

Behaviour of *Glossina morsitans morsitans* Westwood
(Diptera: Glossinidae) on waterbuck *Kobus defassa* Ruppel
and feeding membranes smeared with waterbuck sebum
indicates the presence of allomones

Nicholas K. Gikonyo, Ahmed Hassanali *, Peter G.N. Njagi,
Rajinder K. Saini

International Centre of Insect Physiology and Ecology, ICIPE, P.O. Box 30772, Nairobi, Kenya

Received 16 August 1999; received in revised form 23 June 2000; accepted 25 August 2000

Abstract

The behavioural responses of caged individual teneral *Glossina morsitans morsitans* on waterbuck and ox and on feeding membranes with and without smears of different doses of waterbuck sebum were compared. No significant difference was found in the initial landing behaviour on the two animals, nor on treated and control parts of the membrane. However, the subsequent behaviours of the flies were significantly different. Whereas none of the flies that landed on the ox showed any escape behaviour, more than a third of those that initially landed on waterbuck departed before probing. Similar results were obtained on feeding membranes treated in part with 1.0 or 1.4 mg cm⁻² of waterbuck sebum. Moreover, flies that landed on waterbuck or its sebum changed probing sites more often and probed significantly longer. The proportions that initiated feeding during the 10 min observation period were also significantly less. Our results suggest the presence of both volatile and non-volatile allomones on waterbuck which would account for low numbers of flies found attracted to and feeding on waterbuck in the wild. © 2000 Elsevier Science B.V. All rights reserved.

Keywords: *Glossina morsitans morsitans*; *Kobus defassa*; Cattle; Waterbuck sebum; Allomones
