Embryonic and larval staging of the Arabian Toad, *Bufo arabicus* (Amphibia: Bufonidae)

by T. Ba-Omar, I. Ambu-Saidi, S. Al-Bahry and A. Al-Khayat

**Abstract.** The development of *Bufo arabicus*, is described here from the zygote to the newly metamorphosed toadlet. The ontogeny of *B. arabicus* is arranged into successive stages numbered 1–45. These include the zygote (stage 1), cleavage (stages 2–6), blastula (stages 7–8), gastrulation (stages 9–11), the neurulation stages (stages 12–15), embryonic development (stages 16–23), larval period (stages 24–41), metamorphosis (stages 42–44) and the juvenile/toadlet (stage 45). The description of the developmental stages is based on the external morphological and physiological characteristics and is accompanied by photographs. The stages in the present table for the development of *B. arabicus* are compared with normal tables of the genus *Bufo* and other anuran species. The development of *B. arabicus* resembles very closely that of other *Bufo* spp. Minor differences can be seen between the different staging tables of different species because of variations in methods of staging and the criteria on which the table was based. One special feature is that *B. arabicus* hatches early (stage 15) compared to other reported bufonids.

**Key words.** *Bufo arabicus*, toad, embryos, tadpole, staging, larval development, Oman.

**Introduction**

The herpetofauna of the Arabian Peninsula includes two true toads: *Bufo dhufarensis* Parker and *Bufo arabicus* Heyden (ARNOLD & GALLAGHER 1977, BALLETTO et al. 1985, GALLAGHER & ARNOLD 1988). The Arabian Toad, *B. arabicus*, an opportunistic, mesophilous species, is found in almost all environments of the peninsula where water is available (BALLETTO et al. 1985). It lives in wadis, gravel areas, gardens and date groves, and is active both by day and night (ARNOLD & GALLAGHER 1977). The breeding season of *B. arabicus* follows the rain, although two breeding seasons have been recorded in Yemen and Saudi Arabia, one in September-October and the other in June-July (BALLETTO et al. 1985).