species usually frequenting temporary pools in early spring which, after pairing, disappeared no one knew where but probably to remain buried until the following spring. Their appearance in these dry pine woods was, therefore, to say the least, surprising although others have perhaps been aware of their nocturnal terrestrial habits.

Dr. Kellogg kindly offered me his unpublished notes on the habits of the western species (S. hammondii) to use in this connection but they are so interesting that they should be published in their entirety (see following note).—Witmer Stone, Academy of Natural Sciences of Philadelphia.

NOTES ON THE SPADEFOOT OF THE WESTERN PLAINS (SCAPHIOPUS HAMMONDII).—In the northern part of the great western plains this mysterious night-prowling toad is a common resident and is very interesting because of its adaptation to inhabit dry regions. It is commonly assumed that this toad remains in its burrows most of the year and that it emerges only to deposit its eggs in June and July in the pools formed by heavy rains. I doubt this very much since I have taken young spadefoots of this species which were not over an inch in length and there is reason to believe that these small toads hibernated over the preceding winter. An alternative interpretation, which is not so plausible on account of the lateness of the spring in this region, is that some of these spadefoots lay their eggs much earlier than this. According to the excellent observations of Strecker on a related species (Strecker, Proc. Biol. Soc. Wash., 21, 1908: 202), the development is very rapid, as the time from the laying of the eggs to their transformation and leaving the water does not exceed a period of 30 days. This rapid development is necessitated in part by the tendency of these pools of rain water to dry up very quickly. Wherever this spadefoot is found, its presence outside of its subterranean burrow during daylight hours is generally coincident with the breeding season or with heavy rains.

In suitable sandy areas, this nocturnal spadefoot comes out of its burrow during the summer months after it gets too dark for one to see objects without the aid of a flash light. Along the Powder River near Powderville in Montana, on June 15, 1916, while lying upon my cot, I heard a curious rustling in the dry leaves about our tent. Upon investigation with a flash light many small spadefoot toads were found. They were hopping about in the dry leaves which were scattered about on the sandy soil. When hunted with a flash light they endeavored to burrow out of sight and but a few minutes were required for them to entirely conceal themselves. These spadefoots make circular holes in the ground and yet in sandy soil it is very difficult to find the place where they have burrowed down, for in most cases it seems as if they pulled the hole in after them. After the breeding season is over, they take more pains in constructing their burrows as they are well rounded and resemble somewhat an earthen jar with a narrow top. Around this opening there is present some sticky matter which may aid in the ensnaring of insects. I have usually found this toad most plentiful in sandy areas, especially along the banks of streams though they occur on the elevated plains from Kansas to Montana. The call of this toad is quite weird and unusual, and may be likened to the squawk of some animal when severely injured, or a resonant ye-ow. Once heard this distinctive call is not likely to be forgotten.

Sixty-three specimens were collected at Powderville, Montana, on June 15-16, 1916 (Cat. Nos. 60360-60392, 60397-60407, 60459-60472, 60486-60490). These spadefoots are considered by some authorities to belong to the race S. hammondii bombifrons.—Remington Kellogg, U. S. National Museum, Washington, D. C.

PACIFIC RATTLESNAKE AT HIGH ALTITUDE ON SAN JACINTO PEAK, CALIFORNIA.—On a botanical collecting trip to the summit of Mount San Jacinto, Riverside County, September 1, 1930, I discovered a Pacific rattlesnake (Crotalus confluentus oreganus) in a large mat of chinquapin (Castanopsis sempervirens) only twenty feet, conservatively, from Sierra Club Register marking the actual summit of the peak, 10,805 ft. The morning was warm and cloudless and all of the boulders were already well heated. The specimen was of a dark steel-gray color and bore six rattles and a button, forming a triangle-shaped appendage. It was the only snake seen on the trip from Idyllwild to the summit.—Joseph Ewan, 1631 Shatto Street, Los Angeles, California.