

Die Amphibien und Reptilien des Naturschutzgebietes Fürstenkuhle (Kreis Borken, Westfalen) und ihre Förderung durch Pflege- und Entwicklungsmaßnahmen

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The amphibians and reptiles of the nature reserve Fürstenkuhle (county of Borken, Westphalia) and their support by habitat management measures

Since 1985 several habitat management measures have been done in the nature reserve Fürstenkuhle in the county of Borken (West Münsterland region, Westphalia). The nature reserve was enlarged considerably, and the new areas were developed to extensified pasture and meadow areas within the last 15 years. In addition to three old ponds two new ponds were created and four further standing waters developed due to damming the main drainage ditch crossing the old nature reserve. The hydrogen ion concentrations of the 9 ponds vary considerably with mean pH values between 3.8 and 6.8. Furthermore, in the old reserve numerous bushes and trees had been removed. Following an investigation of amphibians between 1985 and 1990 they were investigated once more between 1997 and 2000. In addition the reptiles were surveyed in the second period. Eight species of amphibians (*Rana esculenta* complex, *R. arvalis*, *R. temporaria*, *Bufo bufo*, *Pelobates fuscus*, *Triturus vulgaris*, *T. alpestris*, *T. cristatus*) and three reptile species (*Anguis fragilis*, *Zootoca vivipara*, *Vipera berus*) could be found. Three of the six new ponds have been settled by 4 and 5 amphibian species, respectively. The moor frog (*R. arvalis*), which is endangered in Northrhine-Westphalia, has settled most of the new ponds and grew up to a population of much more than 3000 adults. The hydrogen ion concentrations of the waters seem of great importance in the local distribution pattern of the two brown frog species *R. arvalis* and *R. temporaria* and the newts (genus *Triturus*) and thus of the number of breeding amphibian species in each of the nine ponds. Among the reptiles is a remarkable large population of the slow worm (*Anguis fragilis*). The removing of bushes and trees was obviously of great help for the reptile populations.

Key words: Nature reserve Fürstenkuhle, habitat management measures, creation of new ponds, extensification, *Rana arvalis*, *R. temporaria*, *Anguis fragilis*.

Zusammenfassung

Im Naturschutzgebiet Fürstenkuhle bei Gescher im Kreis Borken (Westmünsterland, Nordrhein-Westfalen) wurden seit 1985 verschiedene Biotopmanagementmaßnahmen durchgeführt. Das alte NSG wurde erheblich vergrößert, und die neuen Flächen wurden in den vergangenen 15 Jahren zu extensiv genutzten Weiden und Wiesen entwickelt. In Ergänzung der drei vorhandenen Kleingewässer wurden zwei neue angelegt. Außerdem entwickelten sich auf Grund des Anstaus eines tiefen Entwässerungsgrabens vier zusätzliche Wasserflächen. Die pH-Werte in den 9 Stillgewässern variieren zwischen 3,8 und 6,8 beträchtlich. Als weitere Maßnahme wurden im alte-