

The Effects of a DNA Virus Infection on the Reproductive Potential of Female Tsetse Flies, *Glossina morsitans centralis* and *Glossina morsitans morsitans* (Diptera: Glossinidae)

Sang, R C; Jura, W G; Otieno, L H; Mwangi, R W

Date: 1998

Abstract:

Reproductive anomalies associated with the tsetse DNA virus infection in the female tsetse hosts, *Glossina morsitans centralis* Machado and *Glossina morsitans morsitans* Westwood, inoculated with the virus during the 3rd instar larval stage were studied and the data compared to those obtained from the control females injected with sterile physiological saline. Virus infected flies had significantly longer first and second pregnancy cycles ($P < 0.0001$) and produced pupae that were of significantly less weight in milligrams ($P < 0.0001$) compared to controls. Transmission of the virus to progeny was not absolute and only 21% of *G. m. centralis* and 48% of *G. m. morsitans* first progeny flies from infected females developed salivary gland hypertrophy as a result of transmission from mother to progeny. The virus infected females produced significantly fewer pupae compared to the controls during the experimental period ($P < 0.00001$).