

A simple method of food sampling in live anurans

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Zusammenfassung

Es wird eine einfache Methode beschrieben, um den Mageninhalt von Froschlurchen für Nahrungsuntersuchungen zu gewinnen.

Schlagwörter: Amphibia, Anura, Methode zur Nahrungsuntersuchung.

Analysis of feeding ecology is one of the most popular fields of amphibian ecological researches. In the recent times, due to increasing importance of protection of animal populations, different methods of food sampling in live amphibians gradually replace traditional methods of animal killing for analysis of the stomach contents. Among the methods of food sampling in live specimens, stomach flushing is most popular (e.g., OPATRNY, 1980, CHACORNAC & JOLY, 1985, JOLY, 1987, WILSON & LARSEN, 1988). Other methods, such as analysis of faeces, direct observation of a foraging amphibian in nature etc. are used rarer because they are less precise and more difficult in use. In addition, these methods are more or less time-consumptive and may cause injuries in amphibians at negligent treatment.

There is one another method of food sampling in live amphibians. It is simple and precise, but poorly known. This method was first described by BULAKHOV (1976) in Russian language in a small periodical, but remained unknown even for majority of Soviet batrachologists. This method does not require special equipment. It is enough to have test-tubes and a fixative (e. g. 5 % formaldehyde solution or alcohol) for preservation of food samples, paper for labels, a pencil and a small forceps. The frog is taken in the left hand, belly upwards (towards the examiner), and the frog's hindlegs are adpressed to the palm by the 4th and 5th fingers (Fig. 1.1). Then the frog is grasped by the 1st, 2nd and 3rd fingers from the sides and armpits with a slight pressing from the back towards the belly in such a way, that the belly skin should tighten and the belly should become convex (Fig. 1.2). Then, slightly forwards from the 3rd finger (using for grasping frog), the examiner should slightly press the frog's belly from the both sides by the 1st and 2nd fingers of his right hand and relatively rapidly but pauseless (urgent!) move these fingers forwards to the frog's throat (Fig. 1.3). The pressure should remain as constant as possible. It usually becomes visible that the frog's throat began to swell out. Then the stomach turns out of the mouth, and the food is visible in it (Fig. 1.4). If the stomach is full, the food clump often drops out the stomach. If it does not happen, the clump should be taken by a small forceps and transferred gently from the stomach to the test-tube (Fig. 1.5). After this manipulation, the frog often gulps down its stomach (Fig. 1.6–1.8). However, it is better to set gently the stomach back, using a round-ended glass stick, rounded end of the forceps etc.