

## Die Gelbbauchunke (*Bombina variegata*) im Natura 2000-Gebiet Untersberg-Vorland (Salzburg, Österreich): Verbreitung, Lebensräume, Populationsgröße und Wanderungen

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### The yellow bellied toad (*Bombina variegata*) in the special area of conservation Untersberg-Vorland (Salzburg, Austria): distribution, habitats, populations size and movements

We studied a population of yellow-bellied toads (*Bombina variegata*) in the special area of conservation (SAC) Untersberg-Vorland (Salzburg, Austria) between 2007 and 2010. Positions and numbers of occupied localities changed remarkably in the course of the study, caused by an increase of small temporal waterbodies due to timber harvesting in moist forest areas close to source populations. Some of the artificial ponds built in 2008 and 2009 were also colonised by *B. variegata*, but developed no sustainable populations. In 2007 we documented four localities within the borders of the SAC, in 2010 we counted a total of 32 localities in the same area. Yellow-bellied toads mainly used newly developed small ponds in wheel tracks for reproduction, while older ponds or lentic areas of brooks were occupied by individuals that did not participate in reproduction. The majority of localities and habitats were found in unfragmented moist mixed forests with dominance of spruce (*Picea abies*). Forest edges, clearings, or forest roads comprised important habitat structures. To a certain extent, *B. variegata* also used small marsh areas and quarries. The average population size estimated over all field days in 2009 was 227 adult and subadult individuals. Maximum size was 619 ( $\pm 91$ ) individuals, which equals 2,51 ( $\pm 0,37$ ) individuals per ha within the currently populated area (247 ha). In 2009, 74 individuals could be recaptured once or several times. 29 of these individuals remained at the same locality. Within the group of moving individuals, females showed average distances of 180 m, followed by males (161 m) and subadults (97 m). Differences between these groups were not statistically significant. Four females and three males moved between 1,415 and 1,524 m linear distance between their first capture in 2007 and their second capture in 2009. Subadult individuals showed strongest philopatry of all age classes. Concerning the further positive development of the populations in the SAC Untersberg-Vorland, forestry of low intensity in close cooperation with conservationists is most important to preserve current and periodically develop new habitats for the yellow-bellied toad.

**Key words:** Anura, *Bombina variegata*, Salzburg, Austria, special area of conservation, distribution, habitats, population size, movements, monitoring.