lines which do not harbor the parasites of malaria. These ecological changes may or may not have been responsible for radical changes in the pH of the water, but on this point we have no information.

Few Indians live in this general area and so present no problem, but there are villages of Bush Negroes on every side. The Moengo authorities have taken steps to prevent these people from remaining within the village after dark. This practice undoubtedly is a great aid in keeping malaria to a minimum. The situation calls for the utmost vigilance in Moengo, however, because all the conditions necessary for a severe epidemic of malaria are ever present in the neighborhood.

Malaria transmission in the jungle of Surinam is due largely to the presence of *Anopheles darlingi*. This mosquito breeds mainly in shaded swamps overgrown with aquatic vegetation along the upper rivers in the interior. We think this explains the badly infected Bush-Negro villages, which are always situated on the banks of the rivers, whereas the Indians living in the drier savannahs suffer much less with malaria.

Severe outbreaks of pest mosquitoes often occur in northwestern Surinam in the districts of Coronie and Nickerie. There *Anopheles aquasalis* is very common, but curiously enough malaria is not present. In fact these districts are the healthiest in the colony. There are reports that severe malaria epidemics have occurred in northwestern Nickerie. These epidemics may have been caused by a temporary influx of *A. darlingi* from the upper river, or by the transportation of *Plasmodium* from the interior by bush laborers coming home in large numbers within a short period of time and infecting the *A. aquasalis* breeding there.

Although Surinam and British Guiana are similar in climate, topography, and agriculture, there is not a comparable occurrence of malaria in the two countries. Malaria is much more disastrous in British Guinana than it is in Surinam, because *A. darlingi* enters the coastal area of British Guiana in contrast to its absense in Surinam.

"INFLUENCE OF NATURAL WATERS ON THE EFFECTIVENESS OF DDT AS A MOSQUITO LARVICIDE"

(Copied from Bulletin of the Army Medical Department, Vol. IV, No. 6 (Dec., 1945), pp. 633–634.)

"Suggestions have come from the field to The Surgeon General's Office that the chemical constituents in natural waters might influence the effectiveness of DDT as a mosquito larvicide. To test this possibility, studies were carried out by the Fourth Service Command Laboratory at Fort McPherson, Ga. The kill of early fourth instar *Anopheles quadrimaculatus* larvae and of third instar *Aedes aegypti* larvae in various test waters was compared to that in a standard water. For *A. quadrimaculatus* larvae the standard water was distilled water raised to a pH of 8.0 with sodium carbonate; for *A. aegypti* larvae it was distilled water with a pH of 6.8. The standard amounts of DDT used were 0.0015 and 0.03 parts per million for *A. aegypti* and *A. quadrimaculatus*, respectively. These amounts of DDT killed from 70 to 100 per cent of larvae in forty-eight hours in the standard water.

"The test waters consisted of thirty-six samples of natural waters obtained from various locations in the Fourth and Eighth Service Commands and also synthetic waters made by adding to distilled water varying amounts of single chemicals commonly found in natural waters. An attempt was made to test natural waters with widely different chemical compositions. The findings in the laboratory were confirmed by tests made in the field.

"The conclusion reached from the studies was that no material in solution in natural waters interfered with the forty-eight hour kill of mosquito larvae by DDT provided that the proper amount of DDT for the particular species of mosquito was applied."