Reprinted from The American Journal of Tropical Medicine Vol. 14, No. 3, May, 1934

NOTES ON THE REDUVIID BUG, ERATYRUS CUSPI-DATUS STAL., NATURALLY INFECTED WITH TRY-PANOSOMA CRUZI CHAGAS FOUND IN PANAMA

LAWRENCE H. DUNN

Medical Entomologist and Assistant Director, Gorgas Memorial Laboratory, Panama, R. de P.

The purpose of this paper is to record the finding of a third species of haematophagous bug of the family Reduviidae with a natural infection of Trypanosoma cruzi Chagas, the organism of Chagas disease, in Panama. A paper (1) presented in 1932 gave an account of Triatoma geniculata Latr., with a natural infection of this trypanosome being found in this Rupublic. A second (2) paper reported the finding of Rhodnius pallescens Barber also infected.

On September 20, 1933, Dr. Juan Feraud Penafiel captured a specimen of Reduviidae in the bathroom of one of the buildings of the Retiro Matias Hernandez, a hospital for mental diseases, located about six miles from the city of Panama. He recognized this insect as one of the Reduviidae and very kindly brought it to this laboratory for examination.

The writer was absent from the laboratory at this time but a Panamanian assistant, Gabriel Wade, placed the bug on a clean guinea pig, no. 789, on September 21, the day after it was received. It was later fed on this same guinea pig on three other days, September 25, September 27 and October 2. This guinea pig became positive, with *Trypanosoma cruzi* Chagas first appearing in its peripheral blood on October 6, fifteen days after the bug fed on the animal for the first time.

This bug was later placed on a second guinea pig, no. 812, on four occasions, October 7, 9, 13, and 14, but it refused to feed each time. It began ovipositing on September 27 and between that date and October 14 a total of sixty-four eggs was deposited. The bug died on October 16.

The writer returned to the laboratory on September 24 and on examining this insect considered it to be a specimen of the genus *Eratyrus*. Since this genus apparently had not been reported before from Panama the specimen was sent to the United States National Museum where Mr. H. G. Barber kindly examined it and found it to be an *Eratyrus cuspidatus* Stal.

This species seems to have been previously reported only from Colombia and Venezuela. In 1919, Tejera (3) reported finding a specimen of this species with a natural infection of *Trypanosoma cruzi* in Venezuela. The present occurrence is, therefore, the second time this species has been found with an infection that was naturally acquired.

REFERENCES

- CLARK, H. C., AND DUNN, L. H.: Experimental studies on Chagas disease in Panama. Amer. Jour. Trop. Med., January, 1932, xii, no. 1, 49-77.
- (2) Dunn, L. H.: A natural infection of Trypanosoma cruzi Chagas found in Rhodnius pallescens Barber in Panama. Amer. Jour. Trop. Med., September, 1933, xiii, no. 5, 471-473.
- (3) Tejera, E.: The tripanosomosis americana or Chagas's disease in Venezuela. The first case of tripanosomosis americana in the State of Miranda. Anal. Direc. San., Caracas, 1919, i, 97, 108.