## DATA ON SIZE RANGE IN ADULTS OF BUFO W. WOODHOUSII, GIRARD'

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Incidental to a study (1) made on food and feeding of four species of toads. a measurement was made of the snout-vent length of many preserved speci-Because few data on any measurement reflecting size range in mens. Buto. w. woodhousii Girard have been published, snout-vent length of 497 of the specimens of this species is here summarized. All were unquestionable adults, 306 of them males, 191 females. In borderline cases adulthood was judged by the condition of the gonads in females. Specimens of mean size or larger were considered adults even if eggs were not well developed since, in summer, those females which have laid eggs in or after the preceding spring often have an essentially juvenile appearing condition of the ovary. Females with this condition and of less than mean size were not included in the figures. Males were considered adults if of mean size or above or if they showed a well developed and darkened vocal sac regardless of size. All specimens had been collected in Oklahoma between 1925 and 1940 except a very few taken just inside Texas.

No attempt is made here to distinguish between populations in different environments or regions, because to do so successfully requires more data than are available. The data, therefore, represent Oklahoma as a whole, and, in so far as the sample is adequate, give a fair picture of these toads in this state.

The data are summarized as follows: Males; No. = 306, Range = 65-99mm; Mean =  $78.2 \pm 7.90+$ ; Mode = 80. Females; No. = 191; Range = 68-118mm; Mean =  $88.8 \pm 12.89+$ ; Mode = 90. The smallest female in the sample exceeds the smallest male by 3 mm; the largest female exceeds the largest male by 19 mm. It is interesting to note that the upper limits for both sexes are exactly

<sup>&</sup>lt;sup>1</sup>Contribution from the Department of Zoological Sciences, the Biological Survey, and the University Museum, University of Oklahoma, Norman.

the same as reported by Wright and Wright (2), i. e., 99 mm. for males and 18 mm. for females but that the lower limits are both lower (56 mm. as opposed to 68 mm. for males and 58.5 mm. as opposed to 68 mm. for females). This probably indicates a conservative selection of adults for the data recorded in this paper among the smaller specimens, especially of females.

In any case, it is certain that these data do not represent the upper limit. The largest specimen known to the author was a female from Kay County, Oklahoma, which measured 126 mm. snout to vent in the living condition.

## LITERATURE CITED

- 1. SMITH, CHAS. C. and ARTHUR N. BRAGG, 1949. Observations on the ecology and natural history of Anura VII. Food and feeding habits of the common species of toads in Oklahoma. Ecology 30: 333-349.
- 2. WRIGHT, A. H. and A. A. WRIGHT, 1949. Handbook of frogs and toads (3rd ed.). Ithaca, N. Y.: Comstock Publ. Co., Ithaca, N. Y.