
Habitat characteristics and species interference influence space use and nest-site occupancy: implications for social variation in two rodent sister species

Claire Dufour*¹ and Guila Ganem²

¹Department of Organismic and Evolutionary Biology (OEB) – 26 Oxford Street Cambridge, MA 02138, United States

²Institut des Sciences de l'Évolution de Montpellier (ISEM) – Université de Montpellier, Institut de recherche pour le développement [IRD] : UR226, Centre National de la Recherche Scientifique : UMR5554, EPHE – Place E. Bataillon CC 064 34095 Montpellier Cedex 05, France

Abstract

Nest-site selection is an important component of species socio-ecology, being a crucial factor in establishment of group living.

Consequently, nest-site characteristics together with space-use proxies may reveal species social characteristics, a fact particularly interesting when direct observation of social interactions is hindered in nature. We used this approach to assess social variation between two sister species of a southern African rodent (*Rhabdomys bechuanae* and *R. dilectus dilectus*) comparing patterns in allopatry and sympatry. Our results indicate that habitat preference and its impact on space-use and nest-site characteristics could act as an important driver of social divergence in our study models, and that interference between sister species could induce new ecological pressures that may influence their social evolution.

*Speaker