

PUZZLES IN THE LIFE HISTORY OF *SCAPHIOPUS HURTERII* STRECKER

ARTHUR N. BRAGG, University of Oklahoma, Norman

In a recent article (Bragg 1944) the general life history of the savannah spadefoot, *Scaphiopus hurterii* Strecker, was sketched as observed near Norman, Oklahoma, in the spring of 1941. Since 1941 (and even before this) every opportunity afforded by season and weather has been utilized for further observation on this form with the result that it has been observed breeding only once (in April 1942) and then only in very small numbers.

According to our best information (summarized by Bragg 1944-45) this form could be expected to behave in breeding much like the eastern spadefoot, *S. h. holbrookii* (Harlan), which is always described as peculiar and only intermittently observed in any one locality (Ball 1936). The consistency in the negative results of my search during the past three years and before confirms this supposition.

There are several possibilities to account for this situation: Either (1) intrinsically, these species may be so organized as to breed once in several years in any one locality; (2) they may require special environmental conditions to initiate breeding behavior so peculiar as to occur only infrequently in any one place; (3) some combination of these two things may be necessary; or (4) some condition wholly unexpected (e. g. possible mass migration for some distances) may be the reason. No one knows which of these possibilities, if not some other, is the answer.

It is the purpose of this note to call attention to this problem and to ask aid in its solution in respect to *S. hurterii*. I would much appreciate the receipt of specimens with data as full as possible as to locality, weather at time of collection, whether breeding and if so nature of the pool, time of day, etc., from any locality in Oklahoma or adjacent regions. *S. hurterii* may be found in the eastern half of the State in regions dominated by blackjack or post oak and in the western part only along the flood plains of the larger rivers.

LITERATURE CITED

- Ball, S. C. 1936. The distribution and behavior of the spadefoot toad in Connecticut. Tr. Conn. Acad. Arts and Sc. 32: 351-379.
- Bragg, A. N. 1944. Observations on the ecology and natural history of Anura. XIII. Breeding habits, eggs, and larvae of *Scaphiopus hurterii* in Oklahoma. Copeia 1944 (4): 230-241.
- Bragg, A. N. 1944-45. Observations on the ecology and natural history of Anura. XII. The spadefoot toads in Oklahoma with a summary of our knowledge of the group. Am. Nat. 78: 517-533; continued 79: 52-72.