
Population Dynamics – Session 2

Population dynamics and breeding patterns of multimammate rat (*Mastomys natalensi*, Smith 1832) in semi-arid areas in Tanzania

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The population dynamics and breeding patterns of Multimammate rat (*Mastomys natalensis* Smith 1834) in maize agro-ecosystems in semi-arid areas in Tanzania was investigated from March 2016 to February 2018 in the maize fields and fallow land. A capture mark release study was carried out with four 70 x 70 m grids and set at farmers' fields using live-trapping at a distance of 10 x 10 m apart for three consecutive nights. Rodent species captured were: *Mastomys natalensis*, *Lemniscomys rosalia*, *Lemniscomys zebra*, *Gerbilliscus vicinus*, *Pelomys fallax*, *Arvicanthis neumani*, *Thallomys paedulus* and *Acomys wilsoni*. *Mastomys natalensis* was the most abundant (>93%) of all species captured while other were in low number in both habitats. The highest population was observed from June to October indicating that was probably due to the influx of juveniles into the population. It was observed that the study area experiences a short rainfall season with extended breeding patterns for *Mastomys natalensis*. However, the highest percentage of reproductively active animals was found during April and the lowest level in September and October. We concluded that most females *Mastomys natalensis* are reproductively active when there is enough food and rainfall. It is recommended that there will be necessary to reduce breeding activity by preventing access to fresh vegetative food such as young sprouting grass.

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Jens Jacob, Jana Eccard (Editors)

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

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Book of Abstracts



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