

THE OCCURRENCE OF A RARE GENUS OF TICKS  
ON BATS IN PUERTO RICO  
(ACARINA: SPELAEORHYNCHIDAE)

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Since bats are the only living native land mammals of Puerto Rico, the author attempted a survey of their ectoparasites in hopes of finding new, indigenous species of mites, ticks, and fleas. During the course of this work it was discovered that the common fruit eating bat, *Artibeus jamaicensis jamaicensis* Leach is parasitized by a tick in the unusual genus *Spelaeorhynchus*, not previously known to occur in Puerto Rico. No tick has heretofore been reported from bats in Puerto Rico, although previous efforts had been made to find them.

Over a period of six months excursions were made to various localities where bats were collected from caves. On February 21, 1942 fourteen bats were shot in a cave near Bayamón, which on examination revealed two specimens of ticks. A week later, on February 28, eleven specimens of bats from the same cave yielded one tick, and again on March 7 twelve bats from the same cave yielded two ticks. All the bats were the common fruit eating species, *Artibeus jamaicensis jamaicensis* Leach, which according to Anthony (1) is the most widely distributed of the Puerto Rican bats, its range covering the whole Island. This same species of bat had previously been collected at Lares (four specimens on November 4, 1941) and at Aguas Buenas (two specimens on October 12, 1941) but no ticks were found. Tate (10) collected 27 specimens of bats, including this species, at three different localities on the Island, but found no ticks. From these data it would seem that the tick is not very common, perhaps being of seasonal occurrence and local distribution.

A search through the literature showed that the ticks represent a species in the unusual genus *Spelaeorhynchus*. This genus is the only one in its family and is of peculiar interest because its members are closely related to mites and are thought to be an intergrade between mites and ticks (Ewing: 3, 4). This genus was first described by Neumann (7), the type species being *S. praecursor* Neumann, described at the same time. The correct type locality was later designated by Neumann (8)

as Pernambuco, Brazil. In 1902 Oudemans (9) established the family Spelaeorhynchidae for the reception of this genus. In 1917 another species was described by Banks (2) from the Canal Zone, Panama, under the name of *S. latus*. These two species constitute the known members of the genus and Ewing (3) suggested that *S. latus* Banks might be a synonym of *S. praecursor* Neumann, but this idea has been refuted by Fonseca (5, 6) who has presented biological notes on *S. latus* as it occurs in Brazil.

Unfortunately, the five specimens collected by the writer in Puerto Rico are not mature and, therefore, a definite specific determination could not be made. A specimen was sent to Dr. H. E. Ewing of the U. S. Bureau of Entomology and Plant Quarantine who compared the specimen with the types of *S. latus* Banks and stated that it appeared to be a nymph of *S. latus*, but that he could not be sure in the absence of adults. Dr. Ewing suggested that the species be called *Spelaeorhynchus* (?) *latus* Banks.

In each case the ticks occurred in the lower part of the ear, one tick to an ear. In one instance an individual bat had a tick in each ear. The mouth parts were inserted well into the flesh and in general the parasite had a typical ticklike appearance. Of the five specimens collected one has been placed in the United States National Museum, Washington, D. C., another in the School of Tropical Medicine, San Juan, Puerto Rico, and the remaining three are in the private collection of the writer. Unfortunately, the writer has been forced to discontinue work on this project, and it is hoped that someone else will take it up with the aim of finding adult specimens and working out the life history, which doubtless will be of great interest.

Tate (10) recorded five species of ticks from Puerto Rico, all of which represent introductions. The species reported herein brings the number to six and is of special interest because it seems to be an indigenous species occurring on one of our common native mammals.

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#### SUMARIO

LA EXISTENCIA DE UN GÉNERO RARO DE GARRAPATA  
EN LOS MURCIÉLAGOS EN PUERTO RICO

El autor descubrió una nueva garrapata del género *Spelaeorhynchus*

como parásito del murciélago *Artibeus jamaicensis jamaicensis* Leach. Debido a la escasez de especímenes el autor no pudo hacer una determinación de la especie aunque no existe duda en su mente de que la garrapata encontrada sobre el murciélago es distinta a todas las descritas en el género *Spelaeorhynchus* u otros géneros.

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