

Mute Swans in the Hudson Bay Lowland

Kenneth F. Abraham and R. Kenyon Ross

Mute Swans (*Cygnus olor*) are increasing throughout eastern North America (Ciaranca et al. 1997). In Ontario, they are widespread throughout the lower Great Lakes, especially in coastal marshes and large inland wetlands, and they are increasing at a rate of 10-18% per year (Petrie and Francis 2003). Their occurrence in northern Ontario is minimal and is correlated with humans (e.g., where captive birds are seasonally placed on lakes, as in Cochrane, or as in Thunder Bay, where feral populations are established nearby in Lake Superior areas of Michigan and Wisconsin). Mute Swans are uncommon in Manitoba and confined to the southern part of the province (MARC 2003). In this note, we report four observations representing the first known occurrences of feral Mute Swans in the Hudson Bay Lowland (hereafter HBL or Lowland) of Ontario and Manitoba.

On 6 August 1996, during Canada Goose (*Branta canadensis*) banding operations on the Hudson Bay coast west of Ft. Severn, Ontario, KFA sighted a single Mute Swan standing on the nearshore flats of a coastal marsh at the Black Currant River, at 56° 06.4' N, 87° 38.2' W. This observation was made

from a helicopter and visually confirmed by another occupant (Brian Arquilla, OMNR summer student). The bird was alone but took flight as we approached to attempt to take a photograph.

On 10 June 1997, during a helicopter waterfowl survey along the Hudson Bay coastline from Churchill, Manitoba to Moosonee, Ontario, we encountered a single Mute Swan at 56° 55.7' N, 89° 30.6' W on the Manitoba coast between Kaskattama River and Black Duck River. Ontario Ministry of Natural Resources (OMNR) helicopter pilot Kevin Mulcair spotted the swan and reported to us: "there's a swan with a yellow bill"; we immediately reversed direction to try to locate it. We (KFA and RKR) were both able to visually confirm the identification as we flew along side it and attempted to take photographs. The bird was not with any other swans although other waterfowl were noted in the general vicinity, including Tundra Swan (*C. columbianus*), Snow Goose (*Chen caerulescens caerulescens*) and Canada Goose.

On 2 June 2001, Ted Barney (OMNR summer student) and Dan Byers (OMNR Technician) sighted a lone Mute Swan near Cockispenny Point, 52° 01' N, 81°

00' W, on the James Bay coast south of Ft. Albany. They were in a helicopter flying along the shore when they saw the lone swan.

On 16 July 2004, KFA observed a single Mute Swan on the nearshore flats just north of the Attawapiskat River on the James Bay coast at 53° 04' N, 87° 16' W, while searching from a helicopter for Canada Goose brood flocks. The bird was alone and took flight when we approached to make a video recording. The identification was visually confirmed by Carrie Sadowski, Derek Potter and Sarah Hagey (OMNR biologists).

Discussion

The four observations described above have some common features. All four birds were capable of flight, despite a calendar date span of eight weeks. All four birds were alone at the time of sighting and in the immediate vicinity of the Hudson or James Bay coasts. In all cases, the birds appeared to be in adult plumage, and had noticeable orange bills easily seen from the helicopter. However, we note that any one of the swans could have been a second year bird (i.e., a yearling) because small amounts of brown-grey in the plumage would be nearly impossible to detect from a helicopter.

It is not surprising that, with the increase of Mute Swan populations in eastern North America, the species would reach the HBL. The Lowland is a globally significant

migration and/or breeding area for waterfowl (Thomas and Prevet 1982), including several million migrating Snow Geese and Canada Geese, approximately 300,000 nesting Snow Geese and one-half million nesting Canada Geese, and thousands of migrating Cackling Geese (*B. hutchinsii*) and Atlantic Brant (*B. bernicla hrota*) (Abraham and Jefferies 1997). A small population of nesting Tundra Swans is present in the HBL (Lumsden 1987, MARC 2003). Additionally, tens of thousands of temperate-nesting large Canada Geese (*B. c. maxima*) from throughout eastern and central North America migrate to the Lowland to undergo the molt of their wing and tail feathers (Abraham et al. 1999).

There are three reasonable (and non-exclusive) hypotheses about the course of arrival of the Mute Swans reported here. First, they may have come north from natal or breeding locations in southern Canada or the northeastern United States on molt migration or exploratory wanderings. Second, they may have migrated with Tundra Swans from wintering areas along the Atlantic Coast of the United States. Third, they may have migrated with large Canada Geese from the lower Great Lakes.

Although some local seasonal movements (e.g., winter concentrations and molt concentrations) of Mute Swans are known to occur in the southern Canada and the northeastern United States populations,

most birds are largely sedentary (Ciaranca et al. 1997). There is no evidence of any established northward molt migration. In their native range, Mute Swans vary in mobility: "wholly migratory in some parts, mainly sedentary in others; also partial migrant" (Cramp and Simmons 1977). They are largely sedentary year-round in more temperate western European breeding areas where populations are feral (94% of movements are less than 50 km). However, they are migratory in northern parts of the breeding range (i.e., Scandinavia, north Germany to Estonia). Of particular interest in this case is that a major northward molt migration occurs in the northern European range, with up to 15,000 molters present in molting concentrations in Scandinavia from July to September (Cramp and Simmons 1977). The coastal habitat of James Bay and Hudson Bay conforms to the type of habitats Mute Swans use as molt migration areas in Europe, and the dates of our observations in the HBL are consistent with pre-molt movements, given that most wing molt in North American Mute Swans is mid July (as early as June) to mid August (Ciaranca et al. 1997).

The majority of eastern Tundra Swans winter along the mid-Atlantic coast of the United States (Delaware, Maryland, Virginia, North and South Carolina) in areas where Mute Swans are numerous year-round. Tundra Swans return to the HBL in late April and early

May. The fact that none of the four Mute Swans was observed associating with Tundra Swans (e.g., they might have associated with non-breeding or failed-breeding birds, as these are present) detracts from this hypothesis. Additionally, none of our observations were made in April or May (during Tundra Swan migration). Although we conducted surveys in all months from May to August, we flew more in June and July than other times and therefore we cannot discount the possibility that the timing of the Mute Swan observations was partly the result of greater effort later in the summer.

The molt migration of temperate-nesting large Canada Geese occurs from about the third week in May to the second week in June, peaking near 1 June (Abraham et al. 1999). The majority of birds come from areas where Mute Swans are increasing (e.g., Ohio, Michigan, southern Ontario). Mute Swans and Canada Geese from these areas share similar habitats. Other large waterfowl (hybrids, such as Canada Geese x domestic geese, and escaped captive Canada Geese) have been observed and captured with molt migrant Canada Geese during OMNR banding operations in the Lowland (OMNR, unpublished data). The observations of Mute Swans reported here all occurred near or after the peak of the annual Canada Goose molt migration to the HBL. While they may not have migrated with Canada Geese, their move-

ments might have been influenced by this peak of migratory activity.

The fact that all the Mute Swans we observed were capable of sustained flight raises the question of when and where they spent their flightless period. Mute Swans have a relatively long flightless period (35-42 days; Hohman et al. 1992). The 10 June 1997 and 2 June 2001 observations were almost certainly that of pre-molt birds; few waterfowl are flightless at those calendar dates in the Hudson Bay Lowland. However, the 16 July 2004 bird and the 6 August 1996 bird probably should have been flightless, as the flightless period is usually mid July to mid August in the North American breeding range. However, either could have been pre-molt because factors affecting molt timing in waterfowl include age, sex, reproductive condition, seasonal phenology and social status (Hohman et al. 1992), and it is possible that the dislocation of the observed birds from familiar territory and other Mute Swans may have delayed or deterred wing molt. Tundra Swans, Giant Canada Geese, locally nesting Interior Canada Geese (*B. c. interior*), and Snow Geese are usually flightless at this time of year in the HBL; we see flightless geese and swans between

approximately 20 June and 10 August in most years.

We know of no other records of Mute Swan observations in the Hudson Bay Lowland. First Nations hunters often report unusual waterfowl, but we have had no such reports about Mute Swan from residents of the HBL communities in Ontario. We have little doubt that our observations are not the only cases of Mute Swans reaching the Hudson Bay Lowland, and it is possible that they may be the vanguard of a new molt migration tradition. Given the population trajectories of Mute Swans in southern Canada and the north-eastern United States, we expect such observations to continue.

Acknowledgements

We thank Ted Barney for allowing us to include the observation he made while working as a summer student, and Lyle Walton, Diana Abraham and Ron Tozer for comments on an earlier draft. Our observations were made during waterfowl research and management undertaken with the support of the OMNR, Canadian Wildlife Service, Mississippi Flyway and Central Flyway Councils and the Arctic Goose Joint Venture.

Literature Cited

- Abraham, K.F. and R.L. Jefferies.** 1997. High goose populations, causes, impacts and implications. Pp. 7-72 in *Arctic Ecosystems in Peril: Report of the Arctic Goose Habitat Working Group: A Special Publication of the Arctic Goose Joint Venture of the North American Waterfowl Management Plan* (B.D.J. Batt, editor). United States Fish and Wildlife Service, Washington, D.C. and Canadian Wildlife Service, Ottawa.
- Abraham, K.F., J.O. Leafloor and D.H. Rusch.** 1999. Molt migrant Canada Geese in northern Ontario and western James Bay. *Journal of Wildlife Management* 63: 649-655.
- Ciaranca, M.A., C.C. Allin, and G.S. Jones.** 1997. Mute Swan (*Cygnus olor*). In *The Birds of North America*, No. 273 (A. Poole and F. Gill, editors). Academy of Natural Sciences, Philadelphia, Pennsylvania, and American Ornithologists' Union, Washington, D.C.
- Cramp, S. and K.E.L. Simmons (editors).** 1977. *Handbook of the Birds of Europe, the Middle East and North Africa: The Birds of the Western Palearctic. Volume 1: Ostrich to Ducks.* Oxford University Press, London.
- Hohman, W.L., C.D. Ankney, and D.H. Gordon.** 1992. Ecology and management of postbreeding waterfowl. Pp. 128-165 in *Ecology and Management of Breeding Waterfowl* (B.D.J. Batt, A.D. Afton, M.G. Anderson, C.D. Ankney, D.H. Johnson, J.A. Kadlec, and G.L. Krapu, editors). University of Minnesota Press, Minneapolis, Minnesota.
- Lumsden, H.G.** 1987. Tundra Swan (*Cygnus columbianus*). Pp. 509 in *Atlas of the Breeding Birds of Ontario* (M.D. Cadman, P.F.J. Eagles, and F.M. Helleiner, compilers). University of Waterloo Press, Waterloo, Ontario.
- [MARC] Manitoba Avian Research Committee.** 2003. *The Birds of Manitoba.* Manitoba Naturalists Society, Winnipeg, Manitoba.
- Petrie, S.A. and C.M. Francis.** 2003. Rapid increase in the lower Great Lakes population of feral Mute Swans: A review and recommendation. *Wildlife Society Bulletin* 31: 407-416.
- Thomas, V.G. and J.P. Prevett.** 1982. The roles of the James and Hudson Bay Lowland in the annual cycle of geese. *Naturaliste Canadien* 109: 913-925.

Kenneth F. Abraham, Ontario Ministry of Natural Resources, 300 Water Street, Peterborough, Ontario K9J 8M5

R. Kenyon Ross, Canadian Wildlife Service, 49 Camelot Drive, Nepean, Ontario K1A 0H3