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Höchstgelegenes Laichhabitat der Wechselkröte (*Bufo viridis*) in Mitteleuropa nördlich des Alpenhauptkammes im Grenzbereich zwischen Bayern und Tirol

Ergebnisse einer 10-jährigen Langzeitbeobachtung

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Highest spawning site of the green toad (*Bufo viridis*) in Middle Europe north of the main ridge of the Alps in the border area of Bavaria and Tyrol

Results of a 10 years long term observation

The discovery of a spawning habitat of the European green toad on the alpine pasture Oberwiesenalm in 1,150 m a.s.l. in the Chiemgau Alps in summer 1998 lead to a long term study which lasted until 2007. During this study in 2001 and 2006 two further spawning sites at alpine pastures were discovered in 1,350 m a.s.l. on the Riesenalm and the Pölcheralm. The three spawning sites belong to an alpine habitat which consists of 7 alpine pastures and includes approximately 250 hectares. The habitat is described according to geography, geology and climate and the question of the origin of this population is discussed; mentioned are also the difficulties of a successful cartographic logistics. The habitat Oberwiesenalm is described in detail as regards the development of its habitat structures, its spawning sites and its important significance within the overall population. Development and present size of the overall population are dealt with. Since the relationship between climate and geology in the centre of the studied area is of great significance, it is extensively discussed. An important role plays accordingly the karst substratum (Jurassic rocks). Its existence is the precondition for a microclimatic continental habitat, which has been found in the humid-oceanic zone to which the Chiemgau Alps belong and which suffices the habitat requirements of the green toad. The habitat in a very high altitude has caused within the population, which has lived in a completely isolated area during a decade-long, no longer exactly measurable period, altitude adaptations, which are described more closely. They deal with the beginning of the maturation, the longevity, the release temperature at which activities start, the reproductive behaviour of the males, the distance of the day hide-outs from the spawning waters, the average egg size of the clutch of eggs and the duration and process of larval development as well as the pigmentation of the larvae. Finally the endangerment or the chances of survival of this alpine pasture population are judged.

Key words: Amphibia**,** Anura, Bufonidae, *Bufo viridis,* highest spawning site in Middle Europe northern the main ridge of the Alps, adaptations, significance of karst.