

## Gleanings from the Northumberland Bird Database

### THE DATABASE: SOME FACTS AND FIGURES

*By Clive E. Goodwin*

When I embarked on a regular series of articles on the database two years ago, I never took time to give readers an overview of the database itself. We did an article for *The Curlew* on this topic back in 1999, so I simply assumed that everyone would at least be familiar with its existence, and that what it could reveal was more interesting than what it was.

That's certainly true, but many things have changed since 1999, and maybe some more details about it are now long overdue. So the next two articles are about the database itself – how it started and when, how big it is, and so on. This kind of detail is not to everyone's taste, but I suppose the same can be said of our more usual fare!

In fact I'm not really sure exactly when the idea of computerizing the county records started. I do know that by 1996 I had been thinking for some time about the vulnerability of all the records birders tend to accumulate. Some years ago a good friend of mine died unexpectedly. He had accumulated bird records for years, all of which were lost. It seemed such a waste, even though the conventional wisdom in those days was that such records were not worth much anyway. When we came to Cobourg in 1991 and I found that many of the most active naturalists here had also been birding for years, I was reminded of those lost records.

I also found there were two quite distinct record keeping initiatives occurring in the County. Ted McDonald was keeping meticulous records for the Club area, which seemed to cover the west end. At Presqu'île records were gathered for the Park, but it was rather hit-and-miss, depending on staff availability, and many active observers there didn't bother sending records in. In between there was a kind of vast no-man's land, which just happened to include some areas we covered quite often.

Why not try to consolidate these diverse threads into a single, computerized database? One major concern was that these collections of records grow more indigestible as time goes on. I can recall the hours spent sifting through years of data and hundreds of dates to establish early and late dates for the

Toronto and Ontario Guides. None of the computer programs on the market seemed to come to grips with this problem, but were geared instead to helping birders maintain simple bird lists.

Which brings us to January 1997, when *Ontario Birds* ran a publication notice for a Kitchener-Waterloo bird checklist, which had been ‘made easier’ by the use of ‘sophisticated software’ developed by a Steven Furino of the University of Waterloo. This was briefly described and sounded ideal, and it appeared that for \$10.00 I could get a manual and a demo. So I promptly fired off my cheque, and a few days later received a ‘phone call from Steven Furino [I don’t think the cheque was ever cashed], and so began a highly productive relationship that continues to the present day. In truth, the software, *Wings*, was at that time significantly less sophisticated than I had hoped. But it has evolved enormously since then, perhaps in some degree due to a collaboration that has consisted largely of me asking stupid questions and making unreasonable requests, and Steven responding.

The first permanent County records were entered in the fledgling database in April 1998, and by now it stands at 292,186 records of 369 species of birds, from over 800 observers and 417 locations – and that’s just today. [With a database this size there are always some qualifications: for example, here the species total doesn’t include 10 judged to be possible escapees, or that are otherwise questionable]. But it’s far from static: In a typical year we add between 11,500 and 16,500 new records.

Although I mentioned our Club records and those from Presqu’ile as the stimulus for starting, in the event these do not constitute the largest components of the database. The total of bird records from *The Curlew* since the beginning of 2000 is 6258; and Ted’s records for all the years up to that time total 13,213. The corresponding records from Presqu’ile total 9,394. That’s only about 9% of the database. The rest comes mainly from several large sets of data we’ve been fortunate to acquire: first, the Thomsons at Presqu’ile from about 1978 to 2006, some 58,000 records; Lori and Bill Wensley from east Cobourg from 1987 to 2007, about 46,000 records; and ourselves from Cobourg Harbour from 1990 to 2006, about 48,000 [of course, highlights from both the latter appear in Ted’s records too; they’re deleted from the total above]. All these represent daily, or close to daily observations during the periods given. Then we have two long runs of data that are not daily, mainly from Presqu’ile: Doug McRae has over 18,000 records dating back to about 1974, and we have over 51,000 records

of our own back to 1971. These, particularly the daily counts, dominate the overall statistics.

Our earliest record is from February 1813, when Charles Fothergill recorded a junco, and said that he didn't recollect ever seeing any in winter before [a reflection of how things have changed]. However, our 19<sup>th</sup> century records are very few - 269 in all – but they are interesting out of all proportion to their numbers. After all, how many datasets include Passenger Pigeon in their list of species?

A database this size certainly lends itself to 'gee-whiz' statistics: how about twelve million – 12,450,100 to be exact – which is the total number of individual birds we have recorded? The most numerous species is, as we might expect, Ring-billed Gull with 1,799,505. Gulls from the huge Presqu'ile colony range the entire county: they're the most abundant birds on the Summer Bird Count, and they even manage a respectable showing on the CBC's, although most of them have flown south at that time. Only scaup and grackles also exceed a million individuals, with 1,032,713 and 1,092,321 respectively. [Scaup are 'lumped' and we do have separate totals for Greater, Lesser and 'scaup species'; but it's hard to be precise when presented with the bewildering mass of ducks at Presqu'ile in early spring, and different observers approach the counting differently]. Canada Geese and cormorants, the next in size, both exceed 700,000 birds. At the other extreme, we have 25 species that were only seen once.

The number of records by species yields a quite different sequence, with Long-tailed Duck, of all things, the high count at 6532. It's a bird that is reliably present along the waterfront at least 8 months of the year, and unlike gulls and geese, one that birders will usually record. And indeed the top four record counts are all common wintering waterfowl. This is because the number of records is related closely to the number of birds seen at the most intensively covered sites: Presqu'ile and the Cobourg waterfront. Both Cobourg locations are particularly good for waterfowl, and much less so for landbirds: hence our high numbers of waterfowl records.

But numbers are not really the focus of the database; rather the objective is to build a comprehensive record of the County's birds. Yet without large numbers that is not possible, and it's that paradox we'll talk about next month.