

## Habitatnutzung und Wanderungen in einer Gelbbauchunken-Population (*Bombina v. variegata*)

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### Habitat use and movements in a population of yellow-bellied toads, *Bombina v. variegata*

A population of yellow-bellied toads, *Bombina v. variegata*, was studied in a large nature reserve at the outskirts of Vienna for two years. We visited the core study area, comprising a meadow with several small water bodies and a few ponds and puddles in its vicinity, at approximately weekly intervals in 1998 and at intervals of one to three weeks in 1999. Data collected at more distant sites in the reserve between 1996 and 1999 were included to document migrations of the toads, which were individually identified using photographs of their belly pattern. On the meadow, juveniles were more abundant than adults in both years, whereas mostly adults were found at a separate pond frequently used for spawning. In 1998, juveniles ( $n = 76$ ) and males ( $n = 51$ ) spent more time in the water bodies than females ( $n = 40$ ), but a larger proportion of females (32 %) was encountered at more than one site (males: 27 %, juveniles: 24 %), and their average migration distance ( $\bar{x} = 200$  m) was larger than those of either males or juveniles (both  $\bar{x} = 130$  m). In 1999, about two thirds of both the adult males and females, but only 42 % of the juveniles were recaptured. The latter had on average covered much larger distances ( $\bar{x} = 380$  m) since their last capture in 1998 than had adult males ( $\bar{x} = 190$  m) or females ( $\bar{x} = 150$  m). Many toads encountered in the core area in 1999 had not been registered there in 1998 (138 out of 223), though a few were known from other sites. The proportion of these likely immigrants, mostly juveniles and small adults, was higher on the meadow (68 %) than at the spawning pond (49 %). We suggest that juveniles, even though they may exhibit high site fidelity in their summer habitat, constitute the main »dispersal stage« of *B. variegata*.

**Key words:** Amphibia, Anura, Discoglossidae, *Bombina v. variegata*, ecology, dispersal, migration, site fidelity.

### Zusammenfassung

Wir untersuchten eine Population von Gelbbauchunken, *Bombina v. variegata*, in einem Naturschutzgebiet am Stadtrand von Wien. Das Kerngebiet, eine Feuchtwiese mit mehreren Kleingewässern sowie einige Teiche und Tümpel in ihrem Umkreis, begingen wir 1998 in etwa wöchentlich und 1999 in Intervallen von ein bis drei Wochen. Zur Dokumentation der Wanderaktivitäten der Unken, die wir mit Hilfe von Fotos ihrer Bauchzeichnung identifizierten, bezogen wir Daten, die wir 1996 bis 1999 an Fundorten in der weiteren Umgebung sammelten, mit ein. Auf der Wiese fanden wir in beiden Jahren mehr Jungtiere als Adulte, während an einem Laichtümpel am Rand einer Lichtung die Adulten überwogen. Im Jahr 1998 hielten sich Jungtiere ( $n = 76$ ) und Männchen ( $n = 51$ ) über längere Zeit an den Gewässern auf als Weibchen ( $n = 40$ ), aber ein größerer Anteil der Weibchen (32 %) wurde an mehr als einem Fundort angetroffen (Männchen: 27 %, Jungtiere: 24 %), und ihre durchschnittliche Akti-