

Gleanings from the Northumberland Bird Database

FALL HAWK MIGRATION

By Clive E. Goodwin

Among the delights of fall birding are the movements of hawks and vultures. They can be among the most memorable of birding experiences: perhaps a Peregrine Falcon chasing shorebirds over the open waters of the lake, or a huge pin-wheel of Broad-winged Hawks spiralling upwards overhead, or even hawks soaring against the face of the clouds themselves, completely invisible to the naked eye. Fall is the time for these things. There is hawk movement in the spring, of course – mainly in April – but it does not come close to the autumn flights in the numbers seen; in fact, the totals of all the other months put together do not come close to the numbers we can see in September and October.

September is the pre-eminent month, with almost 23,000 individuals recorded over the years. October has fewer than half as many – some 10,000; but impressive though these totals may seem, they really pale in comparison to locations further west, where one-day counts alone in a good year can easily exceed them. Birds moving south across the Province arrive at the lakes and then continue westwards, gradually swelling the numbers of hawks already moving there.

That passage is not uniform, either from day to day or year to year. Different species move at different times, and their patterns of migration differ as well. September is a big month primarily because Broad-winged Hawks move at that time – indeed, an old adage is that a Broad-wing after September 25 is late, and that seems very close to being correct. We have only one record of any numbers after the end of September, but well over 13,000 seen in that month. The other species that dominates the September movement is the Sharp-shinned Hawk, with 4366 birds recorded then. However, their flight also extends well into October, and we have had over 1200 birds seen during the course of that month.

Broad-winged and Sharp-shinned Hawks use very different patterns of migration. Broad-wings – and to a lesser extent the other *Buteo* hawks such as Red-tailed, Red-shouldered and Rough-legged – migrate by soaring. The Broad-wings move in loose flocks, using columns of rising warm air [‘thermals’] to spiral upwards – forming a ‘kettle’ - until the lift runs out, and then setting off in a shallow glide. Traditionally mid-September has brought cool north-west winds and sunny days, and the warming ground generates the thermals that produce fluffy ‘cotton-wool’ cumulus clouds – perfect Broad-winged Hawk weather.

All the other hawks will take advantage of good soaring weather as well, so you’ll see Broad-wing flocks with Sharp-shins mixed in. But they’re not so dependent on soaring, and it’s usual to see them flying steadily westwards, following the lake shoreline. This pattern is even more pronounced with the falcons – Peregrine, Merlin and kestrel - and in fact the first two species will sometimes move well out over the lake itself.

The database reflects these differences very well. While the over 13,500 Broad-wings constitute over half of all hawks seen, there are only 160 records of this species – with as many as 4,000 in one day. Over 100 birds were seen 22 times, and we have only 62 singles. Contrast this with Merlin, where only 940 birds were seen in all, but we have 715 records, including 564 single birds. The largest single Merlin count? It was eight birds!

The emphasis on the lakeshore I mention above is less easy to tease out of the data because we have so many different locations. However, taking records from the towns of Port Hope and Cobourg [but not from specific waterfront areas], we have 8398 Broad-wings but only 25 Merlins, while Presqu'ile and Cobourg Harbour [both predominantly waterfront locations] yielded 801 Broad-wings but 687 Merlins.

Like the Sharp-shinned Hawks, the other diurnal raptors fall somewhere between these two extremes, partly because the weather in October tends to be cooler and good soaring days are far fewer. This is the time for Red-tailed Hawks to move, and with them much smaller numbers of Red-shouldered and Rough-legged Hawks. It's also the time of the big Turkey Vulture movement. All these birds make good use of the topography to help them move, using ridgelines and hills to gain lift, rather than the rising air of a thermal. It's probably no coincidence that our five highest Red-tail counts are from Elizabeth Kellogg and Roger Frost's home, which is on a ridge line, or that I have had only 4 Golden Eagles over Cobourg Harbour in 15 years; this species too follows ridge lines.

It would be nice to be able to use the database to assess whether species are declining or not. Unfortunately, while some birds may have declined the birders have increased. We're getting many more records now than we used to have – not that I'm complaining; the more the merrier! – but it does make declines harder to identify. I'm pretty sure kestrels have declined seriously, but the fall migration figures don't show it, although my own Cobourg Harbour records do suggest some decline in the last 8 years. Increases are easier to see: Merlins have increased dramatically - in the last 20 years we have gone from single digit totals annually to 50 and 60 each fall.

Even when there is some evidence of decline it isn't always easy to be sure what is happening. It has been suggested that Sharp-shinned Hawks have declined – on east coast sites the birds certainly have – but in general our numbers have seemed fairly steady. Steady, until one looks at the highest counts, and the most recent of the six highest counts was in 1988, quite the reverse of what one would expect. So perhaps there has been some decline. On the other hand, there have been no high Broad-winged Hawk counts in the last five years, again not what one might expect. This time, however, there could be an alternative explanation. It cannot have escaped readers that recent falls have been unusually warm, and with such warm weather the cool crisp fall days with NW winds that have brought the Broad-wings down have become scarce. Maybe the birds moved further north and we have been missing them. So the database can sometimes raise more questions than answers, but without it we wouldn't even know what questions to ask!

[This is the first of what I hope will be a series of articles on the information in the bird `database]