WEIGHTS OF MASSACHUSETTS QUAIL AND COMPARISONS WITH OTHER GEOGRAPHIC SAMPLES FOR TAXONOMIC SIGNIFICANCE*

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ALDRICH (1946b) and Aldrich and Duvall (1955) have pointed out that the Bobwhite inhabiting Massachusetts and adjoining portions of the northeastern states belongs to a distinct race or subspecies, which was originally described by Phillips (1915) as *Colinus virginianus marilandicus*. Aldrich verified Phillips' contention that the northeastern subspecies is a brighter, more reddish, and larger bird. Although this subspecies is not officially recognized in the American Ornithologists' Union Check-list (1957), the writer concurs with Aldrich and Phillips in the validity of separating this race. The comparisons of weights made in this note are offered as supporting evidence of the larger size of this population, and for subspecific recognition of the form.

From 2 January to 6 May 1956, 282 quail were trapped and weighed in Barnstable County, Massachusetts. These observations serve as the basis for weight comparisons with other reported findings cited below. Although year-to-year differences in weights would occur, limited observation in other years suggests that these differences are relatively minor. Nineteen adults and 49 juveniles were trapped between 2 and 15 January (the period of greatest weight). Adults averaged 241.7 grams (S.D. 13.1); juveniles (birds-of-the-year) averaged 228.6 grams (S.D. 12.6). The maximum weight observed in this series was 265.4 grams for an adult male captured on 5 January in the township of Barnstable.

Weights of Bobwhite reported by other workers have been used for comparisons with equivalent subsamples of the Massachusetts birds (taking into account time of collection and age composition of the samples). Geographic differences have been expressed as percentages of the mean body weight of comparable collections of Massachusetts birds trapped in Barnstable County. Table 1 shows the authority, area of collection, mean weight for the series, mean weight of equivalent Massachusetts series, and weight percentage of the Massachusetts series. In order to depict these comparisons most meaningfully, the percentages given in Table 1 have been reproduced (Figure 1) on a

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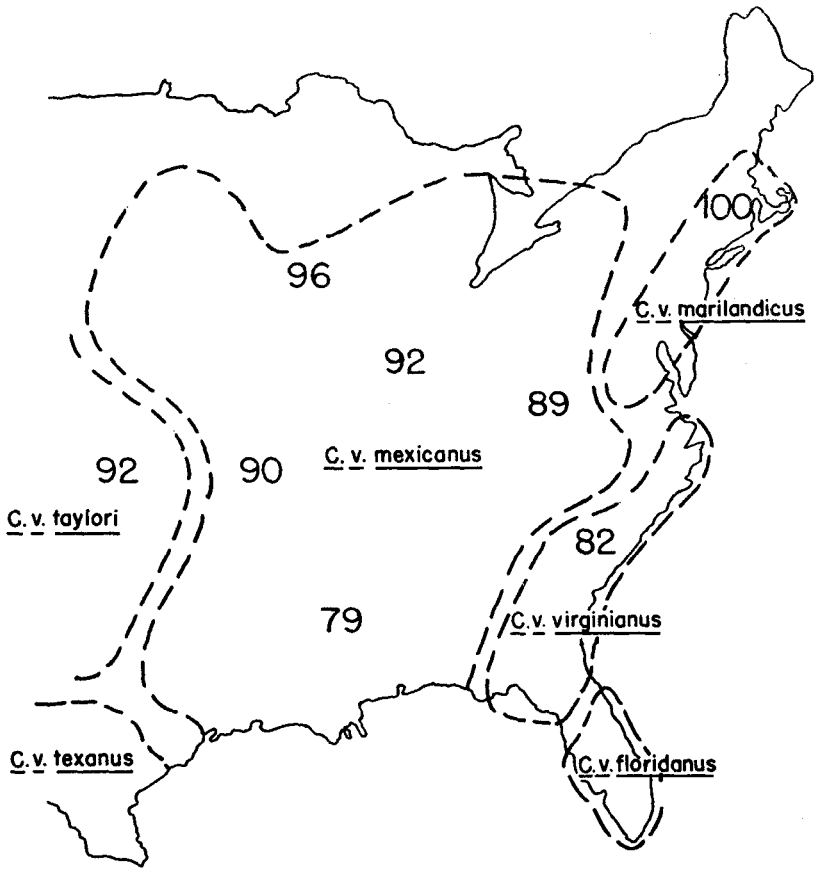

Figure 1. Comparative mean weights of different geographic samples of Bobwhites expressed as percentages of the mean weights of comparable Massachusetts samples. (Base map of subspecific ranges taken from Aldrich, 1946b.)

map published by Aldrich and Duvall (1955) showing subspecific ranges.

Matters of subspecific separation are admittedly often tenuous, but are of considerable value in the study of speciation. As Aldrich (1946a) has mentioned, where introduction and transplanting of game birds are employed, recognition of subspecies may be very important.

The cline in increasing weight northward is evident from Figure 1. The weight comparisons depicted, together with important coloration and marking differences noted by both Aldrich (1946b) and Phillips (1915), suggest differences in the northeastern birds that are as strik-

TABLE 1

COMPARISONS OF MEAN WEIGHTS OF MASSACHUSETTS BOBWHITE WITH SAMPLES FROM OTHER GEOGRAPHIC AREAS

Authority	*Area*	*Mean weight*	*Comparable mean weight Massachusetts*	*Per cent of Massachusetts weight*
Hood (1955)	Mississippi	165	208	79
Stoddard (1931)	South Carolina	176	215	82
Bailey (1947)	West Virginia	186	208	89
Leopold (1945)	Missouri	187*	208	90
Reeves (1954)	Indiana	192	208	92
Robinson (1957)	Kansas	207	224	92
Mattison (1948)	Wisconsin	202	210	96

* Approximated between 185 and 192 (juvenile-adult) by weighted representation for normal adult-juvenile ratios.

ing as those in recognized subspecies. It appears, with the addition of these weight comparisons, that there may be greater justification for subspecific recognition of *marilandicus*.

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