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MOSQUITO LANDING BEHAVIOR WAS STUDIED WITH REFERENCE TO PREFERRED SITES ON THE HUMAN BODY IN THE CANOPY OF AN AMAZONIAN RAIN FOREST (DIPTERA: CULICIDAE)^{1, 2}

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ABSTRACT - Collections and observations were done in primary forest near Belém, Pará, Brazil, from June, 29 to October, 29, 1987 and from May, 6 to July, 12, 1988. Mosquito preferences for various parts of the human body were noted during daily three-hours runs (0:30 - 3:30 p.m. in 1987, and 2:00 - 5:00 p.m. in 1988) of human bait collecting. Two tree platforms were used, at 20 m and 15 m high in 1987 and 1988, respectively. The twelve collected species (791 specimens) were Hemagogus leucocelaenus, Hq. janthinomys, Limatus flavisetosus, Psorophora albipes, Runchomyia magna, Sabethes amazonicus, Sa. belisarioi, Sa. chloropterus, Sa. cyaneus, Sa. glaucodaemon, Sa. quasicyaneus, and Sa. tarsopus. Of all mosquitoes, 47.7%, 7.1%, 17.9%, 27.1% landed on the head and neck, trunk and abdomen, upper limbs, and lower limbs, respectively. The only species which showed some variation between dry and rainy seasons was Sa. tarsopus. Six species were abundant enough to allow more detailed considerations. Hq. janthinomys was the most abundant on lower limbs (88.4%), with 79.5% collected on the feet, whereas the sabethine species were more attracted to the head. Sabethes spp., with the exception of Sa. chloropterus, were more common on the nose than on the ears; Ru. magna and Sa. cyaneus were also collected in large numbers on the legs and the arms, respectively. These results raise questions about the bioecological implications of such differences in mosquito landing behavior. Without any doubt, they have to be considered when evaluating the efficacy of repellent products.

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