

Report to Landsort Bird Observatory Board on the monitoring of nest boxes in the spring of 2017

Prepared by Chris Sharpe – July 2017

Background

By 2008 a significant number of nest boxes had been placed in the woods on Landsort. Until 2016 there had been no recent record of the systematic monitoring of these boxes.

Within the overall workload undertaken by Kay and me during 2016 it was agreed that a review of occupancy should take place with young ringed at the nest wherever possible. In 2016, 71 of the boxes gave some indication of breeding, with a total of 238 young of seven species being ringed in the 48 boxes that produced young old enough to ring.

In the autumn of 2016 it had been intended to visit all known boxes, empty them of old nest material and replace those that had fallen off trees. Due to an earlier than planned finish to the season only c50 boxes had been emptied by the time we left Landsort.

The work of 2017 builds upon the work of 2016 and is intended to represent the continuation of a long-term monitoring programme.

Methods

In late April, a review of the computer file revealed that 261 boxes had been recorded on the protocol. The location of each of these boxes was indicated on maps held on the office computer, numbered 0 to 260 consecutively. Printed copies of these maps were used to locate the boxes during field visits with notes taken in a pocket book which were transferred to the computer protocol at the end of each day.

The majority of nest box work was undertaken in the afternoon/early evenings after the standardised morning mist-netting sessions were completed with some work undertaken on mornings when mist-netting was not possible.

Initial visits were undertaken to all surveyed boxes on 11 dates from 19th May to 14th June, with additional visits undertaken on further dates in June to early July to check progress on late nests.

Results

Of the 261 boxes marked on the protocol, the locations for only 259 were marked on the maps stored on computer: boxes '0' and '42' having no record shown.

Of the 259 boxes marked on the map, 19 were not looked for. Eleven of these were either Knipa or Storskrake. Disturbance of breeding females of these species can

cause abandonment, so there was little to be gained from visiting these sites. A further two were Tornfalk nests which last year could not be found. This leaves just six boxes that were not looked for due to a combination of tiredness or missing the fact that they needed checking!

In total 240 boxes were searched for (93% coverage). Of these, 20 were looked for but could not be found, the same number as not found last year, but not all the same boxes! Sixteen boxes were located but were discovered on the ground, either having fallen off the tree or the tree itself had fallen over. One of these boxes was used for breeding, despite having fallen from the tree.

Therefore, a total of 205 boxes were located and in a good enough condition to be used for breeding. This represents 79% of the boxes marked on the map. Of these 68 (32.8%) were occupied this year.

A summary of occupied boxes where chicks were ringed is shown below:

Species	Number of occupied boxes	Total number of young
Great Tit	26	127
Blue Tit	3	12
Wryneck	1	6
Starling	8	34
Tree Sparrow	2	4

In 2016 and 2017 a total of 112 different nest boxes were used; 44 in 2016, 41 only in 2017 and 27 in both years.

Discussion

A total of 183 young of 5 species were ringed from 40 nests.

This is less than was achieved last year (238 young from 48 nests of seven species) and perhaps reflects the cold spring affecting nesting success. More abandoned nests, with dead chicks or cold eggs were found in 2017 compared to 2016.

Data gathered from ringing young in the nest is of high conservation value. Much information is gathered in this way that it is not possible to gather from routine mist-netting. Exact location of breeding, clutch size and sibling relationships are all known from nest box studies. In more detailed studies, with marking of adults, the relationship between pairs can also be determined, as can site fidelity and longevity, laying dates and fledging dates etc.

As at the time of writing this report, 17 individuals ringed in the nest had been re-caught during routine mist-netting, less than at this time last year, though young were ringed later in the season than last year. It is anticipated that further young will

be trapped as the season progresses. One Talgoxe ringed in a nest box was found dead in the village.

Approximately the same amount of fieldwork time was spent on monitoring in 2017 as in 2016 (50 hours work over a six-seven week period, mainly during 2 weeks) and has produced good research information.

At the end of the breeding season the boxes will be revisited to empty them of old nest material and put back on the trees those that have fallen off. Our inability to do this in 2016 did mean it was more difficult to determine if a box was being used this year or if a nest was one from last year. Removing all old nests will allow for a more accurate evaluation of nesting attempt versus nesting success.

Paper copies of the maps with an indication of which boxes were used in 2016 and in 2017 are kept at the office to help build a better understanding of which boxes are preferred.