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The tadpoles of this species have been described by Bragg (Copeia, 1936: 14-20, figs. 1-13; Amer. Midl. Nat., 18:273-284, figs. 1-5, 1937). The drawings and descriptions of the mouthparts, however, appear to have been taken from dried, or immature, or transforming individuals, for they do not agree among themselves nor do they agree with larvae obtained in the field and now in the Museum of Natural History of the University of Kansas.

At hand are two series of tadpoles of this species; one series was collected July 2, 1938, 1.5 miles east of Meade County State Park,



FIG. 1.—Mouthparts of a tadpole of *Bufo cognatus*. Disk widely spread. Approximately $\times 45$.

Kansas, and the other lacks data. The second lot contains numerous sizes of tadpoles from 14 mm. to 31 mm., and several transforming specimens which clearly possess the pattern so typical of this species.

Mouthparts in both series (consisting all told of about 200 specimens) are fairly constant except in the transforming and extremely young specimens. The accompanying figure shows them as seen with the mouth disk widely spread. The indentations at the corners of the mouth in the papillary fringe are more prominent when the mouthparts are less extended. The outer row of teeth of the lower labium is sometimes a little shorter or longer than the figure shows, but the average is about as indicated. The extent of the medial edge of the papillae on the lower labium varies somewhat; in some,

the papillae barely reach the level of the ends of the outer row of teeth, while in others they overlap the ends slightly.

Measurements agree with those given by Bragg, except that appearance of the hind legs occurs at about 15 mm.; the fore legs appear at about 28 mm. A pattern recognizably similar to that of the adult is evident at about 20 mm.

These tadpoles show such a striking similarity to those referred by Wright to *Bufo compactilis* Wiegmann (Proc. U. S. Nat. Mus., 74:4, pl. 5, fig. 6, 1929) that their conspecificity is suggested. If on the other hand, the specimen figured by Wright is properly identified, then the two species must in reality be very closely related. A direct comparison of positively identified tadpoles of each species is much to be desired.

