VECTOR-BORNE AND ZOONOTIC DISEASES
Volume 11, Number 00, 2011

001: 10.1089/vbz.2010.0088

Comparative Repellent Activities of Some Plant Extracts Against *Simulium damnosum* Complex

Sammy O. Sam-Wobo, Monsuru A. Adeleke, Chiedu F. Mafiana, and Olabanji H. Surakat

Abstract

The root and leaf extracts of four plants, *Occimum gratissimum, Azadirachta indica, Pterocarpus santalinoides,* and Pistia*hyptis,* were studied for repellent activities against the adults of *Simulium damnosum* sensu lato. The leaves and roots were extracted with 95% ethanol and the stocks were diluted with paraffin. The repellent activities of the extracts were investigated using human baits along the banks of River Oyan and River Ogun in south-western Nigeria. The results showed that the root extract of O. *grattissium* and leaf extract of P. *hyptis* had highest repellent potentials with 78% and 78.1% protection against S. *damnosum* sensu lato, respectively, whereas the root and leaf of P. *santalinoides* recorded the least. Although there were significant differences in the percentage of protection of the extracts of the plants ($p < 0.05$), the variations in the percentage of protection of the leaf and root extracts were not statistically significant ($p > 0.05$). The study concludes that there exist some repellent efficacies in the extracts of the plants, most importantly O. *grattissimum* and P. *hyptis.* The plant extracts can further be developed in the prevention of man-vector contact in onchocerciasis endemic communities.

Key Words: Repellent—Plant extracts—*Simulium damnosum* complex—Onchocerciasis.