

A NEW LONG-EARED OWL¹

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A STUDY of fifty-six specimens of the long-eared owl in the collection of the National Museum of Canada discloses a well-marked subspecies heretofore apparently unrecognized. Additional material was examined in the Royal Ontario Museum of Zoology through the courtesy of Mr. L. L. Snyder. Also, the writer is grateful for the comments of Dr. A. L. Rand on specimens in the Chicago Natural History Museum, and to Dr. Harry C. Oberholser for a similar appraisal of specimens in the Cleveland Museum of Natural History. As a slight recognition of the contributions of Mr. Robie W. Tufts, former Dominion Wildlife Officer for the Maritime Provinces, to Canadian ornithology this new race may be called:

Asio otus tuftsi, subsp. nov.

Type.—Adult male, No. 15705, National Museum of Canada collection; South Arm, Last Mountain Lake, Saskatchewan; July 14, 1920; collector, C. H. Young.

Subspecific characters.—Differs in both sexes from *Asio otus wilsonianus* (Lesson) in being of paler coloration. Brown mottling of upper parts paler (less blackish) and more restricted, with correspondingly broader white interspaces. Buffs and ochres of hindneck, back, wings, and facial disc paler and much replaced by white or ashy, especially on hindneck. Tail paler with more sharply defined and less confluent barring. Posterior under parts averaging paler. From the geographically distant *Asio otus otus* (Linnaeus), *tuftsi* differs in possessing broader and more prominent barring on the under parts and in being, on the average, of less ochraceous coloration.

Measurements (in mm.).—Adult male: wing, 284-293 (average, 286.4); tail, 136-144.5 (140.2); culmen from cere, 17-17.8 (17.3). Adult female: wing, 285-295 (291.5); tail, 143-157 (148.8); culmen from cere, 16.2-17.9 (17.0).

Range.—Breeds in southern British Columbia, southern Alberta, southern Saskatchewan, and southwestern Manitoba; south at least to Utah and probably to New Mexico, Arizona, and California.

Specimens examined.—MANITOBA (Oak Lake, 2; Whitewater Lake, 2; Swan River,

1); SASKATCHEWAN (Cypress Lake, 1; Last Mountain Lake, 3; Eastend, 1; Indian Head, 2); ALBERTA (Edmonton, 1; Didsbury, 1; Medicine Hat, 1; Camrose, 1; Lac la Nonne, 1); BRITISH COLUMBIA (Osoyoos Lake, 1; Summerland, 1; Penticton, 1; Victoria, 1); UTAH (Jensen, 4).

Remarks.—Ridgway (1914, Bull. U. S. Nat. Mus., No. 50, Part 6, p. 654) and Forbush (1927, Birds of Massachusetts and other New England States, Part 2, p. 194) state that the sexes in *Asio otus wilsonianus* are alike. Comparison, however, of 15 males of *wilsonianus* with 7 females of *wilsonianus*, as well as a comparison of 13 males of *tuftsi* with 8 females of *tuftsi* discloses that the upper parts of the female are, in both races, somewhat darker and more ochraceous than are those of the male. This agrees with the findings of Bent (1938, Bull. U.S. Nat. Mus., No. 170, Part 2, p. 160). Witherby et al (1938, Handbook of British Birds, Part 2, p. 330) have found this to apply also to the Old World race, *Asio otus otus* (Linnaeus). In identifying the races of this species one must therefore compare only specimens of the same sex.

Breeding season specimens of this new race are from Manitoba (Oak Lake, Whitewater Lake, and Swan River); Saskatchewan (Last Mountain Lake, Eastend, Indian Head, and Cypress Lake); Alberta (Medicine Hat and Edmonton); British Columbia (Penticton and Osoyoos Lake); Utah (Jensen). Compared sex for sex with birds from Ontario, Quebec, and New Brunswick, the paleness of these western birds is uniform and striking.

Twomey (1942, Annals Carnegie Museum, Vol. 28, pp. 400-401) quotes Taverner with reference to a male taken on May 15, 1935, at Jensen, Utah, as being "very pale, the ochres being largely replaced by ashy gray". This specimen, N.M.C. No. 28554, differs little, however, from the breeding series from western Canada.

A male, in transition from juvenal to post-juvenal plumage, from Last Mountain Lake, Saskatchewan, compared with a male a few days older from Lake St. John, Quebec, is considerably paler in both the incomplete juvenal and post-juvenal feathering.

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No aberrant specimens were found in the breeding material examined. A breeding-season specimen from Lake Nipigon, Ontario, taken on June 24, 1924 (R.O.M.Z. collection), shows *tuftsi* tendencies but is apparently closer to *wilsonianus*. Autumn-taken birds from Central Alberta (Alix and Morrin) are rather dark and breeding material is needed from the northern periphery of the species' range in the West. A speci-

men from Victoria, B.C., in the National Museum of Canada, taken on December 9, 1899, is somewhat darker than prairie birds as is also a specimen from the same locality, examined by Dr. A. L. Rand, in the Chicago Natural History Museum. These far western birds, while suggesting the Pacific Coast darkening peculiar to many other species, are still paler than *wilsonianus* from Ontario and Quebec and are referable to *tuftsi*.

THE EUROPEAN PRAYING MANTIS (*Mantis religiosa* L.) AT HAMILTON, ONTARIO¹

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DURING THE SUMMER of 1946, the European Praying Mantis occurred in unusual abundance about Hamilton, and verbal reports indicate that it was particularly abundant about the east end of the

city. Urquhart and Corfe²⁾ do not record it as occurring about this city but report it in outlying districts. Records of capture of adults and collection of egg masses during the summer of 1946 are as follows:

Specimens	Locality	Date	Collector
2 green females	Around reservoir	August 26	J. Spencer
1 brown female (gravid)	at mountainside,		W. Spencer
9 green males	south end of Province street		R. Clarke
1 green male	Princess Point, Dundas Marsh	August 29	E. Turner
2 green males	Campus, McMaster University	September 5	A. E. Warren
egg mass on burdock stem	Campus, McMaster University	September 11	W. W. Judd
1 green female	backyard, Wexford avenue	September 11	E. Turner
1 green female	on beehive, Dunnville, Ont.	September 16	J. Shields
1 green male	Campus, McMaster University	September 19	W. W. Judd
1 brown female	Gage park	October 5	F. Collier
2 egg masses on garden plants			
1 green female	Campus, McMaster University	October 8	E. Atkin
egg mass on goldenrod stem	Campus, McMaster University	October 19	W. W. Judd

Captured adults were placed in a large battery jar with twigs and dried grasses and were fed on grasshoppers and crickets. The males clasped the females and in one case four males were seen clasping one female. When the grasshoppers and crickets had

been eaten the mantids ate one another. In some cases a female was seen to bend its head and thorax sideways and with its fore-legs grasp the head of a male which was clasping it, then to proceed to eat the latter. Several females laid egg masses on the twigs and the sides of the battery jar. The brown female captured on August 26 laid four egg masses — September 7, 26, October 6, 14.

¹⁾ Received for publication October 30, 1946.

²⁾ Urquhart, F. A. and C. E. Corfe, 1940. The European Praying Mantis (*Mantis religiosa* L.) in Ontario. Can. Field-Nat. 54: 130-132.