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## Conservation and Ecosystem Services

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### **Native rodents are the main seed predators in areas representing distinct phases along an active restoration process in a neotropical savanna**

**Jessica L. Santos, Isabel B. Schmidt, Emerson M. Vieira**

Universidade de Brasilia (UnB), Brasilia, Brazil, emvieira@unb.br

Land use conversion to agriculture and pasturelands may alter not only the abundance of seed-eating animals but also their role as seed predators and dispersers. We investigated the effect of landscape changes, including areas under restoration process, on seed predation by native rodents in the Brazilian Cerrado, the most diverse savanna of the world. We evaluated seed predation of two tree species (*Tachigali vulgaris* and *Copaifera langsdorffii*; *Fabaceae*) in five habitats: typical savanna (cerrado sensu stricto), abandoned pasture dominated by African grass *Urochloa decumbens*, and three environments representing distinct phases along an active restoration process (two, three, and four years after direct seeding of native species). We also evaluated rodent abundance in these areas. In captivity, we offered seeds of both species and of *Urochloa decumbens* to *Necromys lasiurus* (*Sigmodontinae*), the most abundant rodent in the study. Field tests with semipermeable exclosures indicated that small rodents were the main seed predators in all habitats. Only for *Copaifera langsdorffii* seed-predation rates differed among habitats, being higher during the rainy season in the native Cerrado and pasture. We captured 180 rodents belonging to five species, with a high dominance of *Necromys lasiurus* (ca. 95% of all individuals). Areas in more advanced regeneration process and native environments tended to show greater rodent richness, following plant community patterns. In captivity, *Necromys lasiurus* preyed upon all species offered. Our results suggest that the transformation of native areas in planted pastures and subsequent regeneration processes modify the abundance of small mammals in the Brazilian savanna but not their role as main seed predators. The abundance of this group is relevant for crucial ecological processes, such as seed predation and potential for reducing the establishment of introduced species. Season of seeding and rodent abundance must be considered in restoration projects in open-vegetation habitats such as savannas and grasslands.

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Jens Jacob, Jana Eccard (Editors)

6<sup>th</sup> International Conference of Rodent  
Biology and Management  
and  
16<sup>th</sup> Rodens et Spatium

Potsdam, Germany, 3-7 September 2018

Book of Abstracts



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**Editors:**

Jens Jacob<sup>1</sup> and Jana Eccard<sup>2</sup>

<sup>1</sup>Julius Kühn Institute, Federal Research Centre for Cultivated Plants,  
Institute for Plant Protection in Horticulture and Forests, Vertebrate Research,  
Toppeideweg 88, 48161 Münster, Germany

<sup>2</sup>University of Potsdam, Institute of Biochemistry and Biology,  
Animal Ecology Group, Maulbeerallee 1,  
14469 Potsdam, Germany

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