

American Museum Novitates

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79TH STREET, NEW YORK 24, N.Y.

NUMBER 2027

MAY 8, 1961

A Revision of the Genus *Lissoteles* (Diptera, Asilidae)

BY CHARLES H. MARTIN¹

In the past fewer than a dozen and a half specimens of the two species of the genus *Lissoteles* Bezzi have been recorded in the literature. During the past three or four years, the writer has assembled a collection of more than 400 specimens for a study of this interesting genus. Approximately 280 specimens represent one species, while only one or two specimens represent each of three species; a total of eight species are in the collection.

In early August the writer and his wife collected *Lissoteles* on the beach of the Pacific Ocean in front of the Plaza Hermosa Hotel which is on the southern edge of San Blas, Nayarit, Mexico. After spending a morning collecting only a few specimens, we located quite a number of *Lissoteles* about mid-afternoon in a low, unshaded spot on rather damp sand. Also, the genus *Townsendia* was collected near this spot.

Dr. Paul Arnaud of the California Academy of Sciences has sent to the writer 200 specimens of *Lissoteles* that were collected on the ocean beach at a light during the latter part of July at Desemboqua, Sonora, Mexico. The writer has a few records of one and of two specimens of several species of Asilidae that had been collected at lights, but there are no other records of such large numbers of Asilidae coming to light.

¹ Research Associate, the American Museum of Natural History; Professor of Entomology, Oregon State College, Corvallis.

ACKNOWLEDGMENTS

The writer appreciates receiving specimens from the following: Dr. Paul H. Arnaud, Jr. (California Academy of Sciences); Dr. F. S. Blanton (University of Florida); Dr. F. R. Cole (University of California); Dr. C. Howard Curran (the American Museum of Natural History); and Dr. F. S. Truxal (Los Angeles County Museum).

LISSOTELES BEZZI

Lissoteles BEZZI, 1910, Boll. Lab. Zool. Gen. e Agr., Portici, vol. 4, p. 178. COLE, 1919, Proc. California Acad. Sci., vol. 12, pp. 464–465. JAMES, 1953, Jour. Washington Acad. Sci., vol. 43, pp. 56–57.

Bezzi (1910) erected the genus *Lissoteles* on the basis of a single female of *Lissoteles hermanni* from Panama. Cole (1919), in describing the second species of the genus, remarks on the close resemblance of *Lissoteles* to *Stichopogon* Loew. The present writer's examination of the eight species of *Lissoteles* at hand also shows the habitus of this genus as being very similar to that of *Stichopogon*. In fact the resemblance is so close that there could be some question about the advisability of reducing *Lissoteles* to sub-generic rank. However, the difference in the antennae of the two genera, the difference in the male genitalia, the presence of bristles or hair on the face of *Lissoteles* and the absence in *Stichopogon*, and the difference in the general geographical distribution of the two genera are good reasons for keeping *Lissoteles* at the generic level.

One of the most obvious characters for the separation of the two genera is the antennae. The slender, cylindrical style of the oval-shaped third antennal segment of *Lissoteles* is about as long as the three antennal segments together, while in *Stichopogon* the third segment is broad and elongate, and the style is shorter than the third segment.

In the 12 or more species of *Stichopogon* at hand (including some undescribed species), the mystax is confined to the region of the oral margin, and the face is bare. In four of the species of *Lissoteles* the mystax extends to the antennae; in the other four species the mystax is discontinuous, with a number of long hairs in a close or a scattered clump just below the antennae. In most specimens these white hairs are prominent, but in some they are reclinate and so fine that, against the background of white tomentum, they may not be obvious at first glance.

The aedeagi of the males of the two genera are similar in structure, but in *Stichopogon* there are two pairs of appendages associated with the aedeagus, while in *Lissoteles* there is only one pair. The male genitalia of *Stichopogon* are more complex and cannot be so easily examined as those of most of the species of *Lissoteles*.

The male genitalia of *Stichopogon trifasciatus* (Say) and of a closely related undescribed species have been studied. In these two species an elongated, thin sheath shields the basal portion of the outside appendages, the sheath being free apically. These appendages are T-shaped, the stem terminating with apical and ventral processes of various shapes. This T-shaped structure seems to be comparable to the forceps of many Asilidae. The inside pair of appendages is adjacent to the aedeagus. They are more or less S-shaped, with only the basal half visible dorsally. The apex is hidden from a lateral view by the apex of the outside appendages. The second pair may be comparable to the penis valves in other genera of Asilidae.

In *Lissoteles* the outer sheath is not free apically as in *Stichopogon*, but is a complex, fused structure covering the appendages basally and partially laterally. The single pair of appendages is L-shaped, with an apical process, but the ventral-apical process found in *Stichopogon* is not present in the species of *Lissoteles* that were studied. The genitalia of *Lissoteles acapulcae*, *aquiloni*, and *hermanni* are illustrated in figures 1–3. When the genitalia were pulled out, the membranes were broken, and sometimes an appendage also was broken, as is illustrated for *acapulcae*. These breaks are indicated by jagged lines in the diagrams. The position of the appendages of *hermanni* could not be changed, so a portion of the aedeagus is drawn in dotted lines. Only the aedeagus of *vanduzeei* is illustrated in figure 4.

The geographical distribution of *Lissoteles* is in the tropical maritime areas. As does *Stichopogon*, it inhabits sandy areas. *Stichopogon* also invades the maritime areas, but the number of species is restricted. The most northern record available for *Lissoteles* is Isla Tiburon just off the western coast of northern Sonora. Probably it will be found at the northern end of the Gulf of California. Three other Mexican species are found farther south along the west coast and also on the southern tip of Baja California. No species has been collected on the eastern coast of Mexico, but a species has been collected on the coast of Honduras. Farther south there are two species from Panama, and the most southern record for *Lissoteles* is for a species from Zorrita, Tumbes, Peru.

Most of the North American species of *Stichopogon* live primarily in the continental temperate zone. Ten of the described species range from areas north of the Tropic of Cancer to the Canadian border. The distribution of several species overlaps that of *Lissoteles* in Mexico. *Stichopogon trifasciatus* (Say) has been reported by James (1953) as far south as Honduras; this species is also known from Michigan. So far as known, the two genera do not live together, the undescribed species of *Stichopogon* in Mexico being found inland and *Lissoteles* being confined to the coast.

KEY TO THE SPECIES OF *Lissoteles* BEZZI

1. Mystax extending from the oral margin to near the base of the antennae . . . 5
 Mystax confined to the oral margin, from three or four to a small clump of
 long hairs below the antennae, separated from the mystax 2
2. Posterior femora totally pollinose 4
 Posterior femora anteroventrally with a longitudinal, polished black stripe . . . 3
3. All abdominal sternites pollinose (Mexico) *autumnalis*, new species
 Abdominal sternite 2 and usually one or more of the other sternites with a large,
 medial, black, polished spot (Panama) *blantoni*, new species
4. Front laterally almost as densely tomentose as the face; mesopleurae gray, with-
 out stout bristles posteriorly (Honduras) *capronae*, new species
 Front more thinly tomentose than face; mesopleurae brassy yellow-brown, two
 stout bristles posteriorly (Panama) *hermanni* Bezzi
5. All tibiae and femora black 7
 Either tibiae yellow on basal two-thirds or more, apices black, or both tibiae and
 femora dark reddish brown 6
6. Tibiae yellow, usually with black apices (Nayarit to Sonora, Mexico)
 *aquilonius*, new species
 Femora and tibiae dark reddish brown (Baja California, Mexico) . . *vanduzeei* Cole
7. Thorax with recumbent, sparse, short, white hair (Peru) . . *austrinus*, new species
 Thorax with semi-erect hair or erect hair 8
8. Posterior femora anteriorly without spines, hair short and sparse (Guerrero,
 Mexico) *acapulcae*, new species
 Posterior femora apically on anterior surface with one or more pale spines pro-
 jecting anteriorly and with hair long but shorter than the longest spines
 (Baja California, Mexico) *vanduzeei* Cole

Lissoteles hermanni Bezzi

Figure 1

Lissoteles hermanni BEZZI, 1910, Boll. Lab. Zool. Gen. e Agr., Portici, vol. 4, p. 178. CARRERA, 1953, Papeis Avulsos, vol. 11, p. 271. JAMES, 1953, Jour. Washington Acad. Sci., vol. 43, pp. 56-57.

Bezzi describes *Lissoteles hermanni* on the basis of a single female with a "poorly preserved abdomen." According to Bezzi the head is black and covered with gray tomentum. In one of the four females that I am identifying as *hermanni*, the face is densely grayish tomentose contrasting with the thin, mixed brown and grayish white tomentum of the vertex. In some lights the tomentum appears to be the same color as the face. In the other three females the proportion of brown and gray tomentum on the vertex is variable. In the males the contrast between the white and brown areas is sharper.

Also, the patterns on the thorax are variable. In three females the gray tomentum that Bezzi describes is evident, but the pattern of the fourth specimen is one of shades of brown. The not very distinct longitudinal

lines described by Bezzi appear as one line joining anteriorly and posteriorly four distinct brown spots, with two additional brown spots above the calli on one female. In the other specimens these spots are not so distinct, and the small ones are not present. The scutellum is gray tomentose on three and brown on the fourth specimen; the four specimens have long hair on both the disc and the margin. The mesopleura are brassy yellow-brown, with two heavy bristles posteriorly.

Bezzi is able to describe one segment of the otherwise poorly preserved abdomen as grayish white on the anterior margin and brown on the posterior margin. The female specimens at hand show the same degree of variability as the head and thorax. In one specimen the whole abdomen is brown; in two others the brown bands have a narrow gray band posteriorly and a much broader one anteriorly, with the lateral margins gray. At the other extreme on the fourth specimen the narrow bands on the gray background are widely separated medially so that they appear as spots. Segment 8 on three of the specimens is totally gray. Abdominal segment 1 laterally and posteriorly has hair stronger and abruptly longer than that anteriorly.

The male is described here for the first time: Length, 8 mm. Head black; face densely white tomentose, extending along the eye margins on the vertex as a thin wedge, vertex very thinly tomentose below the ocellar tubercle and more densely beside and behind it, occiput brown pollinose, laterally cinereous tomentose with a light brown tinge; vestiture white, mystax mostly on the oral margin, with a clump of a few weak, long hairs just below the base of the antennae.

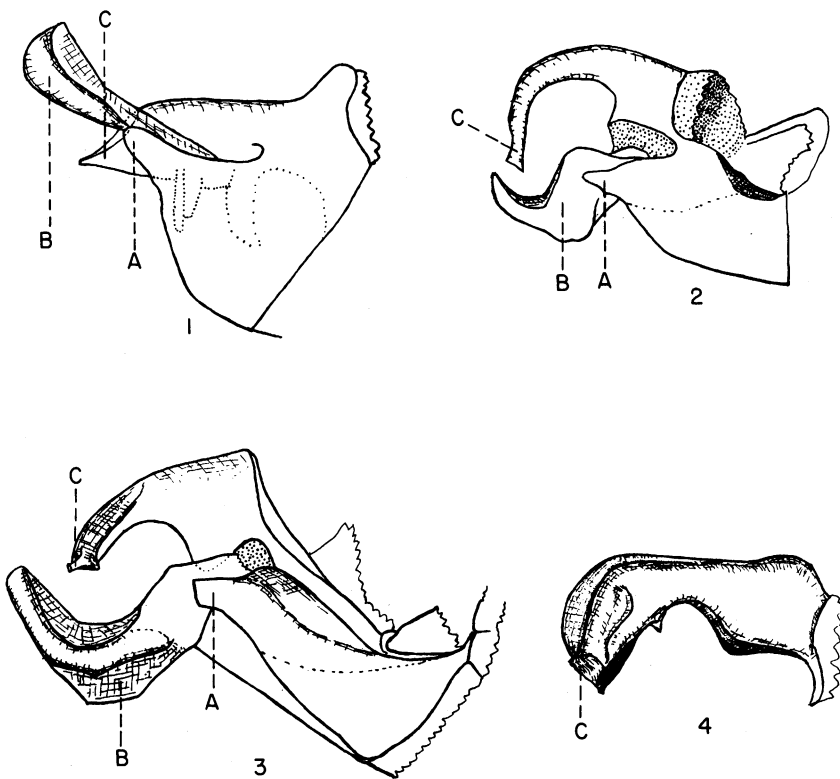
Thorax yellowish brown tomentose, with gray tomentum before and along the transverse suture, indistinct median brown stripe coalescing with darker reddish brown spots above the calli and also similar spots behind the transverse suture, pattern of the spots more or less indistinct; erect pale hair anteriorly becoming semi-erect posteriorly, more abundant than on other species of *Lissoteles*; scutellum yellowish brown tomentose, covered with sparse, long, pale hairs; collar and metapleura white tomentose; mesopleura brassy yellowish brown tomentose, with two strong, pale bristles posteriorly, hair before the bristles.

Abdomen yellowish brown pollinose, segment 1 from a lateral view cinereous pollinose except a narrow, brown band anteriorly, segments 2 and 3 posteriorly with a narrow band of mixed brown and gray pollen, segment 4 very narrowly banded brown and gray; hair longer and more abundant than on most species, pale.

Legs brownish pollinose; hind femora with a row of pale bristles anterodorsally, directed obliquely upward.

Wings hyaline.

Carrera (1953) reports a female from Panama (British Museum No. X-1896). He makes the comment that *Lissoteles* can be separated from *Neopogon* Bezzi by the shape of the antennae and the chaetotaxy of the mesonotum.



FIGS. 1-4. Male genitalia of *Lissoteles*. 1. *L. hermanni*. 2. *L. acapulcae*. 3. *L. aquilonius*. 4. Aedeagus of *L. vanduzeei*. Symbols: a, outer sheath; b, L-shaped appendage; c, apex of aedeagus. All figures drawn to scale.

The present writer's notes on *hermanni* are based on specimens collected at Fort Amador, Canal Zone, May 20, 1951 (F. S. Blanton). Also, a male and a female are from Rio Mar, Republic of Panama, July 17, 1951 (Blanton and Peyton). Bezzi's holotype specimen was from Panama, March 2, 1908 (Fasel). The specimens at hand will be labeled as topotypes.

Lissoteles vanduzeei Cole

Figure 4

Lissoteles vanduzeei COLE, 1919, Proc. California Acad. Sci., vol. 12, p. 465.

Cole described *Lissoteles vanduzeei* from the southern tip of Baja California, Mexico, as the second species in the genus. The original paratype series of 13 specimens is at hand along with 23 other specimens collected by Van Duzee from the same localities and on the same dates as the paratypes. Undoubtedly the specimens without paratype labels are a part of the original type series. Also, Dr. F. R. Cole himself has lent three paratype specimens and three specimens without paratype designation but with the same collecting data. In addition, 22 other specimens are at hand that have been collected since the original description was written for *vanduzeei*.

A study of this series reveals considerable variability in this species. The whole series can be divided into two major groups, one with the wings covered with white microtrichia and the second with brown microtrichia. A small third series has both white and brown microtrichia. Also, the same specimens can be regrouped into a large series with black legs and a smaller series with dark reddish brown legs. A comparison of the male genitalia indicates that all are *Lissoteles vanduzeei* Cole.

DISTRIBUTION: All the records for *Lissoteles vanduzeei* are from the southern tip of Baja California and the adjacent islands. In addition to the records of Cole (1919), specimens are at hand from Cabo, San Lucas, Baja California, March 16, 1953 (P. H. Arnaud); Ruffo Ranch, Isla Carath, Gulf of California, Mexico, March 22, 1953 (P. H. Arnaud); and Coyote Cove, Concepcion Bay, June 20, 1938 (Michelbacher and Ross).

Lissoteles acapulcae, new species

Figure 2

Lissoteles acapulcae resembles *L. vanduzeei* Cole rather closely, but the absence of bristles on the anterior face of the hind femora and the male genitalia readily separate the two species. A few specimens have a dark Y or V on the occiput and vertex, but the mark is not so distinct or of the same shape as it is in *L. austrinus* from Peru.

MALE: Length almost 8 mm. Head black, vestiture white; looking down on face and front, tomentum uniformly dense; darkened areas opposite the two posterior ocelli; mystax dense to the base of the antennae.

Thorax black, gray tomentose, anteriorly with two light brown areas; broad, median area more thinly tomentose than laterally; sparse, semi-

erect pale hair longest posteriorly, longer anteriorly than medially; scutellum gray tomentose, with long, pale hairs on the disc and the margin; pleurae gray tomentose.

Abdomen gray tomentose, posterior margins of segments light brown pollinose, fading anteriorly into the gray pollen and faint, median, light brown triangles on the anterior segments; segment 1 with a clump of coarse hair on the lateral margins, longer posteriorly, fine hair shorter on each successive segment posteriorly; venter gray pollinose.

Wings, veins light brown, light brown microtrichia appearing white in some lights.

Legs black, thinly gray tomentose; hind femora with a row of nearly erect white bristles dorsally, anteriorly hair sparse, no prominent bristles.

FEMALE: Similar to the male; thorax more extensively light brown pollinose; abdomen with a sharper contrast between the brown posterior bands extending medially as triangles and the gray areas.

TYPE MATERIAL: Holotype, male, Acapulco, Guerrero, Mexico, June 15, 1935 (A. E. Pritchard). (Specimen with aedeagus extended.) Allotype, female, same data as holotype. Paratypes: Eighteen males and eight females, same data as the holotype; one female from type locality, July 1, 1951 (P. D. Hurd); a male and a female from the type locality, August 16, 1951 (L. J. Lipovsky); Salina Cruz, Oaxaca, Mexico, July 17, 1947 (Borys Malkin).

The holotype and the allotype are deposited in the collection of A. E. Pritchard, University of California, Berkeley. Paratypes are in the collections of Pritchard, the American Museum of Natural History, the United States National Museum, and of the writer.

REMARKS: In greased specimens the tomentum and hair may change to a yellowish brown that cannot be removed with xylol. Also, the pollinose patterns on the abdomen are changed by the greasing of the specimen.

Usually the density of the pollen on the thorax is not uniform from specimen to specimen. On only two of the specimens at hand is the pollen almost uniformly dense. The contrast between the gray and the brown areas on both the thorax and the abdomen varies from specimen to specimen.

***Lissoteles aquilonius*, new species**

Figure 3

Lissoteles aquilonius is the only one of the known species of *Lissoteles* with the basal half or more of the tibiae yellow.

MALE: Length, 6 mm. Head black, whitish gray tomentose, occiput behind the ocellar tubercle brownish tomentose; vestiture white; mystax

dense and extending to the base of the antennae.

Thorax black, white to gray to brownish tomentose depending on the viewing angle, darker brown tomentum posteriorly, median stripe (with indistinct margins) formed by thinning of tomentum and joining the dark brown posterior area extending almost to the wing bases; vestiture white; scutellum similar to thorax, with tomentum on the margin thinner, pale vestiture of numerous hairs confined to the margin; pleurae densely gray pollinose.

Abdomen gray tomentose, with posterior margins of segments 2 and 3 broadly brown tomentose, segments 4, 5, and 6 posteriorly with brown, triangle-like areas, segment 7 totally dark brown dorsally, posterior segment mixed gray and brown; vestiture white, laterally erect hair tufts becoming shorter with each succeeding segment and very short and recumbent on segments 5 to 8; dorsally hair erect, rather sparse on segments 1 to 3, more recumbent on the remaining segments.

Legs with femora black, white pollinose, hind and middle tibiae yellowish on basal three-fourths, fore tibiae with less yellow.

Wings hyaline, with brown microtrichia.

FEMALE: Length, 9 mm. Similar to male but with more extensive brown areas on the thorax. Hair on the disc of the scutellum and on the margin. Abdominal segments 2 to 5 medially with anterior brown triangular areas joining posterior brown bands, segments 6 and 7 mostly brownish, segment 8 gray.

TYPE MATERIAL: Holotype, male, San Blas, Nayarit, Mexico, August 7, 1959 (Charles H. Martin). Allotype, female, same data. Paratypes: Forty-two specimens of both sexes with the same data as the holotype (also Dorothy W. Martin); one specimen, type locality, September 13, 1957 (R. and K. Dreisbach); one paratype, Tescapan, Sinaloa, Mexico, June 29, 1956 (R. and K. Dreisbach); 10 paratypes, Tiburon Island (north end and south end), Sonora, Mexico, July 9–13, 1952 (C. and P. Vaurie); six paratypes, Cochore Beach, Guaymas, Sonora, Mexico, July 26, 1952 (C. and P. Vaurie); eight paratypes, Empalme, Cochore Beach, Sonora, Mexico, July 26, 1952 (C. and P. Vaurie); four paratypes, Tasiota, Sonora, Mexico, July 18, 1952 (C. and P. Vaurie); one paratype, San Felipe, Baja California, Mexico, June 4, 1952 (M. Cazier and others); one paratype, Pitiquito, Sonora, Mexico, July 4, 1952 (C. and P. Vaurie); one paratype, La Choya, Sonora, Mexico, August 16, 1952 (C. and P. Vaurie); 25 paratypes, Desemboquoa, Sonora, Mexico, July 17–31, 1953 (B. Malkin), at light on sea beach.

The holotype and the allotype are deposited in the American Museum of Natural History. Paratypes are in the collections of the American Mu-

seum of Natural History, the United States National Museum, the California Academy of Sciences, F. R. Cole, R. and K. Dreisbach, and the writer.

REMARKS: *Lissoteles aquilonius* is rather variable in color. While the majority of the specimens agree in general with the holotype and allotype, there is a small group with a brown posterior band on abdominal segments 2 and 3, and a narrow, longitudinal stripe on the remaining segments. On a few specimens the posterior band on abdominal segments 2 and 3 reach the anterior margins as medial triangles.

***Lissoteles austrinus*, new species**

Lissoteles austrinus, a species from Peru, seems to be most closely related to *L. blantoni*, but can be separated from this species and most of the others by the very distinct black Y on the occiput and vertex.

FEMALE: Length, 9 mm. Head black, white tomentose, a narrow-lined black Y with the stem dividing the occiput below and the arms extending to a point almost opposite the two posterior ocelli and then curving into the two small, black spots along the margin of the eye and opposite the ocellar tubercle; vestiture white; mystax matted, extending to the base of the antennae.

Thorax cinereous pollinose, indistinct, geminate, median, blackish stripe and irregular black spots across the terminations of the transverse sutures, both spots and stripe resulting from the thinning of the pollen; scutellum cinereous tomentose, with white hair on the margin and on the disc; pleurae cinereous tomentose, rather long white hair; halteres light orange-brown.

One hesitates to describe the abdomen in any detail because of its poor state of preservation. Dry cleaning in xylol has not restored the specimen. From a lateral view, the entire abdomen is cinereous, but from other views there is considerable discoloration. On the anterior segments there is pollen medially and distinct tomentum laterally. Segment 1 laterally has an anterior tuft of pale hair, posteriorly a group of stronger, longer hairs directed posteriorly; segment 2 laterally has pale hair, longer anteriorly; remaining segments have very short hair laterally.

Legs cinereous pollinose; vestiture white, hind femora dorsally with a row of long, slightly reclinate bristles, ventrally a row of shorter bristles, hair reclinate except apically directed posteriorly.

Wings with white microtrichia.

TYPE MATERIAL: Holotype, female, 10 miles south of Zorritas, Tumbes, Peru, January 21, 1955 (E. I. Schlinger and E. S. Ross). Paratype, same data as holotype. This specimen is similar to the holotype. The abdomen

is broken off and cemented to a paper point. The abdomen of this specimen is somewhat better preserved. Most of the abdomen is cinereous, but the anterior corners are soiled.

Both the holotype and the paratype are deposited in the California Academy of Sciences.

***Lissoteles autumnalis*, new species**

Lissoteles autumnalis, with the polished longitudinal stripes on the anteroventral surface of the hind femora, is related to *L. blantoni*. The sternites of *autumnalis* are pollinose, while there are polished black spots on the sternites of *blantoni*.

FEMALE: Length, 10 mm. Head black; white tomentum of face and vertex about equally dense; opposite the ocellar tubercle black, polished triangular areas about as broad at the base as the length of the antennal style, coalescing with the arms of a black Y behind and below the tubercle; white mystax confined to the oral margin with six or more very fine, long hairs scattered below the base of the antennae and discontinuous with the mystax.

Thorax black; thin mixed brown and white pollen on disc and densely white pollinose laterally; disc with sparse, very short, almost recumbent pale hairs and more dense, longer, white hair laterally; scutellum thinly gray pollinose posteriorly and more dense anteriorly, weak hair on the margin and a few very close to the margin; pleurae densely grayish white tomentose.

Abdomen thinly gray pollinose, more dense anteriorly, abdominal segments 1 and 2 laterally with pale, rather sparse hair, noticeably longer than the hair on the remaining segments; venter gray pollinose.

Wings with light brown microtrichia.

Legs gray pollinose; hind femora with anteroventral, longitudinal, polished, black stripes, a row of white bristles anterodorsally; hind tibiae polished, black anteroventrally; polished areas on both tibiae and femora with white hair.

TYPE MATERIAL: Holotype, female, Tenacatito Bay, Mexico, November 20, 1937 (Zaca expedition No. 37483). There is a town of Tenacatita on the west coast of the state of Jalisco, Mexico. Tenacatito Bay is not marked on the maps of Mexico available to the writer. The holotype is deposited in the American Museum of Natural History.

***Lissoteles blantoni*, new species**

Lissoteles blantoni can be separated from the known species of this genus, except *autumnalis*, by the longitudinal, polished, dark stripe on the ventral

side of the hind femora and by the black spots on the venter. These spots are not present on *autumnalis*.

MALE: Length, 7 mm. Head black; white tomentose with black spots along the margins of the eyes and opposite the ocelli extending as thin lines behind the ocellar tubercle; vestiture white; mystax confined to the oral margin, a few long hairs below the base of the antennae; antennal segments black, thinly white pollinose, style reddish brown, polished.

Thorax black; cinereous tomentose, the thinly tomentose, blackish, narrow, median stripe geminate anteriorly, thinly tomentose black spots just above wing bases and behind the transverse suture; sparse, recumbent, short, pale hairs covering the dorsum; white notopleural and postalar bristles; scutellum thinly white tomentose, with sparse, weak, short, pale hairs on the margin and a few on the disc; pleurae cinereous tomentose.

Abdomen black, thinly cinereous pollinose, with an indistinct, narrow, longitudinal stripe on segments 2 to 7; vestiture sparse; rather short, pale.

Legs black; cinereous pollinose, hind femora ventrally with longitudinal dark stripe.

Wings hyaline with brown microtrichia.

FEMALE: Similar to male, thorax with a broader median stripe, dark spots before and behind the transverse suture; abdomen with a broader median stripe as viewed from a lateral angle, lateral margins of segments 2 to 5 with indistinct brown spots of different intensities; spines of ovipositor pale.

TYPE MATERIAL: Holotype, male, Rio Mar, Republic of Panama, July 17, 1951 (Blanton and Peyton). Allotype, female, same data. Paratypes, eight females, same data as holotype. The holotype and the allotype are deposited in the United States National Museum. Paratypes are in the collections of the American Museum of Natural History, Blanton, and of the writer.

REMARKS: The holotype is the only male at hand; the abdomen has been slightly damaged by dermestids, and a wing and an antenna are missing. The allotype also shows slight evidence that dermestids fed on it externally. The species is named for Colonel F. S. Blanton, now Professor of Entomology at the University of Florida.

***Lissoteles capronae*, new species**

Lissoteles capronae is closely related to *hermanni*, but the front laterally is about as densely tomentose as the face, and the mesopleurae of *capronae* are gray tomentose, with long fine hairs covering them.

FEMALE: Length, 8 mm. Head black; face grayish white tomentose,

front similar but not so dense below the ocellar tubercle, darkened area opposite the posterior ocelli, occiput gray tomentose; vestiture white, about a dozen long hairs in the clump below the antennae.

Thorax gray tomentose, light yellowish brown, an indefinite median line, anteriorly two small, triangular-like, reddish brown spots, two larger spots behind the transverse suture; scutellum gray tomentose, long, rather strong hairs on the margin; pleurae gray tomentose, mesopleurae with pale hair but no bristles.

Abdominal segments gray laterally, segment 1 gray pollinose, segment 2 narrowly gray anteriorly, brown median band, more broadly gray posteriorly; segments 3 to 7 narrowly gray anteriorly and posteriorly, broad, brown bands medially, segment 8 grayish brown; segment 1 laterally with hair gradually becoming longer posteriorly.

Wings with pale brown microtrichia.

Legs gray pollinose, hind femora with a line of pale, long bristles more anterior than anterodorsally in position, directed anteriorly.

TYPE MATERIAL: Holotype, female, Tegucigalpa, Honduras, December 10, 1917 (F. J. Dyer). The holotype is deposited in the American Museum of Natural History.

