

Wiederansiedlungsvorhaben für die Gelbbauchunke (*Bombina variegata*) im Nördlichen Weserbergland

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Reintroduction program for the yellow-bellied toad (*Bombina variegata*) in the Northern Weser Hills

Immobile animals such as amphibians often have no more possibilities to colonize suitable habitats as a consequence of the ongoing habitat loss and fragmentation. Especially, species like the yellow-bellied toad (*Bombina variegata*), which was spread in natural, dynamic floodplains, are concerned. The natural re-establishment potential of the yellow-bellied toad strongly declined due to missing habitat corridors, area loss and population collapse. Potentially suitable but not populated habitats could be identified by the reconstruction of the historical distribution area of the yellow-bellied toad in the Northern Weser Hills, under consideration of the metapopulation-concept and the IUCN guidelines for reintroduction. Therefore, the reintroduction as a species conservation measure was integrated in the context of the joint project „consolidation and integration of yellow-bellied toad populations in Germany“ of the NABU. Reintroduction is carried out after a species-specific adaptation of the IUCN guidelines for the yellow-bellied toad, with the aim to connect isolated populations and to enable genetic exchange between populations. This article represents the biological, socio-economic and legal backgrounds for the reintroduction of the yellow-bellied toad and depicts that preparation and execution of a reintroduction program contains an intensive planning and implementation phase, which is ideally embedded in a large-scale project. The reintroduction was carried out with captive bred larvae of the yellow-bellied toad within the years 2013–2016. In total, we have released around 7,000 larvae in four reintroduction areas. The population development was monitored by using the mark and recapture method. Furthermore, the population size was exemplarily estimated, by using two estimation techniques, in the quarry where the reintroduction has been started. As a result, the Petersen method rather showed the real population size in comparison to the Jolly-Seber method within the first years after reintroduction. This amounts to about 188 yellow-bellied toads in the second year after reintroduction. Additionally, an independent reproduction could be established in the reintroduction area in the first year. The population size comprised about 10% of the established larvae, what is a high value in comparison with natural survival rates. Besides, the reintroduction of many individuals has already caused an expansion pressure within the reintroduction area and enabled the natural colonization of stepping stones in a distance of up to 600 m. In the year 2016, no further population size estimates were possible due to low capture and recapture rates during very dry periods. The evaluation of the population age structure is also influenced by the weather. A relative dryness seems to have a negative effect on the development of a new population within the first reintroduction years, as