

THE LABRADOR CHICKADEE (*PENTHESTES HUDSONI-
CUS NIGRICANS*) IN A SOUTHWARD MIGRATION.

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IN my last trip to the Labrador Peninsula, I collected in the forested region at the head of Shekatika Inlet, two Hudsonian Chickadees, whose plumage was so dusky that they seemed worthy of being classed as a separate race. I described them in 'The Auk' of January, 1916, under the name of *Penthestes hudsonicus nigricans*. In October, 1916, there began a migration of Chickadees of the Hudsonian species into the region about Boston that soon attained large proportions. I have had the opportunity of examining eleven specimens collected in this migration, as follows: four taken by myself at Ipswich, one at Belmont and one at Arlington; one taken by Dr. W. M. Tyler at Belmont and given me; one taken by Mr. J. L. Peters at Harvard; one in the Museum of Comparative Zoölogy at Cambridge from Lexington, and two kindly loaned me by Mr. W. DeW. Miller from the American Museum of Natural History; one of these was taken in Staten Island, one at Plainfield, N. J.

All of these eleven specimens are plainly referable to the Labrador subspecies, *Penthestes hudsonicus nigricans* and not to *littoralis* nor to true *hudsonicus*. It had been generally assumed that the race to which this unusual migration of Northern Chickadees belonged was the Acadian, and it had been so reported in the January, 1917, number of 'The Auk.'

Here, certainly, is a curious and interesting state of affairs. A new race, discovered in Labrador in 1915, appearing a little over a year later some seven hundred miles to the south in Massachusetts. It is not often that the discoverer of a new race in a distant land is so fortunate as to have that race return his visit!

The migration this winter has been an unprecedentedly large and extensive one for any form of the species. It has extended throughout southern New England and reached Long Island, Staten Island and New Jersey.¹

¹ See paper in this same issue by H. W. Wright.

In order to reach these southern regions, the Labrador Chickadees must have flown by and over the resident Acadian Chickadees of Nova Scotia, New Brunswick and the northern parts of Maine, New Hampshire and Vermont. It would be surprising if some of the latter race should not accompany the Labrador form to the south or come independently, as has been the case, as I shall show, in previous migrations, but all the specimens I have seen, taken this winter, belong to the Labrador subspecies.

It is a familiar gibe that some races cannot be named unless one knows the locality where the specimens were taken. Not so in the case of *nigricans*. That the recognition of this subspecies even in the field is possible, I have demonstrated, not only by my own observations, but by those of others. The differences between *P. hudsonicus hudsonicus* and *P. hudsonicus littoralis* on the other hand are so slight that it would be difficult if not impossible to distinguish them in the field. *Littoralis* is slightly smaller and slightly browner than *hudsonicus*. The difference in size is the more important but can only be definitely discovered by measurement.

The Labrador Chickadee is distinguished from the Hudsonian and the Acadian forms by being distinctly dusky instead of brown on the back. The mouse-colored cap is generally clearly differentiated from the back which is not so dark. This cap is noticeable in life and has been referred to by several observers independently. In size, the Labrador Chickadee is intermediate between the other two. Its bill is rather heavy, like that of the Hudsonian, but about as short as that of the Acadian. It is probable that intergrades between these three races exist whose exact status is in doubt. This is certainly the case between *hudsonicus* and *littoralis*.

My late July specimens from Labrador are indistinguishable from specimens taken in Massachusetts in December, and it is probable that they had already moulted into winter plumage. The first winter and later winter plumages in Hudsonian Chickadees are practically indistinguishable. A study of specimens of the Acadian Chickadee taken at all seasons of the year, shows browner upper parts and, with rare exceptions, no distinction in the form of a cap. The flanks are, as a rule, browner than in the Labrador or Hudsonian form. Birds in juvenal plumage are slightly darker above.

I have, on several occasions, placed a series of specimens of *nigricans* taken in Massachusetts this winter, with one taken in Labrador in July and with several of *littoralis* taken in Nova Scotia in winter side by side with their backs up before various members of the Nuttall Ornithological Club. No one has had any difficulty in at once picking out the specimens of *littoralis* from those of *nigricans*.

The Acadian Chickadee is the resident race in northern New England as it is in Nova Scotia and New Brunswick. All of Mr. Brewster's Umbagog specimens are of this race; and several specimens sent me from the Victoria Memorial Museum by Mr. P. A. Taverner taken in the Gaspé Peninsula, are also plainly the same.

I have studied nine Massachusetts specimens of these northern Chickadees taken in previous winter migrations. Six of these are in the collection of Mr. Wm. Brewster, one from Mr. H. M. Spelman, one from Mr. J. L. Peters and one from the Museum of Comparative Zoölogy. Five appear to be Acadian, and four Labrador Chickadees. The records and measurements of all are given in the following table, which also includes those of the eleven specimens of *nigricans* taken this winter. For comparison, I have given the measurements of two specimens of *nigricans* taken in Labrador, two of *littoralis* taken in Nova Scotia and three specimens of *hudsonicus* from Mackenzie and Alberta.

I am greatly indebted to Mr. Wm. Brewster and to Mr. Outram Bangs for the opportunity of examining specimens and for their kind assistance in this study.

			wing	tail	tarsus	culmen depth of bill
<i>Penthestes hudsonicus nigricans</i>						
C. W. T.	1420	Shekatika, Labrador, type July 23, 1915	♂	64	15	8.5
"	1421	" " " "	♀	62	14	8.0
"	1466	Ipswich, Mass. Dec. 10, 1916	♂	65	14	8.0
"	1467	" " " "	♂	65	15	8.5
"	1468	Arlington, " " 15, " "	♂	61	14	9.0
"	1469	Belmont, " " 15, " "	♀	60	15	8.0
"	1470	Ipswich, " " 17, " "	♂	64	17	9.5
"	1471	" " " "	♀	62	14	9.0
"	1472	Belmont, " " 10, " "	♂	54	15	9.0
J. L. P.	1722	Harvard, " Nov. 8, 1916	♀	54	16	9.0
M. C. Z.	79642	Lexington, " " 9, " "	♀	60	16	9.0
A. M. N. H.		New Dorp, Staten Isl. Jan. 14, 1917	♂	61	16	9.0
A. M. N. H.		Plainfield, N. J. Dec. 31, 1916	♀	46	14	8.5
W. B.	9685	Belmont, Mass. Dec. 31, 1884	♀	62	14	9.0
"	26270	No. Adams, Mass. " 19, 1889	♀	62	14	9.0
"	30310	Mt. Greylock, " " 16, 1889	♀	59	14	8.5
J. L. P.	438	Harvard, " Nov. 5, 1913	♂	67	15	9.0
		Average		62	14.8	8.8
<i>P. hudsonicus litoralis</i>						
C. W. T.	606	Annapolis, N. S. Dec. 28, 1883	♀	53	12	9.0
"	608	" " " "	♀	54	14	8.5
W. B.	34	Concord, Mass. Oct. 30, 1870	♀	56	14	8.0
"	25621	Arlington, Mass. Oct. 19, 1889	♀	63	13	9.0
"	30309	Mt. Greylock, " Dec. 16, 1889	♂	64	15	8.0
H. M. S.	86	Cambridge, " " 31, 1880	♀	61	14	9.0
M. C. Z.	63986	Belmont, " Nov. 20, 1913	♀	62	16	9.0
		Average		61	14	8.6
<i>P. hudsonicus hudsonicus</i>						
M. C. Z.	46179	Fort Liard, Mackenzie		66	16	9.5
"	46975	Fort Simpson		64	16	10.0
V. M. M.	2294	Edmonton, Alberta, May 7, 1897	♂	64	14	10.0
		Average		67	15	9.8