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Short Communication

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## Current considerations on a *Loa loa* simian reservoir in the Congo

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Human filariasis due to *Loa loa* is confined to the tropical rain-forest of Africa. In the same area, simian populations are infected with parasites which have no clear-cut morphological differences with human *Loa* and exhibit a nocturnal microfilarial periodicity (Duke and Wijers, 1958). *Chrysops langi* and *C. centurionis* are probably responsible for their transmission among monkeys (Duke, 1955). Although it appears that human and simian strains of *Loa* have evolved in two separate host-vector complexes (Duke and Wijers, 1958), the possibility of a transmission of simian *Loa* to man cannot be ruled out. Fain et al. (1974) did observe in Zairian patients from the Mayumbe area *Loa* microfilariae with a nocturnal periodicity. On the other hand, simian loiasis observations showing a marked diurnal periodicity were reported by Wanson and Rodhain (1953) and Fain (1978). It is most unlikely that *C. langi* and *C. centurionis*, which are strictly zoophilic, would be responsible for the transmission from monkey to man. Anthropophilic *Chrysops* species (*C. silacea* and *C. dimidiata*) are the only potential vectors (Duke, 1955).

In our study area in the Congo, the Chaillu mountains, 5189 anthropophilic flies have been examined in one year. Of these, 3848 were *C. silacea* (74.2%) and 1341 were *C. dimidiata* (25.8%). Host preferences of anthropophilic *Chrysops* were investigated with a view to identifying possibilities of transmission of *Loa* between simian and human hosts. To this end a total of 408 blood-meal samples from *C. silacea* (262 flies) and *C. dimidiata* (146 flies) were analysed according to a procedure described by Staak et al. (1981). 88.9% and 90.4% of the samples from *C. silacea* and *C. dimidiata*, respectively, originated from man, and the rest from hippopotamus, rodents, wild pigs, wild ruminants and monitor lizards. No blood-meal from monkey was identified. Despite their propensity for coming into contact with monkeys at canopy level (Duke, 1955), our results show that *C. silacea* and *C. dimidiata* feed mainly on man and cannot be responsible for the transmission of parasites between simian and human hosts in that part of the Congo.

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