

# Die Amphibienfauna im Natura 2000-Gebiet Traun-Donau-Auen bei Linz: Bestandsentwicklungen, Bewertung der Laichgewässer und Empfehlungen für Schutzmaßnahmen

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## The amphibian fauna of the Natura 2000 nature reserve Traun-Donau-Auen near Linz, with evaluation of important spawning sites and recommendations for conservation measures

The amphibian fauna of the Special Area of Conservation Traun-Donau-Auen near the city of Linz (Upper Austria) was investigated over the course of the breeding season 2022, regarding distribution and abundances, as well as the hydrological conditions in the area. The obtained data were used to evaluate the spawning sites of the amphibians. Furthermore, the results were compared to those of investigations in 1998 and 2006, to illustrate trends in the development of each amphibian species, as well as the spawning sites. Additionally, recommendations for conservation measures are presented. Field work was carried out between February and September and the methods used included counting on sight, counting calling males and the usage of modified bow-nets. Moreover, the population sizes of *Bombina bombina* and crested newts were estimated by using the mark-recapture-method. Results showed that nearly half of the waterbodies have dried out since 1998, but the number of highly valuable spawning sites has nearly doubled. The population of *Rana dalmatina* has increased strongly and the populations of crested newts and *B. bombina* have remained stable. The population of *Hyla arborea* has continued to decrease to the lowest number since the beginning of studies in this area. Although no *Pelobates fuscus* individuals could be observed in 2006, they were re-encountered in 2022, but for the first time no *Bombina variegata* individuals were observed found at all. Further research and the implementation of conservation measures will be necessary to ensure the survival of the amphibian fauna there.

**Key words:** Amphibia, Habitats Directive, important spawning sites, mark-recapture, Ranidae, Bufonidae, Bombinatoridae, Salamandridae, Hylidae, Pelobatidae.

## Zusammenfassung

In der Aktivitätssaison 2022 wurden im Natura 2000-Gebiet Traun-Donau-Auen bei Linz, Oberösterreich, Daten zur Verbreitung und Häufigkeit der Amphibienfauna sowie zur Gewässersituation erhoben. Anhand dieser Daten erfolgte eine Bewertung der Laichgewässer. Die Ergebnisse dieser Erhebung wurden mit zwei früheren Kartierungen aus den Jahren 1998 und 2006 verglichen, um die Entwicklungstrends der einzelnen Arten und der Gewässersituation aufzuzeigen. Die Untersuchung im Jahr 2022 erfolgte von Ende Februar bis Mitte September mit Sicht- und Ruferkartierung und dem Einsatz von Wasserfallen. Außerdem wurde bei Rotbauchunken und