

## Kreuz- und Wechselkröte (*Bufo calamita* und *B. viridis*) im Unteren Isartal – Bestandssituation und Artenhilfsprogramm

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### *Bufo calamita* and *Bufo viridis* in the lower valley of the river Isar – Situation and conservation measures

To prevent the extinction of *Bufo calamita* and *B. viridis* in the lower valley of the River Isar, the Landcare Association Dingolfing-Landau launched a conservation programme for both species in 2007. A total of 33 localities in the study area with apparently suitable habitat conditions for *B. calamita* and *B. viridis* were investigated. *B. viridis* was found at 14 localities, with reproductive success at 4. *B. calamita* was much rarer and found only at 6 localities, with reproductive success at 4. Without conservation measures, 4 of the still existing 6 populations of *B. calamita* and 6 of the 14 *B. viridis* populations are highly at risk of extinction within the next few years. The factors threatening the studied populations are, in decreasing order of importance: 1) succession (ageing of the spawning sites and growth of dense vegetation around these and in the terrestrial habitats), 2) re-cultivation and abandonment of gravel pits and abandonment of extensively used ponds, 3) frequent drying-out events at spawning sites during summer, 4) increased shading of water-bodies and terrestrial habitats caused by the growth of trees and bushes, 5) high density of predators (insect larvae) during the tadpole stage at spawning sites without dry out events, 6) introduction of fish. At 7 localities, measures to improve the number and quality of spawning sites were recently implemented. Most important of these were: 1) creation of new shallow ponds, 2) reduction of the vegetation around existing spawning sites, 3) compaction of the beds of ponds with a high frequency of dry out events. As a result of these measures, at 4 localities a high reproduction success of *B. calamita* was observed. To continue the protection of both toad species, high priority conservation measures are listed which shall be implemented during the next years: 1) short term measures which will optimise habitat quality and quickly increase the population density; 2) long term habitat management of those spawning sites and terrestrial habitats located outside areas with ongoing gravel extraction, 3) a consulting service for gravel companies to provide advice on habitat management aimed at ensuring a continuous supply of spawning sites, whereby the location of the sites may vary between years.

**Key words:** Amphibia, Anura, Bufonidae, *Bufo calamita*, *B. viridis*, situation, conservation measures, lower Isar valley, Bavaria.

### Zusammenfassung

Um ein Aussterben von Wechsel- und Kreuzkröte im Unteren Isartal zu verhindern, initiierte der Landschaftspflegeverband Dingolfing-Landau im Jahr 2007 ein Artenhilfsprogramm für diese beiden Amphibienarten. Von 33 untersuchten Laichhabita-