

**INVERTEBRATES: ANTS**

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**Aspects of ant-acacia interactions on *Acacia drepanolobium*  
in the Lake Naivasha area****Abstract**

In acacia-ant interactions, the acacia provides ants with food and produce pseudogalls for them to live in, while the ants actively defend the acacia against herbivores. Four ant species are obligate on the *Acacia drepanolobium*. We investigated acacias at two sites; Carnelly's Camp and Hell's Gate NP. We found that some traits of two of the ants, *Crematogaster nigriceps* and *Tetraponera penzigi*, like abundance, proportion of dead colonies, proportion of galls with reproductives and offspring are dependent on the tree health. We discovered behavioural differences in the way in which the ants defend the tree. We also found that different ant species tend to live in trees of a different shape and that human influences stop the natural succession.

Colin Swainson, University of Cambridge, U.K

Aleksandra Mucha, Jagiellonian University, Poland

2000

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**A comparative study of the life histories and ant-tree mutualisms of two  
Acacia-ant species: *Crematogaster nigriceps* and *Tetraponera penzigi*****Abstract**

Aspects of the life histories of two obligate acacia-ant species (*Tetraponera penzigi* and *Crematogaster nigriceps*) and their mutualism with the whistling thorn, *Acacia drepanolobium* were investigated on two host tree populations in the Hell's Gate area, Naivasha, Kenya. Intensive sampling of the gall contents and the architecture of 30 trees allowed us to draw some conclusions on the differences between the two ant species and to relate this to the reported successional stage which they occupy in the 4-ant species community studied by Young *et al.* (1997) in Laikipia, Kenya. The most striking differences between the species are in their effect on tree architecture (*C. nigriceps* prunes its trees to create more compact trees with more galls). Observations on colony structure and patterns of occupancy of the galls suggest that *Tetraponera* is the more pioneering species in this system, and that *C. nigriceps* is a better competitor and makes better use of the tree resources.

Tosin Adeoye, Institute of Water, The Netherlands

Sally Archibald, Cape Town University, South Africa

2000

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**INVERTEBRATES: DISTRIBUTION**

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**Variation in diurnal and nocturnal ground invertebrate fauna  
in Elsamere Conservation and Field Study Centre****Abstract**

Ground invertebrates were investigated using pitfall traps laid along transects in different habitats. Species richness for all invertebrates was found to differ significantly between day and night. However, insect species richness was not significantly affected by day time. In contrast species richness of Araneae (spiders) was significantly higher during the night. Temperature and moisture did not affect invertebrate abundance and species richness. However, litter diversity was positively correlated with species richness, and a trend for a positive correlation between litter mass and invertebrate abundance and species richness was found.

Charles Warui, National Museum of Kenya, Kenya

Gerhard Wurzer, University of Vienna, Austria

Ida Monah, University of Buea, Cameroon

1999

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**The role of water hyacinth in the diversity and abundance of  
macro-invertebrates in the Lake Naivasha ecosystem****Abstract**

A study was conducted to investigate the role of water hyacinth (*Eichhornia crassipes*) in promoting species richness and abundance of macro-invertebrates around Lake Naivasha. The plant root structure of water hyacinth showed significant positive correlation with invertebrate density and diversity. In addition, characteristically longer, massive, and more compact roots had more invertebrates in and around them. Annelids, *Procambarus clarkii* and chironomids were especially dominant. This result further suggested that a restricted population of water hyacinth may be important to the ecosystem health around Lake Naivasha. However, more study is needed to investigate the role of water hyacinth in the ecology of annelids, crayfish and trichopterans.

Enoch Trevor Mlangeni, University of Malawi, Malawi

2000

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**Influence of papyrus density on the distribution of invertebrates  
around Lake Naivasha****Abstract**

The number of aquatic invertebrates within the *Cyperus papyrus* in Lake Naivasha is described and analysed for Elsamere and Fisherman's camp. There was a significant relationship between the number of papyrus stems and the number of invertebrates. It is concluded that papyrus swamp-water is therefore important to the ecology of Lake Naivasha since the invertebrates constitute a base for aquatic food chain.

Maminirina Randrianandrasana, University of Antananarivo, Madagascar

Moses Wandago, Egerton University, Kenya

2000

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**INVERTEBRATES: OTHER**

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**Feeding behaviour of two common butterfly species, *Belenois zochalia agrippinides* and *Antanartia abyssinica jacksoni* on *Hypoestes forkahlii* at Elsamere, Naivasha****Abstract**

This study looked at the foraging behaviour of *Belenois zochalia agrippinides* and *Antanartia abyssinica jacksoni* on *Hypoestes forkahlii* flowers at Elsamere Field Study Centre. Density of flowers played a major role in determining the number of butterflies visiting *Hypoestes forkahlii*. The higher the density of flowers, the higher the number of visits. A second study of the two butterfly species showed a significant difference in their foraging behaviour with *Antanartia abyssinica jacksoni* feeding on fewer flowers and spending longer time per flower compared with *Belenois zochalis agrippinides*.

Obadha Elijah Ouma, Egerton University, Kenya

Razafindrajao Felix, Durrell Wildlife Conservation Trust, Madagascar

2004

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**Prey selection in an orb weaving spider (*Argiope catenulata*) in the Elsamere acacia woodland; Do the weight and type matter in prey capture?****Abstract**

The study has shown that there is a significant difference between the prey captured and the prey available to the spider (*Argiope catenulata*). It was observed that there is low capture rate of the prey in relation to the prey available, probably attributed by evolution of ant-predator behaviour by insects. Weight and type of prey did not show any significance in triggering the predation sequence in the web of *A. catenulata*.

Alfan Abeid, Tanzania National Parks, Tanzania

Luka Narisha, Kenya Wildlife Service, Kenya

2006

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