
Poster Session 1 – Rodent Behaviour

10 Social COntact NEtwork loggers – an open source, high resolution approach for monitoring interactions between small rodents

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Behavioural ecology is often a matter of interactions; understanding the processes underpinning behaviour such as competition, predation, sociality, sexuality or disease transmission therefore often requires the ability to monitor interactions between individuals. Until recently, such detailed knowledge of individual behaviour has been restricted to either captive, large or easily visible species. However, by exploiting recent advances in embedded software, chip miniaturisation and battery development, we have developed small (<2g) loggers which record when individuals come within a predetermined distance of each other, the id of the individuals and the time period over which the interaction occurs. Our SCoNe loggers, developed in collaboration with the Department of Engineering and the Department of Product Design at Universiteit Antwerpen, are small enough to be attached to animals over 40g in weight (ensuring the logger is <5% of the animal body weight), are rechargeable, and can be remotely programmed to adjust logger settings. Here, we present initial results from developing and calibrating our loggers using *Mastomys natalensis*, the multimammate mouse, in Antwerp and Tanzania. Loggers were initially tested on captive, colony bred *Mastomys natalensis* to trial different attachment techniques and ensure no harm or discomfort was caused by attachment. Field realistic trials were carried out in mesocosms in Tanzania using wild caught *Mastomys natalensis*. We present the initial results in the anticipation that these SCoNe loggers will have a wide appeal to ecologists working on a range of species.

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Jens Jacob, Jana Eccard (Editors)

6th International Conference of Rodent
Biology and Management
and
16th Rodens et Spatium

Potsdam, Germany, 3-7 September 2018

Book of Abstracts



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