

Farmers' ethno-ecological knowledge of the termite problem in semi-arid Nakasongola

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Date: 2011

Abstract

Infestation and destruction of rangeland vegetation by subterranean termites is a major constraint to livestock production in the rangelands of Uganda, particularly, in semi-arid Nakasongola. Ethno-ecological studies on termite dynamics are central to formulation of sustainable termite management strategies in such ecosystems. This study was thus conducted to investigate farmers' traditional ecological knowledge of the termite problem with the intent to build more coherent principles required in the development of appropriate termite management strategies. Focus group discussions and individual interviews were conducted to capture information on farmers' ethno-ecological knowledge of the factors enhancing termite damage on vegetation, temporal and spatial variability of damage and diversity of termite species in the Nakasongola ecosystem. Kruskal-Wallis test showed that there was a significant difference ($X^2=451.5$, $P>0.0001$) among farmers' ranking of factors responsible for the destructive behavior of termites on rangeland vegetation. Overgrazing and deforestation were ranked significantly higher ($X^2=156$, $P>0.0001$) than other factors. Eight species were identified and the species belonged to one family (Termitidae) and two sub-families (Macrotermitinae and Termitinae). The study provided basic information about farmers' knowledge of the biology and ecology that could aid the development of sustainable and socially acceptable termite control strategies.