

Ground foraging ants (Hymenoptera: Formicidae) in Argane (*Argania spinosa*, L) ecosystem: Response to grazing impact

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ABSTRACT

Grazing is one of the important activities practiced by local farmers in the argane ecosystem. Agdal is the traditional management system linked to grazing management in this ecosystem. This work focused on grazing and Agdal impact on ground foraging ant community. Ant sampling using pitfall traps was occurred in three selected sites during two periods. Species richness, abundance and ant diversity per sample unit were compared between site 1 which is an open rangeland and two sites (2 and 3) where a seasonal defense for grazing and harvesting is applied (Agdal). Ants workers captured were belonging to 14 species, 10 genera and 3 subfamilies. *Monomorium salomonis obscuriceps* (Santschi, 1921) and *Pheidole pallidula* (Nylander, 1849) were the two predominated species during November-January period samples. They contribute to more than 50 % of dissimilarity between ant communities. A negative impact of overgrazing on diversity parameters was reported in site 1. Significant decrease of species richness, abundance and ant diversity per sample unit was observed during both sample periods in overgrazed site (site1) compared to the other sites where Agdal management system is applied.

Key words: Agdal, *Argania spinosa*, Biodiversity, Formicidae, *Pheidole pallidula*, *Temnothorax tameriensis*, *Tapinoma magnum*

