

Gleanings from the Northumberland Bird Database

PRESQU'ILE SHOREBIRDS

By Clive E. Goodwin

In our last issue I discussed the database and some of its idiosyncrasies. This month I thought it might be interesting to look at the numbers of a group has been well covered over the years, the shorebirds at Presqu'ile Provincial Park, and see both the strengths and weaknesses of the database in tracking their numbers.

It's a timely topic, because the recent release of the Presqu'ile beach management plan prompted some generalizations about shorebird numbers there that were new to me, at least; and because the plan discussions themselves were guided in part by data from this database.

We have 19,408 shorebird records from the Park dating back to 1914 [which predates the Park itself], representing over 369,000 birds of 41 species, so we should be able to gain a very clear picture of the status of this group there. In many respects we can, although in practical terms we have only scattered records prior to 1975, and we have fewer than 105 records each of 18 species. Mainly these represent rarer birds such as the three phalaropes; although Upland Sandpiper breeds in the County but is very infrequently [22 records] seen at Presqu'ile, while Solitary Sandpiper [76 records] is likely overlooked, as it is a bird of more wooded wetlands and rarely appears on the beaches. This leaves 23 species that are seen with some regularity.

Four of these nest in the Park. We only have 150 records of American Woodcock - 391 birds - between 1974 and 2006, but this is surely much too low. Woodcocks arrive very early in the spring and are crepuscular, so most of our records relate either to birds heard performing their evening displays in the spring, or sightings of birds searching for food after late snowstorms, or the occasional brood later on. Generally, we tend to miss woodcock.

Snipe are not quite so elusive, but they appear on the beaches infrequently at best, and most of our records again seem to relate chiefly to the birds' aerial displays. And mostly their displays between 1978 and 1998: until last spring snipe seemed to be gone from the Park. Last spring a bird was heard winnowing over beach 4 for a month or so, perhaps because everywhere was so wet some new habitat developed, but I doubt if the bird will return next year. Possibly the increase in tree cover on the pannes has made the area unsuitable for snipe, as the decline has seemed progressive: from 1978 to '87 a yearly average of almost 60 birds was reported; the 11 years between 1987 and 1998 yielded fewer than 23 a year; and from 1999 to 2006 we could only manage 4 sightings annually.

The other two nesting species are Killdeer and Spotted Sandpiper. They're birds of the waterfront and beaches, and they follow a rather similar pattern to the other shorebirds, except that Killdeer are very early: over the years we have had 217 in March and 696 in

April, although the movements of both species peak in May. For this reason, and the fact that neither woodcock nor snipe appear to be regular beach users, we'll exclude the residents in the discussion below, and we'll cover the remaining species as a group.

Our records give a good picture of numbers over the course of a year. The following chart shows our total of migrant shorebirds by month:

April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
132	102,540	17,590	5513	78,204	104,996	31,910	14,559	898	355,796

Note that May and September are the peak months, and that there are much higher total numbers in fall, at least in part because the birds tend to loiter. The spring movement is very concentrated: not just into May, but into the second half of May [our first record of over 100 birds is May 15] and the first week in June [we have no count over 100 after June 8]—yet in this three weeks we have had daily counts of up to 10,000 Dunlin alone!

Movement tapers off very dramatically after June 8, and continues low until the end of July – we have one anomalous count of 400 Semipalmated Sandpipers on July 19, 1996, but only 3 other counts of over 100 in July, and two of these were month-end.

There are some interesting variations between species over the fall movement – perhaps a topic for another Gleanings – but suffice it to say here that by October Dunlin replace Sanderlings and Semipalmated Sandpipers as the commonest shorebirds on the beaches, and by December only a few lingering Dunlin and Purple Sandpipers are usually around. The database is less clear on the patterns of beach use by the migrants, but it's clear that in spring numbers are concentrated on Beaches 1-4, while in fall the birds tend to be far more dispersed, and favour areas of algal build-up.

When we look at numbers per year the picture is far more complex. As our last full set of records is for 2006 I went back 30 years and took three ten-year blocks. 1977-86 averaged 10,404 birds annually, but actual annual totals ranged from a low 2896 to 22,757. For 1987-96 the figures were 10,242 annually, ranging between 6339 and 24,494; and the decade to 2006 yielded an average of 15,500 a year, with a low of 3368 and a high of 34,332. High years can follow low years, or not; there's no consistency. Whatever these annual figures mean, only the most foolhardy would draw conclusions about the trends in shorebird populations from them. The last decade is particularly puzzling, coming at a time when shorebirds are known to be declining, and when the new Brighton wastewater wetland could well be drawing some birds away from the Park.

My personal experience at Presqu'ile over the years does indeed support some of the yearly variability. There are variations in water levels, in the degree of wetness of the beach, in the locations and amounts of algae, in the timing of the movements, in the presence or absence of observers and, of course, in the actual numbers of birds themselves; it's hard to be categorical. But the dramatic increase in numbers in the last

decade suggested the counts themselves were one place to look, so I analyzed the records over this period.

It turns out that only 5 observers [A to E in the table below] contributed 85% of the records in this period, and the remaining ones were randomly distributed. Normally this would not be a problem, but the IBA ran a shorebird survey in 2001-3, and the Atlas was underway at the same time. Observer A was clearly influenced by the atlas: the observations dropped off from 2001. B's contributions grew over the period, but not enough to compensate for other reductions. C, the most prolific observer, ceased to record in 2003. D did not normally report, but made a strong contribution to the survey, while E made a major contribution to the survey but reported very inconsistently at other times.

Obs.	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
A	185	209	146	123	116	93	85	94	77	65
B	8	72	87	177	204	140	152	257	235	186
C	763	406	234	47	903	649	132	0	0	0
D	0	1	0	0	110	113	0	0	0	5
E	8	21	39	42	167	471	414	20	22	1
Recs.	964	710	506	389	1500	1466	783	371	334	257
Birds	27.9	23.1	8.9	9.3	26.3	34.3	10.5	6.0	5.2	3.4

The resulting total records reported are shown above, with the total birds seen in thousands underneath. The correlation isn't exact – it doesn't need to be – but fairly clearly the variation in the numbers seen is mainly an artifact of the uneven coverage. Unfortunately, it is very difficult to draw any firm conclusions from the database about the relative abundance of shorebirds at Presqu'île in recent years.

So, although we have a mass of shorebird data from Presqu'île, and can gain a very precise picture of the pattern of migration, inconsistencies in the recent coverage from year to year make it almost impossible to gain a clear picture of population trends.