

THE OCCURRENCE OF *ANOPHELES DARLINGI* ROOT IN  
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Service

In October and November 1939, Mr. Ivan Sanderson of the British Museum made several collections of mosquitoes at his camp on Dog Creek, at the base of the foothills just south of Stann Creek, in British Honduras. The specimens were sent to the writer for identification by Dr. R. L. Cheverton, senior medical officer, at Belize, British Honduras. Among the material were 9 adult specimens of an Anopheline mosquito tentatively identified as *Anopheles argyritarsis* R.-D. Fortunately, a single male was present in the series, and dissection and examination of the male terminalia showed that it was in every respect like the males of *Anopheles darlingi* Root collected previously by the writer in Venezuela and British Guiana.

*Anopheles darlingi* is the most dangerous vector of malaria in Brazil (except the imported *A. gambiae*) and in British Guiana and Venezuela. In Belem, Para, Brazil, Davis (1) found 22 percent of 220 dissected specimens to be infected. Davis and Kumm (2) dissected 240 specimens at Franca, Bahia, Brazil, and found 28.7 percent infected. At Itapira, Bahia, Brazil, Kumm (3) found 3 out of 5 specimens infected. Shannon (4) found 9 percent infected at Porto Velho, Amazonas, Brazil. This mosquito has also been reported by Bennaroch (5) as naturally infected in Venezuela. In Panama and elsewhere, the principal Anopheline vector of malaria, *Anopheles albimanus* Wied., has been found naturally infected in percentages ranging from 1 to 2.5 percent. The superior ability of *A. darlingi* as a vector of malaria is evident from these figures.

The northern range of *A. darlingi* has hitherto been considered as British Guiana and Venezuela, with one or two unconfirmed records from Colombia. It is not known from Panama or Costa Rica, or any of the other Central American countries. Its occurrence as far north as British Honduras was entirely unexpected, and because of its proved dangerous abilities as a malaria vector in South America an attempt to verify its presence in British Honduras was deemed advisable. Accordingly, the writer visited British Honduras, and in company with Dr. Vernon Anderson of the Department of Health went to the locality where the adults of *A. darlingi* had previously been found. On March 18, 1940, larvae and pupae corresponding in every respect to the published descriptions of the species (6), and to specimens in the writer's collection from South America, were found in side pools along Silk Grass Creek, about 200 yards from the camp of the Silk Grass Forest Reserve, which is about 2 miles from Sanderson's camp on Dog Creek. Later, larvae were found in small numbers,

but widely distributed, in pools along Silk Grass Creek below Silk Grass camp. Seven female adults, all blood-gorged, were taken in bed nets of the camp personnel and in the partly screened sleeping quarters of the party, and one female was captured attempting to bite. None were taken with horse bait.

Most of British Honduras was suffering from a severe drought, the dry season having been unusually severe. Many potential breeding places of *A. darlingi* were noted in and about the camp at Silk Grass Reserve. No specimens of larvae or adults were taken at Stann Creek Village, although *A. albimanus* was breeding freely in the lagoon behind the town.

The occurrence of *A. darlingi* elsewhere in the region is very probable. Through the courtesy of Dr. J. R. de Leon and Dr. Julio Herrera of the Departamento de Sanidad of Guatemala, the writer was permitted to examine their collections of mosquitoes from Guatemala. A series of 6 female specimens labeled "*albitarsis*?" and collected at Panzos, Guatemala, was found in the collections. Panzos is a town of some 3,000 situated about 50 kilometers west of El Estor, on the Rio Polochic above its entrance into Lago de Izabal (Golfo Dulce) and some 80 miles west of Puerto Barrios, on the Atlantic coast of Guatemala. These females lacked the two lines of white scales on the first abdominal sternite, characteristic of *A. albitarsis* L. Arrib., and differed in color markings from the specimens of *A. argyritarsis* R.-D. as found in Guatemala. They resembled in every respect the female *darlingi* collected by the writer at Silk Grass camp in British Honduras. It is therefore extremely probable that *A. darlingi* is present over a wide area of the neighboring coastal lowlands.

The larval and adult specimens from British Honduras, and 2 females from Panzos, Guatemala, were submitted to Dr. H. W. Kumm, who has had extensive experience with *A. darlingi* in Brazil. He confirmed the writer's identification of the material as *A. darlingi*.

The occurrence of *A. darlingi* so far north of its usual range is unexplained, and its distribution should be further investigated in view of its dangerous powers as a carrier of malaria. A full account of the conditions under which *A. darlingi* was found in British Honduras will be published elsewhere.

#### REFERENCES

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