

Feeding Aggregation of Narrow Mouth Toads (*Microhyla carolinensis olivacea*)¹

CHARLES C. CARPENTER, University of Oklahoma, Norman

The narrow mouth toad (*Microhyla carolinensis olivacea*) is known to have a strong food preference for ants. The following observations strongly suggest that this amphibian may seek a source of food and remain with it.

On July 12, 1954, while watching a colony of redwings in a nearly dry marsh at Engineers Flats, approximately 200 feet from Lake Texoma, 4 miles west of the University of Oklahoma Biological Station, Marshall County, Oklahoma, a large number of active ants was noticed at and near the base of a partially uprooted willow tree. This tree was at the edge of a willow thicket (trees 20 to 25 feet high) adjoining the nearly dry marsh. When this willow was moved slightly, a microhylid was noticed in the loose humus and leaves near the base of this tree. Closer observation revealed another, and as the humus and leaves were turned and the base of the willow examined, a total of 21 of these toads was captured. This active searching also uncovered hundreds additional active ants in the same area.

This shaded area examined was only slightly moist, there being damper areas close by. A close search of similar areas in the close vicinity revealed no toads, nor any such concentration of ants.

The aggregation did not appear to be a close one, that is, the toads were not clumped together; they seemed to be scattered at random through this approximate area of 18 x 18 x 6 inches of roots, humus, and leaves.

The stomachs of 15 of these 21 microhylids were examined. In every stomach ants were present as the only food or the highly dominant food type. The ants appeared to be of the same species as those forming the colony where the toads were collected. The number of ants per stomach (as indicated by remains) ranged from 3 to 7 with an average of 5, with remaining hard parts predominantly ant.

The 15 frogs ranged in snout-vent length from 17.2 mm. to 21.0 mm. (average—18.7 mm.) which indicated they probably transformed during late spring.

The presence of this large number of toads containing ants in the immediate vicinity of an ant colony, strongly suggests that this was a feeding aggregation, these toads being attracted by the presence of this particular food.

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