

REDISCOVERY OF ONE OF HOLBROOK'S SALAMANDERS.

By LEONHARD STEJNEGER.

Curator, Division of Reptiles and Batrachians.

Among the many synonyms usually cited under *Desmognathus fusca* (Rafinesque), *Salamandra quadrimaculata* of Holbrook^a has been considered as belonging to this species without a shadow of a doubt. An even dozen, old and young, salamanders from North Carolina recently acquired by the United States National Museum seem to indicate that Holbrook's name belongs to a species well separated from *Desmognathus fusca* and in some respect approaching *D. nigra*. It may be formally recharacterized as follows:

DESMOGNATHUS QUADRIMACULATA (Holbrook).

1842. *Salamandra quadrimaculata* HOLBROOK, North Am. Herpet., 2 ed., V, p. 49, pl. XIII.

Type locality.—Georgia and the Carolinas.

Diagnosis.—Top and sides of head roughly granular; dentition essentially like *D. fusca*; head broad, its width less than 5 times in distance from tip of snout to groin; body short, distance between tip of digits of adpressed limbs about one-half the distance from tip of mandible to gular fold; 13 costal folds; chest and belly in adult more or less uniform slate color (in alcohol).

Specimens examined.—Cat. Nos. 30891–30902 U.S.N.M.; from a small stream flowing into the Catawba River, between Linville and Blowing Rock, North Carolina, collected September, 1902, by State entomologist Mr. Sherman.^b

Remarks.—As already said this species approaches *D. nigra* in several features, for instance, in the shape of the head, but especially in its shortness of body and tail. Like this species it is also much larger than *D. fusca*. The number of costal folds is somewhat variable,

^a North Am. Herpet., 2 ed., V, 1842, p. 49, pl. XIII.

^b I have learned since from Mr. Sherman that these specimens were taken in a pool on the side of Grandfather Mountain, probably the same one whence came the types of Dr. J. Percy Moore's *Leurognathus marmorata*. In view of this I had the skull of one of my specimens cleaned, but found it to be that of a typical *Desmognathus*. There is consequently no possibility of Doctor Moore's species being the same as the one here described.

though, on the whole, intermediate between *D. nigra* and *fusca*. In some respects it is also intermediate in color, as the upper side, on the whole, is more like that of *D. fusca*, while the under side is approaching that of *D. nigra*.

The granulation of the skin of the head is quite characteristic. In a large series of *D. fusca* and *nigra* it was found to be perfectly smooth, more or less pitted with minute pores. In all the twelve specimens of what I take to be *D. quadrimaculata* the skin on top of the head as well as on the sides of the face, notably the sides of the upper jaws, is distinctly granular, resembling grain leather, and this peculiarity is equally pronounced in old and young specimens alike.

That the specimens here mentioned really belong to Holbrook's *D. quadrimaculata* seems certain. So far as proportions of body and limbs are concerned, Holbrook's plate agrees perfectly with our specimens. The squarish spots in the figure appear considerably more regular than in the specimens before us, among which there is a very great individual variation in this respect, but the dorsal pattern of a couple of the medium-sized specimens is sufficiently close to show that they belong to Holbrook's species.