



The Mating of *Ascaphus truei* Stejneger

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and down in a small arc.

They never venture out in the cool of the morning. If, when hunting, they suddenly come to a strip of sunlight, they will flatten out, hind legs stretched out, and bask for a few minutes. During the extreme heat of the day they are quiescent, seeking the shady places. As the afternoon cools, they are again active, but retire well before sunset into holes which they themselves excavate under stones or boards, or seek a natural crevice where available.

The ameivas have combs on their toes which are used freely in attempting to scratch off the bright orange mites with which they are often infested. It is strange that the "iguanas" on the small, outlying islets are much more infested with these mites than are those on the main island.

Ameiva wetmorei Stejneger, which is numerous on the southwest extremity of the island, has beautiful coloring. The dorsal stripes become bright yellow on the base of the tail, turning a brilliant green, then gradually becoming peacock blue and finally turquoise blue. Each ring of the blue part of the tail is edged with black, but these black rings are never reproduced. The ventral coloration is frequently a deep salmon pink.

This little *Ameiva* is more sensitive to cold than the preceding form. On a chilly morning of about 75°, these little lizards can be picked up in numbers, almost torpid, from their burrows under stones. Their coloration blends perfectly with the background when they move, making them almost invisible. The rapidity with which they can move is astonishing.—CHAPMAN GRANT, Major, 65th Infantry, Porto Rico.

NOTES ON *BUFO MARINUS* (LINNAEUS).—In 1919, during his survey of the amphibians and land reptiles of Porto Rico, Karl P. Schmidt states that he did not see any specimens of *Bufo marinus*, though he heard reports of its introduction. Now they have grown in number, both on the coast and in the interior of the island. At that time the native name "Sapo concho" or shell toad (*Bufo lemur*) was applied to *Leptodactylus*. The name has been gradually transferred to *B. marinus*.

Schmidt gives the measurements of a male and female, but unfortunately his male was considerably larger than the female. This may give a wrong impression, as the adult female is considerably larger than the male. Apparently neither specimens recorded by Schmidt was adult. Measurements of his male compared with a female from Cayey that I measured, are:

	Male	Female
Snout to vent	103 mm.	178 mm.
Width of head	40	64
Hind leg from vent	134	190

The male is frequently a bright yellow, the female dark brown. The male is closely set with spine tipped warts while the female has fewer warts and has a bolder pattern. The remains of these toads are numerous along automobile roads in swampy places. They hide during the day but appear in numbers in ponds at night.

Bufo marinus was introduced at Rio Piedras from Barbados in 1924. *Leptodactylus pentadactylus* was introduced from Dominica in 1929; no results are apparent as yet from the introduction.—CHAPMAN GRANT, Major, 65th U. S. Infantry, Porto Rico.

THE MATING OF *ASCAPHUS TRUEI* STEJNEGER.—While studying amphibians in the Carbon River Valley of Ranier National Park on May 17, 1930, with Morton Johnson, I observed the mating of *Ascaphus truei* and, since it is different from any amphibian mating which I have observed, I will give a brief description of it.

When the male and female met, the male crawled on the female's back and clasped her around her body opposite the sacrum, not posterior to her fore limbs as most other Anura do. Whereupon the female straightened her hind limbs so that they extended posteriorly in the same general line of the body and held them so that they formed a narrow V. The male flexed his sacroiliac joint so that his pelvis made nearly a right angle with his vertebral column. Then by muscular manipulation bent his so-called "tail" ventrally so that it made nearly a right angle to his pelvic girdle and

brought it into position to transfer sperm to the female. This "tail" when the male is in a natural position, points posteriorly, but with the two flexes mentioned above it comes to point anteriorly. The color at the base of the tail and the tail itself is reddish brown, indicating a rich blood supply.

This was observed at 11:00 P.M. by flash light after we had placed together males and females which I believe had recently come from hibernation. The females were migrating and were taken only a short distance from the snow. This spring I am trying to get a picture of this mating position and will write more concerning it in my proposed "Amphibia of Washington."—JAMES R. SLATER, *College of Puget Sound, Tacoma, Washington.*

NOTES ON *SYRRHOPHUS MARNOCKII* COPE.—Since its discovery at Helotes, Bexar County, Texas, this seemingly rare little frog has been reported from but two additional localities in adjoining counties: San Marcos, Hays County (Stecker and Williams, *Contr. from Baylor Univ. Mus.*, No. 12, 1927:7), and the vicinity of Austin, Travis County (Strecker, *l.c.*, No. 23, 1930:7). Therefore the following notes on its occurrence in the Big Bend region of western Texas point out a considerable extension of its range.

During the summer of 1928, the Museum of Zoology of the University of Michigan sent a field party into the Chisos Mountains, Brewster County, Texas, to investigate the bird, insect and reptile-amphibian fauna of this isolated range. From July 5 to July 14, we were camped in Juniper Canyon, on the west side of the Chisos, at an altitude of 4,500 feet.

The canyon and adjacent mountain sides were excessively dry at this time. The drouth of the previous summer had been followed by a winter of light snow, most of the springs were dry, and the creek bed was thickly carpeted with fallen leaves. No amphibians were found, even lizards were scarce.

Late in the afternoon of July 8 there was a heavy shower, and at dusk a single *Syrrhophus* was discovered under a stone on a rocky hillside, devoid of vegetation and some distance from water. Another was found the same night in the dry creek bed, during a shower. Twelve others were taken, on subsequent rainy nights, all from, or in the immediate vicinity of the creek.

Hyla arenicolor was active during two dark, misty days, but though a diligent search was made for *Syrrhophus* during the daylight hours, under rocks and in the little caves formed by the huge boulders of the creek bed, none was observed. Nor were eggs found, though a female taken on the night of July 20 contained five unpigmented eggs, each approximately 4 mm. in diameter. The stomach of this female was greatly distended with an ant (*Odontomachus haematodes*), 2 beetles, and fragments of a female termite, of a myrmicine ant and of an isopod.

At no time during the night was *Syrrhophus* found to be active save during, or just after a rain. As noted by Williams, they are very active, escaping by a series of high, long leaps. Mole crickets, which are equally active, were about the size and coloration of the frog, and we often did not know until after the capture whether we were pursuing insects or amphibians.

The song, which was heard only during a rain, is a single, metallic note, repeated at irregular intervals. We did not succeed in tracing the calling individuals.

Our specimens ranged in size from 24 to 32 mm. They vary from the type description in having a larger ear, 2/3 to 3/4 the size of the eye. A number of them were infested with what seemed to be parasites, especially under the thighs. Dr. Nelly Bosma has kindly examined these, and has found that they are mites.—HELEN T. GAIGE, *Museum of Zoology, University of Michigan, Ann Arbor, Michigan.*

ANOTHER RECORD OF *SCAPHIOPUS HOLBROOKII* FOR VIRGINIA.—On May 5, 1927, Mr. H. S. Peters and the writer captured a spadefoot toad, *Scaphiopus h. holbrookii* near the village of Onancock, Accomac County, Virginia. That night several pairs were found breeding in the ditch-pools beside the sandy roads. The single specimen captured is preserved in the Ohio State Museum. Dr. E. R. Dunn informs me that he knows of but one other record of this species for Virginia.—MILTON B. TRAUTMAN, *Ohio Division of Conservation, Columbus, O.*