

Digitized by the Internet Archive
in 2011 with funding from
University of Toronto

L. L. SNYDER

ROYAL ONTARIO MUSEUM LIBRARIES



3 1761 05013 6951

LIBRARY
ROYAL ONTARIO MUSEUM
UNIVERSITY OF TORONTO
100 QUEEN'S PARK
TORONTO 5 - ONTARIO - CANADA

*On an Unnamed Population
of the Great Horned Owl*

ROYAL ONTARIO MUSEUM — UNIVERSITY OF TORONTO


ROM

Contribution No. 54

LIFE SCIENCES DIVISION
ROYAL ONTARIO MUSEUM
UNIVERSITY OF TORONTO

L. L. SNYDER

Curator of Birds

*On an Unnamed
Population of
the Great Horned Owl*

PUBLISHED APRIL 28, 1961 BY THE ROYAL ONTARIO MUSEUM

PRINTED BY THE UNIVERSITY OF TORONTO PRESS

On an Unnamed Population of the Great Horned Owl

For some years it has been known that a variant of *Bubo virginianus*, which may be described without detail as grey in general effect but actually patterned with fuscous-black and white, occurs occasionally as a transient within the southern Ontario range of the nominate subspecies. The geographic source of this variant has been presumed to be the coniferous forest to the north. Because of its normal scarcity, hinterland dispersal and nocturnal habits, specimens from there have accumulated slowly. Now a sufficient sample from western, northern and central parts of the province is available not only to demonstrate agreement with transients taken in the south but to reveal that the variant is phenotypic of a vast area of the more eastern interior north and that the phenotype is as exclusive as that of any race of *Bubo virginianus*.

A variant presenting similar characteristics to the one in question has been described by Bishop (1931) who proposed the name *B. v. leucomelas*. This name rests on two transient specimens collected in southern parts of Vancouver Island, British Columbia. Also Taverner (1942, p. 243) lists 17 specimens taken at 13 separate stations from Alaska and the Mackenzie Delta south to southern British Columbia and Alberta which "by description . . . can hardly be separated from" Bishop's variant. About half of these were secured during the period of the year when the species is sedentary and probably breeding. Thus these are irregulars within the range of two or more geographic races currently recognized. Taverner regarded these irregulars as hybrids between the extensively white *B. v. subarcticus*¹ and *B. v. saturatus* (he

1. Manning (1952, pp. 63-64) states clearly the inapplicability of *wapacuthu* to the whitish Horned Owl. Further, in this connection, Oberholser (1904; p. 192) implied that young of the Snowy Owl are not white. This is misleading since the first natal down of that species *is* white. The trivial name of Hoy (1852), *subarcticus*, is valid as pointed out by Richmond (1902, p. 86). Reference to Hoy's original description gives assurance by the emphasis on "white and fawn colour" that he was concerned with the Horned Owl which occupies the more northerly plains of the continental interior (not the form described in this paper).

having proposed the relegation of *B. v. lagophonus* (Oberholser) to synonymy (p. 240)). No compact breeding range can be ascribed to the "black and white" variants in the west. Furthermore, there is general agreement that a geographic gap exists between the region where they have been found and the region where a similar variant is found in the east.

Taverner (*op. cit.* p. 242) in discussing the eastern variant remarked that it is "a very uniform and common type." He regarded it as a hybrid between *B. v. subarcticus* and *B. v. heterocnemis*. His description of it is succinct,—it is "too dark for *subarcticus*, too white for any other race" . . . and possesses "little or no red of *virginianus*."

It is obvious that there is somewhat imperfect geographic sorting of the many forms or "phases" of this polytypic species² but never-the-less geographic correlations are apparent and probably most recognized populations meet the requirements of the 75 per cent rule. The fuscous-black and white variant which occurs across 500 miles of western, northern and central Ontario seems to display as little heterogeneity as any. It is reasonable to conclude that since there is range interruption in the continental interior, *B. v. subarcticus* intervening, the sporadically distributed counterparts of this population which occur in the far west, cannot be considered the same. Each perhaps represents a similar but separate biological phenomenon, the results being the same except that in the east the variant has acquired homogeneity over a considerable range. It behaves as would be expected of a geographic race in the display of intergradation in border areas where it meets other recognized races. For example the whiteness and yellowness of individuals occupying the region along the more northern border between Ontario and Manitoba and in northeastern Manitoba indicate intergradation with *B. v. subarcticus*. Toward the south in this longitude a lessening of whiteness and a darkening of yellowness indicates a trend toward *B. v. occidentalis*. Other individuals from the southern part of this region display reddish brown tendencies characteristic of the nominate race, the range of which is contiguous in Minnesota. It is pertinent to remark here that this is the general region where the ranges of geographic races of many species of birds meet and produce maximum mixtures. It is where plains meet forest, where boreal islands are relict though climate is moderate, where "east meets west and north meets south."

Concerning the rare irregulars found within the range of the form under discussion, Taverner (*op. cit.* p. 237) lists a specimen, taken on June 20, at Kapuskasing, Ontario, as *B. v. virginianus*. A December

2. For example, Taverner found *virginianus*-like specimens from southern Alberta and British Columbia, including Vancouver Island (p. 243).

specimen (R. O. M.) from Swastika, Ontario, is likewise readily referable to that form. It is possible that the range of the nominate race extends north through the eastern clay-belt thus intercepting an eastward extension of the "black and white" population into northern parts of southern Quebec. This is still to be determined. Another apparently irregular is that of Taverner (*loc. cit.*) who lists a specimen from Moose Factory in the Carnegie Museum, taken on July 12, as *B. v. subarcticus*. Although most museum specimens of this form under discussion have probably been referred to *B. v. subarcticus*, Taverner distinguished them, as hybrids.

Some fifty mature individuals in the R. O. M. represent both birds established in the region outlined and transients collected more immediately beyond. The writer believes that this collection represents an unnamed geographic race for which the following name is proposed:

BUBO VIRGINIANUS SCALARIVENTRIS, subsp. nov.

Type

Adult female, R. O. M. no. 75245; collected February 26, 1948, at Elsas, on the upper Kapuskasing River, in Algoma District, Ontario, by D. G. Waldriff, District Conservation Officer, Ontario Department of Lands and Forests. Sex determination by dissection and measurements from the specimen in the flesh were made by C. E. Hope.

Measurements of the type

Wingspread 1340 mm.; length 585 mm.; weight 1155 gms.

Subspecies characters

Dorsally, the normally exposed portions of the feathers fuscous to fuscous-black densely but narrowly vermiculated with white; the under-colour, or basal portion of the feathers, most frequently exposed on the occiput, hind neck and fore-back, approximately clay-colour. Ventrally with fuscous-black (anteriorly) to fuscous (posteriorly) transverse bars, comparatively regular in outline and nearly as wide as the intervening white spaces except on the under tail coverts. Usually with little or no pattern of finely vermiculated spots superimposed over the barred pattern. Facial disc pale grey, sometimes slightly stained with warm colour. Feet soiled white, usually sparsely, vaguely and irregularly marked with drab. Distinguished from *B. v. subarcticus* by dark colour predominating over white and yellow dorsally and by the broader, more regular and darker bars ventrally. In broad terms, the form can be described as more coldly grey with bolder bars below. *B. v. subarcticus*

is extensively white and tawny with more vague and sparse dark markings below. Distinguished from the nominate subspecies by the general absence of rufous in the plumage, the greyness of the dorsal area and the virtual lack of large, vague, finely vermiculated spots superimposed over the barred ventral pattern so characteristic of *B. v. virginianus*.

Measurements

(Racial intergrades not included. Wingspread, length and weight measurements made in the flesh by the preparator; others by the writer. Bracketed figure = number of measurements, this followed by minimum and maximum; the mean in parenthesis.)

♂ ♂ ; wingspread [5] 1230–1300 (1280), length [8] 518–560 (540), chord of wing [8] 328–355 (343), tail, from external point between central feathers [8] 191–212 (200), culmen, from cere [8] 25–30 (26.7), weight [1, summer] 1275, [4, fall] 1110–1340 (1238), [2, winter] 1239–1418 (1329).

♀ ♀ ; wingspread [18] 1295–1410 (1361), length [22] 555–600 (578), chord of wing [23] 350–380 (362), tail, from external point between central feathers [23] 205–234 (216), culmen, from cere [23] 28–32.5 (30.9), weight [1, spring] 1410, [6, fall] 1120–2145 (1580), [12, winter] 1155–2110 (1745).

Range

From near the boundary of Manitoba in northwestern Ontario (and probably in northern Manitoba), east over the Precambrian Shield to near the Ontario-Quebec border (and probably beyond³), north to the Albany River and south to Port Arthur and approximately the Sault Ste. Marie-Lake Nipissing line. Periodically transient south to Lake Ontario, rarely beyond (Coldstream, Middlesex County) and wandering east to Brador Bay, Saguenay County, Quebec (Taverner, *op. cit.*, p. 242)⁴ and west to The Pas, Manitoba. Individuals referable to this form are to be expected in northern Minnesota and northern Michigan.

3. There are transient specimens in the R. O. M. which the writer interprets as intergrades with *B. v. heterocnemis*.

4. Taverner's *subarcticus* × *heterocnemis* = *B. v. scalariventris*.

Literature Cited

BISHOP, LOUIS B.

- 1931 *Three apparently undescribed owls*. Proc. Biol. Soc. Wash. vol. 44, pp. 93-94.

HOY, PHILO R.

- 1852 *Description of two species of owls, presumed to be new, which inhabit the state of Wisconsin*. Proc. Acad. Nat. Sc. Philadelphia, vol. 6, no. 6, pp. 210-211.

MANNING, T. H.

- 1952 *Birds of the west James Bay and southern Hudson Bay coasts*. Nat'l. Mus. Can. Bull. no. 125, pp. 1-114.

OBERHOLSER, HARRY C.

- 1904 *A revision of the American Great Horned Owls*. Proc. U.S. Nat'l. Mus., vol. 27, no. 1352, pp. 177-192.

RICHMOND, CHARLES W.

- 1902 *The proper name for the Arctic Horned Owl*. Proc. Biol. Soc. Wash., vol. 15, p. 86.

TAVERNER, P. A.

- 1942 *Canadian Races of the Great Horned Owls*. Auk, vol. 59, no. 2, pp. 234-245.

LIBRARY
ROYAL ONTARIO MUSEUM

