FEEDING PREFERENCE OF ANOPHELES DARLINGI IN MALARIA ENDEMIC AREAS OF RONDÔNIA STATE – NORTHWESTERN BRAZIL

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All those publications mention the endophily and anthropophily of An. darlingi, whose preference for human blood was emphasized in another paper (L. Deane et al., 1949, Rev. Serv. Esp. Saúde Publ., 2: 793-808). These studies were of great importance for the successful anti-malaria campaigns in the 1950s-1960s which led to the impression that eradication was in sight, and the resulting optimism was accompanied with a decrease of research on malaria vectors.

In the 1970's, the implementation of agricultural projects by the Federal government and mining activities in the Amazon region attracted individuals, mostly from malaria free areas, to this region and the consequent uncontrolled migration and environmental changes have contributed for the great increase of malaria in these areas.

This new malaria situation led recently to comprehensive studies on the regional vectors and their role in the process of malaria trans-

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During an entomological survey performed in the municipality of Ariquemes, Rondônia state, western Amazon Region, two or three times a year, from 1985 through 1988 (see R. Lourenço-de-Oliveira et al., loc. cit. for details) comparative captures were carried out simultaneously on human and animal baits, in open terrain, at sunset (18:00-21:00). The animal bait was always a cow, except in one capture when a horse was used. Mosquitoes were aspirated directly off the baits, with an intermittent flashlight, man and animals standing about 4 m apart.

A total of 2574 Anopheles were collected, 908 on human bait and 1666 on animal bait. Comparing the frequency of species collected on human bait, An. darlingi was predominant 71.5% (649) followed at a great distance by An. triannulatus 10% (91), An. evansae 6.4% (58), An. oswaldoi 4.9% (45). On animal bait the frequency of the species was well distributed and An. triannulatus was the most frequent species 28.2% (470) followed by An. darlingi 21.5% (358), An. evansae 13.3% (222), An. albitalis 10.4% (173) and An. strodei 10% (167). Results seen on Figure show that the frequency of each species on human and animal bait simultaneously, An. darlingi maintains its feeding preference for humans, as 65% of the specimens were caught on man. In contrast, all other anopheline species – An. albitalis, An. braziliensis, An. oswaldoi, An. strodei and An. triannulatus –, although also feeding on humans, were seen to be decidedly
Feeding preference of *Anopheles* species in Rondônia state northwestern Brazil.

zoophilic. These results added to previous work (R. Lourenço-de-Oliveira et al., *loc. cit*; J. Oliveira-Ferreira et al., *loc. cit*) indicate a high degree of anthropophily of *An. darlingi* and emphasize its importance in malaria transmission in the state of Rondônia since other species prefer to bite on a non susceptible host.