

Die Schwimmaktivität von Larven der Nördlichen Geburtshelferkröte (*Alytes obstetricans*) im Tagesgang und in Abhängigkeit von Temperatur und Einstrahlung

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The diurnal swimming activity of larvae of the common midwife toad (*Alytes obstetricans*) and in dependence on temperature and irradiation

Larvae of the midwife toad were kept under open air conditions in small vessels without hiding places. The experiments were carried out in parallel in a fully sunbathing basin and a shaded basin. The swimming activity was measured during the day and depending on the water temperature and the irradiation. Between 0–25 °C the swimming activity of the larvae correlated with the water temperature. At temperatures above 25 °C the swimming activity stagnated or decreased slightly. Since the water temperature during the night is usually lower, the night activity was correspondingly lower. At a comparable temperature day and night activity did not differ in the sun basin, the shadow basin showed no clear pattern. The swimming activity in sunbathing waters was higher at the same temperatures than in shaded waters. This took place on the day and lasted the following night. The swimming activity was significantly higher in summer than in autumn and winter, according to the higher temperatures and irradiations. The maximum daily activity was in the sunbathing and shaded waters in autumn and winter in the afternoon, shortly after the maximum of the water temperature occurred. In the summer, the maximum daily activity in the sunbathing and shaded waters was recorded over a longer period between noon and afternoon, usually in the range of the maximum of the water temperature. On days when the water temperature did not rise above 25 °C, a single peak of activity was observed. On very warm days with a temperature of over 25 °C, a bimodal pattern occurred with activity peaks in the late morning and the afternoon, while during the time of the highest water temperatures at noon and early afternoon, the swimming activity significantly decreased.

Key words: Amphibia, common midwife toad, *Alytes obstetricans*, tadpole, swimming activity, course of the day, water temperature, irradiation.

Zusammenfassung

Larven der Geburtshelferkröte wurden unter Freilandbedingungen in kleinen Gefäßen ohne Versteckmöglichkeit gehalten. Die Versuche wurden parallel in einem voll besonnten und einem beschatteten Becken durchgeführt. Die Schwimmaktivität wurde im Tagesverlauf und in Abhängigkeit von der Wassertemperatur und der Einstrahlung gemessen. Zwischen 0–25 °C korrelierte die Schwimmaktivität der Larven mit der Wassertemperatur. Bei Temperaturen über 25 °C stagnierte die Schwimmaktivität oder ging leicht zurück. Da die Wassertemperatur in der Nacht meist niedriger ist, war die nächtliche Aktivität entsprechend geringer. Bei vergleichbarer Tempera-