

Ecology of Tabanidae and Muscidae in the Sudan

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Abstract

A study of the population ecology of horse flies (Diptera: Tabanidae) was initiated from October 2001 in the fodder plots of the College of Veterinary Medicine, Sudan University of Science and Technology, Hillat Kuku, Khartoum North. The irrigation canals of the fodder served as permanent breeding sites of the aquatic juveniles of tabanids and parasitic Nematocera as well as snail intermediate hosts of worms of fascioliasis, Schistosomiasis and paramphistomosis. 24 h Nzi trap catches suggested the year round presence of *Atylotus agrestis*, *Tabanus suffis* and *T. taeniola* with peaks in flight of these tabanids between August and November. Search of 32 randomly chosen breeding sites yielded 11 tabanid larvae. Of the 13 species of shady trees examined, tabanids rested predominantly in only four, namely, *Albezia* spp., *Ziziphus spinichrista*, *Delenox regia* and *Terminalia* spp. Resting heights ranged between 45-200 cm on boles and branches 25-60 cm and 0.5-45 cm wide, respectively. All resting tabanids contained undigested blood as opposed to none in trapped flies. Between June and August flies were active from about mid-day and afterwards until they attain a peak at 1600 h. Thereafter activity declined, to cease completely at sunset. These results are discussed in relation to the social, economic and public health importance of tabanids in the country. Sprinkler irrigation is suggested for peri-urban agriculture to curtail the breeding of parasitic Brachycera and Nematocera as well as Mollusca.