EXPERIMENTAL INFECTION OF *Hepatozoon* spp. FROM THE SNAKES *Boa constrictor* AND *Eunectes murinus* IN colonized *Aedes aegypti, Ae. Albopictus, Anopheles aquasalis* and *Culex quinquefasciatus* MOSQUITOES

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Hepatozoon (Apicomplexa, Hepatozoidae) is a genus of hemoparasites commonly found in snakes worldwide. Its life cycle requires vectors, such as mosquitoes, in which sporogony occurs, producing sporozoites—the infective form for vertebrates. The present study aimed to experimentally determine the sporogonic development of *Hepatozoon* parasites of snake *Eunectes murinus* and *Boa constrictor* in laboratory-reared mosquitoes(Diptera: Culicidae - *Aedes aegypti*, *Aedes albopictus*, *Anopheles aquasalis*, and *Culex quinquefasciatus*). The snakes positive for *Hepatozoon* were kept at the CIGS zoo in Manaus-AM and approximately 3 ml of blood was collected by caudal puncture. The blood was stored in heparin tubes at 31ºC in a water bath, the average body temperature of the snakes. Females of mosquitoes were fed this blood through an experimental system consisting of glass feeders covered with an artificial Parafilm® membrane. The engorged individuals were maintained separated by groups of snakes in screened entomological cages and dissected 6h, 12h, 18h, 24h, 48h, 72h, 6th, 9th, 13th, 16th and 20th hour/days after feed; the intestinal contents were smeared and impressions of this and the hemocoel were made. The parasitic forms found were photographed and characterized throughout the dissection period. In the first hours after infection, free and intraerythrocytic gamonts were observed in intestines smears of the *Cx. quinquefasciatus* mosquitoes from both groups of snakes and in *A. aegypti* that were fed on *E. murinus* blood. The dissected mosquitoes of all species began to show immature ovoid or rounded oocysts from the 9th day and sporulated oocysts from the 12th day, with formation of sporozoites. From the 9th to the 20th day, oocysts were present throughout the hemocoel of the thorax, abdomen and head of the mosquito, with no presence in the intestines. On average, the intestines presented 73 oocysts, ranging from 3 to 178 (n = 19) and each oocyst with 89 sporozoites, ranging from 64 to 231 (n = 9), containing 22sporozoites ranging from 15 to 101 (n = 38). This is the first study of experimental infection with the genus *Hepatozoon* through membrane feeding and the first record of Culicidae experimental infected with *Hepatozoon* from the snake *E. murinus*.

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