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Sharp-shinned Hawk Declines: An Inland Perspective

by
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Much has been written about the declines of Sharp-shinned Hawk (*Accipiter striatus*) at coastal sites, particularly at Cape May, New Jersey (Kerlinger in *Winging It*, September 1993). Additionally, theories to explain the differences in the declines between the coastal and inland sites have been attributed to the higher proportion of adults at inland sites (Hawk Mountain data, after Heintzelman), noted as up to a 50/50 ratio. To date, there has not been any widely published data regarding the age ratio of Sharp-shinned Hawks migrating through the Great Lakes region. The purpose of this paper is to provide such information for Holiday Beach Conservation Area, Ontario to clarify the situation. In addition, reasons for these differences

and some potential causes of declines are discussed.

Season totals at Holiday Beach for Sharp-shinned Hawks have remained relatively stable over the past 20 years of organized counts. The 20 year average is about 13,000. Note the relative stability of the Holiday Beach totals compared with the extreme declines at Cape May against their 20 year average of about 32,000 (Figure 1).

Sharp-shinned Hawks have been aged on the wing by observers at Holiday Beach since 1988. Observer effort has been remarkably consistent, with between 90 and 95 days covered in each year. The ability to age birds has varied from year to year, and depends on many variables

Sharp-shinned Hawks - Autumn

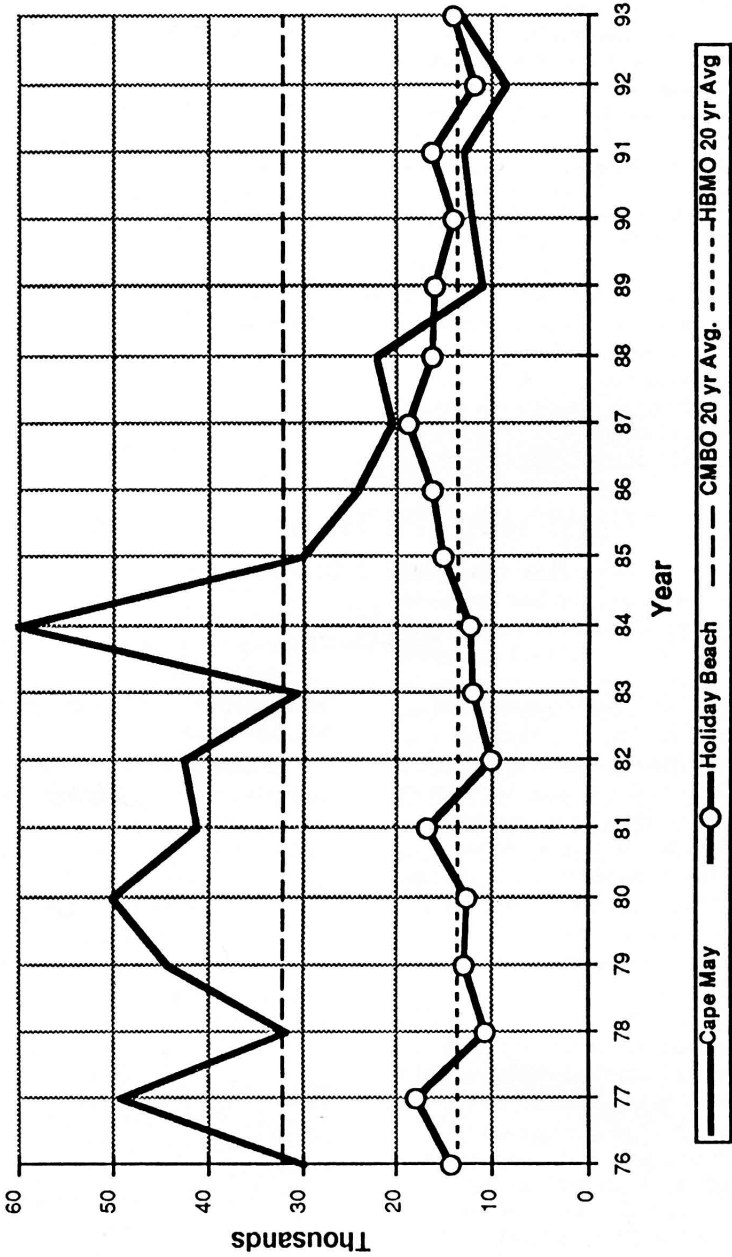


Figure 1: Sources: Cape May data courtesy of Paul Kerlinger, Cape May Bird Observatory. Holiday Beach data courtesy of Holiday Beach Migration Observatory.

such as weather, altitude of flight, lighting conditions, etc. However, the average proportion of aged birds is very high, totalling slightly more than 23%. More than 98% of the Sharp-shinned Hawk migration occurs in September and October, with an average of 80-90% immature in September and 25-65% in October. Typically fewer than 100 birds are tallied in November, less than 1% of the season's total, but the ratio of immatures does tend to decline further, generally to less than 30% (Figure 2).

There is a total accumulated ratio of immature to adult over six years of about 75/25. Numbers at Holiday Beach declined in 1992 to the lowest level since 1982. It is interesting to note that the ratio of immatures to adults was considerably higher that year, about 88/12! (Figure 3).

Discussion

While it is difficult to draw any real conclusions from a comparison like this, it seems likely that we are observing two distinct populations, separated geographically and influenced by somewhat different environmental factors. The Holiday Beach birds are relatively stable in numbers, while coastal areas are reporting significant declines. Age ratios do not differ significantly at Holiday Beach from those seen at Cape May. As proposed by Kerlinger, acid rain effects are severe in the northeast, more so than in the Great Lakes area. It has been suggested (Ron Ridout, pers. comm.) that the intensive spraying for Spruce Budworm in the Canadian Maritime provinces could be an additional factor contributing to the declines seen at Cape May and other coastal

Age Ratio Changes by Month

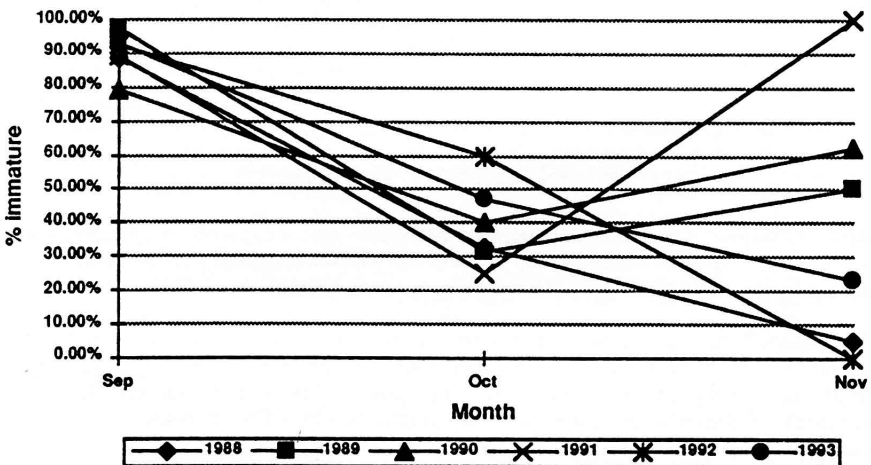


Figure 2

Sharp-shinned Hawk Age Ratios at Holiday Beach

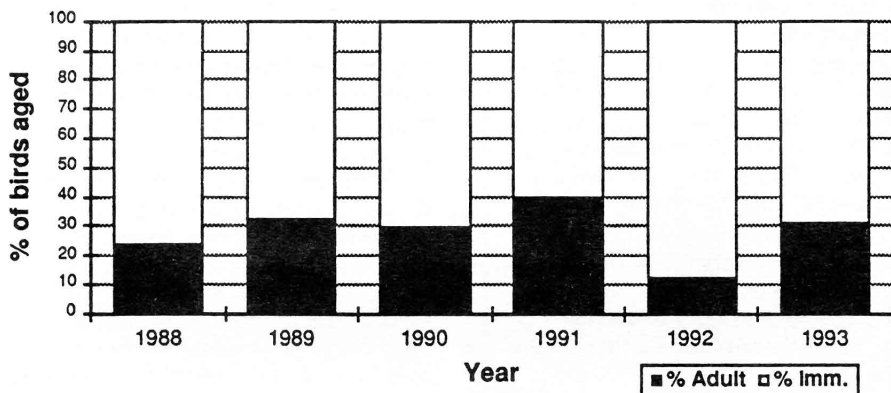


Figure 3

hawk watches, initially affecting populations of the small birds that Sharp-shinned Hawks feed on. Such spraying is much more limited in Ontario and Quebec, the likely breeding areas of the birds migrating past Holiday Beach.

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Publication Notice

Bird Trends: A report on results of national and regional ornithological surveys in Canada. Number 3, Winter 1993/94. Migratory Birds Conservation Division, Canadian Wildlife Service, Ottawa, Ontario K1A 0H3. No charge.

This report deals with shorebird conservation and research, and includes much of potential interest to Ontario birders. There is an assessment of population status and trends for 44 shorebird species, based on available data and the best estimates of experts. Another section considers Canadian shorebirds at risk (Eskimo Curlew, Long-billed Curlew, Piping Plover, and Mountain Plover). In addition, there are overviews of Canada's Bird Observatories, including Long Point, Thunder Cape, Ottawa, and Toronto, with volunteer opportunities to participate in migration monitoring described.