

DESCRIPTION OF A NEW SALAMANDER FROM IOWA.

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In May, 1911, the writer received from Prof. W. H. Norris, of Grinnell College, a specimen of *Ambystoma* that could not be referred to any of the described species. This salamander was labeled "Bloomfield, Iowa," and had been sent to Professor Norris by Mr. George H. Berry, Cedar Rapids, Iowa. To verify the locality record the writer wrote to Mr. Berry, who very kindly forwarded three more of the six specimens obtained and the habitat data included in this paper. A study of this material demonstrates that it represents an undescribed species, and the writer takes great pleasure in dedicating it to the eminent herpetologist, Leonhard Stejneger.

AMBYSTOMA STEJNEGERI, new species.

Diagnosis.—Body slender; costal furrows 12; palatine teeth in four patches; tail very long, .94 to 1.05 of length of body (from snout to behind anus), strongly compressed throughout, becoming very thin at the distal end; digits long, distance from wrist to tip of longest finger in length of head and body 9.27–10.6, distance from ankle to tip of longest toe in length of body 6.8–7.57.

Habitat.—Southeastern Iowa.

Type-specimen.—Cat. No. 48598, U.S.N.M.; Bloomfield, Davis County, Iowa, July 27, 1906; Mr. George H. Berry, collector. Paratypes No. 48599, U.S.N.M., and Nos. 41971–41972, University of Michigan Museum.

Description of type-specimen.—Costal grooves 12. Tongue longitudinally oval. Palatine teeth in four patches, the central two the largest, the four groups forming an angle with the point about opposite the middle of the internal nares and the sides extending below and slightly beyond the outer margin of the choanæ.

Form slender as in *A. macrodactylum*. Head broad and depressed; greatest width about two-thirds of the distance from snout to gular fold; width between anterior end of orbits about three-fourths of greatest width; distance between eye and end of snout about one-

half of greatest width and about one-third of the distance between end of snout and gular fold. Body depressed, distance from axil to groin 2.1 in total length (exclusive of tail). Tail very long, 1.03 times length of head and body (to behind anus), very strongly compressed throughout, but more so distally, becoming very thin at the end. Digits relatively long; distance from wrist to tip of longest finger contained in length of head and body 10 times; distance from ankle to tip of longest toe in length of head and body 7 times.

The ground color is brown, shading from dark brown along the dorsal stripe to plumbeous on the flanks. There is a well-defined dorsal stripe extending from the end of the snout along the vertebral region to the distal fourth of the tail. This stripe is narrow on the snout, expands into a large triangular spot behind the eyes, contracts again to form a medium wide stripe on the body, and is narrowly restricted to the dorsal margin of the tail, becoming obscure on the distal fourth. There are faint evidences of pale blotches on the limbs (see notes on paratypes).

Additional notes on paratypes.—The other specimens agree closely in proportions (see measurements) and color with the type. They differ in that the pale spots on the limbs are more distinct; there is a small round pale spot above each eye, and the occipital expansion of the dorsal stripe incloses more or less completely a dark brown spot.

Measurements.

	U. M. M. 41971.	U. S. N. M. 48598.	U. M. M. 41972.	U. S. N. M. 48599.
	<i>mm.</i>	<i>mm.</i>	<i>mm.</i>	<i>mm.</i>
Snout to anus.....	51	52.5	53	48.5
Tail.....	Broken.	54	50	51
Snout to eye.....	4	4	4	4
Snout to gular fold.....	12	11.75	12.5	11.5
Snout to axil.....	18	17.5	16.5	17
Axil to groin.....	21	24.5	27.5	21
Width of head.....	8	7.5	8	7.5
Between anterior end of orbits.....	5.5	5.5	5.5	5
Nostrils.....	3.5	3.5	3.5	3.5
Humerus.....	5.5	6	5.75	5.5
Elbow to tip of longest finger.....	11	11.5	10	10.5
Wrist to tip of longest finger.....	5.5	5.25	5	5
Free part of longest finger.....	3.5	3	3	3
Thigh.....	5.5	5	5.25	5.5
Knee to tip of longest toe.....	13	13.5	13	12.25
Ankle to tip of longest toe.....	7.5	7.5	7	6.75
Free part of longest toe.....	4.75	5	4.5	4.5

Remarks.—*A. stejneri* is, with little doubt, most nearly related to *A. macrodactylum*. It may easily be told from the latter by the longer and more compressed tail. The anterior digits also appear to be longer than in *macrodactylum*. In the specimens of the latter examined the distance from the wrist to the tip of the longest finger is contained in the length of the head and body 12.6 and 12.7 times as compared with 9.27, 9.7, 10, and 10.6 times in *A. stejneri*.

Habits.—Mr. Berry has kindly sent me the following account of the habits of the specimens obtained: “The locality in which they occurred was a basin in a tract of timber, which I should judge would contain quite an amount of water in the spring months, but which at the time was nearly dry, although still damp. In this situation we obtained them [six specimens] under decaying red cedar logs. They were scarce, the six specimens representing a whole day’s search. They are very active.”