

THE RED-WINGED BLACKBIRDS OF THE CANADIAN
PRAIRIE PROVINCES

WITH ONE ILLUSTRATION

By P. A. TAVERNER

The Red-winged Blackbird currently ascribed to Manitoba, the prairie provinces and the Canadian Northwest Territory is the Giant Red-wing, *Agelaius phoeniceus arctolegus* Oberholser (Auk, vol. 24, 1907, p. 332). It is characterized by the describer as larger than the Eastern Red-wing, *A. p. phoeniceus*, with a heavier (thicker?) bill; the female is very slightly paler than in that form, but there is no color distinction in the male. The measurements given in the original diagnosis are quite convincing. Of the twenty-two male specimens, which are about equally divided between the two races, only two *A. p. phoeniceus* have wings longer than 4.8 inches (121.9 mm.), and there are no *arctolegus* with wings under that figure. The bills of all the *phoeniceus* are .9 inches (22.8 mm.) or under, whereas of *arctolegus* two are barely under this figure, three equal it, and the rest are well above it. The bill of *arctolegus* is inferred to have the same "thick-billed" character as *fortis* and to be heavier than in *phoeniceus*.

The following fully adult males from actively breeding associations have been available to me for comparison. Geographically they represent *arctolegus* as originally defined.

Alberta	Manitoba
2 Red Deer River	1 Thicket Portage
1 Edmonton	5 The Pas neighborhood
8 Lac la Nonne	1 Garland
2 Jasper Park	3 Swan River
1 Chipewyan	5 Riding Mountain
8 Buffalo Park	4 Dauphin
8 Mackenzie Valley, from figures in original description	2 Oak Lake
Saskatchewan	3 Whitewater Lake
1 Indian Head	2 Douglas
5 Cypress Lake	8 Shoal Lake, north of Winnipeg
	70 Total

These seventy males were compared with forty-seven breeding males from southern Ontario, from Point Pelee to Ottawa, that were assumed to be *phoeniceus*. The measurements of ten birds ascribed to that race in the original diagnosis of *arctolegus* also were used.

For the purpose of visual comparison of size, the wing and culmen measurements of each specimen were taken with dividers and transferred directly to cross-section paper. These were plotted from a common base line, the paper being punctured with the extended divider leg to give accurate transference of the measurements. The results showed that while the mid-western group did average larger in both measurements than the eastern one, individual variation largely obscured the difference. By assembling the measurements in a condensed graph, figure 47A was obtained in which the horizontal distances from the base line at the left show the lengths of bills and wings and the perpendiculars the numbers of individuals having similar measurements.

It will be seen from this graph that the bulk of the two groups have similar bill and wing measurements, but that there are more large individuals in one group and more small ones in the other. Thus, the respective averages are appreciably different. Of 54 *arctolegus*, only 13, or 24 per cent, fall beyond the maximum of *phoeniceus* in wing length, and only 11, or 20 per cent, in bill length.

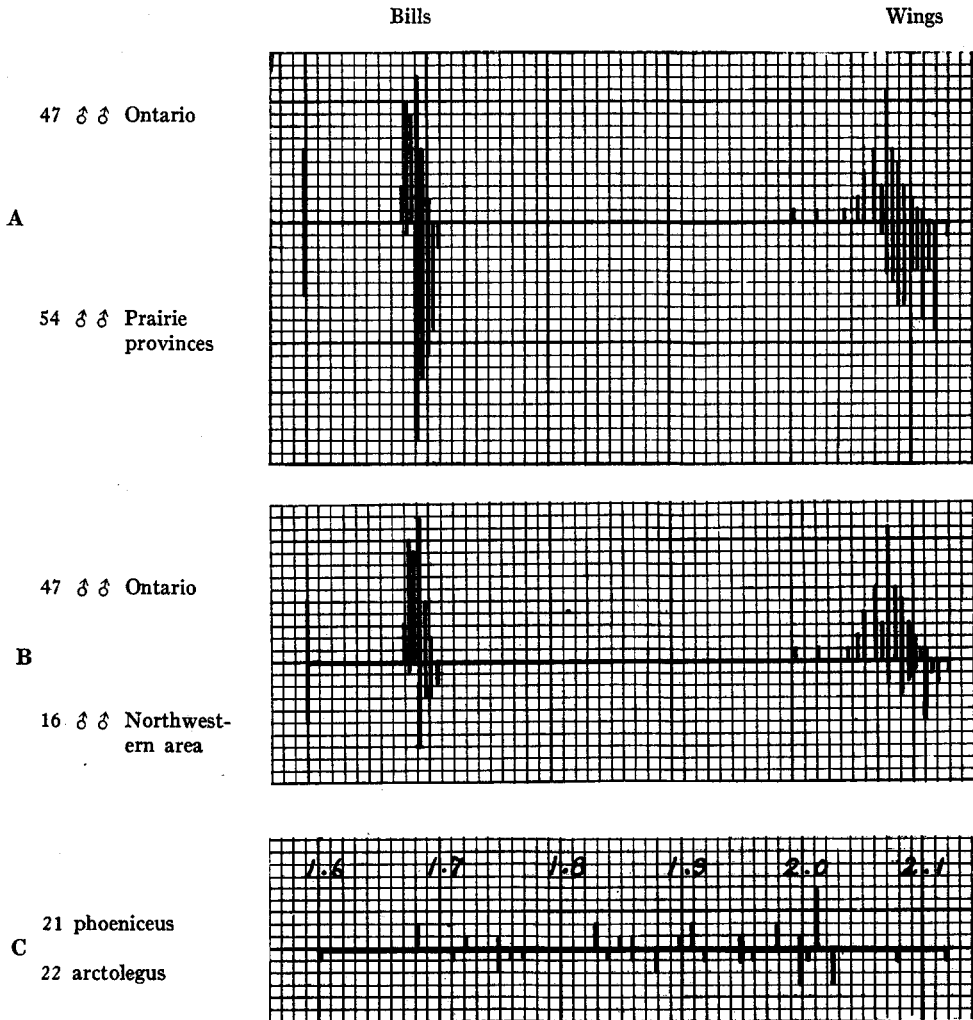


Fig. 47. A and B, graphs showing lengths of bills and wings in Red-wing Blackbirds. Lengths of vertical lines above or below horizontal line indicate numbers of individuals, the height of a square representing one individual. Distances of vertical lines from base line at left represent measurements; one square equals $\frac{1}{10}$ inch. C, indexes of bill size (see text).

Of 47 *phoeniceus*, only 15, or 22 per cent, are smaller than the minimum of *arctolegus* in wing length and 3, or 6 per cent, in bill length.

Of 101 specimens, only 28 can be subspecifically recognized by wing character, and 14 by bill size.

Another feature that has been stressed as a distinguishing character of *arctolegus* is a comparatively heavy or thick bill. To reduce this character to a measurable quantity, twenty-one *phoeniceus* and twenty-two *arctolegus* were carefully measured and the depth of each bill was divided into the length, thus giving an index of bill proportion irrespective of gross size. The larger the resultant quotient, the more slender

is the bill. These indexes, when plotted (fig. 47c), show that thickness of bill practically disappears as a factor in identification. It will be noted that not only are bill indexes promiscuously scattered, but that both the thickest and the thinnest bills are represented in the supposedly thick-billed strain.

On the possibility that mid-western birds (Manitoba and Saskatchewan) represent a heterogeneous or intergrading group and that a more purely differentiated strain might be found in more northern areas, nearer the type locality of *arctolegus* (Fort Simpson, Mackenzie River), sixteen specimens from Chipewyan, Wood Buffalo Park, and northward, were selected. These included northern specimens used in the original description of that race. This group was compared with the series of *phoeniceus* from the east (fig. 47b). *Arctolegus* here appears quite as unsatisfactory as in the comparison employing the larger geographic group.

Similar examination of equivalent series of females of the two proposed races produced practically identical results. In color, mid-western females may average slightly paler than eastern ones. But, there are so many exceptions and reversals as to make color an unreliable, if not misleading, criterion of racial affinity.

From these considerations it is evident that while the mid-western group of red-wings to which the name *arctolegus* has been applied average in series rather larger than those of eastern areas (*phoeniceus*), the name "Giant Red-wing" is a gross exaggeration. The racial size distinction is not marked enough or constant enough for the confident recognition of any individual out of its known geographical range. Therefore, in the opinion of the writer, *arctolegus* should not be accorded formal subspecific recognition and should be dropped from our lists.

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