

A NEW EASTERN RACE OF THE CANADA GOOSE

BY W. E. CLYDE TODD

FOR a number of years the Carnegie Museum has been amassing material for a critical study of the Canada Goose (*Branta canadensis*) in connection with a biological investigation of the Labrador Peninsula and other parts of Canada. The potential results indicated by our series of specimens were in a large measure anticipated by Mr. Percy A. Taverner in his study of this species (Bull. Nat. Mus. Canada, no. 67, pp. 30-40, 1931). But the subject, admittedly, was by no means exhausted, and Mr. James Moffitt, of the California Academy of Sciences, is now at work on a new revision of this group. His researches are based on the examination of a large amount of material from the principal collections in the United States and Canada. Together we recently examined our series of eastern Canada Geese, and Mr. Moffitt has verified my early suspicion that more than one race exists. At his suggestion, therefore, I am presenting a brief resumé of the case with a description of the new race.

Our concept of this group was decidedly clarified by Taverner's paper above cited. His study was based on breeding specimens, a list of which he gives under each form. Since apparently he had no breeding specimens whatever from eastern Canada and Newfoundland, his diagnosis of and remarks upon typical *canadensis* refer solely to examples from inland and western localities. This is unfortunate, because the Canada Geese which migrate along the Atlantic coast and breed in Newfoundland and Labrador are not the same (taxonomically speaking) as those which migrate through the interior and breed on the east coast of Hudson Bay. The former are light-colored birds; the latter by comparison are dark-colored. It is necessary at this point to determine the type locality of the original *canadensis* and to allocate properly its Canada Goose population.

Anas canadensis Linnaeus (Systema Naturae, ed. 10, 1: 123, 1758) was based on the "*Anser canadensis*" of Willoughby, Ray, Catesby, and Edwards—the "Canada Goose." The "Canada" of these early authors referred to the French settlements in the St. Lawrence valley with Quebec as the center. Hence (as in analogous cases) we are justified in accepting the City of Quebec as the type locality of the present species. Whether this goose bred there formerly is questionable; at any rate, it occurs there now only as a transient. We have available three spring (April) specimens from this locality; they are clearly referable (as might be expected on geographical grounds) to the Atlantic coast form, although they show some intermediate tendencies. With this point settled, the way is open to separate the other form as

Branta canadensis interior subsp. nov.

Type, No. 107,961, collection Carnegie Museum, adult male; Port Harrison, Hudson Bay (east coast), northern Quebec, May 26, 1930; W. E. Clyde Todd (No. 3140).

Subspecific characters.—Similar to *Branta canadensis canadensis* Linnaeus of the Atlantic coast region, but general coloration darker; upper parts darker, more grayish brown; and under parts also darker (between 'light drab' and 'light mouse gray'), deepening on the flanks.

Measurements of type.—Wing (greatest length, flattened), 483 mm. (chord, 465); tail, 148; exposed culmen, 56; tarsus, 93. Number of rectrices, 18.

Range.—Breeds on the east coast of Hudson and James Bays, and migrates southward in the winter to the southern States (mainly west of the Appalachian chain).

Remarks.—Typical *canadensis*, as represented by breeding examples from Newfoundland and by winter birds from the South Atlantic coast, is a comparatively light-colored bird. In breeding dress the anterior under parts are buffy white, and this pale color runs up on the sides of the lower neck (behind the black) to form a conspicuous light-colored area on the upper back. In the new race this feature is wanting. The feather-edgings in the new race are generally darker, while the under-plumage is conspicuously so. There is, of course, some individual variation, but the differences here pointed out are sufficiently constant in specimens of the same season and age. They are perfectly obvious in juvenal dress, as shown by a comparison of July specimens in that stage from Newfoundland with those from South Twin Island (James Bay).

Our twelve specimens of *interior* are summer and fall birds from the east coast of Hudson and James Bays, as well as from the south coast of the latter, an undoubted breeding station. The Twin Islands in northern James Bay are a well-known breeding resort. How far back from the coast this form ranges is not known, but probably it extends to the height of land, where it should intergrade with true *canadensis*. The indications are that the latter form ranges northward through eastern Labrador as far at least as the head of Ungava Bay, as shown by a specimen (not quite typical) in the Carnegie Museum collection taken at the mouth of the Koksoak River in September. However, a juvenal specimen from the Swampy Bay River (in the interior) seems referable to the darker-colored race, and two of three fragmentary adult specimens (heads and necks only of flightless breeding birds) from the same stream are intermediates toward *canadensis*. Thus the exact range and relationships of the two races of the Canada Goose in the Labrador Peninsula still remain to be worked out.

Carnegie Museum
Pittsburgh, Pennsylvania