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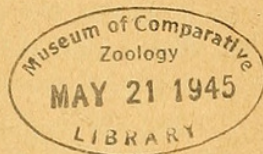
A NORTHERN RECORD OF THE FLICKER AND A NOTE ON THE CLINE

Colaptes auratus cl. *auratus-luteus*¹

By A. L. RAND

National Museum of Canada

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IN THE UNGAVA PENINSULA the flicker *Colaptes auratus* (Linnaeus) has been recorded north to Fort George, Lake Mistassini, Hamilton and Northwest Rivers and the vicinity of Davis Inlet (Macoun and Macoun, 1909, *Cat. Can. Birds*, p. 346, and Austin, 1932, *Mem. Nutt. Ornith. Club*, 7, pp. 151,2) with one record for the mainland near Akpatok Island (Turner, 1885, *Proc. U.S. Nat. Mus.*, p. 242). It also has been recorded from Greenland. It probably occurs generally north to the edge of timber, as it does in

western Canada.

A second record for the eastern Canadian Arctic is provided by a specimen in the National Museum of Canada. It is a female taken at Cape Wolstenholme, Hudson Strait, in July, 1935, and has a wing length of 161 mm. It was taken by an Eskimo in July, 1925, and transmitted to the Museum by Mr. F. Melton.

The wing measurements (in millimetres) of summer (presumably breeding) adult specimens in the National Museum of Canada are as follows:-

	male	female
North Latitude 44° - 47°		
Nova Scotia		156
New Brunswick	160	160
Quebec	154	
Ontario	(8) 153-158 (av. 155)	152, 156, 157, 159
North Latitude 49° - 52°		
Manitoba	157, 159	(7) 154-160 (av. 156.1)
North Latitude 52° - 54°		
Manitoba	157	152, 158, 162
Alberta	(5) 153-164 (av. 159)	(5) 155-165 (av. 160.6)
North Latitude 54° - 58°		
Manitoba	155, 159	
North Latitude 58° - 60°		
Alberta		164
North Latitude 62° - 63°		
Quebec		161

Specimens from the western part of Canada showing a tendency in color toward the red-shafted flicker (*C. caffer*) are not included.

Ridgway (1914, *U.S. Nat. Mus., Bull.* 50, pp. 14-20) recognized three races of this flicker:

C. auratus auratus (Linnaeus) a small southern form; *C. a. luteus* Bangs, a larger central form, and *C. a. borealis* Ridgway, a still larger northern form. The fourth edition of the A.O.U. Checklist in 1931 did not recognize *borealis*. However, in 1939 Wetmore (*Proc. U. S. Nat. Mus.*, 86, p. 191) recognized *borealis*, and gave its breeding range as from

1.—Received for publication June 9, 1944.

Alaska to Labrador, south from the limit of trees to the northern border of the United States from northern Minnesota to eastern Montana.

A survey of Ridgway's measurements and of the material in the National Museum of Canada indicates there is a gradual increase in size with increase in latitude, with an additional slight increase in the northwest.

This type of variation represents what Huxley has called a cline, and has suggested its designation thus *C. a. cl. auratus-luteus*.

It also is an example of Bergmann's rule that larger forms occur in colder climates.

The size groups assigned to the three races, wing *auratus* 144-154 (av. 149.9): *luteus*, 154-165 (av. 156.3); and *borealis*, 156-170, (av. 162.9 mm.) are arbitrary.

For representing the variation in the species, and for designating populations it seems preferable to use but two sub-specific names: *auratus* for the smaller southern populations; and *luteus* for the larger northern populations, to which all Canadian birds belong.

CURRENT LITERATURE

THE SENSORY BASIS OF BIRD NAVIGATION. *By Donald Griffin, The Quarterly Review of Biology, 19, pp. 15-31, 1944.*

No completely satisfactory answer can be given to the question of how birds find their way. But Griffin, who has done a great deal of experimental work on the subject, including releasing birds far from home and attempting to follow them by aeroplane, here presents an admirable summary of homing experiments and their problems.

Some homing ability has been found in almost all birds tested, but it appears to vary in different species. It is concluded that many, but not all, homing experiments could be explained by assuming birds released in strange territory scatter at random and explore until they find familiar landmarks.

There is no direct evidence to support kin-

aesthetic theories, nor those involving sensitivity to the earth's magnetic field.

It is suggested that in finding their way in unfamiliar territory birds may use such clues as the relationship between geographical features, as rivers and coastlines near their homes and the direction of sunrise or conceivably of other celestial landmarks; the relationship between typical air masses, and prevailing winds, and topographical features may serve as clues; and relationship between familiar territory and features such as river systems, coastlines, or faunal zones, may also aid.

It is said that the combined use of such features seems more reasonable as an explanation of migration and homing, than the postulation of a new sense organ. There is a two and one-half page bibliography.

— A. L. RAND.

EXPERIMENTAL MODIFICATION AND CONTROL OF MOULT AND CHANGES OF COAT COLOR IN WEASELS BY CONTROLLED LIGHTING. *By T. H. Bissonnette and E. E. Bailey, Ann. N.Y. Acad. Sci., v. 45, art. 6, pp. 223-249, pls. 7. 1944.*

It is shown that in the short-tailed weasel (*M. cicognanii*) and the long-tailed weasel (*M. frenata*), in which normally two complete moults occur each year, (the white winter coat, where it occurs, is due to moult, not to

a bleaching of the summer coat), the factor causing these moults is change in the amount of light. Reduction of temperature, or other factors that drive these animals underground where illumination is scanty, may indirectly influence the moults.

It is suggested that with the long-tailed weasel in which a white coat is assumed in some areas, while the winter coat is brown in others, there are local physiological races, produced by natural selection.— A. L. RAND.



Rand, Austin Loomer. 1944. "A Northern Record of the Flicker and a Note on the Cline *Colaptes auratus* cl. *auratus-luteus*." *The Canadian field-naturalist* 58(6), 183–184. <https://doi.org/10.5962/p.340746>.

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