



Plate 270. Children making bird and bat boxes under adult supervision, Linn Park LNR, Clyde, 23 February 2019. © Dorothy Buchanan

Building public engagement in Linn Park Reserve, Glasgow

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At 203 acres, Linn Park Local Nature Reserve is Glasgow's second largest park behind Pollok Park. It is located 6 km south of Glasgow and received its Local Nature Reserve status on 4 July 2012. The park is characterised by its 'natural' look, comprising mature semi-natural woods, mixed plantations and parkland trees with wildflower meadows. It is bordered by the communities of Simshill, Castlemilk, Muirend and Netherlee. There is a rich biodiversity with 250 plant species and 60 bird species recorded.

Project origins

In October 2017, aged 13 and very interested in nature and ornithology, I started a project called the '100 Nestbox Challenge'. The idea was to build 100 nest boxes from scratch and sell for a minimum donation of £10 to raise funds for the BTO, RSPB and SWT. As part of that project, I made an additional six which were donated to Linn Park via the Friends of Linn Park (FoLP) Community Volunteering Group in time for the

2018 breeding season. FoLP loved the boxes which replaced the remaining ones in the park which were in a poor state of repair. Shortly after donating the boxes, I was invited to join FoLP as a junior member and that was the start of an ongoing relationship which has developed into a major part of my conservation work.

Over the past two years with planning and coordination, my nest box monitoring programme within the park has expanded at a phenomenal rate. This has involved a novel nest box 'sponsorship' scheme which has provided a steady income stream to 'seed-fund' further bird monitoring work. With the support of FoLP, a number of public events were held to raise funds through this scheme. For a minimum donation of £10 people have been able to sponsor a nest box in the park for themselves or a nominated individual. For this, sponsors receive regular updates of the progress of their nest box during the nesting season (Plate 270).

One of the main purposes of the nest box sponsorship programme was to re-engage the public with wildlife in the park. The loss of a permanent ranger presence over the years had meant that opportunities to inform, educate and interest the public in the wildlife present had been diminishing over the years. For this reason, the nest boxes initially built focussed on bird species most likely to use the boxes and, therefore, stimulate public interest (i.e. tits and Robins). In 2019, the nest box type was extended to target a wider range of species known to use the park including Spotted Flycatcher, which has been declining nationally, Nuthatch, Treecreeper, Goosander and Dipper. It is acknowledged that the success rate of these boxes is likely to be significantly lower. Part of this expansion was funded by an RSPB award which paid for the materials for 20 nest boxes and also 20 bat boxes which were assembled by local primary school children. Each child was allocated a numbered box and, like box sponsors, were given regular progress updates (Plate 271).



Plate 271. Blue Tit nest with eggs, Linn Park LNR, Clyde, 30 May 2019. © *Michael Sinclair*

Nest box monitoring and results

In 2018, monitoring was carried out in accordance with the BTO's Nest Record Scheme from early April until mid-June. This involved a visual check inside the boxes (using a ladder for access). These weekly checks were carried out by myself and another FoLP volunteer in the lead-up to egg-laying and then twice weekly from egg laying until fledging. Out of 12 small boxes with holes (and one Robin box) erected in time for the nesting season, ten were used with 59 eggs being laid and 47 chicks fledging.

In 2019, a total of 60 boxes were erected. These comprised 36 small boxes with holes, ten Spotted Flycatcher, four Treecreeper, four Nuthatch, three Robin, two Dipper and one Goosander box. Thirty-nine out of 60 boxes were used. All but one of the small boxes with a hole were used and, predictably, all four Nuthatch boxes were also occupied by Blue Tits. A total of 140 eggs were laid, of which 16 were unviable, 15 chicks died and 109 chicks fledged. These figures are entirely consistent with national survival data. All successfully fledged birds were Blue Tits with the exception of four Great Tits. In addition to the nest boxes, a further ten natural nest sites were also monitored throughout the year. These included Nuthatch, Long-tailed Tit, Blue Tit and Jackdaw (Plate 272).



Plate 272. Endoscope image of a Jackdaw nest, Linn Park LNR, Clyde, 9 May 2019. © *Shona McNicol*

The huge expansion in nest box numbers meant that monitoring the boxes with only two volunteers carrying out visual checks using ladders was simply not viable. A new monitoring approach was needed. Following research, it was decided to purchase a number of endoscope cameras.



Plate 273. Endoscope in use by Roderick Morrison (left) and Michael Sinclair, Linn Park LNR, Clyde, 7 April 2019. © Kevin Sinclair

To assist with monitoring, ten volunteers were recruited and trained in the use of the endoscopes following the strict guidelines set out on in the BTO Nest Recording Code of Conduct. Of these ten, six included family groups including children under 12. We believe that this is the first monitoring project of its kind in Scotland to deploy this technology and involve public volunteers in this way. The endoscopes allowed substantially less intrusive monitoring compared to opening boxes and looking in. Being able to view and capture images on smartphones meant that pictures of developing nests could be taken and sent to nest box sponsors.

As in 2018, all the information was uploaded to the BTO database, DemON. Creating basic nest site profiles, adding co-ordinates etc for the BTO system took at least 20 hours and subsequent input of each data record for active nest box and natural nest sites has taken many more hours. A map made on separate software specifically for navigating the boxes was only available to the volunteers involved (Plates 273–274).

Conclusion

Overall this project has engaged well over 100 children and adults in box building, monitoring and sponsorship. Box updates on social media have consistently proved to be the most popular

posts and the steady stream of positive comments and growing number of people looking to sponsor boxes and assist with monitoring is testament to the project's growing impact and popularity. The long-term aim is to increase the number of young people involved and continue to expand the use of technology and social media as tools to sustain engagement and grow interest in other aspects of the park's wildlife.

Acknowledgements

Thanks are due to the many volunteers from Friends of Linn Park who have supported with public information days and nest box sponsorship events and also to our nest box monitoring volunteers, without whose assistance in 2019 we couldn't have carried out this mammoth exercise.

Finally, we are grateful for the financial support provided by the RSPB, whose assistance has enabled us to extend the project reach and to those members of the public who have generously sponsored boxes in the park and whose funds have allowed us to expand the project from its humble beginnings in October 2017.

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In November, young Michael was presented with the National Biodiversity Network's Young Person's Award. Our heartiest congratulations are due for all his hard work and enthusiasm.



Plate 274. Michael receiving his National Biodiversity Network's Young Person's Award from Sir John Lawton, November 2019. © Isobel Sinclair