from Salomonsen[11] and later MacPherson[6] and Smith[13] show that the two species, *L. argentatus* and *L. thayeri*, breed sympatrically (their ranges overlap but they do not interbreed) and that they differ behaviourally and anatomically. Godfrey[5] and Salt (*in press*) thus treat them as distinct species.

Godfrey lists the breeding range of Thayer's Gull as the Canadian Arctic from Banks Island to north and central Baffin Island and from central Ellesmere Island south to northern South Hampton Island.[5] It is casual on Lake Athabasca in northwestern Saskatchewan in the summer and winters in coastal B.C.

Brown recently reported Thayer's Gulls wintering off the coat of western Newfoundland and speculated that perhaps those Thayer's Gulls breeding at the eastern edge of their range winter on the Atlantic coast rather than the Pacific.[3]

We wish to express our appreciation to W. Ray Salt and W. Earl Godfrey for their efforts in tracing the early history of both these gull species in Alberta.

[1]AMERICAN ORNITHOLOGISTS' UNION. 1957. *Checklist of North American birds*. Fifth edition, Baltimore. 691 pp.

[2]BROOKS, W. S. 1915. *Notes on birds from East Siberia and Arctic Alaska*. Bull. Mus. Comp. Zool. 59: 361-413 (not seen, *from* MacPherson. 1961).

[3]BROWN, R. G. B. 1972. *Thayer's Gull wintering off western Newfoundland*. Can. Field-Nat. 86: 294.

[4]CAMPBELL, R. W. 1971. *Misleading Glaucous-winged Gull recovery from Iowa*. Bird Banding, 42: 127-129.

[5]GODFREY, W. E. 1966. *The birds of Canada*. Nat. Mus. Can. Bull. 203, Queen's Printer, Ottawa. 428 pp.

[6]MacPHERSON, A. H. 1961. *Observations on Canadian Arctic Larus gulls*, and on the taxonomy of *L. thayeri* Brooks. Arctic Inst. North Amer., Tech. Papers, No. 7: 1-40.

[7]MERILEES, W. J. 1961. *First Alberta record for the Glaucous-winged Gull*. Can. Field-Nat., 75: 170.

[8]PETERSON, A. H. 1961. *A field guide to western birds*. Houghton Mifflin Co., Boston. 366 pp.

[9]RAND, A. L. 1959. *The birds of southern Alberta*. Nat. Mus. Can. Bull. 111. Biol. Series 37. Ottawa. 105 pp.

[10]ROWAN, W. (undated). *A provisional list of the birds of Alberta*. Revised by W. Rowan and E. O. Hohn, 1950 (not seen, cited by W. R. Salt *in litt.*).

[11]SALOMONSEN, F. 1950-1951. *The birds of Greenland*. Parts 1-2. Copenhagen, Ejnar Munksgaard. 608 pp. (not seen, *from* MacPherson, 1961).

[12]SALT, W. R. 1966. *Some unusual bird records from the Peace River District*. Can. Field-Nat. 80: 114.

[13]SMITH, N. G. 1966. *Evolution of some Arctic gulls (Larus): An experimental study of isolating mechanisms*. Ornithological Monographs No. 4. American Ornithologists' Union.

[14]STIRLING, D. 1967. *Sight record of a Glaucous-winged Gull for Alberta*. Blue Jay, 25: 131.

[15]TAVERNER, P. A. 1936. *Preliminary list of the birds of Alberta, checked and annotated by F. L. Farley and Ray Salt*. Autumn 1937. (not seen, cited by W. R. Salt, *in press*).

WHITENESS IN AN AMERICAN WIGEON

by MOE MARESCHAL*

On July 7, 1972, I made an observation of an American Wigeon (Baldpate) that is of interest. My family and I were at Waskesiu, Saskatchewan, and as that particular day was rainy, my 4-year old daughter suggested we go to the Heart Lakes to feed the ducks.

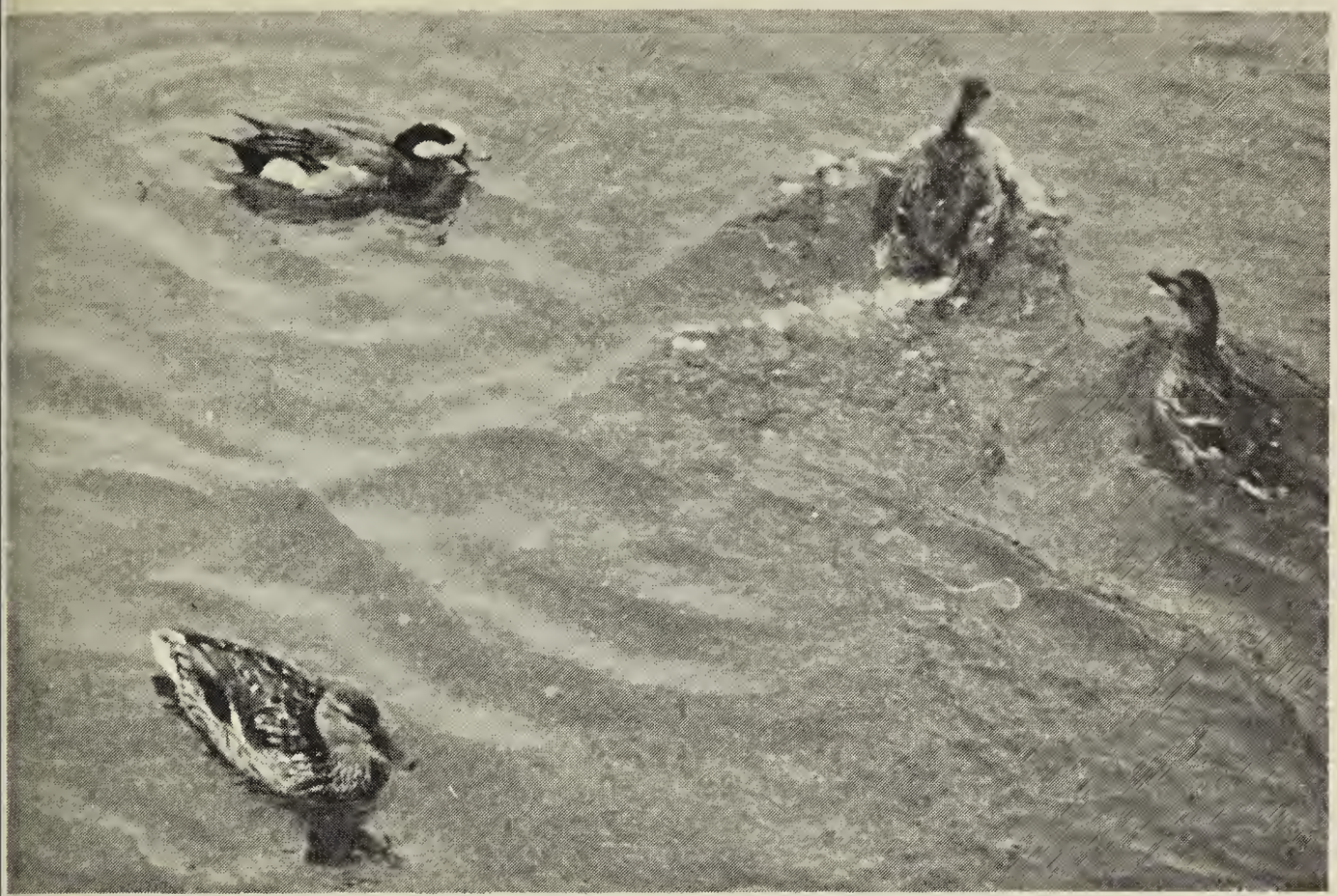
We did so, and perhaps the entry in my field book will better convey what we saw:

> 7/7/72 Cool- approx. 65° - nimbo-stratus - light rain - no wind. Went to Heart Lakes - saw the usual mallards - was baldpate there that was different than usual - cheek patches and throat were white instead of grey. Took 3 pictures with Kodak.

I have looked through my available sources but have not found reference to the white throat and cheeks.[1] [2] [3] [4] The bird's plumage was normal, including the green eyestripe, with the exception of the above characteristics.

A close examination of Audubon's painting and Peterson's drawings, shows that the grey of the cheeks and uppper neck are due to a mixture of separate dark and white feathers. It is

*Birch Hills, Saskatchewan.



White-faced Wigeon. Moe Mareschal

logical that if the dark feathers were absent, the cheeks and throat would be white. But the remainder of the duck was normally coloured. If a mutation had occurred that eliminated or reduced the dark colouration of the feathers, the bird would have been an albino or a partial albino.

One possibility which, I hastily admit, is highly problematical, is the analogy to the Himalayan strain of domestic rabbits. If these rabbits, when young, are exposed to the cold, a genetic factor becomes operational resulting in a colour change from white to black of those parts of the body that dropped below a certain temperature. I am not aware that such a phenomenon occurs in birds.

Another possibility is a somatic mutation — one in which the colour change was not transmitted through the sperm or egg of the parents, but occurred after fertilization in those cells of the embryo that eventually became the feathers of the cheek and throat. Again, however, I must speculate that the change would have occurred only on a part of the chromosome that controlled the dark pigment of the feathers and not affected the green characteristic. This is possible because pigmentation in animals is usually due to the action of several genes, so that the greying gene may have been altered, but the greening gene, possibly because of being located on a different part of the chromosome (or on a completely different chromosome) was not affected.

If such were the case, this characteristic would not be passed on to the offspring because the change only occurred in cells that do not become sperm (this was a male). However, if this colour change were due to a mutation in a chromosome that was within a cell in the gonads of the parent, then we could expect more Wigeons with this characteristic. Thus a new strain of Wigeon could result.

[1]AUDUBON, J. J. 1965. *The Birds of America.* Macmillan Co. New York.

[2]PETERSON, R. T. 1947. *A Field Guide To The Birds.* Houghton-Miflin Co. Boston.

[3]THOMPSON, S. 1963. *Eighty water birds and birds of prey.* Book Society of Canada.

[4]WETMORE, A. 1965. *Water, prey and game birds of North America.* National Geographic Society, Washington, D.C.