

*Anopheles moucheti* Evans as a malaria vector in Gabon

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## RÉSUMÉ.

Au cours d'une étude sur les moustiques réalisée de janvier à mars, à la fin de la saison sèche à Lambaréné au Gabon *Anopheles moucheti* présentait un indice sporozoïtique de 3,78. Etant donné le nombre particulièrement faible des autres vecteurs potentiels de paludisme *An. moucheti* semble y être le principal responsable de la transmission du paludisme, à cette époque de l'année au moins.

MOTS CLÉS : *Anophelinae* – paludisme – transmission – région éthiopienne.

A field trial was undertaken in January-March 1976 at the end of the short dry season by the Wellcome Foundation at Lambaréné in Gabon to evaluate the effectiveness of ULV applications of synthetic pyrethroids for the control of *Mansonia* mosquitoes, the principal pest species in the area at the time. Results of this trial have already been presented (Martin *et al.*, 1977), as has a check list of Gabonese mosquitoes including the species caught during the survey as larvae and as adults at human bait and in light-traps (Service, 1976). The present paper concerns the potential malaria vectors of the area during the time of the trial.

A total of 64 *Anopheles moucheti* Evans, 31 *An. paludis* Theo., 1 *An. tenebrosus* Dönitz, 1 *An. hargreavesi* Evans, and 1 *An. gambiae* s.l. Giles were caught in human bait catches, performed, usually from 2100-2230 h, several times a week outside houses from mid-January to the beginning of March. Monks Wood light-traps (Service, 1970) using a 6-W fluorescent tube and placed in house compounds near houses caught 11 *An.*

## ABSTRACT.

During a mosquito survey in January-March at the end of the dry season in Lambaréné, Gabon, a sporozoite rate of 3.78 was found in *Anopheles moucheti*. Because of the extremely small numbers of other potential vectors *An. moucheti* seemed to be the most important malaria vector in the area at the time.

KEY WORDS : *Anophelinae* – malaria – transmission – ethiopian region.

*moucheti*, 53 *An. paludis*, 4 *An. tenebrosus*, 2 *An. coustani* Laveran, 1 *An. hargreavesi* and 12 *An. gambiae* s.l.; CDC light traps (Johnston *et al.*, 1973) using a 2-V instrument panel light and placed in bedrooms of houses caught 1 *An. paludis*, 258 *An. moucheti*, 1 *An. paludis*, 2 *An. obscurus* Grünberg, 64 *An. hargreavesi*, 3 *An. hancocki* Edwards and 12 *An. gambiae* s.l. Catches consisted mostly of unfed females.

At the time of the trial exceptionally few adults of the *An. gambiae* complex were caught, and very few larvae were found although there appeared to be several suitable larval habitats in certain areas of Lambaréné. Neither adults nor larvae of *An. funestus* Giles were caught. The commonest anopheline caught both in outdoor bait catches and in CDC light traps placed inside houses was *An. moucheti*; in contrast few were caught in the Monks Wood light traps placed out of doors.

A sporozoite rate of  $3.78 \pm 1.40\%$  was obtained from dissections of 185 females caught at bait or in

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light traps, and an oocyst rate of  $1.22 \pm 0.80\%$  was recorded from 164 dissections. In the total absence of *An. funestus* and extremely small numbers of *An. gambiae* it appears that *An. moucheti* was the most important malaria vector in Lambaréné at the time of the trial, that is the end of the short dry season. This substantiates the unpublished report of Nguy van Duong *et al.* (1975) that in Gabon *An. moucheti* may be a malaria vector, as it is in other forested areas of West and Central Africa, especially in neighbouring or nearby countries such as Cameroun (Adam, 1955, 1956; Mouchet & Gariou, 1966; Languillon *et al.*, 1956) and Congo (Vincke & Parent, 1944; Wanson *et al.*, 1947; Wolfs, 1945) where it can play an important role in malaria transmission (Hamon & Mouchet, 1961).

## ACKNOWLEDGEMENTS.

The authors would like to thank the Ministry of Health, Gabon for generously providing accommodation, transport and assistance during the field trial and also Dr Lamine Diop for providing laboratory facilities in Lambaréné.

Manuscrit reçu au Service des Publications le 27 juin 1976.

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