



Review

Bakken, V., Runde, O. & Tjorve, E. (2003) *Norsk ringmerkingssatlas*. Vol 1. Stavanger Museum, Stavanger.

The first volume of the *Norwegian Bird Ringing Atlas* is a great book, even if Norwegian is not one of your languages of choice. English translations are provided for the introductory sections, synopses and figure legends for each species. It is tempting to make comparisons with the BTO *Migration Atlas* but the books are very different, especially as a decision was made not to try to fit all of the species into the Norwegian book. Volume 1 covers the species from divers to Puffin *Fratercula arctica*, which means that there are up to ten pages to devote to each species and space to use a reader-friendly font with plenty of maps.

There is a basic set of information that is common to each species. This includes the numbers of birds ringed by period, a table of numbers ringed and recovered, by age, information on average movements and some of the record-holders, a pie chart showing causes of death and a map showing the ringing sites of birds subsequently recovered. To help the reader, there is a straight-forward two-page guide in both English and Norwegian that summarises the more lengthy glossary. Opportunities have been taken to display data in a variety of ways. For seabirds that wander the northern oceans, such as the Kittiwake *Rissa tridactyla*, the mean monthly positions give a feel for the annual cycle of adults and the movements of young birds in their early years. Similar illustrations for waders, which place mean recovery areas in the middle of the North Sea, are less helpful. For some species, where there are concentrations of ringing effort in particular regions, there are separate recovery maps for birds from these areas. For well-studied species, such as Herring Gull *Larus argentatus* and Lesser-black Backed Gull *L fuscus*, much of the information on movements comes from colour-ringing. A separate picture is painted for movements, as shown from observations of these marked birds, using up to two pages of maps and text.

One great bonus is the use of kernels within recovery maps. New computer-based techniques, which were only just being developed when the British & Irish Atlas was being produced, enclose 95% of recoveries (by season, age or whatever) in a shaded area, with the central 50% being indicated in a different colour. The

reader can immediately see where ringed birds are typically found; the median birds in the central area and, separately, the outliers. The addition of breeding season distributions allows the reader to put the recovery and ringing information into context. Perhaps unsurprisingly, the need to try to pack all of this map information together with figure legends into what is still limited space means that it is sometimes less easy than it could be to follow the stories told by the maps.

Occasionally, just because of the small numbers of recoveries included in calculations, one wonders about the accuracy of the picture presented, especially when mean positions by month are derived from as few as four recoveries. This, however, is a consequence of the relatively small number of ringers, and birds ringed, in Norway. For instance, there are only ten recoveries of Norwegian-ringed skuas and, of 100,933 ringed Dunlin, generating over 2,000 recoveries, only five movements relate to birds ringed as chicks. On the positive side, sometimes it is easier to understand the patterns with less data to look at!

Overall, this is an excellent book. I cannot comment on the accuracy of the information that is displayed, as I do not read Norwegian, but it was certainly interesting to look at migration from a different perspective. Not surprisingly, the British Isles feature prominently in the Norwegian migration story, especially for wading birds and for gulls, but there is far more. The fact that Norway includes Svalbard within its territorial boundary adds an extra dimension; birds like Little Auk *Alle alle* and Brünnich's Guillemot *Uria lomvia* stop briefly to breed before resuming their peregrinations of the northern oceans. There is a touch of the east too, the first hint of things to come for the passerines, with evidence of some birds, such as northern Lesser Black-backed Gulls, taking a southeasterly course in the autumn, from the far north of the Norwegian mainland. The authors are to be congratulated on an inspiring publication.

Available for NOK 448 (plus postage, approximate total £58.00) from Natur Og Fritid AS (post@naturogfi.tid.no). The second volume will be available in late summer 2005. Both volumes can be purchased for NOK 798 (plus postage, approximate total £90). The review copy is held in the BTO Library.

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