

## Swimming ability of a fossorial iberic vole *Microtus (Pitymys) lusitanicus* (Rodentia : Microtinae)

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**Summary.** – The swimming ability of the fossorial rodent *Microtus (Pitymys) lusitanicus* was studied. The style of swimming was “dog-paddle”. The mean swimming time was 33.8 minutes, the maximum swimming time was 60 min and the minimum was 12 min. There was a negative correlation between total swimming time and time to begin floating, and significant positive correlations between total swimming time and total floating time in each experiment. The lusitanian pine vole is a good swimmer in comparison with other fossorial species. Although the role of swimming ability in the geographic distribution in *Pitymys lusitanicus* is entirely speculative, rivers could not be significant barriers.

**Résumé.** – Etude de l'aptitude à la natation chez le rongeur fouisseur *Microtus (Pitymys) lusitanicus*. Ce rongeur nage comme un chien pendant une durée moyenne de 33,8 minutes (maximum : 60 minutes). On a constaté une corrélation négative entre la durée de la nage et le moment où il commence à flotter. Par contre, il y a eu des corrélations positives significatives entre la durée de la nage et la durée de la période pendant laquelle il flotte. Ce campagnol est un meilleur nageur que les autres espèces fouisseuses. Bien que le rôle de l'aptitude à la nage soit hypothétique, les rivières ne sont certainement pas des barrières pour lui.

Hickman (1982 and 1983*a*) and Hickman *et al.* (1983) considered that fossorial mammals have poor climbing ability and are generally poor dispersers ; watercourses might therefore be dispersal pathways (Hickman 1983*a*) for them, or barriers between populations (Kennerly 1963 ; Smith and Patton 1980). For this reason, the study of the swimming ability of fossorial mammals is interesting and necessary in understanding their current distribution. Species with wide distributions should also be good swimmers, and so the study of *Microtus (P.) lusitanicus*, the lusitanian pine vole (Rodentia : Microtinae), is of interest as a fossorial rodent widely distributed throughout the north-west Iberian Peninsula (Corbet and Hill 1991).

Four animals, two adult females and two adult males (17.1 g, 15.5 g, 15.6 g and 16.3 g respectively), were captured in the Canfranc valley, Spanish Pyrenees, at 2000 meters above sea level, and were kept in normal conditions of light and temperature. A total of six observations for the four animals were made in an all-glass aquarium