A NEW SPECIES OF THE GENUS BLARINOBIA JAMESON AND A NEW SUBSPECIES OF PROTOMYOBIA CLAPAREDEI (POPPE) (ACARINA : MYOBIIDAE) [1]

BY

B. McDANIEL.

(Department of Entomology-Zoology South Dakota State University).

Specimens of the shrew, *Cryptotis parva*, were found to contain three species of external parasites. Two of these belong to the family Myobiidae ; the third, to the family Listrophoridae.

JAMESON (1948) treated the myobid mites from shrews of eastern North America. In this publication, he discussed the possibility of the establishment of a subspecies for the members of the species *Protomyobia claparedei* (Poppe) found in North America. The discovery of *P. claparedei* from the least shrew and the establishment of the stability of the location of the second pair of the dorsal submedians, indicates that this species can be separated into distinct subspecies.

Protomyobia claparedei americana new subpecies.

Type — Adult male taken 14 miles southeast of Kingsville, Kleberg County, Texas, by H. D. BURNET and B. McDANIEL, from the least shrew, *Cryptotis parva* (Say), february 12, 1966.

Diagnosis — Similar to *P. c. claparedei* but with submedians 11 of the male mesocaudad from laterals 11, whereas in *P. c. claparedei* submedians 11 of the male lie on a line connecting laterals 11.

Remarks — This subspecies is established for specimens taken from the following hosts : *Blarina brevicauda, Sorex fontinalis, Sorex cinereus, Sorex fumeus* and *Cryp-*

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totis parva. JAMESON (1948) discussed the occurrence of *P. claparedei americana* as a common parasite of *Blarina brevicauda*. The discovery of this subspecies on the least shrew, *C. parva*, is not surprising when the distribution of *C. parva* and *B. brevicauda* are studied. Both of these species of shrews overlap in their distribution. According to DAVIS (1960), *C. parva* is found over the eastern and southern parts of Texas. *B. brevicauda* has been recorded from the north eastern United States ans ad far south in Texas as Refugio County.

Key to the subspecies of P. claparedei.

1. Submedians II of the male meso-caudad from laterals II..... **P. c. americana** n. subsp.

   Submedians II of the male lie on a line connecting laterals II..... *P. c. claparedei* (Poppe).

THE GENUS *Blarinobia* JAMESON.

JAMESON (1955) established the genus *Blarinobia* for *Myobia simplex* Ewing. Specimens of this genus were collected from *Cryptotis parva* and were found to represent an undescribed species.

Blarinobia cryptotis n. sp.

Adult male — Dorsal with submedians I meso-cephalad from laterals I, longer than submedians II, located on sclerotized plate with laterals I not expanded. Submedians II, similar to submedians I, shorter meso-caudad to laterals II. Genital orifice cephalad of the bases of leg III ; two pairs of setae associated with genital orifice. These similar in size and shape to submedians. One pair of circumanal setae.

Laterals I expanded at base tapering to thread-like distal end ; extending beyond base of laterals II, almost to base of laterals III. Laterals II similar to laterals I ; longer, extending past coxae of legs IV. Laterals III similar to I and II, bases meso-caudad from bases of I and II, expanded at base tapering to point at distal end ; extending almost to base of circumanal setae ; length as long as or longer than laterals I ; shorter than laterals II. Legs I with four segments ; without claws. Legs II-IV each with a single claw. Abdomen terminating with two large anal setae with their bases almost contiguous ; their length as long or longer than length of entire body. Penis with two loops. Ventrally two pairs of setae between apodemes of legs I and II ; similar to submedians I on dorsum. A pair of setae between apodemes II and III, III and IV, located close to apodemes of legs III and IV. Abdominal pair of setae larger than other seta on venter ; located near coxae of legs IV.

Adult female — Dorsum with submedians I meso-cephalad from laterals I ; subequal to submedians II ; located with laterals I ; on sclerotized plate as in male similar in shape as submedians II ; expanded at base and tapering to a point distally. Submedians I similar to submedians II ; meso-caudad to laterals II. Submedians III-V equal in size and shape ; much larger than submedians I and II, approaching the size of laterals ; bases of setae expanded and tapering distally to a point. Submedians III-IV resembling laterals more closely than submedians I and II Submedians III extending beyond base of submedian V ; the bases lie on a line connecting laterals III. Submedians IV extending beyond coxae of legs IV.

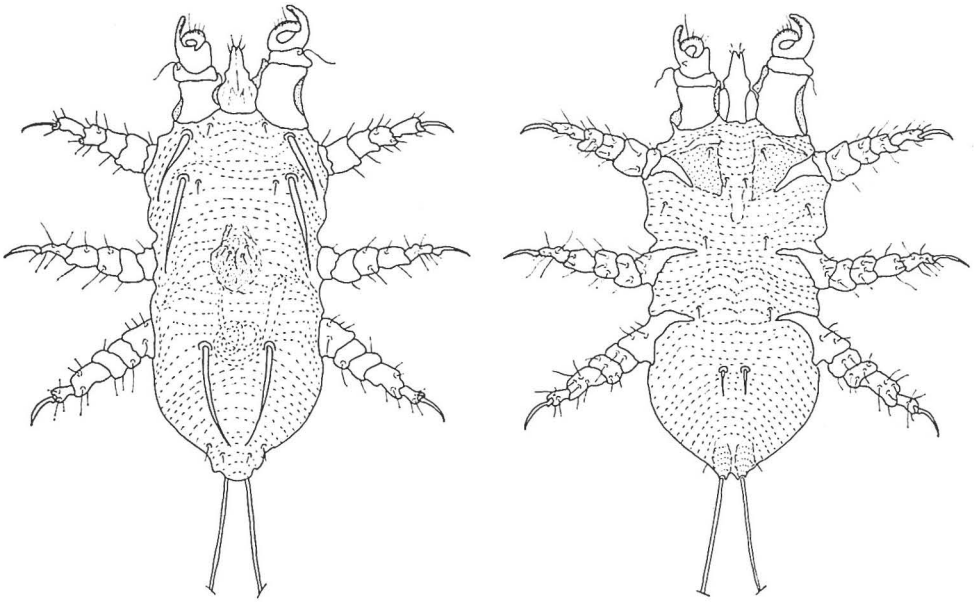

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FIG. 1-2. — *Blarinobia cryptotis*, allotype mâle.
1. — Dorsal view ; 2. — Ventral view.

Submedian V extending almost to circumanal setae. Submedians III-V meso-caudad of submedians II ; spaced equal distance from each other. Circumanal setae consisting of but a single pair. A pair of setae caudad from the vulva similar to circumanal setae. Two pairs of setae at caudal border of anal slit. Laterals I-III expanded, tapering to a point distally. Laterals I extending beyond bases of laterals II ; located on sclerotized base with submedians I. Laterals II long, extending beyond the bases of submedians V. Laterals III similar to II extending beyond bases of circumanal setae. Vulva located between circumanal and posterior portion of hysterosoma ; this shaped as illustrated. Venter with five pairs of setae. The anterior pair located between the apodemes of legs I and II, small, similar to

submedians I and II of dorsum. The pairs of setae located between the apodemes of legs II-III and III-IV similar in size and shape ; larger than anterior pair ; base expanded, narrowing to a point at distal end. A pair of setae, larger than other ventral setae, is located just caudad of coxae of legs IV. This pair similar to sub-

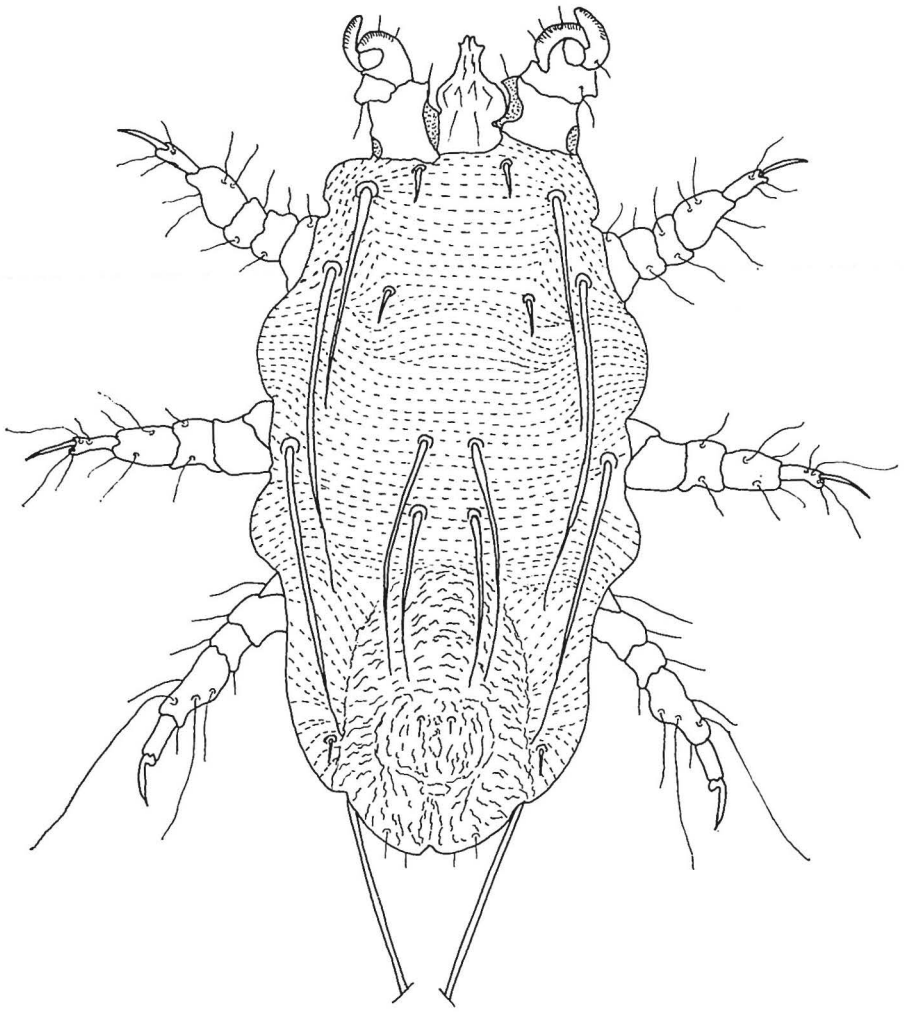

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FIG. 3. — *Blarinobia cryptotis*, dorsal view of holotype female.

medians III and V on dorsum but shorter and broader at base. Abdominal end setae large, located on a lobed ridge. The hysterosoma narrows to a rounded point as illustrated. Legs I with four segments ; the left leg being smaller than the right ; without claws. Legs II-IV with a single claw.

B. cryptotis, n. sp. may be separated from the only other member of the genus *Blarinobia* by the size of the submedians III-V of the female and the size of laterals II of the male. In *B. simplex* the female has submedians III equal to submedians I. In *B. cryptotis* submedians III-V are much larger than submedians I and similar

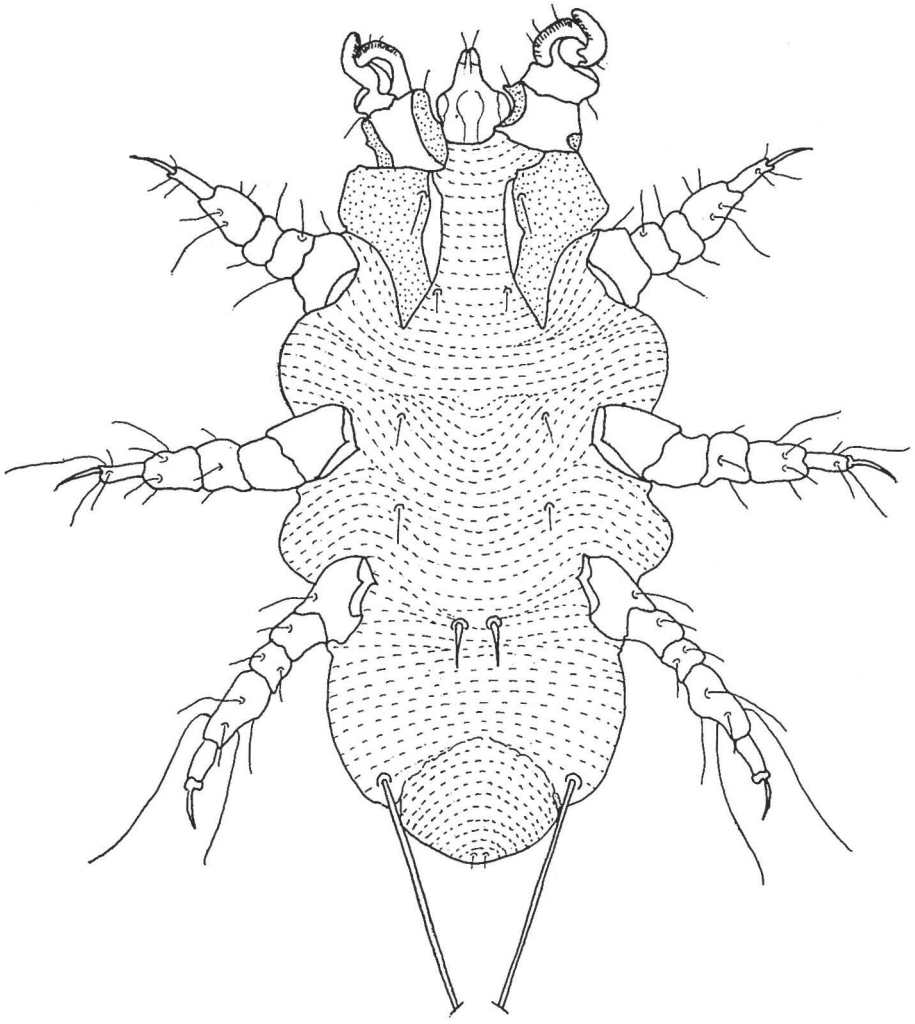

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FIG. 4. — *Blarinobia cryptotis*, ventral view of holotype female.

in structure to the laterals. In the male of *B. simplex*, laterals III are about half as long as laterals I. In *B. cryptotis*, laterals III are almost two times longer than laterals I.

This species is described from the female holotype and allotype male from

Cryptotis parva (Say) (little short-tailed shrew) collected 14 miles southeast of Kingsville, Kleberg County, Texas by H. D. BURNETT and B. MCDANIEL, on February 6, 1966, and deposited in the United States National Museum (U.S.N.M. No. 3231), Washington, D. C. Paratypes collected at same location on same date deposited in the Laboratoire d'Acarologie à Paris, France (male and female), Department of Zoology, University of California, Davis, (male and female) and the author's personal collection.

The discovery of *B. cryptotis* extends the distribution of this genus to the southern portion of Texas.

Distribution and hosts of the genus *Blarinobia* Jameson.

Mite	Shrew	Distribution
Blarinobia simplex	*Blarina brevicauda*	Welland Co., Ontario, Canada
		Tompkins Co., New York
		Terra Cotta, District of Columbia
	Sorex cinereus	Tompkins Co., New York
	B. brevicauda talpoides	Smoky Mts., Tennessee
Blarinobia cryptotis	*Cryptotis parva*	Kleberg County, Texas

Key to the species of the genus *Blarinobia* Jameson.

Submedians III — IV of female well developed ; similar in structure to laterals rather than submedians I and II ; male with laterals III two times length of laterals I.....
B. cryptotis n. sp.

Submedians III-V of female not well developed ; similar in structure to submedians I and II rather than laterals ; male with laterals III half the length of laterals I.....
B. simplex (Ewing)

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