

Sparrowhawk



Figure 1: Sparrowhawk (Photo: Ian Todd).

The Scottish Sparrowhawk population is poorly represented by existing SRMS data.

Our latest analysis of SRMS Sparrowhawk data for the period 2009-2018 has produced no national trends in breeding number or productivity at a national level or for any SRMS regions, but has produced a single breeding success trend for one of the 17 NHZ regions for which the SRMS holds records for Sparrowhawk (Table 1, Figure 2).

Users of the published trends should be aware that few records were available for production of trends in breeding numbers. These are drawn from between 20 to 40 monitored pairs per year, mostly from sites in Central Scotland. There are very few records representing areas in the north or south of Scotland. The coverage of different regions, as well

as the balance of rural versus urban records, varies between years.

National trends

No trends in breeding numbers or breeding productivity are available for Sparrowhawk at a national level.

SRMS regional trends

Trends in breeding numbers or productivity of Sparrowhawk are not available for any of the 12 SRMS regions for which the SRMS holds records for Sparrowhawk.

NHZ regional trends

Breeding success in NHZ 16 did not change significantly (Table 1, Figure 2).

No trends for Sparrowhawk are available for the number of breeding pairs, clutch size, brood size or number of fledglings (Table 1).

Trends for this species are not yet available for NHZs 01-03, 05-07, 10-12, 14-15 and 17-21.

Details of contributing records

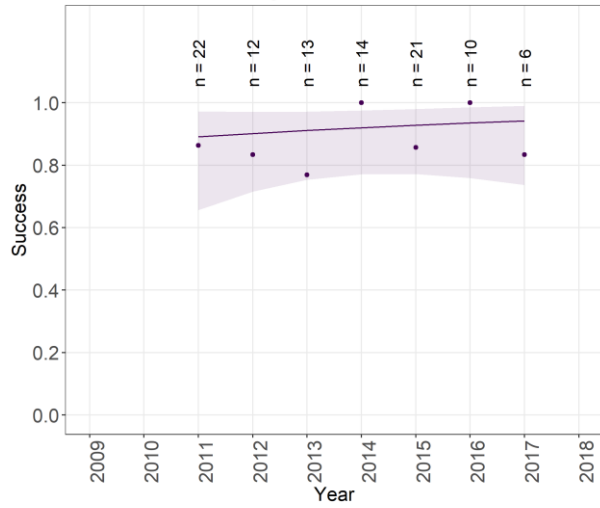
1,385 (87 to 173 per year, mean: 139 records) from 2009-2018 contributed to this trends analysis (Table 3).

Table 1: Summary of NHZ regional trends for Sparrowhawk 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.

| NHZ Region | Pairs | Success | Clutch size | Brood size | Number of fledglings |
|--|--------------|-------------------------------|--------------|--------------|----------------------|
| 01. Shetland | — | — | — | — | — |
| 02. North Caithness and Orkney | — | — | — | — | — |
| 03. Coll, Tiree and the Western Isles | — | — | — | — | — |
| 04. North West Seaboard | No SRMS data | No SRMS data | No SRMS data | No SRMS data | No SRMS data |
| 05. The Peatlands of Caithness and Sutherland | — | — | — | — | — |
| 06. Western Seaboard | — | — | — | — | — |
| 07. Northern Highlands | — | — | — | — | — |
| 08. Western Highlands | No SRMS data | No SRMS data | No SRMS data | No SRMS data | No SRMS data |
| 09. North East Coastal Plain | No SRMS data | No SRMS data | No SRMS data | No SRMS data | No SRMS data |
| 10. Central Highlands | — | — | — | — | — |
| 11. Cairngorm Massif | — | — | — | — | — |
| 12. North East Glens | — | — | — | — | — |
| 13. East Lochaber | No SRMS data | No SRMS data | No SRMS data | No SRMS data | No SRMS data |
| 14. Argyll West and Islands | — | — | — | — | — |
| 15. Loch Lomond, The Trossachs and Breadalbane | — | — | — | — | — |
| 16. Eastern Lowlands | — | Not significant ^{sv} | — | — | — |
| 17. West Central Belt | — | — | — | — | — |
| 18. Wigtown Machairs and Outer Solway Coast | — | — | — | — | — |
| 19. Western Southern Uplands and Inner Solway | — | — | — | — | — |
| 20. Border Hills | — | — | — | — | — |
| 21. Moray Firth | — | — | — | — | — |

^s Sample sizes small, ^v Variable effort.

Trend in Success of Sparrowhawk in 16. Eastern Lowlands using SRMS data



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

Figure 2: Trends in breeding success of Sparrowhawk by NHZ region during 2009-2018.

Table 2: Details of NHZ Regional trends for Sparrowhawk.

| Parameter | Region | First year of trend | Last year of trend | Number of years | Mean number of home ranges across years | Mean parameter value (and 95% confidence limits) | Trend during the period | Caveats | Estimated % annual change (and 95% confidence limits) |
|-----------|----------------------|---------------------|--------------------|-----------------|---|--|-------------------------|-------------------------------------|---|
| Success | 16. Eastern Lowlands | 2011 | 2017 | 7 | 14 | 0.9 (0.8 to 0.9) | Not significant | Sample sizes small; Variable effort | 1.2 (-2.7 to 4.1) |

Table 3: Number of Sparrowhawk home range checks for occupancy reported to the SRMS during 2009-2018, in each of the 12 SRMS Regions, with approximate proportion of estimated population monitored. At the bottom of the table, row A is the mean number of home range checks over the most recent five years. Row B gives the estimated proportion of the national population in each region, based on Bird Atlas Timed Tetrad Visit (TTV) data. The depth of red shading indicates the relative importance of each region for this species. If survey effort was spread evenly across the whole population, the ratio of A:B would not vary much between regions.

| Year | ARGYLL | CENTRAL SCOTLAND | DUMFRIES & GALLOWAY | HIGHLAND | LEWIS & HARRIS | LOTHIAN & BORDERS | NORTH EAST SCOTLAND | ORKNEY | SHETLAND | SOUTH STRATHCLYDE | TAYSIDE & FIFE | UIST | Total |
|--|--------|------------------|---------------------|----------|----------------|-------------------|---------------------|--------|----------|-------------------|----------------|------|-------|
| 2009 | 17 | 9 | 7 | 7 | 0 | 51 | 0 | 16 | 0 | 64 | 2 | 0 | 173 |
| 2010 | 14 | 6 | 1 | 6 | 1 | 1 | 0 | 0 | 0 | 55 | 1 | 2 | 87 |
| 2011 | 10 | 8 | 0 | 5 | 0 | 48 | 0 | 17 | 0 | 41 | 8 | 0 | 137 |
| 2012 | 11 | 29 | 0 | 12 | 0 | 37 | 0 | 20 | 0 | 29 | 0 | 2 | 140 |
| 2013 | 15 | 28 | 6 | 6 | 1 | 36 | 1 | 19 | 0 | 0 | 0 | 3 | 115 |
| 2014 | 9 | 33 | 6 | 11 | 0 | 34 | 2 | 11 | 0 | 8 | 2 | 7 | 123 |
| 2015 | 7 | 40 | 5 | 5 | 0 | 41 | 2 | 26 | 0 | 10 | 15 | 4 | 155 |
| 2016 | 10 | 46 | 12 | 2 | 0 | 12 | 3 | 29 | 0 | 10 | 24 | 5 | 153 |
| 2017 | 22 | 52 | 2 | 9 | 0 | 12 | 1 | 28 | 0 | 10 | 22 | 5 | 163 |
| 2018 | 23 | 37 | 2 | 11 | 0 | 12 | 0 | 29 | 1 | 10 | 12 | 2 | 139 |
| A: Mean home range checks | 14.2 | 41.6 | 5.4 | 7.6 | 0.0 | 22.2 | 1.6 | 24.6 | 0.2 | 9.6 | 15.0 | 4.6 | 146.6 |
| B: Proportion of estimated Scottish population | 7 | 7 | 15 | 25 | 1 | 10 | 11 | 1 | 0 | 11 | 12 | 0 | 100 |