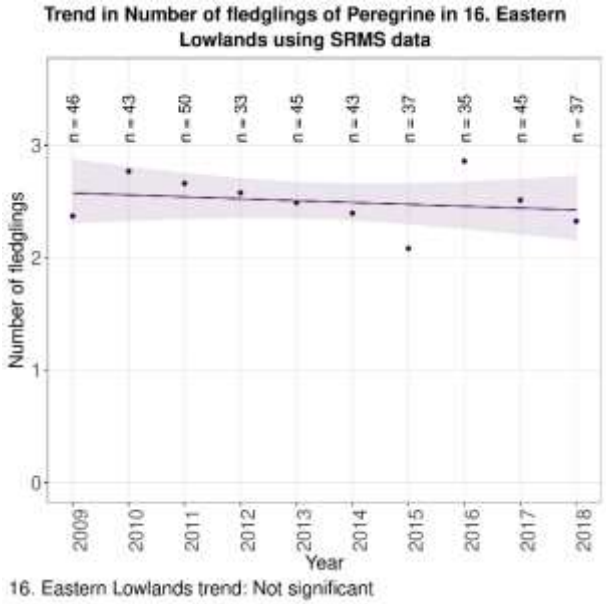
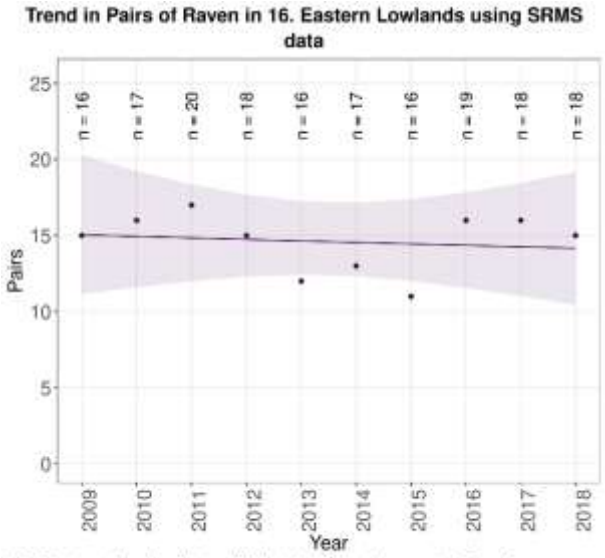
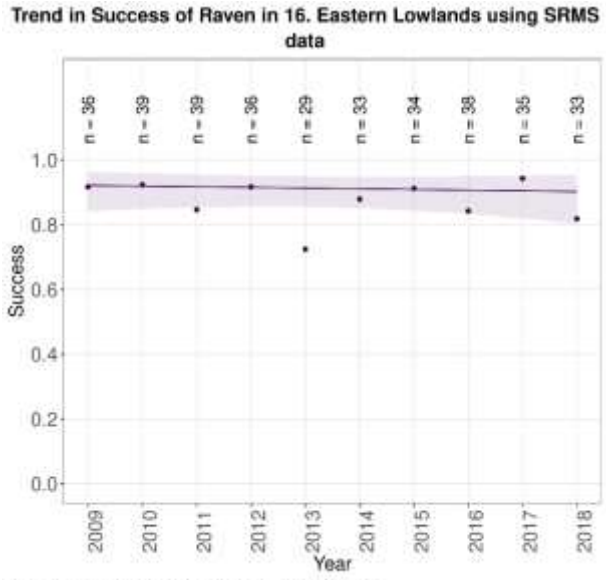


Figure 154: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 16. Eastern Lowlands during 2009-2018.



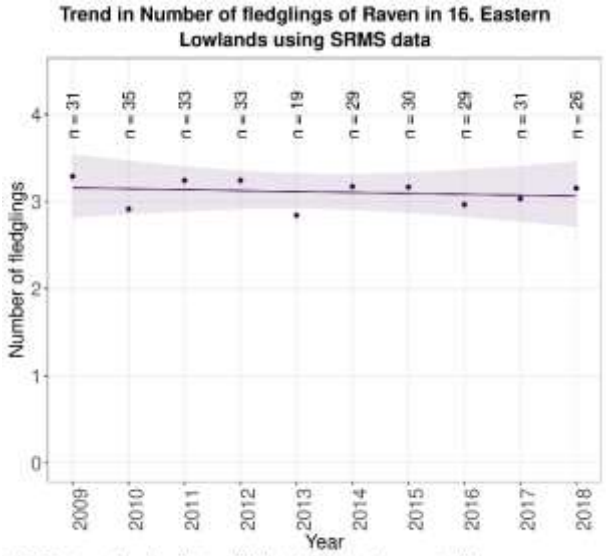
16. Eastern Lowlands trend: Not significant (caveats: Sample sizes small; Variable effort)



16. Eastern Lowlands trend: Not significant

No trend available for clutch size

No trend available for brood size



16. Eastern Lowlands trend: Not significant (caveats: No home range random effect)

Figure 155: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 16. Eastern Lowlands during 2009-2018.

NHZ 17. West Central Belt

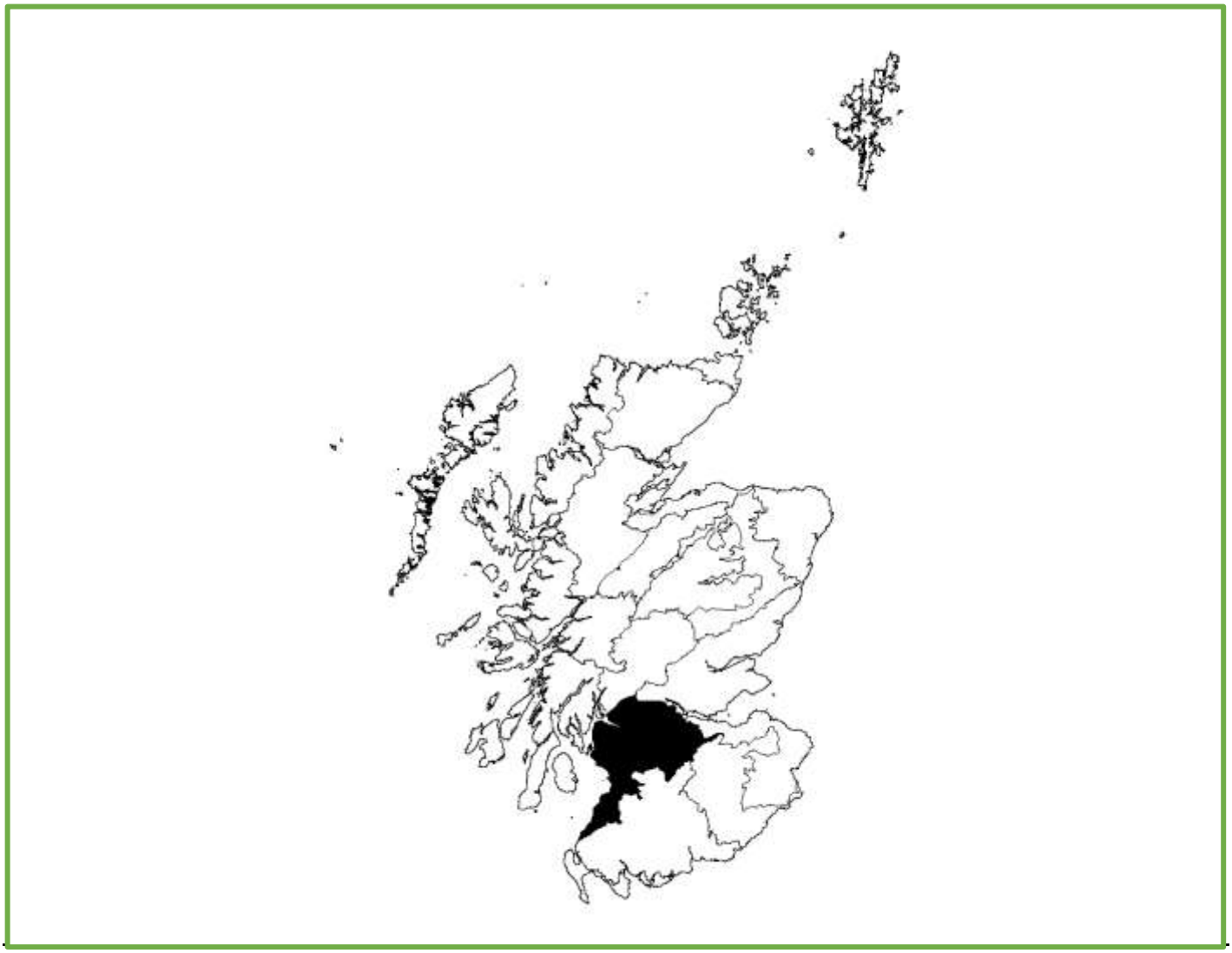


Figure 156: NHZ 17.West Central Belt.

Trends in breeding numbers are available for three species and trends in breeding success for five of the 12 species for which the SRMS holds records for NHZ 17. West Central Belt (Table 30).

Hen Harrier

The number of breeding pairs showed no significant change. Trends are not available for breeding success, clutch size, brood size or the number of fledglings (Figure 157).

Buzzard

No trend is available for the number of breeding pairs but breeding success showed non-linear variation. Trends for clutch size, brood size and the number of fledglings showed no significant change (Figure 158).

Barn Owl

No trend is available for the number of breeding pairs but breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed a significant decrease (-3%) (Figure 159).

Kestrel

No trend is available for the number of breeding pairs but breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 160).

Peregrine

The number of breeding pairs and breeding success showed no significant change. Trends are not

available for clutch size or brood size but the number of fledglings showed no significant change (Figure 161).

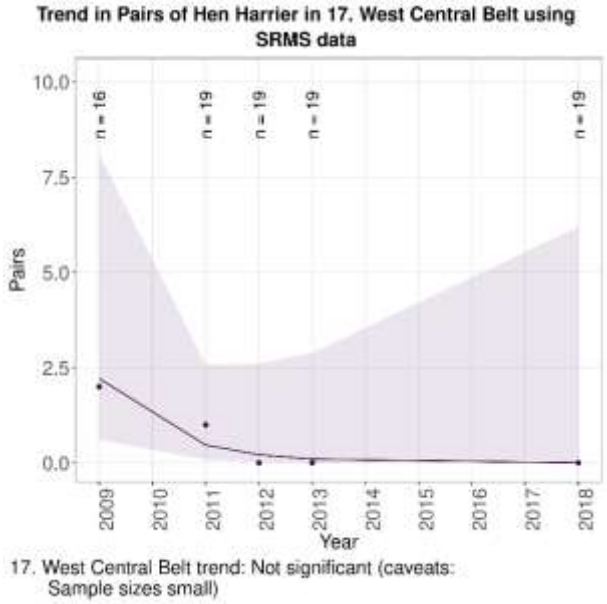
Raven

The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 162).

Table 30: Summary of SRMS trends for NHZ 17. West Central Belt during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	Not significant [s]	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	Non-linear	—	—	Not significant [r]
Barn Owl	—	Not significant [nv]	—	—	**Decrease [nr] (-3%)**
Tawny Owl	—	—	—	—	—
Kestrel	—	Not significant [s]	—	—	Not significant [ns]
Merlin	—	—	—	—	—
Peregrine	Not significant	Not significant	—	—	Not significant [rs]
Raven	Not significant [v]	Not significant [r]	—	—	Not significant [r]

[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort.



No trend available for breeding success

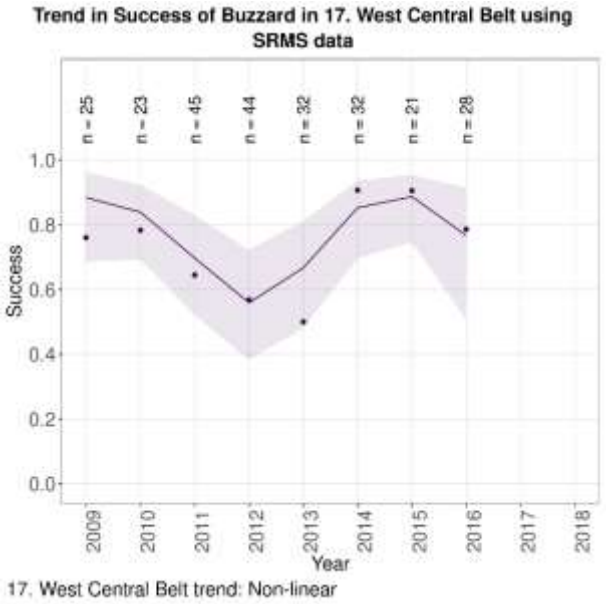
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 157: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 17. West Central Belt during 2009-2018.

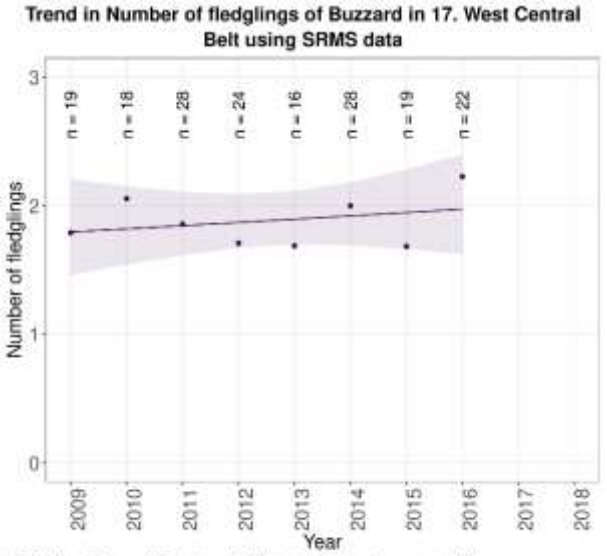
No trend available
for breeding pairs



17. West Central Belt trend: Non-linear

No trend available
for clutch size

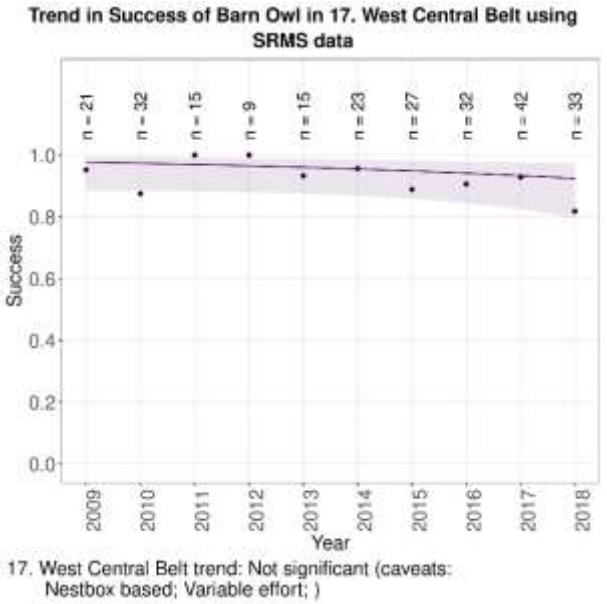
No trend available
for brood size



17. West Central Belt trend: Not significant (caveats: No home range random effect)

Figure 158: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 17. West Central Belt during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

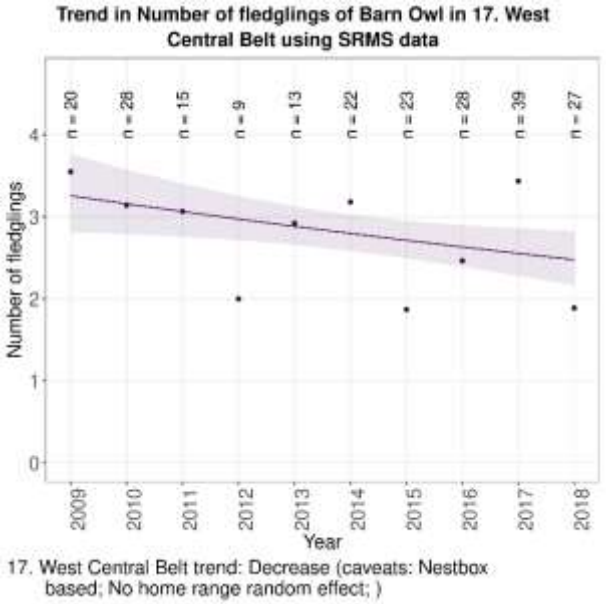
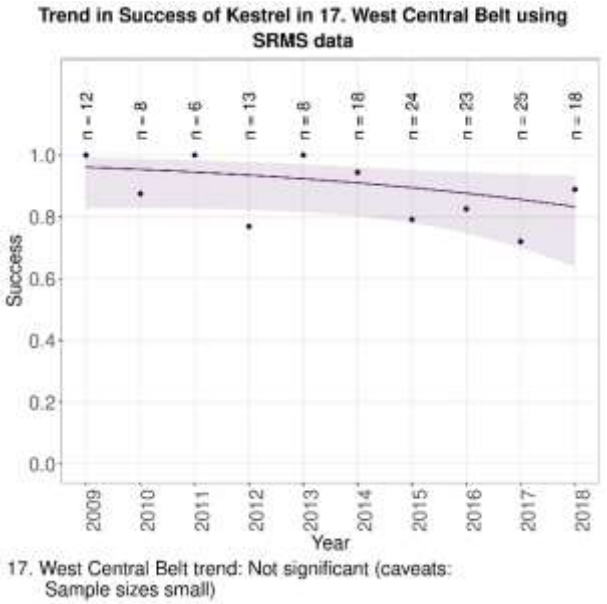


Figure 159: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in NHZ 17. West Central Belt during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

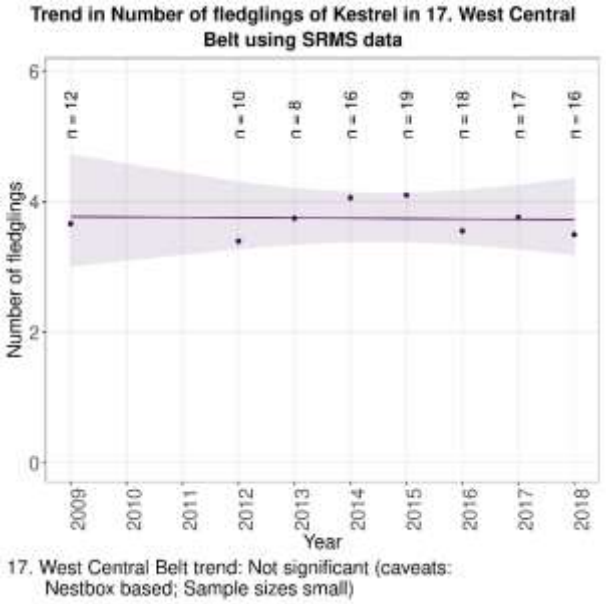
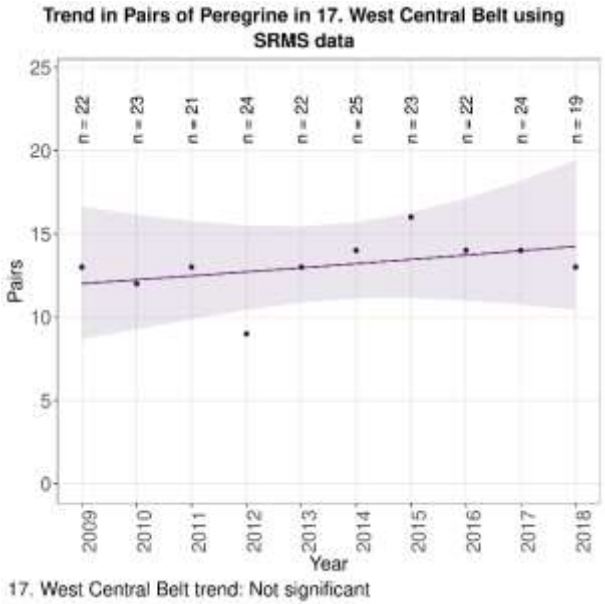
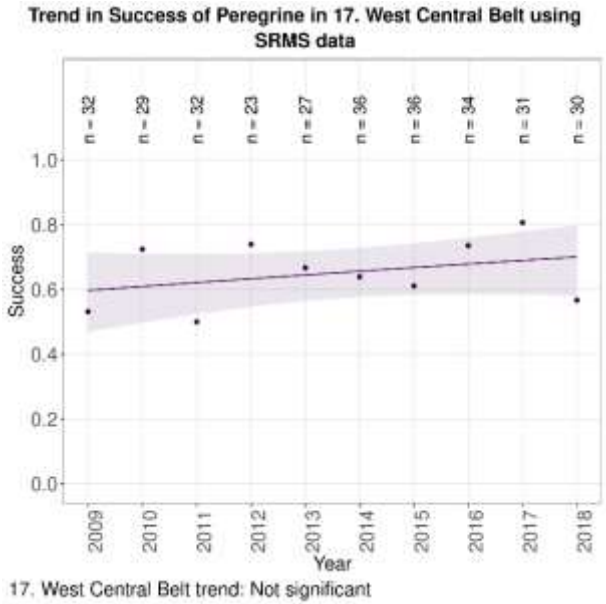


Figure 160: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Kestrel in NHZ 17. West Central Belt during 2009-2018.





No trend available for clutch size

No trend available for brood size

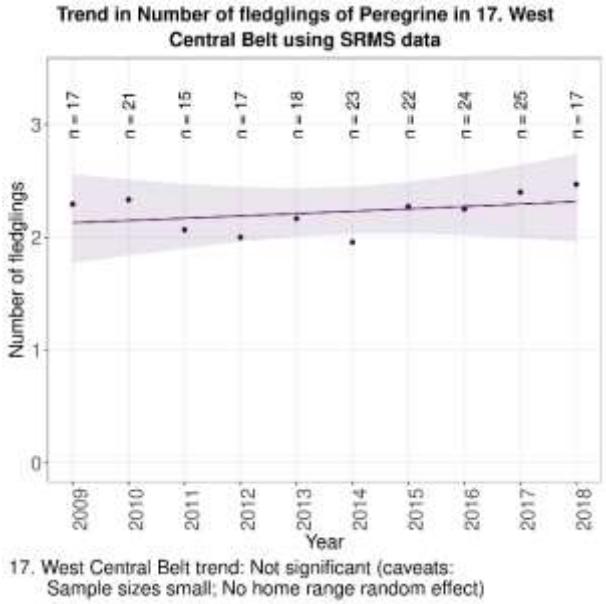
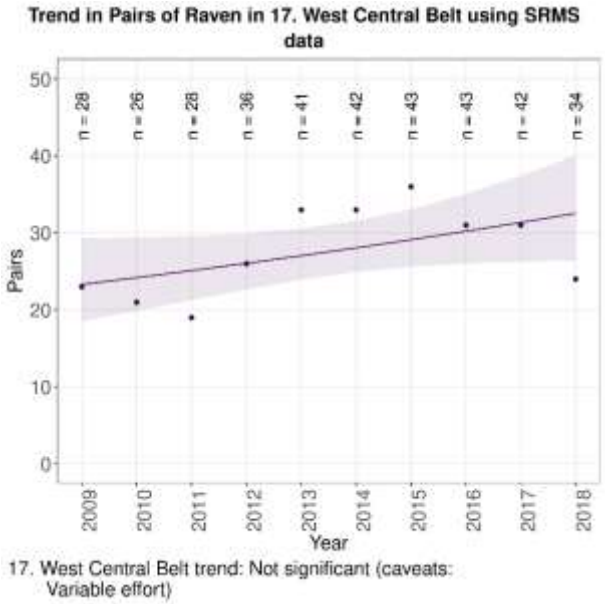
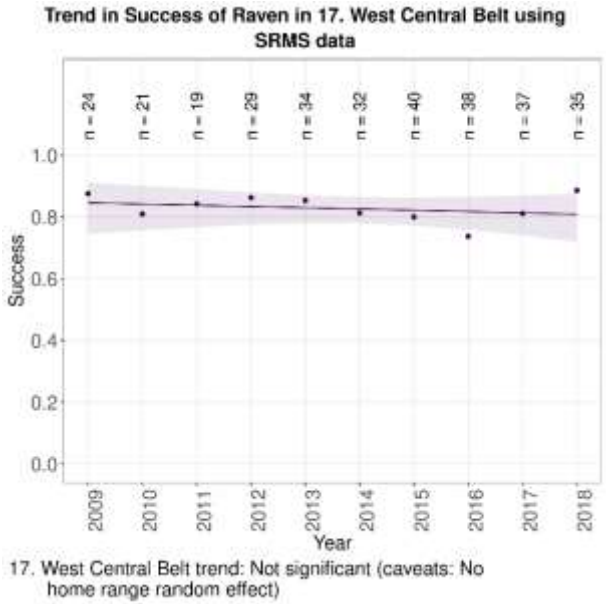


Figure 161: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 17. West Central Belt during 2009-2018.





No trend available for clutch size

No trend available for brood size

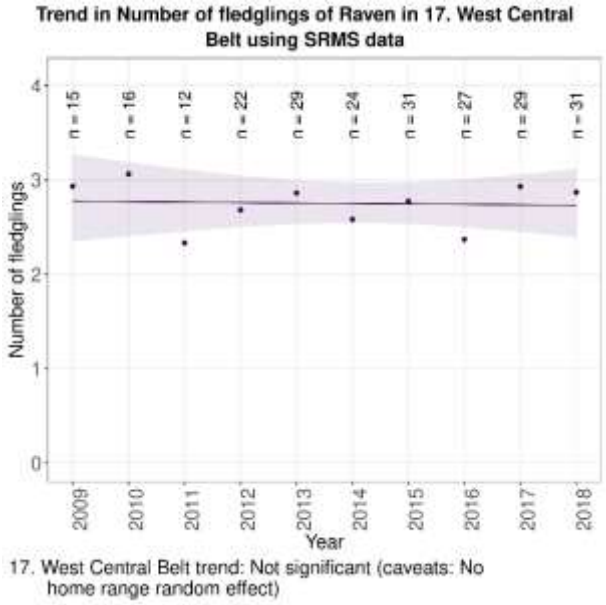


Figure 162: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 17. West Central Belt during 2009-2018.

NHZ 18. Wigtown Machairs and Outer Solway Coast

Figure 163: NHZ 18. Wigtown Machairs and Outer Solway Coast.

Trends in breeding numbers are available for two species and trends in breeding success for two of the 11 species for which the SRMS holds records for NHZ 18. Wigtown Machairs and Outer Solway Coast (Table 31).

Barn Owl

The number of breeding pairs decreased significantly (-5.9%) while breeding success showed non-linear variation. Clutch size, brood size and the number of fledglings all showed no significant change (Figure 164).

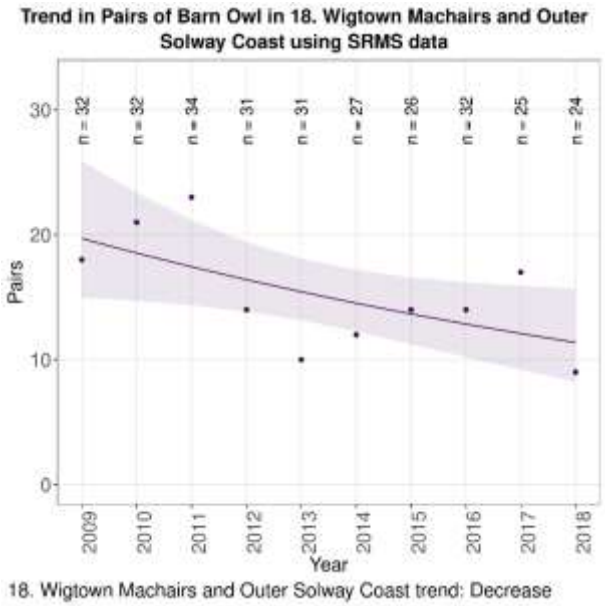
Peregrine

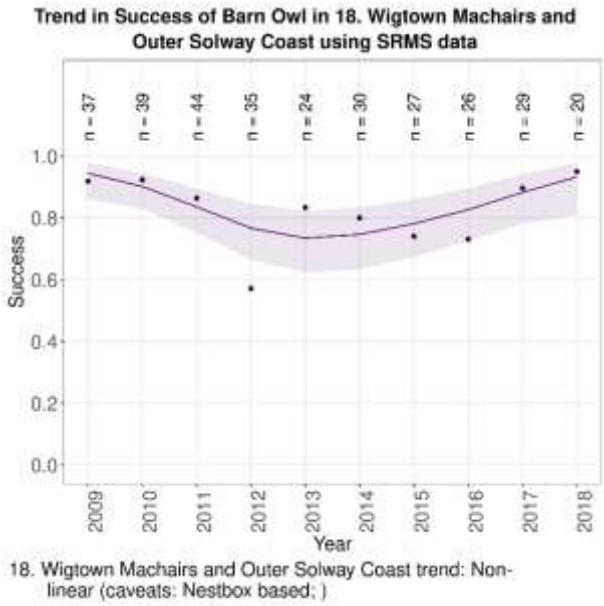
The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 165).

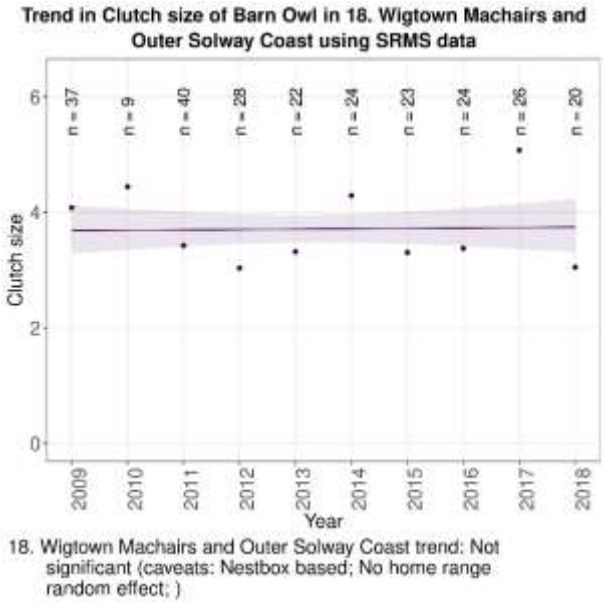
Table 31: Summary of SRMS trends for NHZ 18. Wigtown Machairs and Outer Solway Coast during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'No SRMS data' indicates where the SRMS does not hold any records for the region of interest. 'Absent' indicates where the species is not known to breed.

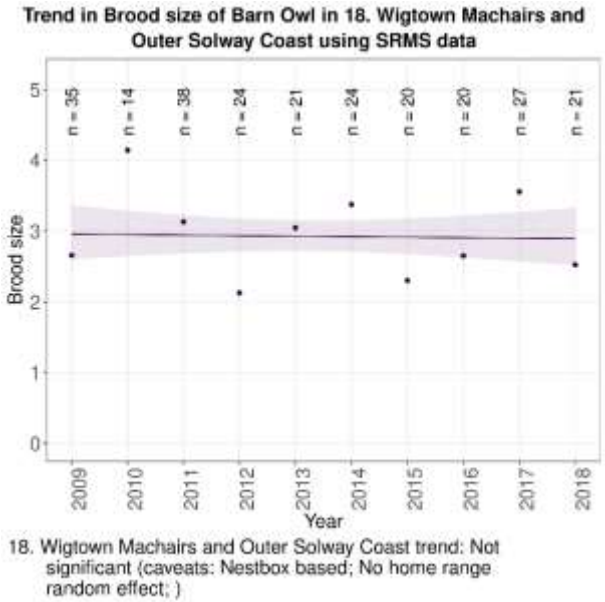
Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	Absent	Absent	Absent	Absent	Absent
Hen Harrier	—	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	—	—	—	—
Barn Owl	**Decrease (-5.9%)**	Non-linear	Not significant [nr]	Not significant [nr]	Not significant [nr]
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	Absent	Absent	Absent	Absent	Absent
Peregrine	Not significant	Not significant [s]	—	—	Not significant
Raven	—	—	—	—	—

[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small.









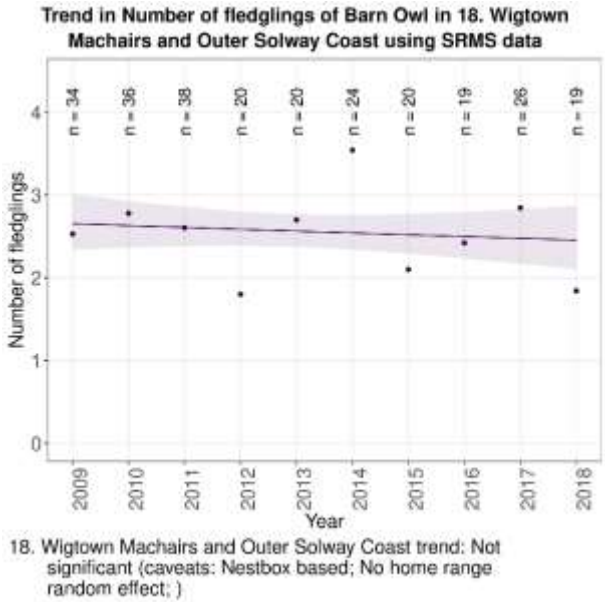
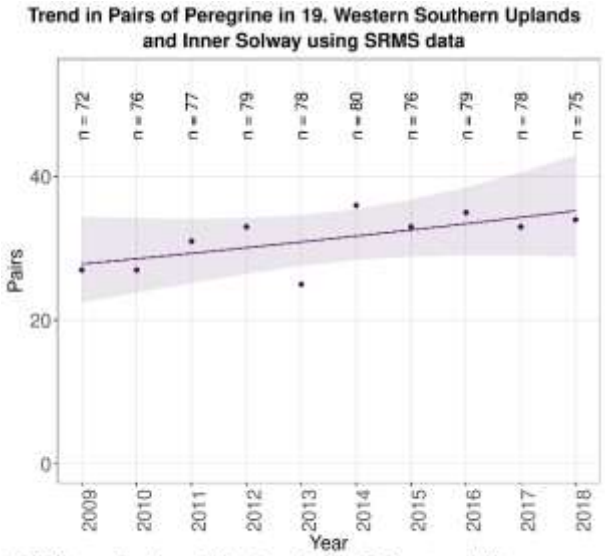
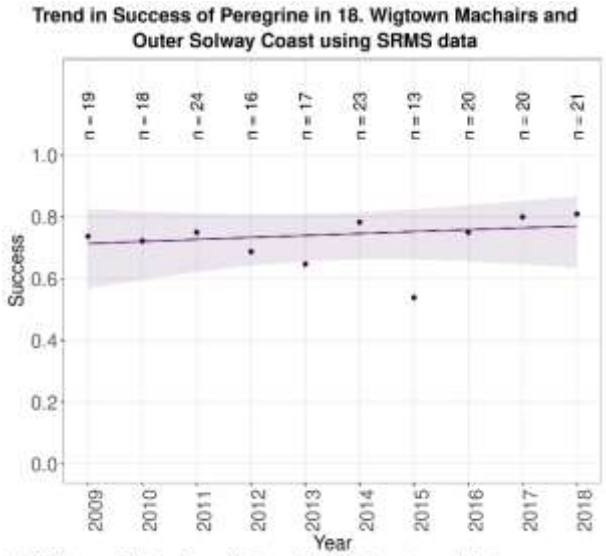


Figure 164: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in NHZ 18. Wigtown Machairs and Outer Solway Coast during 2009-2018.



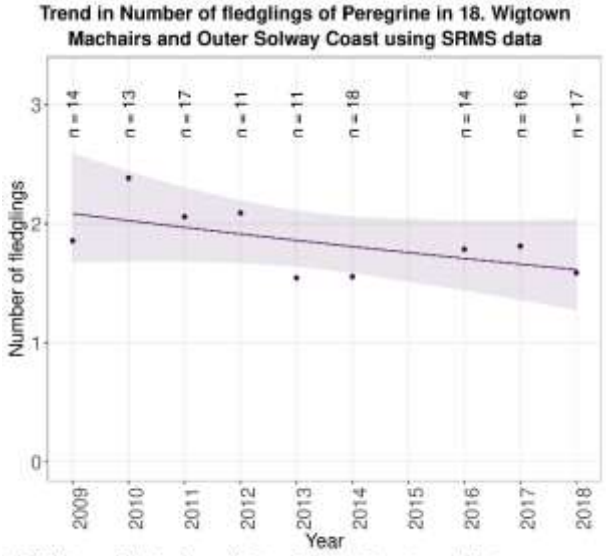
19. Western Southern Uplands and Inner Solway trend: Not significant



18. Wigtown Machairs and Outer Solway Coast trend: Not significant (caveats: Sample sizes small)

No trend available for clutch size

No trend available for brood size



18. Wigtown Machairs and Outer Solway Coast trend: Not significant

Figure 165: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 18. Wigtown Machairs and Outer Solway Coast during 2009-2018.

NHZ 19. Western Southern Uplands and Inner Solway

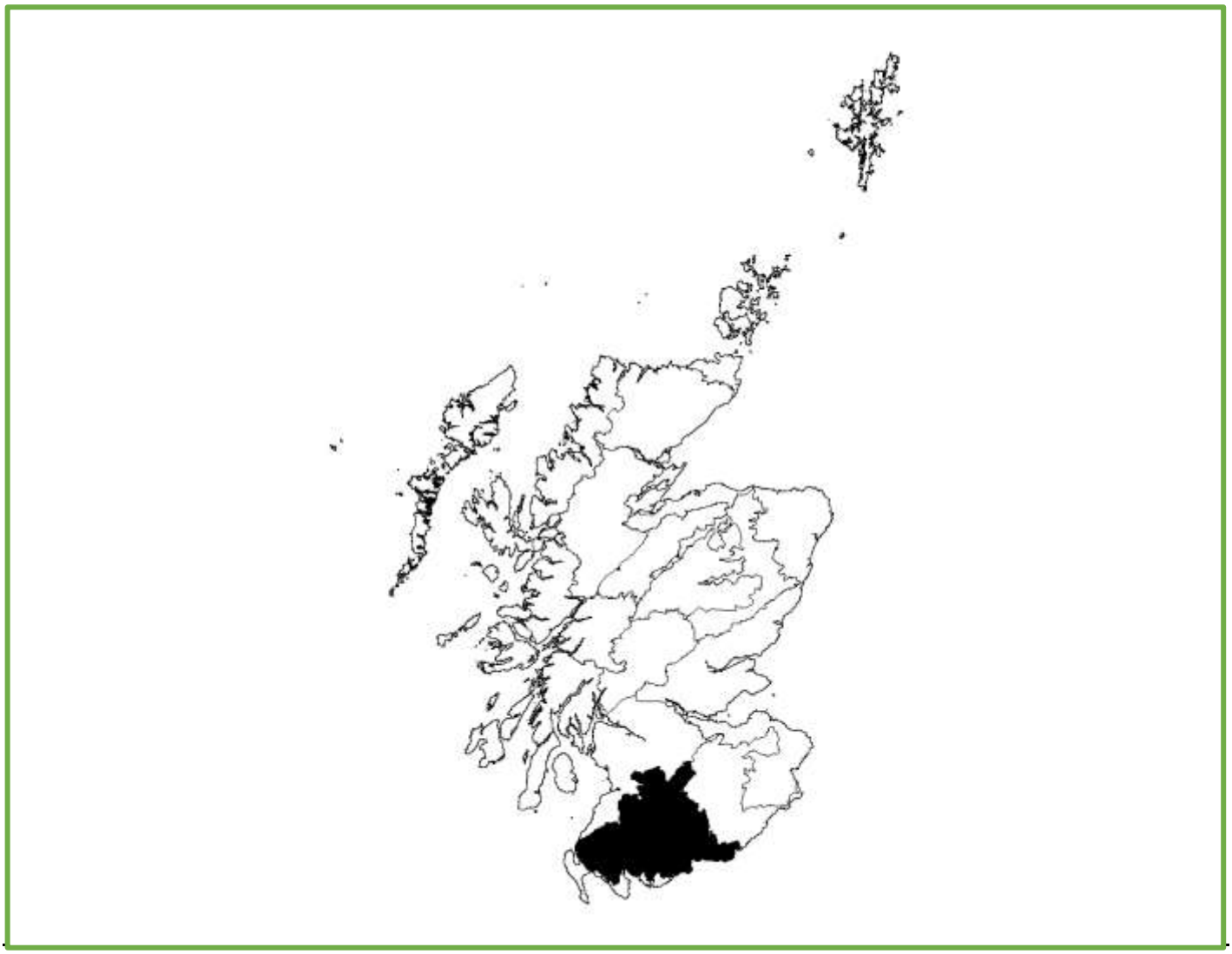


Figure 166: NHZ 19. Western Southern Uplands and Inner Solway.

Trends in breeding numbers are available for four species and trends in breeding success for six of the 13species for which the SRMS holds records for NHZ 19. Western Southern Uplands and Inner Solway (Table 32).

Goshawk

No trend is available for the number of breeding pairs but breeding success showed non-linear variation. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 167).

Hen Harrier

The number of breeding pairs decreased significantly (-22.5%). No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 168).

Red Kite

The number of breeding pairs increased significantly (+3.8%) while breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed a significant decrease (-5.4%) (Figure 169).

Barn Owl

The number of breeding pairs decreased significantly (-5.9%) while breeding success showed non-linear variation. Clutch size, brood size and the number of fledglings all showed no significant change (Figure 170).

Peregrine

The number of breeding pairs and breeding success showed no significant change. Trends are not

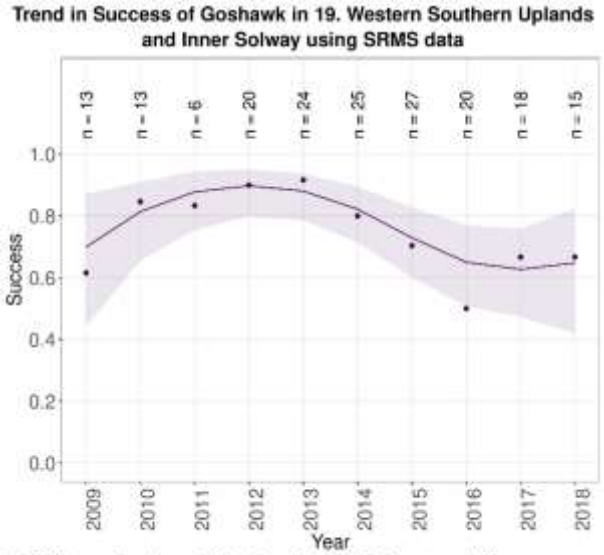
available for clutch size or brood size but the number of fledglings showed no significant change (Figure 171).

Table 32: Summary of SRMS trends for 19. Western Southern Uplands and Inner Solway during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green, significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	—	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	Non-linear	—	—	Not significant [rs]
Hen Harrier	**Decrease (-22.5%)**	—	—	—	—
Red Kite	**Increase (3.8%)**	Not significant [vx]	—	—	**Decrease [rx] (-5.4%)**
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	Not significant [rs]	—	—	—
Barn Owl	—	Not significant [n]	Not significant [nr]	Not significant [nr]	Not significant [n]
Tawny Owl	—	—	—	—	—
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	Not significant	Not significant	—	—	Not significant [r]
Raven	**Increase [v] (4.9%)**	Not significant [r]	—	—	Not significant [rs]

[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.

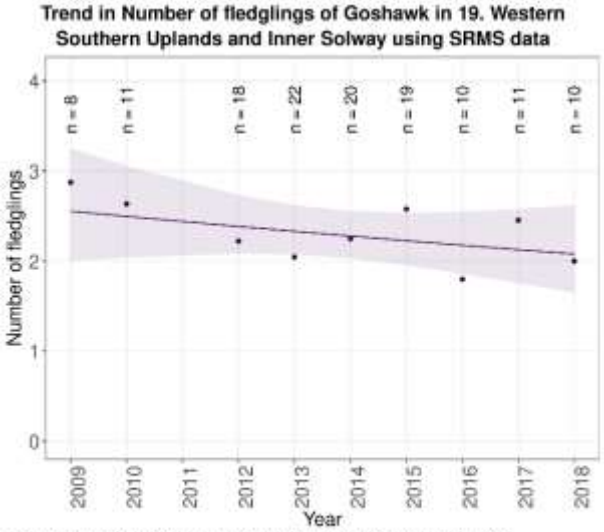
No trend available for breeding pairs



19. Western Southern Uplands and Inner Solway trend: Non-linear (caveats: Sample sizes small)

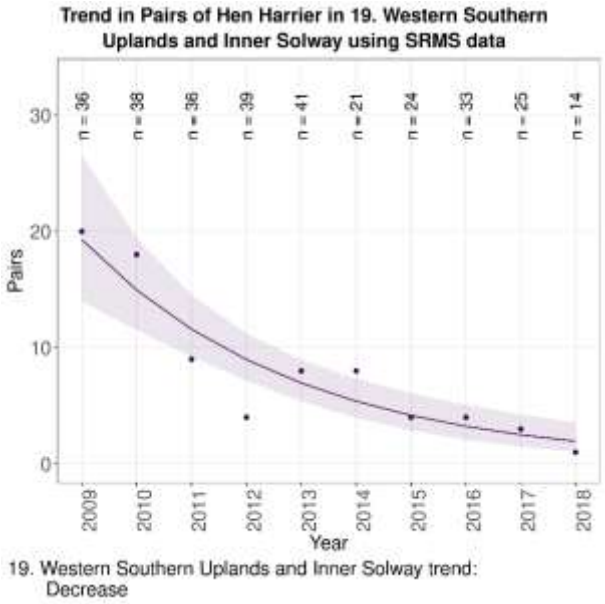
No trend available for clutch size

No trend available for brood size



19. Western Southern Uplands and Inner Solway trend: Not significant (caveats: Sample sizes small; No home range random effect)

Figure 167: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Goshawk in NHZ 19. Western Southern Uplands and Inner Solway during 2009-2018.



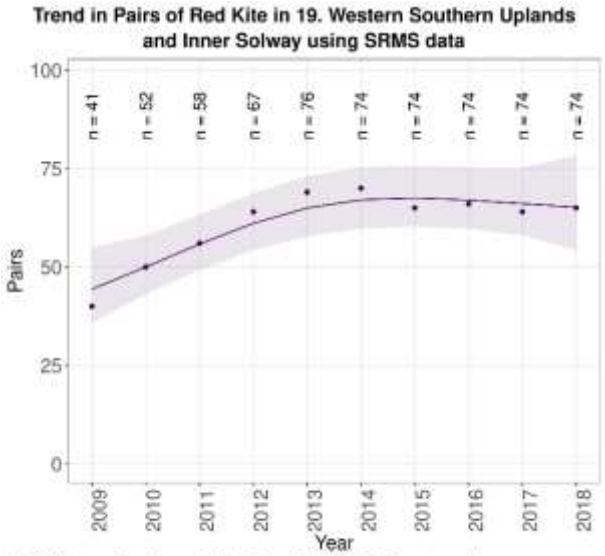
No trend available for breeding success

No trend available for clutch size

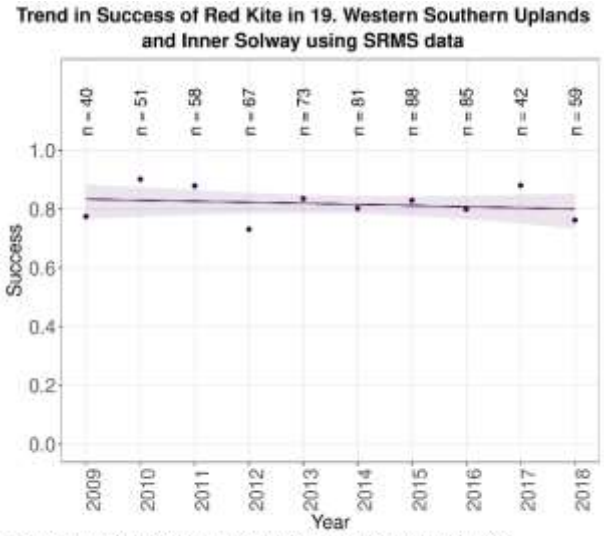
No trend available for brood size

No trend available for number of fledglings

Figure 168: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 19. Western Southern Uplands and Inner Solway during 2009-2018.



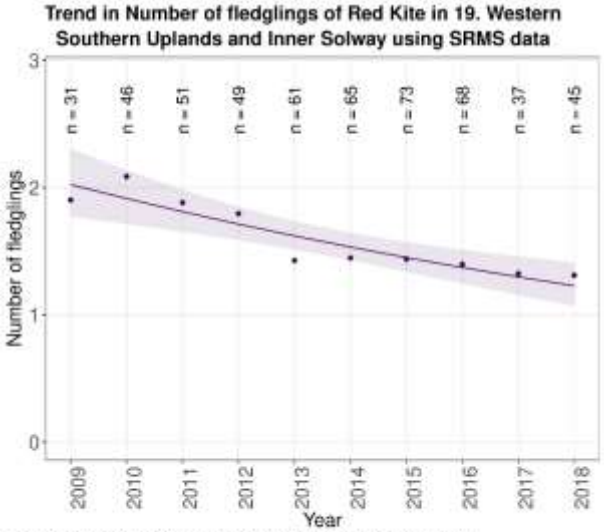
19. Western Southern Uplands and Inner Solway trend: Increase



19. Western Southern Uplands and Inner Solway trend: Not significant (caveats: Variable effort; Expanding population)

No trend available for clutch size

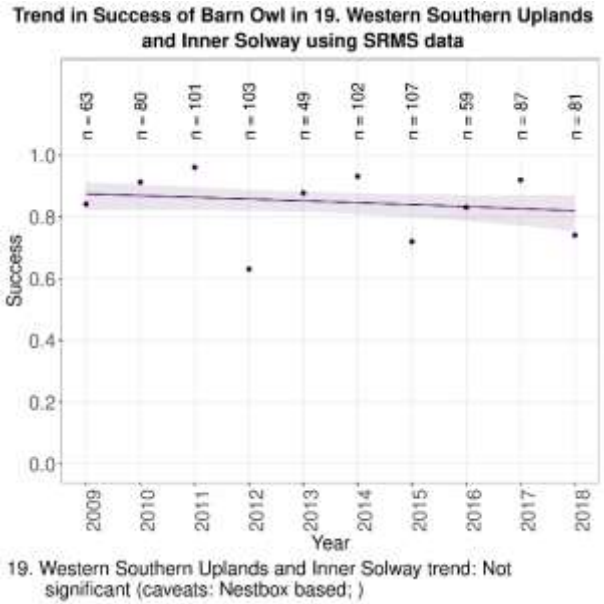
No trend available for brood size

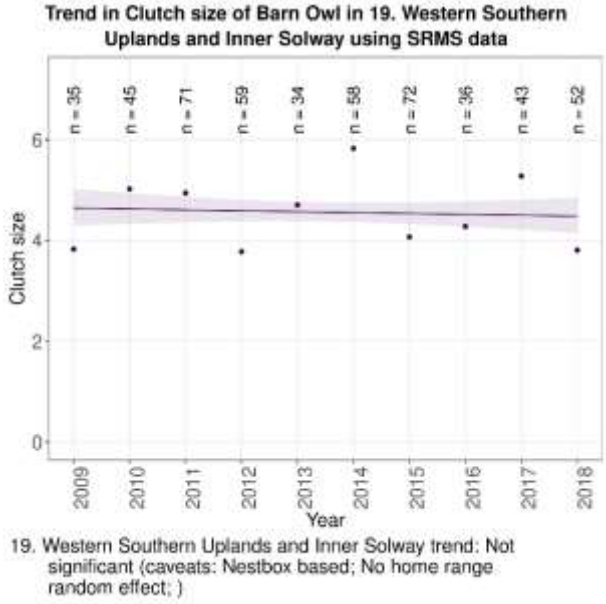


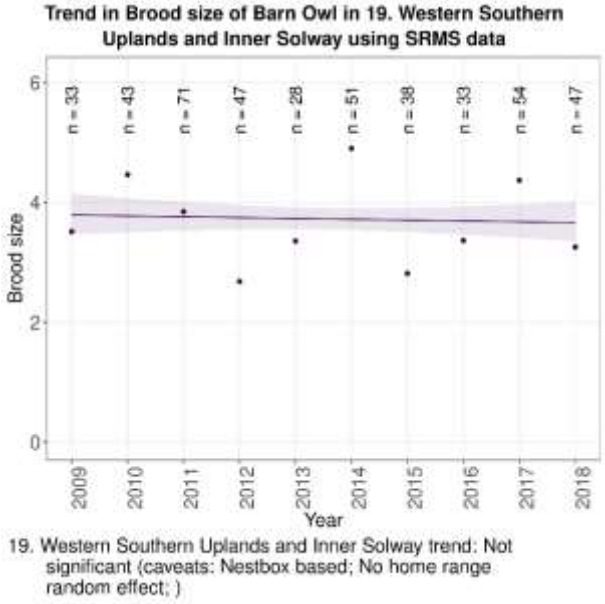
19. Western Southern Uplands and Inner Solway trend: Decrease (caveats: Expanding population; No home range random effect)

Figure 169: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in NHZ 19. Western Southern Uplands and Inner Solway during 2009-2018.

No trend available for breeding pairs







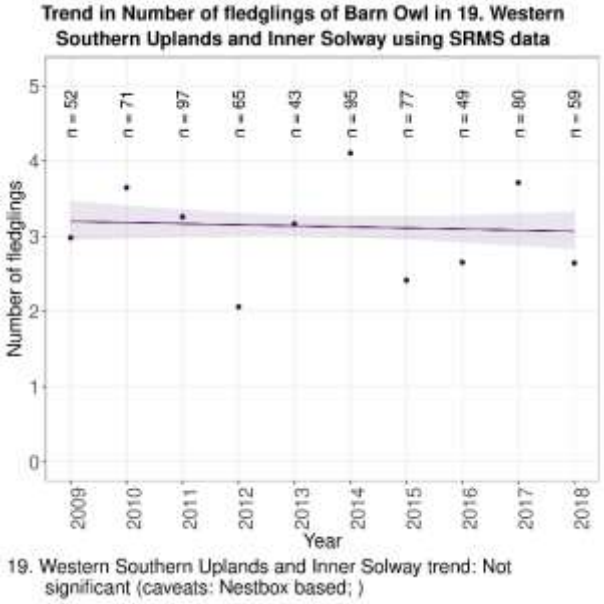
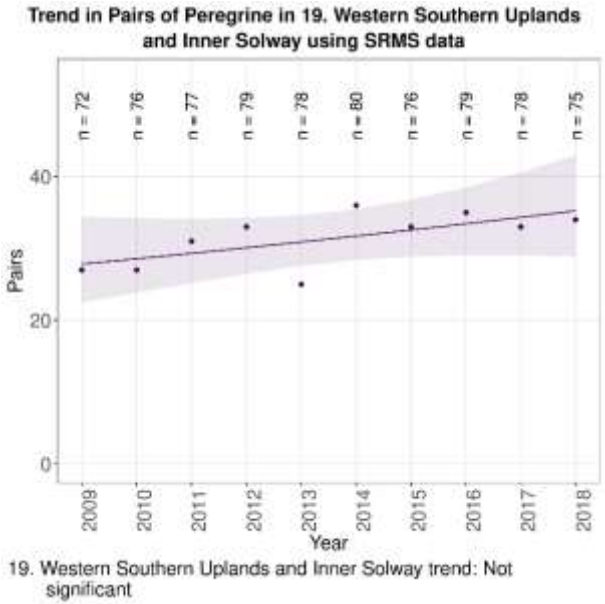
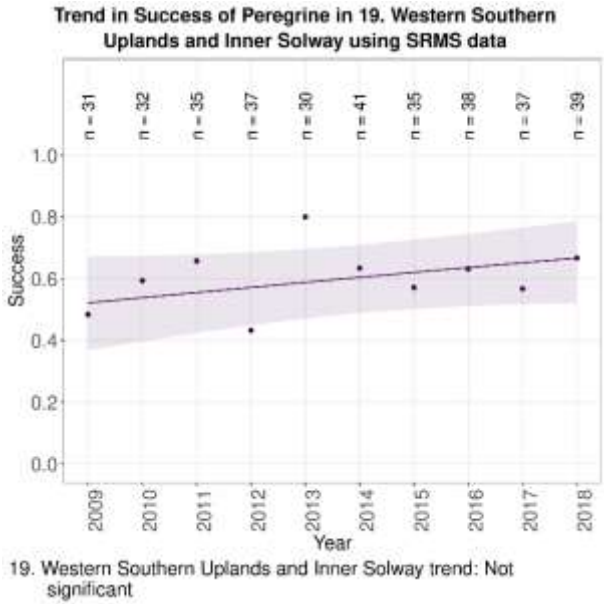


Figure 170: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in NHZ 19. Western Southern Uplands and Inner Solway during 2009-2018.



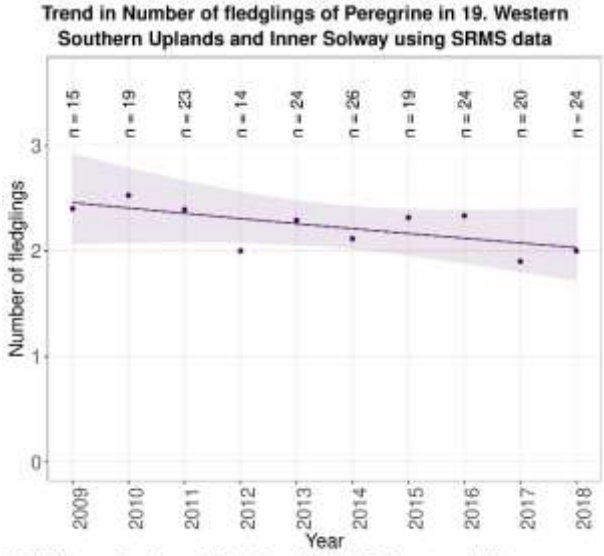
19. Western Southern Uplands and Inner Solway trend: Not significant



19. Western Southern Uplands and Inner Solway trend: Not significant

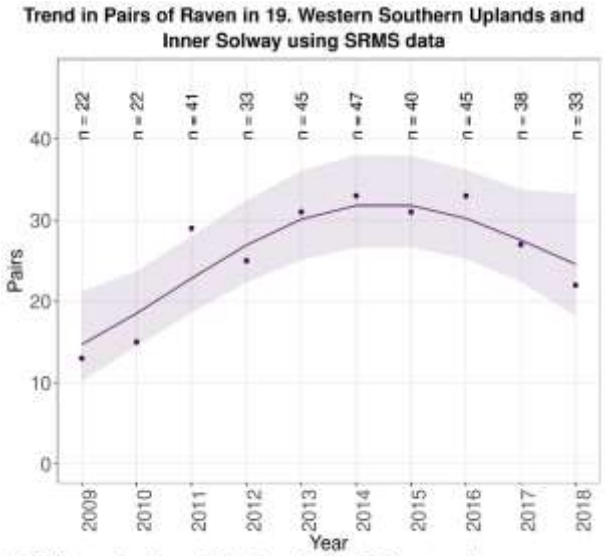
No trend available for clutch size

No trend available for brood size

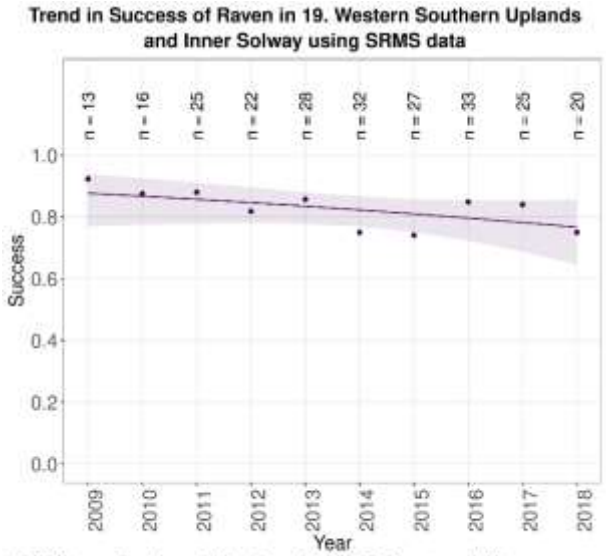


19. Western Southern Uplands and Inner Solway trend: Not significant (caveats: No home range random effect)

Figure 171: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 19. Western Southern Uplands and Inner Solway during 2009-2018.



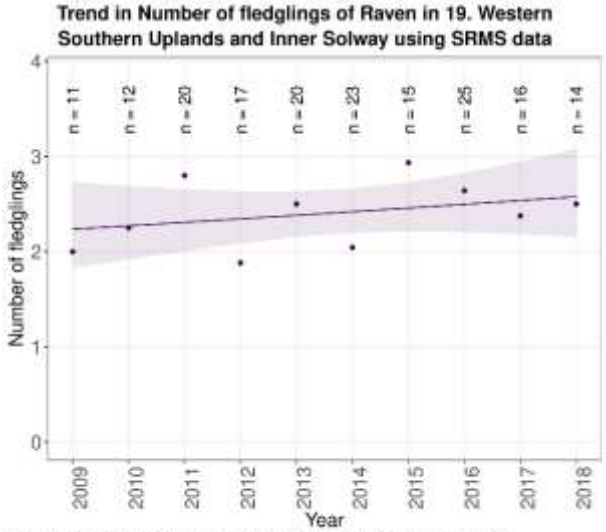
19. Western Southern Uplands and Inner Solway trend: Increase (caveats: Variable effort)



19. Western Southern Uplands and Inner Solway trend: Not significant (caveats: No home range random effect)

No trend available for clutch size

No trend available for brood size



19. Western Southern Uplands and Inner Solway trend: Not significant (caveats: Sample sizes small; No home range random effect)

Figure 172: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 19. Western Southern Uplands and Inner Solway during 2009-2018.

NHZ 20. Border Hills

Figure 173: NHZ 20. Border Hills**.**

Trends in breeding numbers are available for five species and trends in breeding success for eight of the 13 species for which the SRMS holds records for NHZ 20. Border Hills (Table 33).

Osprey

No trend is available for the number of breeding pairs but breeding success showed no significant change. No trends are available for clutch size, brood size or the number of fledglings (Figure 174).

Goshawk

No trend is available for the number of breeding pairs but breeding success showed no significant change. No trends are available for clutch size or brood size but number of fledglings showed no significant change (Figure 175).

Hen Harrier

Breeding numbers showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 176).

Buzzard

No trend is available for the number of breeding pairs but breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 177).

Barn Owl

No trend is available for the number of breeding pairs but breeding success showed no significant change. There was no significant change in clutch

size but the number of fledglings decreased significantly (-3%). No trend is available for brood size (Figure 178).

Tawny Owl

No trend is available for the number of breeding pairs but breeding success showed a non-linear relationship. Trends for clutch size, brood size and the number of fledglings all showed no significant change (Figure 179).

Kestrel

The number of breeding pairs showed no significant change. No trends are available for breeding success, clutch size, brood size or the number of fledglings (Figure 180).

Merlin

The number of breeding pairs showed no significant change while breeding success decreased significantly (-1.3%). No trends are available for clutch size, brood size or the number of fledglings (Figure 181).

Peregrine

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 182).

Raven

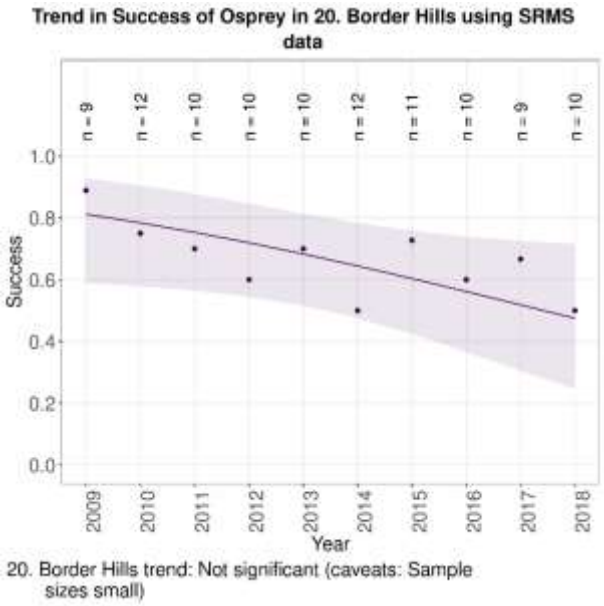
The number of breeding pairs and breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 183).

Table 33: Summary of SRMS trends for NHZ 20. Border Hills during 2009-2018. Figures in parentheses indicate the annual change, with significant decreases highlighted in blue and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	—	Not significant [s]	—	—	—
Golden Eagle	—	—	—	—	—
Sparrowhawk	—	—	—	—	—
Goshawk	—	Not significant [s]	—	—	Not significant [rs]
Hen Harrier	Not significant [s]	—	—	—	—
Red Kite	—	—	—	—	—
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	—	Not significant [rs]	—	—	Not significant [rs]
Barn Owl	—	Not significant [n]	Not significant [nrs]	—	**Decrease [nr] (-3%)**
Tawny Owl	—	Non-linear	Not significant [nrs]	Not significant [nrs]	Not significant [ns]
Kestrel	Not significant [s]	—	—	—	—
Merlin	Not significant	**Decrease [s] (-1.3%)**	—	—	—
Peregrine	Not significant	Not significant	Not significant [rs]	Not significant [rs]	Not significant [rs]
Raven	Not significant [v]	Not significant [r]	—	—	Not significant [rs]

[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort.

No trend available
for breeding pairs



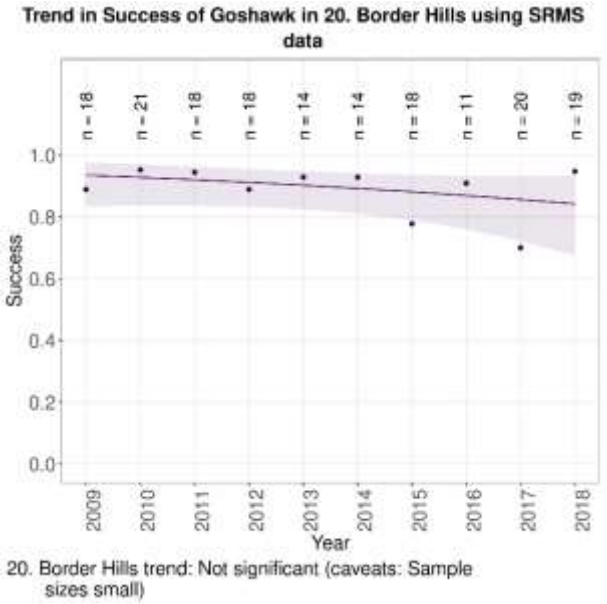
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 174: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in NHZ 20. Border Hills during 2009-2018.

No trend available for breeding pairs



No trend available for clutch size

No trend available for brood size

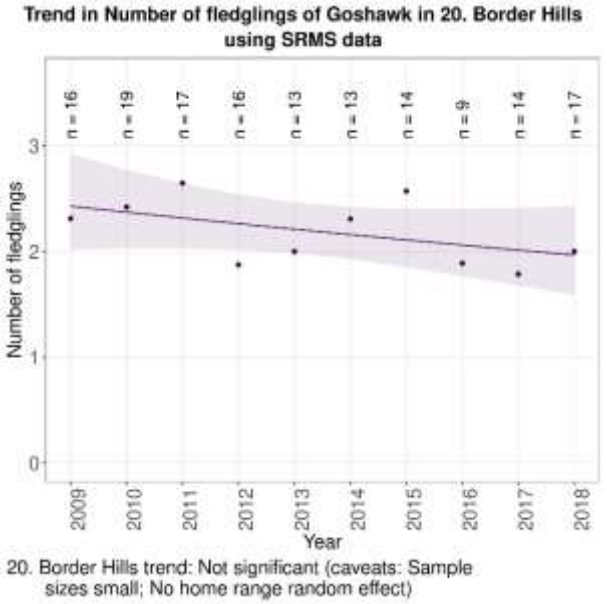
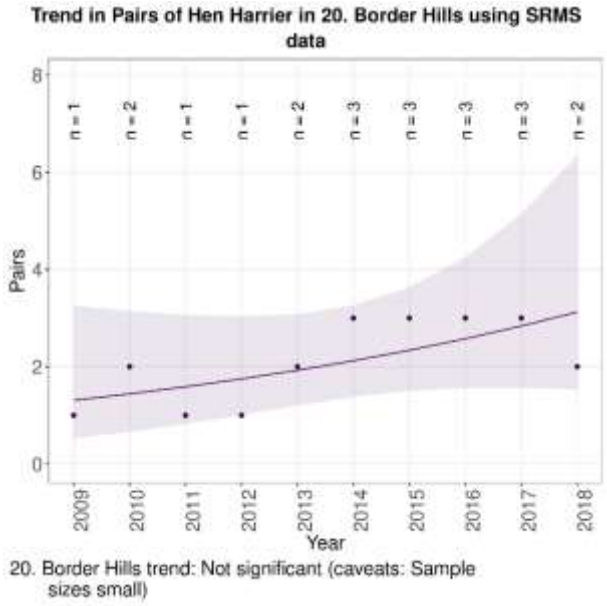


Figure 175: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Goshawk in NHZ 20. Border Hills during 2009-2018.



No trend available
for breeding success

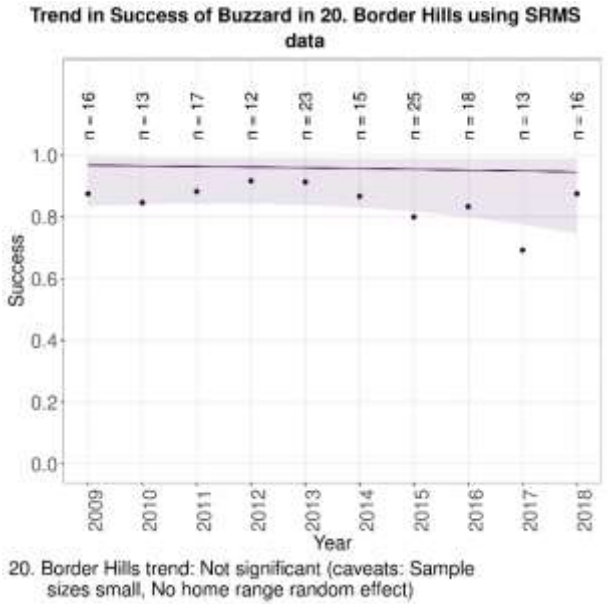
No trend available
for clutch size

No trend available
for brood size

No trend available
for number of fledglings

Figure 176: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Hen Harrier in NHZ 20. Border Hills during 2009-2018.

No trend available
for breeding pairs



No trend available
for clutch size

No trend available
for brood size

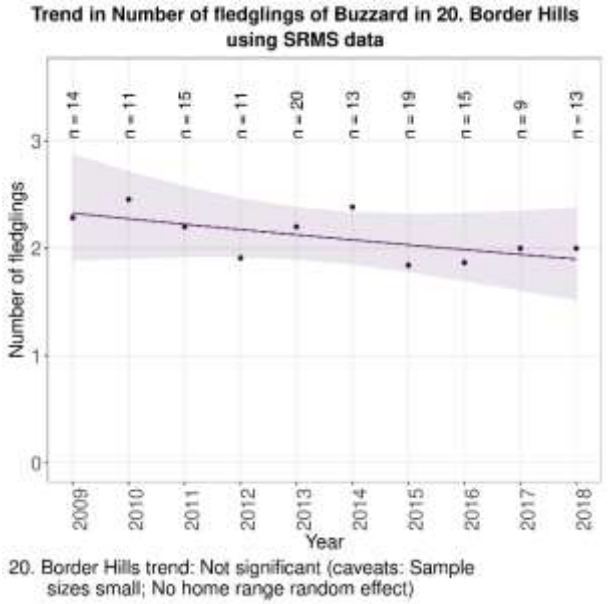
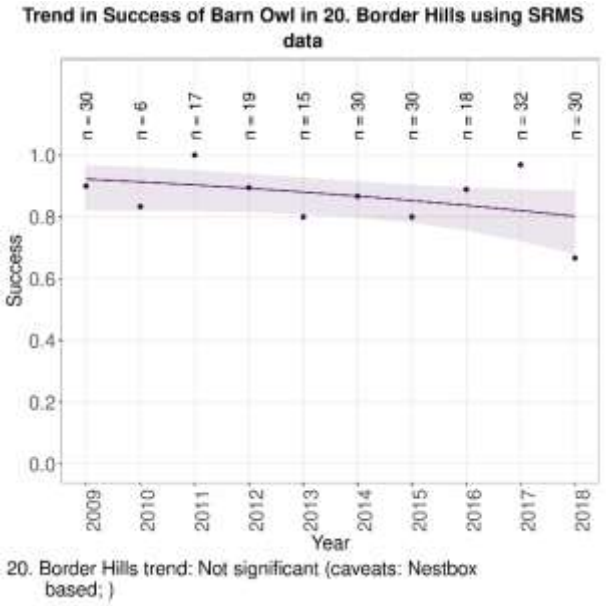
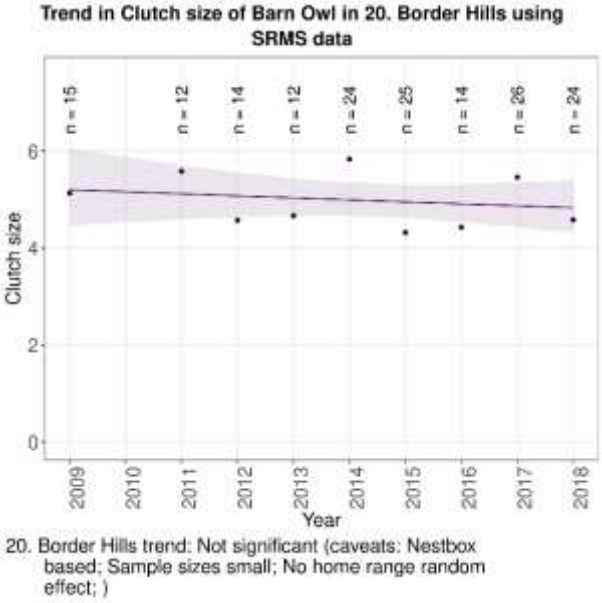


Figure 177: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 20. Border Hills during 2009-2018.

No trend available for breeding pairs

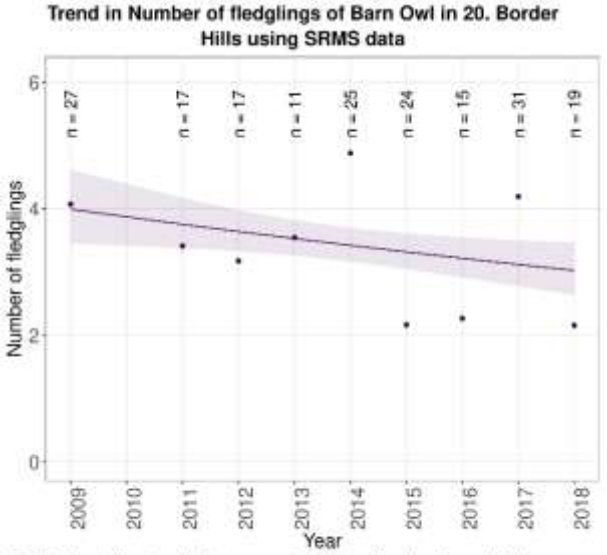


20. Border Hills trend: Not significant (caveats: Nestbox based;)



20. Border Hills trend: Not significant (caveats: Nestbox based; Sample sizes small; No home range random effect;)

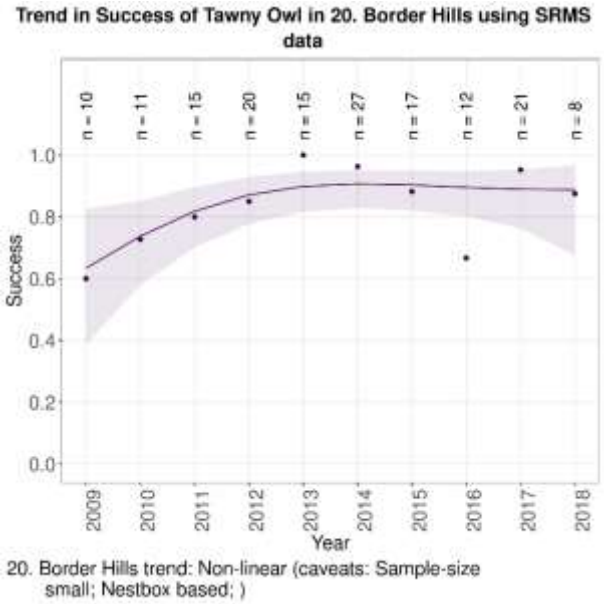
No trend available for brood size



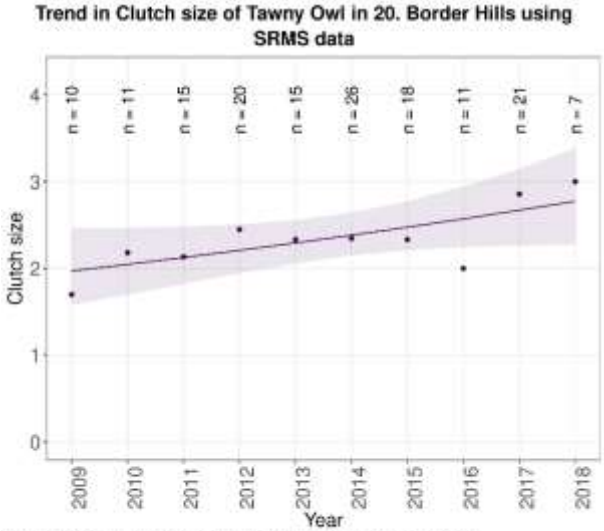
20. Border Hills trend: Decrease (caveats: Nestbox based; No home range random effect;)

Figure 178: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Barn Owl in NHZ 20. Border Hills during 2009-2018.

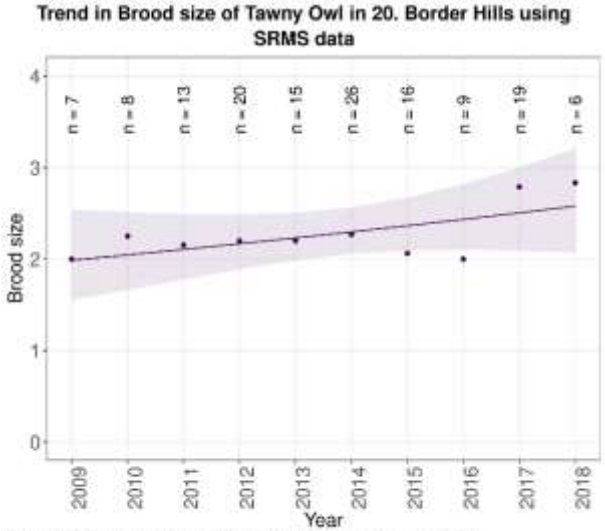
No trend available
for breeding pairs



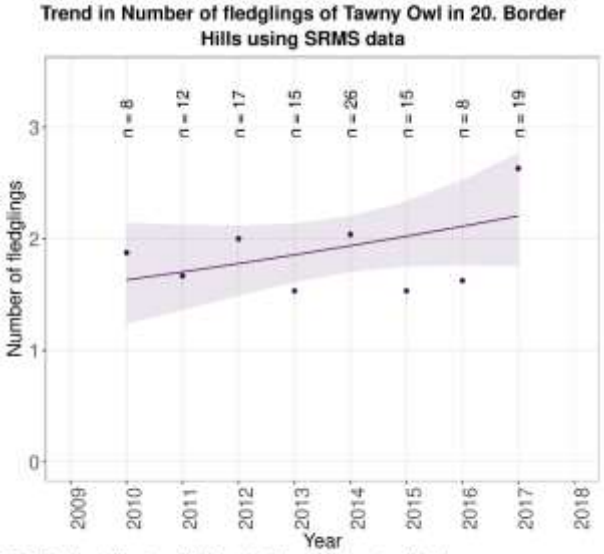
20. Border Hills trend: Non-linear (caveats: Sample-size small; Nestbox based;)



20. Border Hills trend: Not significant (caveats: Nestbox based; Sample sizes small; No home range random effect;)

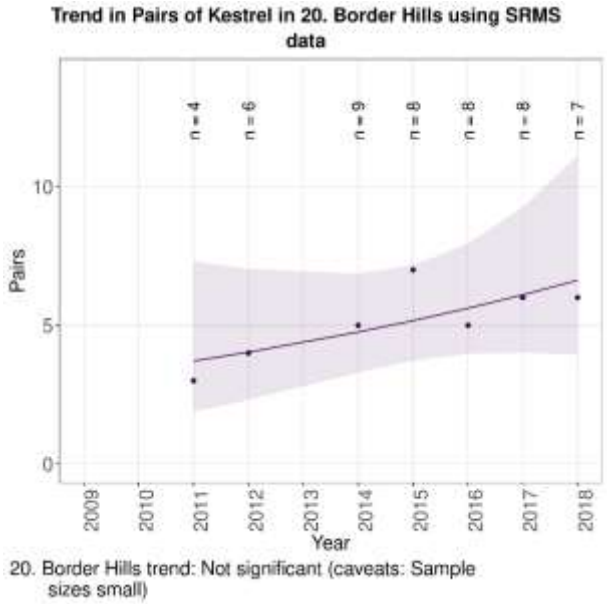


20. Border Hills trend: Not significant (caveats: Nestbox based; Sample sizes small; No home range random effect;)



20. Border Hills trend: Not significant (caveats: Nestbox based; Sample sizes small)

Figure 179: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Tawny Owl in NHZ 20. Border Hills during 2009-2018.



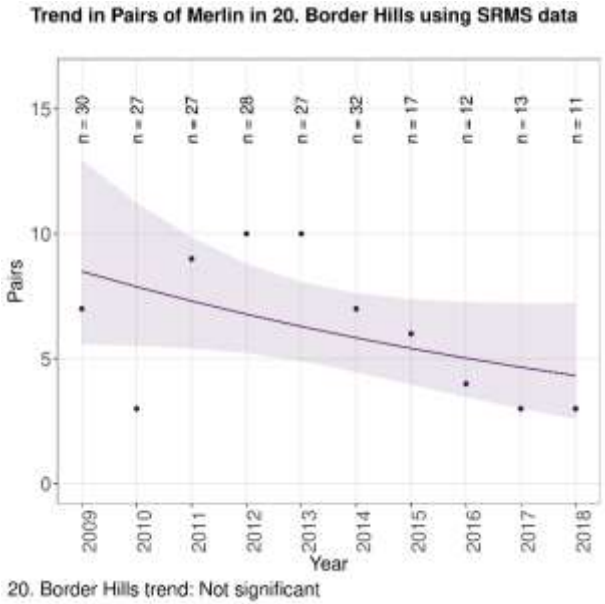
No trend available for breeding success

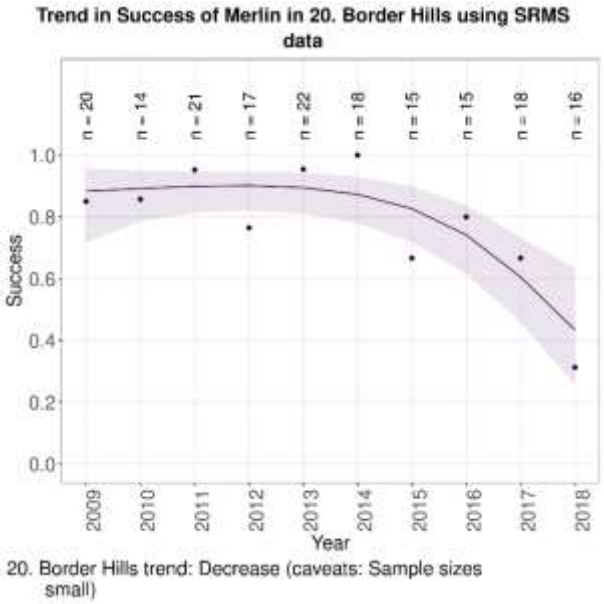
No trend available for clutch size

No trend available for brood size

No trend available for number of fledglings

Figure 180: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Kestrel in NHZ 20. Border Hills during 2009-2018.



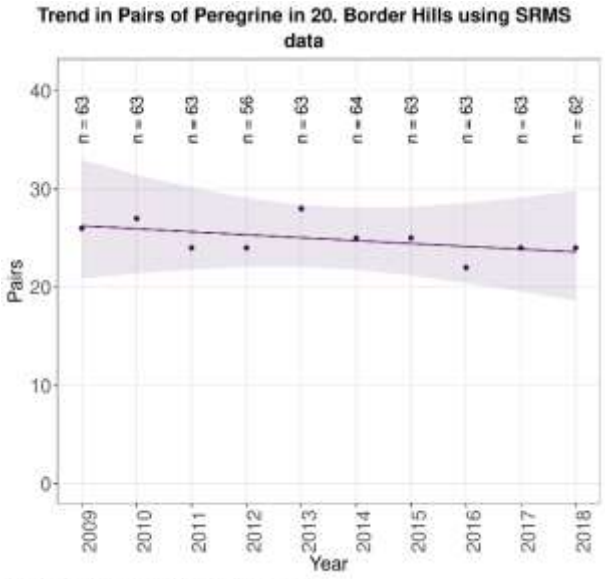


No trend available for clutch size

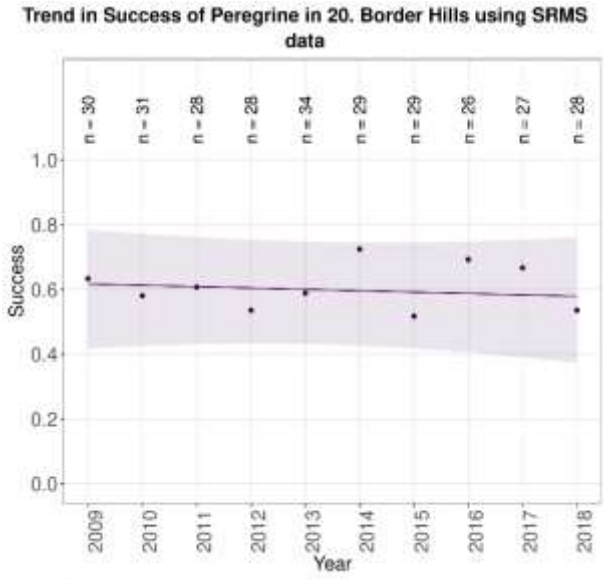
No trend available for brood size

No trend available for number of fledglings

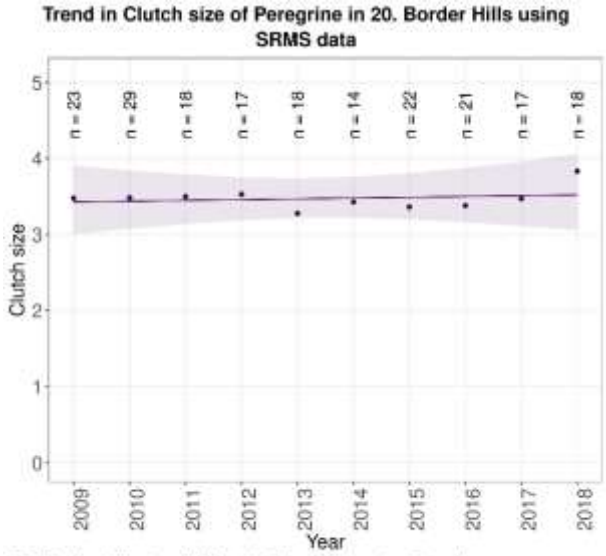
Figure 181: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Merlin in NHZ 20. Border Hills during 2009-2018.



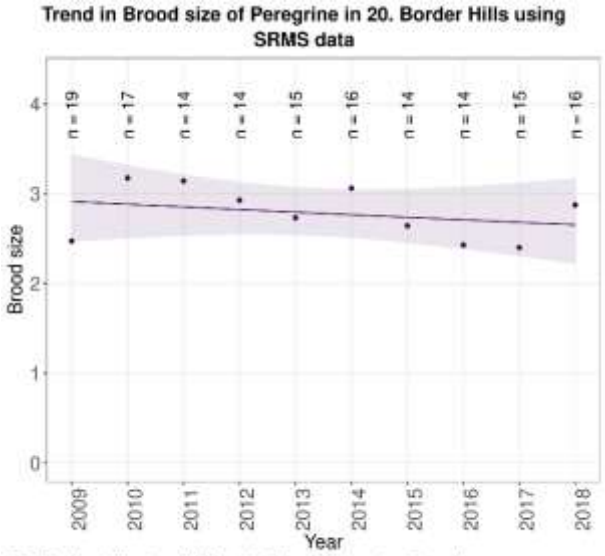
20. Border Hills trend: Not significant



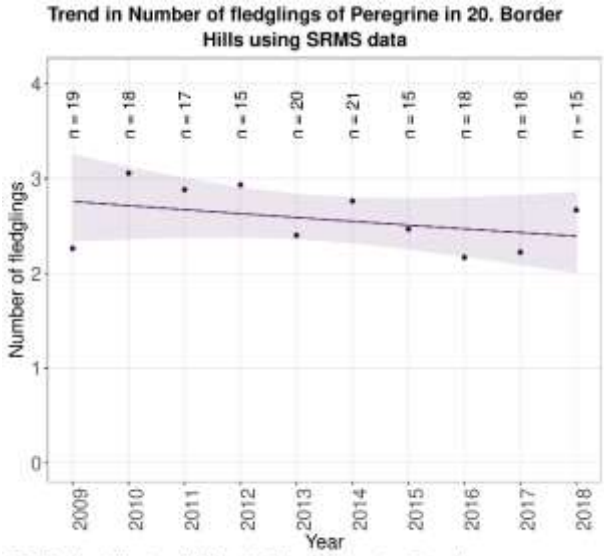
20. Border Hills trend: Not significant



20. Border Hills trend: Not significant (caveats: Sample sizes small; No home range random effect)

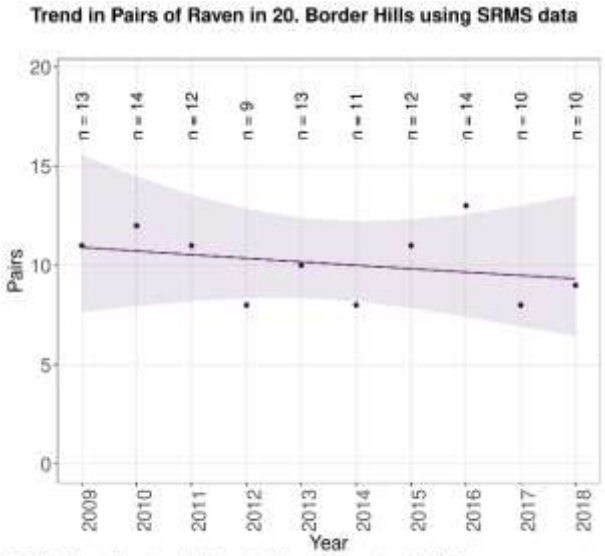


20. Border Hills trend: Not significant (caveats: Sample sizes small; No home range random effect)

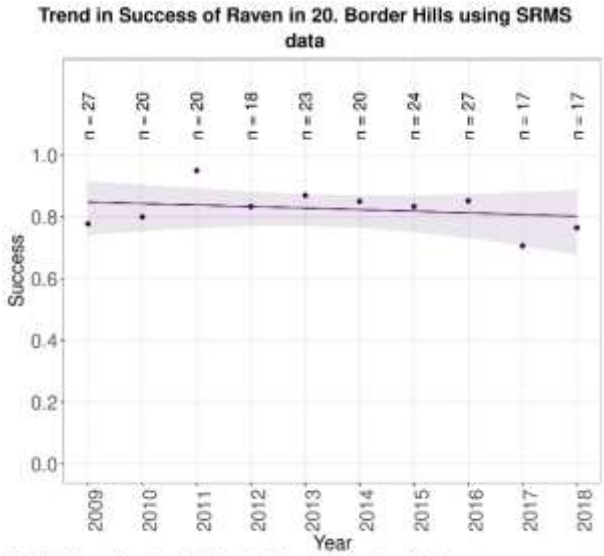


20. Border Hills trend: Not significant (caveats: Sample sizes small; No home range random effect)

Figure 182: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Peregrine in NHZ 20. Border Hills during 2009-2018.



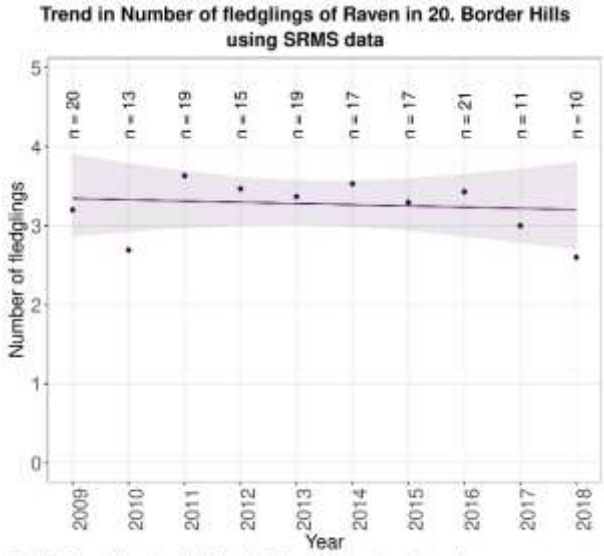
20. Border Hills trend: Not significant (caveats: Variable effort)



20. Border Hills trend: Not significant (caveats: No home range random effect)

No trend available for clutch size

No trend available for brood size



20. Border Hills trend: Not significant (caveats: Sample sizes small; No home range random effect)

Figure 183: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Raven in NHZ 20. Border Hills during 2009-2018.

NHZ 21. Moray Firth

Figure 184: NHZ 21. Moray Firth.

Trends in breeding numbers are available for three species and trends in breeding success for four of the 12 species for which the SRMS holds records for NHZ 21. Moray Firth (Table 34).

Osprey

The number of breeding pairs increased significantly (+5.1%) while there was no significant change in breeding success. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 185).

Red Kite

No trend is available for the number of breeding pairs but breeding success showed no significant change. Trends are not available for clutch size or brood size but the number of fledglings showed no significant change (Figure 186).

Buzzard

The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 187).

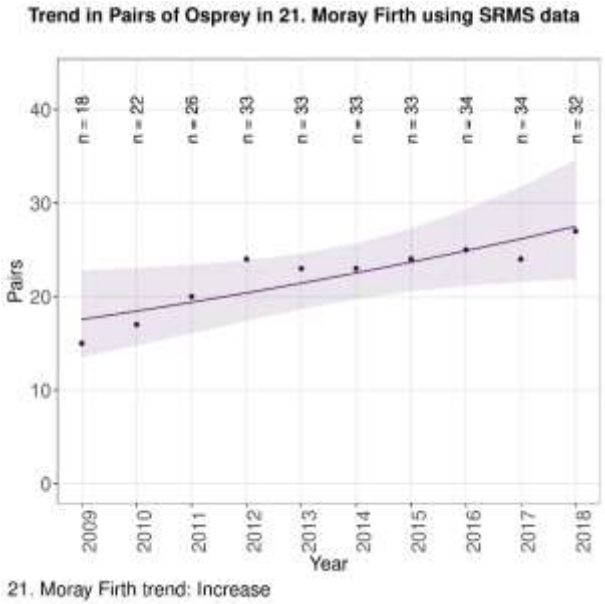
Tawny Owl

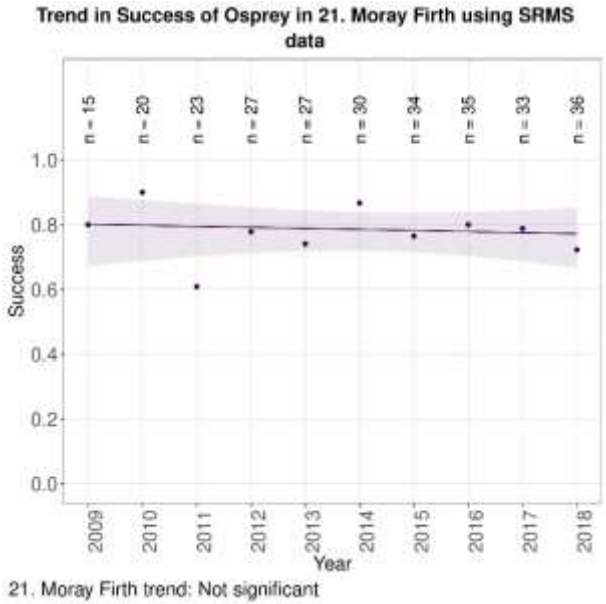
The number of breeding pairs and breeding success showed no significant change. Trends in clutch size, brood size and the number of fledglings all showed no significant change (Figure 188).

Table 34: Summary of SRMS trends for NHZ 21. Moray Firth during 2009-2018. Figures in parentheses indicate the annual change, with significant increases highlighted in green and non-significant changes highlighted in grey. '—' indicates where the species occurs but no trend is available. 'Absent' indicates where the species is not known to breed.

Species:	Pairs	Success	Clutch size	Brood size	Number of fledglings
Osprey	**Increase (5.1%)**	Not significant	—	—	Not significant
Golden Eagle	Absent	Absent	Absent	Absent	Absent
Sparrowhawk	—	—	—	—	—
Goshawk	—	—	—	—	—
Hen Harrier	—	—	—	—	—
Red Kite	—	Not significant [vx]	—	—	Not significant [rx]
White-tailed Eagle	Absent	Absent	Absent	Absent	Absent
Buzzard	Not significant	Not significant	Not significant [r]	Not significant [s]	Not significant [r]
Barn Owl	—	—	—	—	—
Tawny Owl	Not significant	Not significant [n]	Not significant [nrs]	Not significant [nrs]	Not significant [ns]
Kestrel	—	—	—	—	—
Merlin	—	—	—	—	—
Peregrine	—	—	—	—	—
Raven	—	—	—	—	—

[n] Nestbox based, [r] No home range random effect, [s] Sample sizes small, [v] Variable effort, [x] Expanding population.





No trend available for clutch size

No trend available for brood size

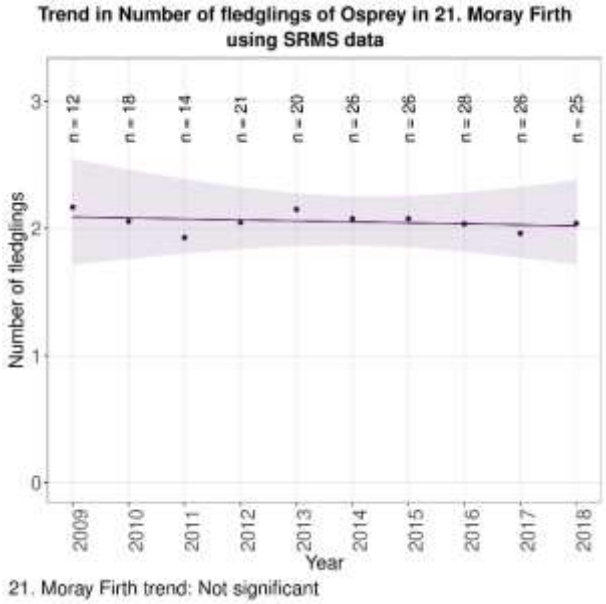
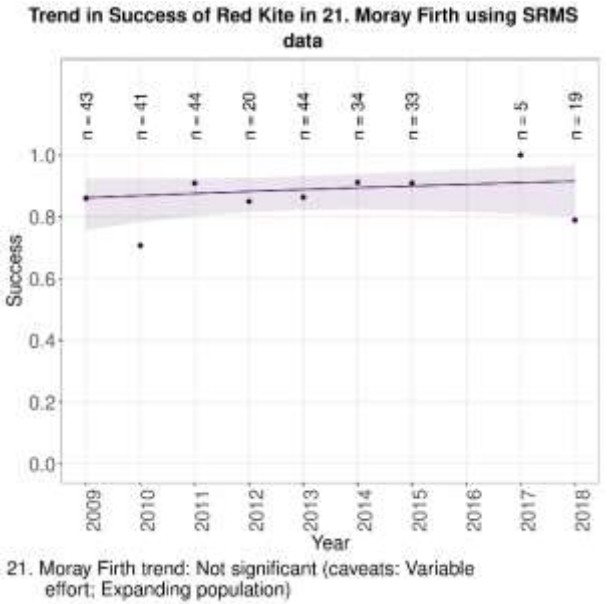


Figure 185: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Osprey in NHZ 21. Moray Firth during 2009-2018.

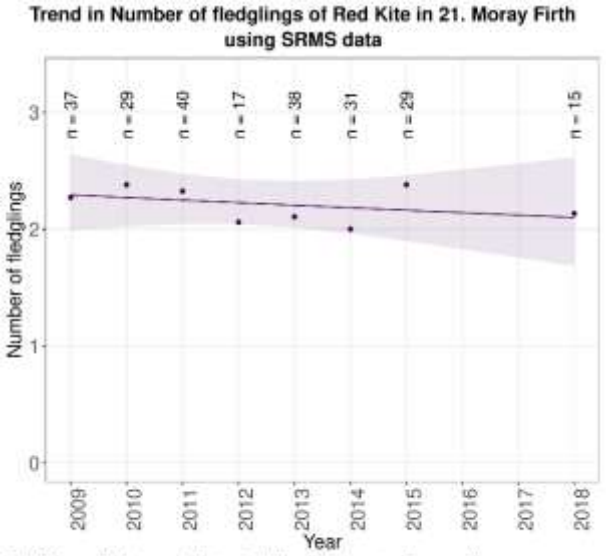
No trend available
for breeding pairs



21. Moray Firth trend: Not significant (caveats: Variable effort; Expanding population)

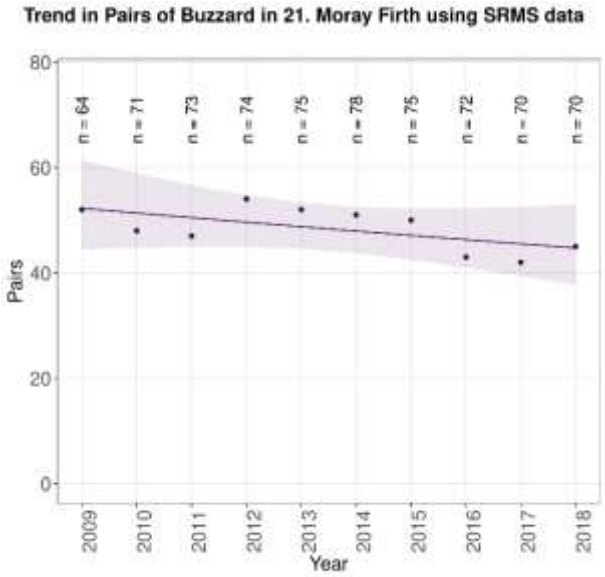
No trend available
for clutch size

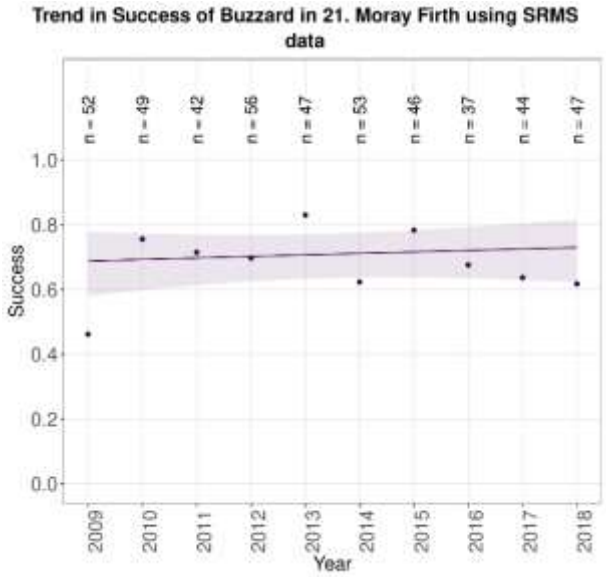
No trend available
for brood size

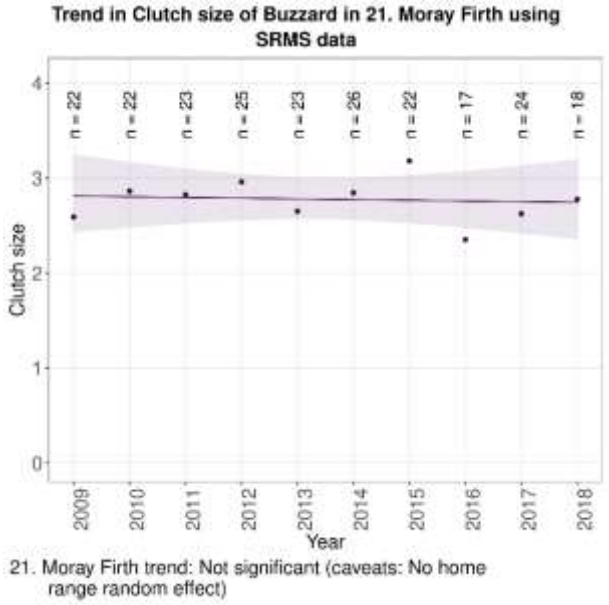


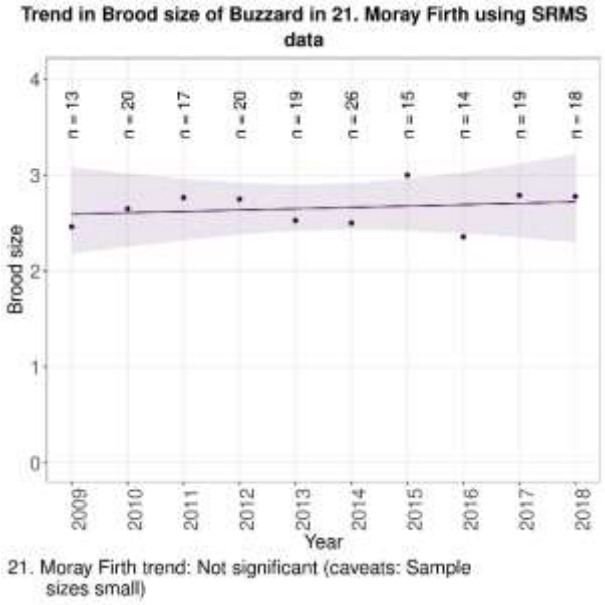
21. Moray Firth trend: Not significant (caveats: Expanding population; No home range random effect)

Figure 186: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Red Kite in NHZ 21. Moray Firth during 2009-2018.









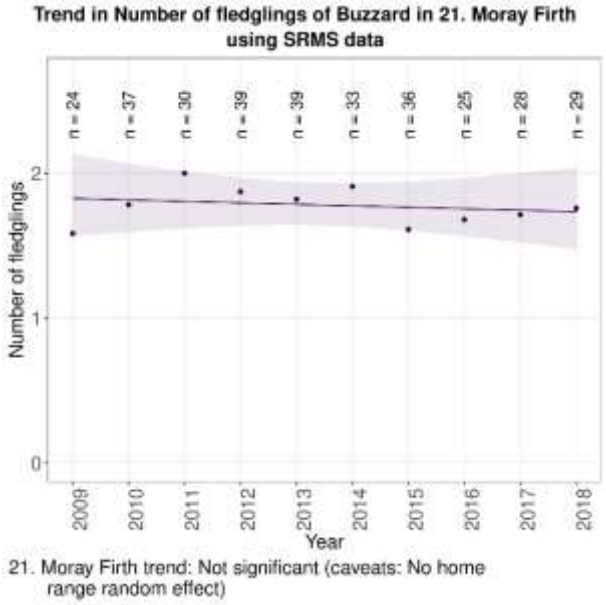
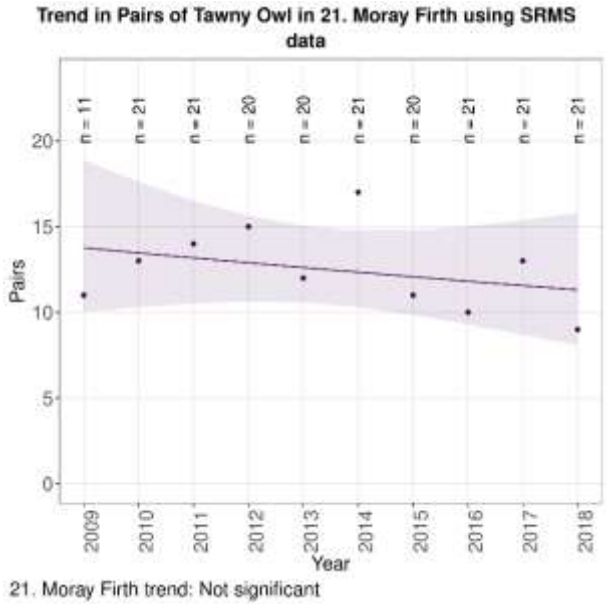
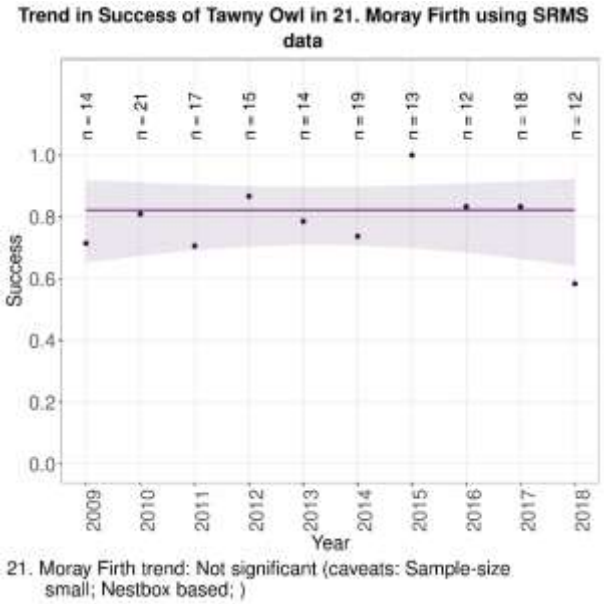


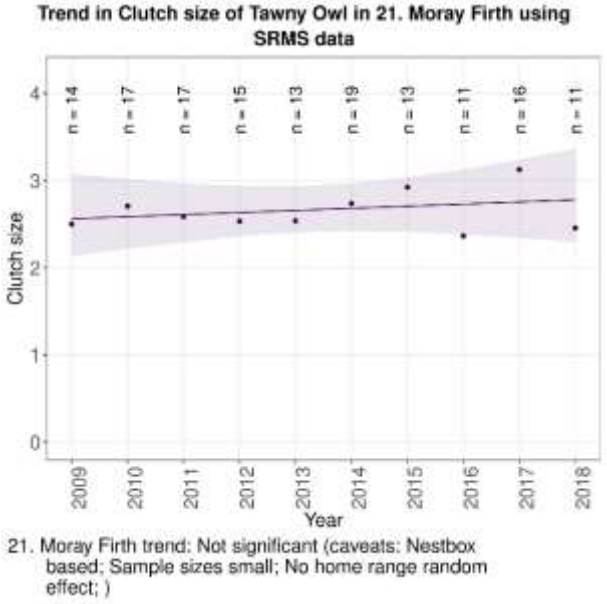
Figure 187: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Buzzard in NHZ 21. Moray Firth during 2009-2018.



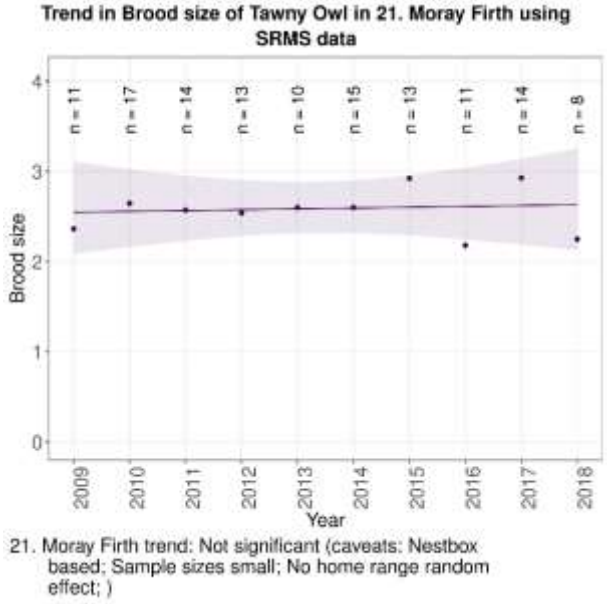
21. Moray Firth trend: Not significant



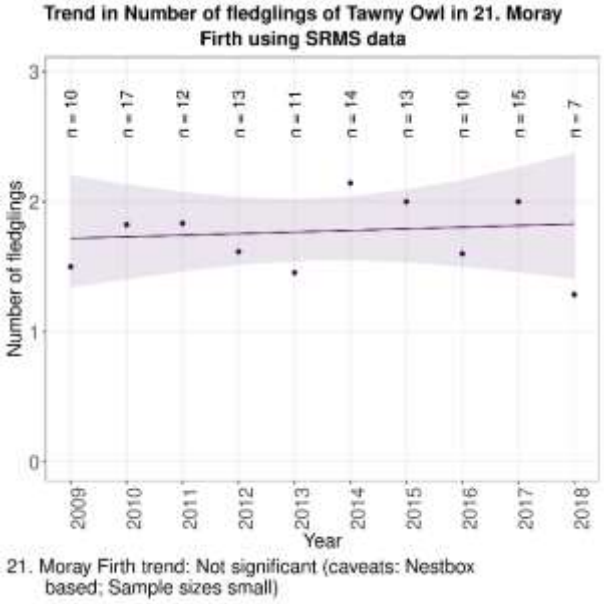
21. Moray Firth trend: Not significant (caveats: Sample-size small; Nestbox based;)



21. Moray Firth trend: Not significant (caveats: Nestbox based; Sample sizes small; No home range random effect;)



21. Moray Firth trend: Not significant (caveats: Nestbox based; Sample sizes small; No home range random effect;)



21. Moray Firth trend: Not significant (caveats: Nestbox based; Sample sizes small)

Figure 188: Trends in breeding pairs, success, clutch size, brood size and the number of fledglings of Tawny Owl in NHZ 21. Moray Firth during 2009-2018.

Photo credits

Thank you to the following SRMS data contributors whose photographs have featured in these Regional accounts:

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