

DIGITISATION OF LUNDY BIRD RINGING RECORDS

Tony Taylor (ammataylor@yahoo.co.uk)

The UK's national bird ringing scheme is administered by the British Trust for Ornithology (BTO). For many years ringers filled in and submitted paper forms, recording data on each ring used. Then in 1995 the BTO introduced B-RING (for BBC microcomputers), followed in 2000 by IPMR (for Microsoft Windows). These were programs which allowed ringers to record data digitally and then email them to the BTO. In 2016 they introduced DemOn, an online, web-based system that allows ringers to input their data directly to the BTO's Oracle database. This saves time for their staff and also allows ringers and researchers easy access to the stored past records.

Though ringing has been carried out on Lundy since 1947, detailed records of the birds ringed on the island only survive from 1972 onwards. A water leak in Jack's Store damaged almost all of the field notebooks used before 1979, and unfortunately they were thrown away. However, Nick Dymond, the Lundy Bird Observatory warden in 1972 and '73, had set up binder files designed to take standard BTO recording sheets. Ringing details for each bird, sorted according to species, were copied into these from field notebooks. These files were not affected by the flood and continued to be used until 1999. From October 1979 onwards, the primary records, written in the field as each bird is processed, have been in a series of the BTO's standard ringing notebooks which are printed with columns for ring number, species, date, biometrics, etc.

So there is one record for each bird ringed on Lundy from 1972 to 1979 (the species logs), and two from October 1979 to 1999 (species logs and BTO ringing notebooks). The Observatory data from 1972-73 appear reliable in general, and after 1979 it is possible to check the ringing notebooks against the species files to help resolve queries arising from occasional recording or copying mistakes. In the years between these two periods the documentation was less accurate, and in a few cases it has been impossible to resolve issues such as the same ring number being entered for two different species.

DemOn has many built-in checks, to minimise errors. So the digitisation process is very useful in verifying the records, for example in immediately flagging up ring numbers that are entered as if they are new birds but are in fact on recaptures. Once the data are entered, DemOn can also be used to sort records into ring number sequence, making it much easier to find any gaps and investigate possible explanations for a ring being unlisted.

There are no surviving records of recaptures prior to 1979, but from then on the notebooks include this valuable information, which can be used to work out important demographic statistics such as survival rates. Other pre-1979 gaps are the ringing records for Swallows and Willow Warblers. The sheets for Willow Warblers were removed from the relevant species log by a visiting ringer so that analysis could be carried out, but they were then lost. Those for Swallows were removed to make room for more sheets when the files became full. They were kept as a separate bundle with the files, but later disappeared.

When the BTO started the transition from submitting data on paper forms to using digital data files, Steve Wing kindly offered to digitise Lundy ringing data, and did this annually in the years 1997 to '99. From 2000 Tony Taylor took over the task, with help from other visiting ringers including Chris Dee and Tim Ball.

The digitisation of pre-1997 Lundy records began because it facilitated analysis of information such as biometrics for a given species. So all available data on Manx Shearwater, Chaffinch,

Blackbird and then Goldcrest were submitted to the BTO via IPMR or DemOn, and scientific papers were published on these. More recently the prospect of Lundy once more becoming a Bird Observatory prompted the digitisation of all other species, to increase the chances of the application being successful. This task was completed in October 2022.

The result, at the end of 2022, is that 108,756 records of birds newly ringed on Lundy, and 11,912 recaptures, are available in DemOn. The wealth of information on age, sex and biometrics can be used to answer many questions relating to survival rates, migration and other aspects of birds' lives. These answers in turn are vital when devising effective conservation strategies.

When the records for each year were completed, the species totals were checked against the ones published in the relevant LFS Annual Report. In several cases these showed discrepancies, and further investigation revealed records that had been missed in the digitisation process or errors in the published totals. Table 1 gives details of these errors. The 2022 Bird Ringing Report, which precedes this account, includes a revised list of the grand totals for *all* species ringed on Lundy.

Table 1: Corrections to Ringing Totals

Year	Species	Total in relevant Annual Report	Corrected species total	Corrected annual total for all species	Reason for change
1955-71	Bonelli's Warbler sp	0	1	[Grand total 1947-71 =23,022]	One ringed in 1954. Missing from all Annual Reports thereafter in which grand totals are included.
1973	Chiffchaff	46	44		Two birds were recorded twice in the species log
1973	Goldcrest	72	71		Same ring number recorded for a Goldcrest and a Chiffchaff in species logs. Chiffchaff data fitted better.
1973	Stonechat	6	3	1797	Only 3 in species log. (The standard gap was not left between 1972 and '73 data, so the three 1972 records were probably mistakenly counted again in '73.)
1974	All				Note: all rings used were personal, not LFS.
1975	Sparrowhawk	3	1		Only one in species log. Likely misprint in Ann Rep, as total of all species is given as 1075, but total if the 3 had been intended would have been 1077. ('3' was perhaps taken from Water Rail on next line.)
1975	Goldcrest	195	196	1076	In the species log, one record was inserted between the printed lines. Probably missed when counting the total.

Table 1 continued: Corrections to Ringing Totals

Year	Species	Total in relevant Annual Report	Corrected species total	Corrected annual total for all species	Reason for change
1976	Peregrine	0	1	594	Peregrine was deliberately omitted to keep their newly re-established breeding on Lundy unpublicised. Activities of egg collectors, and falconers operating illegally, were a concern at the time.
1977	Blackbird	60	61		61 records in the species log.
1977	Goldcrest	12	13		13 records in the species log.
1977	Chiffchaff	20	22		22 records in the species log.
1977	Redwing	4	3	498	3 records in the species log. (One entry on a fourth line, started but crossed out, perhaps mistakenly included.)
1978	Peregrine	0	1	443	See 1976 comment.
1981	Dunnock	22	21		21 in ringing notebook.
1981	Grey Wagtail	1	2	606	2 in ringing notebook.
1982	Dunnock	17	16	1148	One record mistakenly included in the Ann Rep total was an unflagged recapture in the ringing notebook.
1983	Goldcrest	347	348	1349	348 records in ringing notebook.
1984	Robin	127	126	1850	One record mistakenly included in the Ann Rep total was an unflagged recapture in the ringing notebook.
1987	Blackbird	126	125	3021	One record included in the Ann Rep total was recaptured in a later year. The ring was found to have been added mistakenly on the other leg of a previously-ringed bird.
1989	Oystercatcher	2	0	3430	Not in any surviving records, and there are no appropriate rings series, in use at the time, in which there are gaps that could be ascribed to these birds.
1996	Blackbird	36	37	2335	37 records in ringing notebook.
2018	Blackbird	14	15		One record not entered in ringing notebook.
2018	Starling	0	2	2727	Two records not entered in ringing notebook.
2020	Starling	48	50	1977	Two records not entered in ringing notebook.