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A NEW MEXICAN SALAMANDER OF THE
GENUS *OEDIPUS*

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DURING the late Dr. Walter Mosauer's last herpetological venture, the two junior members of the party collected five specimens of an unnamed *Oedipus* at Durango, Hidalgo, Mexico. Here in the Sierra Madre Oriental, between Tamazunchale and Jacala, the mountain has a rocky slope at Durango. In a small drainage basin on the slope, a natural vertical shaft some twenty feet deep was discovered by Robert Livingston, of our party. Subsequent investigation by Mr. Livingston and the writer disclosed a small, three-chambered cavern opening off the vertical shaft, where stalactites several feet in length encrusted the roof, denoting some antiquity. On the moist walls of the cavern the salamanders were found crawling about in the near darkness. Two *Rana pipiens* were taken on the floor of the cave, doubtlessly having been trapped after falling through the vertical entrance. There were no possible breeding-sites for the frogs in the cave, because of the excellent drainage.

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Oedipus mosaueri, new species

TYPE.—University of Michigan Museum of Zoology (U.M.M.Z.) No. 88839; an adult male from Durango, Hidalgo, Mexico, at 7200 feet; collected with the paratypes, June 20, 1937, by Robert Livingston and Harold T. Woodall.

PARATYPES.—U.M.M.Z. Nos. 888390–93; same data as the type.

DIAGNOSIS.—An *Oedipus* of normal body form and of medium size; snout truncate, upper jaw projecting; external nares large, situated near angles of snout on upper surface of head; limbs very long, toes strongly overlapping when appressed; toes webbed, spatulate, first much reduced and enclosed in web, 1 phalanx of each of outer digits free from web; tail slender, longer than head and body, only slightly constricted at base; 12 or 13 costal grooves; vomerine teeth in 2 curved series of 8 to 13 teeth each.

DESCRIPTION OF TYPE.—Head a truncated oval as seen from above; head width, 6.4 in length of head and body; head length, 5.5 in length of head and body; nostrils large, nearly equaling $\frac{1}{2}$ the diameter of the pupil, opening on the upper surface just above the angles of the snout; viewed laterally the upper jaw is slightly sinuous in outline; angle of jaw back of posterior angle of eye; distance between anterior corner of eye and posterior edge of nostril about equal to lengthwise diameter of eye; snout swollen, especially below nostrils; hedonic gland evident on chin.

A strong gular fold extends irregularly up the sides of the neck to join a median longitudinal groove; 2 prominent ridges of the occipital musculature converge on the posterior part of the head, the median longitudinal groove arising between them; a vertical groove passes irregularly downward from the prominent occipital ridges, behind the angle of the jaw, to the ventral surface of the lower jaw; a short indistinct groove extends forward from each vertical groove toward the posterior angle of the eye.

Twelve costal grooves; grooves approach the dorsal mid-line, but become indistinct and fail to meet; ventrally the grooves

are continuous across the belly; vertical grooves evident on proximal part of tail.

Limbs very long, appressed toes overlapping for a distance equal to 2 costal folds; fingers strongly flattened, in decreasing order of length, 3, 2, 4, 1, first much reduced and completely enclosed in web, web extending to last joint of outer fingers; toes strongly flattened, in decreasing order of length, 3, 4, 2, 5, 1, first much reduced and enclosed in web, second enclosed in web to last joint, outer 3 toes enclosed to distal half of penultimate phalanx.

Tail longer than head and body, the ratio being equal to 1.35; circular in cross section; only slightly constricted basally; anal lips lined with papillae.

Vomerine teeth 13-10, in 2 curved series forming an angle posteriorly; separated by a distance equal to $\frac{2}{3}$ the diameter of a choana; the left series appears short and extends laterally through $\frac{1}{2}$ the width of the choana; the right series extends nearly to the outer edge of the choana; parasphenoid teeth in 2 distinct series, separated from vomerine series by twice the diameter of a choana; parasphenoid series widening and slightly diverging posteriorly; teeth on premaxilla-maxilla number 31-25; mandibular teeth, 34-38.

COLOR IN ALCOHOL.—Dorsal surfaces uniform dark brown, without markings; laterally shading into the immaculate light tan ventral surfaces; few pigment granules are present ventrally, these are principally on the chest and under the limbs and tail.

MEASUREMENTS.—The measurements are indicated in Table I.

VARIATION.—Little variation is to be noted. The 2 smaller specimens have 13 costal grooves; the groove through the axilla seems to be obliterated with age.

REMARKS.—This form appears to be related to *Oedipus chiropterus* and to *O. multidentata*, but differs from the former in possessing longer limbs, which overlap when appressed; the front leg is proportionately longer; the webbing of the toes is more extensive; the tail is proportionately longer, is more slender, and shows less constriction at the base; the vomerine

TABLE I*

	U.M.M.Z. No. 88839	U.M.M.Z. No. 88840	U.M.M.Z. No. 88841	U.M.M.Z. No. 88842	U.M.M.Z. No. 88843
Sex	♂	♂	♂	♂	juv.
Snout to vent	46.4	44.2	41.0	39.6	28.0
Tail	62.5	63.9	46.5	x†	37.9
Head to arm	14.6	13.4	13.5	12.7	9.8
Head length	8.5	7.8	7.7	7.0	5.1
Head width	7.2	7.2	6.6	6.0	4.4
Arm	14.7	14.5	13.3	12.4	9.2
Leg	16.8	15.2	14.6	13.1	10.0
Axilla to groin ...	23.2	22.3	20.9	19.0	13.5
Interorbital width	1.9	1.7	1.9	1.5	1.2
Distance between nostrils	2.3	2.3	2.3	2.0	1.6
Length of snout ...	3.5	3.3	3.2	2.8	2.0

* Figures are given in millimeters.

† x = damaged.

series are longer and further separated; and posterior maxillary teeth are present in the males. From *O. multidentata* this species may be distinguished by its longer legs, shorter head, and its larger number of vomerine teeth; in addition, the second finger is longer than the fourth, and 12 costal grooves can be distinguished in the adults. The relationship between *O. multidentata* and *O. mosaueri* appears to be very close. Both species are related to *O. chiropterus*, and both differ from that form in the presence of posterior maxillary teeth in the males.

In memory of an irreplaceable friend and leader, this species is named for Dr. Walter Mosauer.