NatSCA News

Title: The Nest Collections of the Natural History Museum & of the Hunterian Museum, University of Glasgow: Developing a UK nest collection resource

Author(s): Reilly, M., Russell, D.

Source: Reilly, M., Russell, D. (2008). The Nest Collections of the Natural History Museum & of the Hunterian Museum, University of Glasgow: Developing a UK nest collection resource. *NatSCA News*, *Issue 14*, 51 - 54.

URL: http://www.natsca.org/article/195

The Nest Collections ofthe Natural History Museum & of the Hunterian Museum, University of Glasgow: Developing a UK nest collection resource

Maggie Reilly, Curator of Zoology, Hunterian Museum, University of Glasgow
Douglas Russell, Curator Bird Group, Natural History Museum, Tring

Introduction

Birds' nests are a fascinating and valuable source of ornithological information, physical evidence of a particular aspect of the animal's life but curiously, nests are under-represented in collections. Where they are present, in the face of intense competition on curatorial time, their curation is often considered a 'low priority'. Nonetheless, this once neglected area of natural history collecting is at last receiving the attention it deserves, with the organisations holding the two largest collections of nests in the UK successfully working together to develop a major UK nest resource. The Natural History Museum (NHM) and the Hunterian Museum, University of Glasgow, have now been collaborating for over a year to enhance their respective collections in a co-ordinated manner. The National Nest Reference Collection (NNRC) at the Hunterian is explicitly focused on building up comprehensive geographical and time series coverage of British bird species, an area in which the NHM's collection is distinctly lacking.

Natural History Museum Collection

The NHM collection of nests at Tring contains around 4000 specimens, making it the largest collection of its kind in the UK. However, it is also a rather 'ad-hoc' collection, built up over the last 250 years by the largely unplanned acquisition of specimens from all over the world. In comparison to more intensely used collections such as skins, eggs and osteological material, it has received relatively little curatorial or research attention in recent years. Recent research though has highlighted the collection's historical and scientific importance (Steinheimer, 2003; Hansell, 2005) and over 170 different collectors have so far been recorded as having contributed nest specimens to the NHM, many from poorly represented and often remote destinations. Some were collected by renowned names in Zoology, e.g. John Gould (1804–1881), the ornithologist and publisher; Robert Ernest Cheesman (1878–1962), the explorer and naturalist, and John MacGillivray (1821–1867), the distinguished Scottish naturalist.

Over 30% of the NHM nest collection (1238 specimens) comprises Herbert Stevens's series from the Sikkim Himalaya in India. A prolific collector of Asian bird specimen material, study skins collected by Stevens are found in a number of institutions, including the Field Museum in Chicago, the Hancock Museum in Newcastle and the NHM. When he died in 1964 aged 87, he was still working on the arrangement and documentation of his egg and nest collections; consequently a great deal of cross referencing to the skins will be required to unlock these collections full potential. Thankfully, almost every single nest still bears its original collector's ID number so, although time consuming, cross-referring the data held in different museums is a viable future project.

This is moreover not the only series of nests to be linked with specimens contained in other venerable institutions. 1932 was a sad year for ornithology both at Tring and in the U.K. more generally. In perhaps his darkest hour, Lionel Walter Rothschild (1868–1937) was in severe financial straits, and when Dr Leonard Sanford arrived in England with a blank cheque from Gertrude Whitney, Walter felt compelled to sell his unique 280,000 strong bird skin collection to the American Museum of Natural History (AMNH) in New York. However, his collections of thousands of eggs and nests, many of which were collected in conjunction with some of the skins destined for New York, were not included in the deal and passed to the NHM as part of the Rothschild Bequest after his death. Rothschild had employed a complex worldwide network of over 400 collectors and 25% of the NHM nest collection derives from the Rothschild Bequest. Many of these specimens are from otherwise poorly explored areas, which makes these nests especially important.

In 2006 the Bird Group was awarded a student bursary to fund work on data reconciliation of the Rothschild nests collected by William John Ansorge (1850-1913) in Angola & Gabon with the corresponding parental skins now in the AMNH. A Cambridge undergraduate, Chloe Hardman, worked diligently cross-referring the original collector's ID numbers and nest labels with information held with the skins in New York. This work is now complete and being written up for publication. In a digital age, such collaborative projects are becoming increasingly practical and unquestionably enhance the utility of the collections of each institution involved.

Viewing separate collections as a collective, rather than a disparate resource clearly has distinct advantages. This ethos underlay the organisation of the first meeting of museum bird curators of Britain and Ireland in Cambridge in March 2006. Following initial discussions at this, Maggie Reilly and Mike Hansell from the Hunterian Museum, University of Glasgow, visited Douglas Russell at the NHM bird collection in August 2006 to discuss co-operative approaches to nest curation. The Hunterian's focussed series of British nests naturally complements, rather than competes with, the geographically and taxonomically broader NHM collection; preventing duplication of effort and providing potential opportunities for exchanges of material.

The Hunterian's National Nest Reference Collection

The NNRC came about as a result of a collaboration between a University of Glasgow academic, Professor Mike Hansell, with a specific research interest – the building behaviour of animals -and a University Museum sited in the academic department. In the course of his life-long study of the structures that animals make, Hansell had built up a collection of artefacts, initially arthropod structures as this was the focus of his earlier researches. However, from the late 1980's onwards, his interests turned towards birds' nests. The collection has grown and diversified in response to this developing research need but collecting accelerated after the impetus lent by creating an exhibition, for 1999, called 'The Animal Construction Company'. This was the Hunterian's contribution to Glasgow's year long festival to celebrate winning the prestigious European City of Culture award.

Building year on year, the NNRC now numbers over 1000 nests and images represents around half the 246 known breeding species. The Hunterian manages the nest collection and Mike Hansell co-ordinates the acquisition of nests. The aim of the collection is to build up multiple examples of the nests of each species of British breeding bird. This provides for studies of within-species as well as between-species variation in nest building. The bulk of the nests donated to the NNRC are collected by a network of professional and amateur ornithologists who respond to our requests for specimens. Particularly useful are nests that are linked to surveys or research. An example of this is an arrangement with the Nottinghamshire Wildlife Trust. Their Treswell Wood site has been intensively studied for many years with a bird census conducted each year since 1976. The NNRC has received nests for several species from this project since 1999, thereby building up a time series with excellent supporting data.

Ethical and legal guidelines are followed when collecting nests and field collectors are provided with instructions for collecting so as not to disturb the birds. Nests are an ephemeral resource for most birds – most species build, use and abandon the nest in a season. Nests that birds are likely to be re-used are not collected. Other practical restrictions apply. Many birds nest in scrapes in the grounds or burrows or similar uncollectable sites. Very large nests are not collected on the grounds of limited storage space. For such nests, where possible, photographic records plus data are acquired.

Relatively commoner species such as blue tits, chaffinches and blackbirds are well represented whereas less common species may not be represented at all. Some collection highlights are nests of the hawfinch (Fig. 1), the Scottish crossbill (Fig. 2) and the golden oriole (Fig, 3). These birds have very restricted breeding ranges in the UK.

Fig. 1. Hawfinch, *Coccothraustes coccothraustes*, nest (cat. no. 130286) from Pertshire.

Fig. 2. (above) Scottish Crossbill, *Loxia scotica,* nest (cat. cn. 126114) from Roshire.

Fig 3. (right) Golden oriole, *Oriolus oriolus*, nest (cat. No. 117473) from Suffolk.

The nests have a variety of uses in research, teaching and display. Nests may be of interest to ornithologists, entomologists, conservation scientists and botanists. Specific examples of research projects include the following: continuing his research this year Mike Hansell, and Dr Sue Healy of Edinburgh University, are studying the role of cognition in nest building using blackcap and garden warbler nests and this season a special request has gone out to field collectors for nests of those species. Over the last two years, Dr Charlie Deeming and Rosetta Blackman of the University of Lincoln have conducted a study into the insulation properties of nests correlated with parental attentiveness to the nests. Starting with a hypothesis that nests with low insulation would be built by birds that sat on their eggs for longer, the study did not prove this to be the case. Instead the surprising finding was made that thermal characteristics of blackbird nests correlated with the latitude at which they were built e.g. Scottish nests were thicker and better insulated. This study is now being extended to examine this unexpected result.

Undergraduate honours degree research projects looking at the composition of blue tit nests and the attachment mechanisms of reed warbler nests have been carried out. The Association for the Study of Animal Behaviour used photographs of nests in the Hunterian collection to prepare an on-line resource pack for secondary school teaching. There is also interest from writers and artists in the collection – a magpie nest that incorporated lots of bits of metal drew a great deal of attention! The main Hunterian Museum has just re-opened after a refurbishment and now includes a display on Animal Architecture where bird nests form an eye-catching centrepiece to the exhibit. The long-tailed tit and its nest (Fig. 4) a saliva nest from a cave swift and basket nests from Trinidadian oropendolas are amongst the intriguing specimens on show.

Conclusion

Bird nests are an important record of part of the lives of birds. In the past they have not received sufficient collecting or curatorial attention. A collaboration between the Natural History Museum and the Hunterian Museum in Glasgow is devoting time and expertise to acquiring and curating nest collections and increasing awareness of their importance and utility. A collaborative approach brings several mutual benefits. It will reduce duplication of effort, share scarce curatorial and academic resource and holds much potential for joint research projects to be developed.

Postscript

In response to feedback at the conference, we would like to produce a directory of nest collections in the UK. If you are interested in contributing to this please email Maggie Reilly (mreilly@museum.gla.ac.uk) a brief summary of your holdings and include your contact details. The submissions will be collated and an on-line directory made available at the Hunterian website.

References

Hansell, M. H. (2005). Animal architecture. Oxford, Oxford University Press.

Steinheimer, F. D. (2003). A hummingbird nest from James Cook's Endeavour voyage, 1768-1771. Archives of Natural History 30 (1): 163-165.

Fig. 4. Mount (cat. no. 130936) and nest (cat. no. 126127) of a long-tailed tit, Aegithalos caudatus. 'Star object' in a display on Animal Architecture at the refurbished Hunterian Museum (reopened in May 2007)