

THE FORGOTTEN POLLINATORS – FIRST FIELD EVIDENCE FOR NECTAR-FEEDING BY PRIMARILY INSECTIVOROUS ELEPHANT-SHREWS

by Petra Wester

Pollination of plants by non-flying mammals, such as mice (rodents, Rodentia), is a rarely observed phenomenon. Previously, elephant-shrews (Macroscelidea, Afrotheria), small African mammals looking similar to mice, but not being related to them, were believed to be purely insectivorous. Occasional flower visits of elephant-shrews in captivity were interpreted as a by-product of the search for insects. Only recently, it was demonstrated that under lab conditions elephant-shrews regularly lick nectar from flowers. However, field observations of flower-visiting elephant-shrews and their role as pollinators were completely missing. In this study, I present the first evidence for flower visits and nectar consumption for elephant-shrews in the field. With video camcorders and infrared lights I recorded Cape rock elephant-shrews (*Elephantulus edwardii*) beside Namaqua rock mice (*Micaelamys namaquensis*) visiting flowers of the Pagoda lily (*Whiteheadia bifolia*, Asparagaceae) under natural conditions in the Namaqualand of South Africa. With their very long tongues, the elephant-shrews visited the flowers non-destructively, definitely licking nectar, but not feeding on insects. The footage clearly shows that the elephant-shrews' fur around their long noses touches the pollen-sacs and the

stigmas of the flowers and that the animals' fur is being dusted with pollen. As the elephant-shrews visited several flowers of different plants, it is obvious that they transfer pollen between the plants. This observation contributes to the knowledge about the behaviour of these representatives of a unique clade of small African mammals – especially in their natural habitat.



A Cape rock elephant-shrew licks nectar from flowers of the Pagoda Lily growing in rock crevices in the Namaqualand of South Africa. Image from infrared video footage.