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NEW GENERA AND SPECIES OF LISPINAE (DIPTERA, MUSCIDAE)

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LISPE LATREILLE

Lispe LATREILLE, 1796, Précis des caractères génériques des insectes, p. 169.

This genus is quite poorly represented in the Neotropical region. Two apparently new species were collected at Natal, Brazil. They may be separated from related species by the following key.

KEY TO NEOTROPICAL *Lispe*

1. Mid tibiae with only a posterior median bristle.....2
Mid tibiae with a submedian anterior or anterodorsal bristle in addition to the posterior median bristle.....4
2. Hind femora with a row of short, stout, posteroventral bristles on basal half.....*setuligera* Stein
Hind femora posteroventrally bare.....3
3. Males with a prolongation of fore metatarsus.....*tentaculata* DeGeer
Males with a simple fore metatarsus.....*vilis* Stein
4. The presutural dorsocentral bristles strong; the anterior one as strong as the outer vertical and the posterior one as long as the anterior ocellar bristle.....5
The presutural dorsocentral bristles weak, the anterior one, if present, never so strong as the outer vertical, and the posterior one smaller than the anterior ocellar bristle.....*latana*, new species
5. Three pairs of postsutural dorsocentral bristles.....6
Four pairs of postsutural dorsocentral bristles, the anterior two pairs weak.....*edwardsi* Malloch
6. The anterior postsutural dorsocentral bristle strong; second antennal segment with only a small fulvous spot at apex; with well-defined dark abdominal markings.....*levis* Stein
The anterior postsutural dorsocentral bristle very small, scarcely developed; second antennal segment entirely fulvous; posterior margins of abdominal tergites broadly fulvous and with ill-defined markings.....*lisarba*, new species

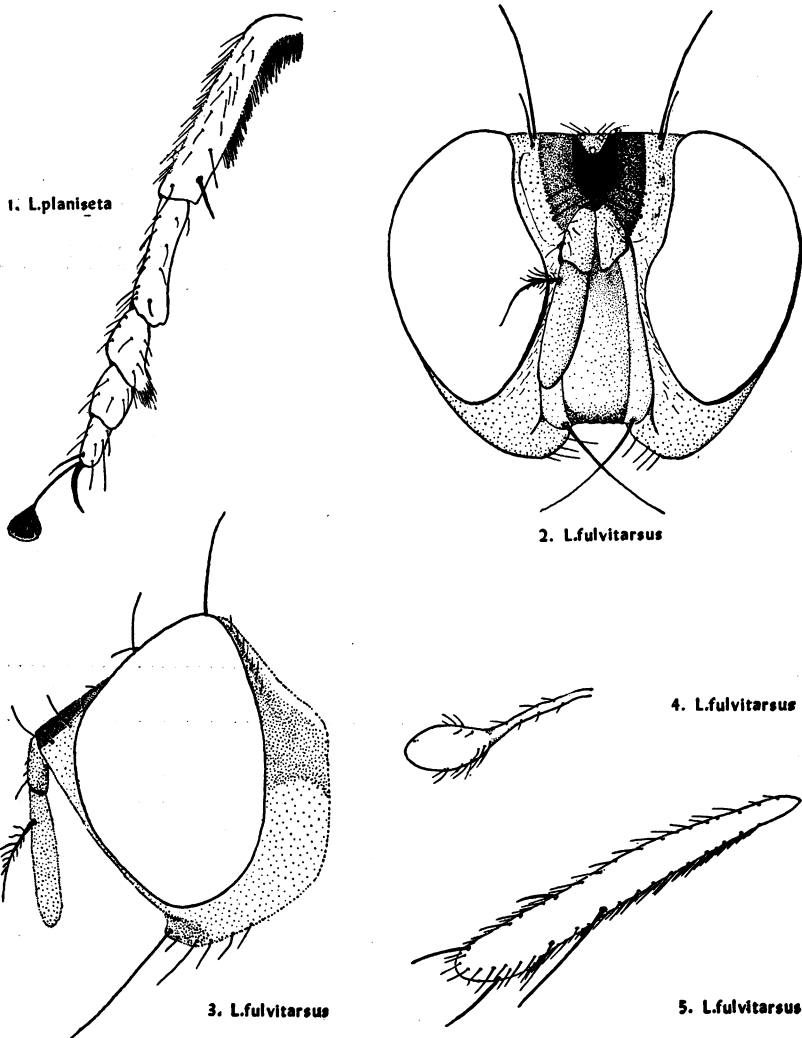


FIG. 1. *Lispe planiseta*, new species, front leg, tibia, and tarsus.

FIG. 2. *Lispacoenosia fulvitarus*, new species, frontal view of head.

FIG. 3. Idem, lateral view of head of male.

FIG. 4. Idem, palpus.

FIG. 5. Idem, hind tibia.

***Lispe lisarba*, new species**

MALE: Length 5 to 5.5 long. Head black; cheeks and lower half of occiput grayish pruinulent, face yellowish gray pruinulent; parafrontals, the upper part of occiput, and frontal vitta velvety black, with sparse whitish pruinescence. Front widest at middle, narrowed at apex and base of antennae. Parafacials with moderately coarse setulae. Second antennal segment fulvous; third brownish black, one and one-fourth to one and one-half times as long as second. Palpi light yellow, moderately dilated. Proboscis shiny brown.

Thorax black, dorsum with dense brown pruinescence, with only a trace of three very narrow, dark vittae, a median one and two lateral ones, through plane of the dorsocentral bristles; pleura with yellowish gray pruinescence. Acrosticals entirely absent; dorsocentrals 2:3, the anterior postsutural dorsocentral bristle greatly reduced, scarcely one-fifth as long as the bristle behind it. Scutellum with a pair of strong basals and apicals; sternopleurals 1:2. Hypopleura with several setulae above hind coxae.

Legs black, the knees, tibiae, and fore and mid metatarsi fulvous. Fore tibiae with a short, strong, median anterodorsal and a longer but more slender median posterior bristle. Fore tarsus as long as fore tibia, the apical tarsal segments slightly broadened. Mid femora with a median anterior, three or four anteroventral, and four to five posteroventral bristles on basal half, and an apical and subapical posterior bristle. Mid tibiae with a median anterodorsal and posterior bristle. Hind femora with three to four anteroventral and posteroventral bristles on basal one-half. Hind tibiae with a strong median anterodorsal and anteroventral bristle; basad of the anterodorsal bristle are two setulae and apicad there is one or no short setula.

Abdomen black, apices of tergites broadly fulvous, grayish pruinulent. Second to fourth visible tergites with a pair of very faint dark spots, the outlines of which are scarcely discernible.

Wings very faintly brownish hyaline. Third and fourth veins slightly convergent apically. Calyptrae white. Halteres yellow.

FEMALE: Length 5.5 mm. Very similar to the male. The posterior bristle on the fore tibiae is not so slender. Mid and hind femora without anteroventral and posteroventral bristles. The apical fore tarsal segments not broadened.

TYPE MATERIAL: Holotype, male; allotype, female; para-

types, seven males and one female; all from Natal, Brazil, February 5 to 24, 1943 (F. M. Snyder).

***Lispe latana*, new species**

MALE: Length 5.5 to 6.5 mm. Similar to *lisarba*, the pruinescence on parafacials yellowish. Parafacial setulae slightly more coarse on lower one-half. Antennae black, only the apex of second antennal segment fulvous.

Thorax black, brownish gray pruinose, with five well-defined brown vittae: one along mid line, one along the plane of each row of dorsocentral bristles, and one on each side along plane of sublateral and posthumeral bristles, this latter vitta almost confluent with a postsutural vitta along plane of intra-alar bristle. Acrostical bristles absent; dorsocentrals 2:4, the anterior presutural one very weak, the posterior one strongest but only as long as the outer vertical bristle; the anterior two postsutural dorsocentrals scarcely developed, not over one-eighth as long as third postsutural dorsocentral. Hypopleura above hind coxae bare or with only one or two hairs.

Legs black, only the extreme apices of femora and the tibiae fulvous, the latter with silvery gray pruinescence. Fore tibiae with the clothing setulae longer and more prominent than usual; with a median anterodorsal and posterior bristle, the latter longer but more slender and more apically situated. Apical fore tarsal segment slightly broadened; the fore tarsi as long as fore tibiae. Mid femora with a row of anteroventral and posteroventral bristles, the basal five or six in both series most distinct; a median anterior bristle, and with a subapical and apical posterior bristle. Hind femora with four to six anteroventral bristles on basal one-half to two-thirds. Hind tibiae with a median anterodorsal and anteroventral bristle, basad the anterodorsal bristle with two or three weaker bristles and occasionally with one apicad of the median anterodorsal one.

Wings very slightly yellowish hyaline, especially at base; third and fourth veins slightly convergent apically. Calyptrae white; halteres yellow.

Abdomen black, grayish pruinose; the apical lateral margins of the tergites pale fulvous. Basal tergite with a pair of large, subtriangular, brown spots which extend from base of tergite to the lighter colored, narrow, apical area; the spots on fourth visible tergite confluent at base, others distinctly separated.

FEMALE: Length 5.5 to 6.5 mm. Very similar to the male, the anteroventral and posteroventral bristles on mid and hind femora absent. Abdominal spots more diffuse and extensive.

TYPE MATERIAL: Holotype, male; allotype, female; and paratypes, 15 males and three females; all from Natal, Brazil, February 5 to 24, 1943 (F. M. Snyder).

The holotype is unique in possessing a single median postero-dorsal bristle on the right hind tibia which is absent in all other specimens. This species and *lisarba* were both taken together along margins of a ditch carrying off septic tank effluent as well as along margins of a brackish tidal pool on the beach near the sea-shore.

Lispe levis Stein

Lispe levis STEIN, 1911, Arch. Naturgesch., sect. A, vol. 77, p. 148.

This species was described from Arica, Chile. The preceding two species agree in many respects with Stein's description, having in common the anterodorsal bristle on the mid tibiae and broadened apical fore tarsal segment. The larger size of *levis* (8 mm.) and the three postsutural dorsocentral bristles should separate it. I have seen no specimens of *levis*.

Lispe setuligera Stein

Lispe setuligera STEIN, 1911, Arch. Naturgesch., sect. A, vol. 77, p. 146; MALLOCH, 1934, Diptera of Patagonia and south Chile, pt. 7, fasc. 2, p. 278.

I have not seen this species, which is apparently widely distributed in southern Argentina and Chile.

Lispe edwardsi Malloch

Lispe edwardsi MALLOCH, 1934, Diptera of Patagonia and south Chile, pt. 7, fasc. 2, p. 278.

A male from Rio de Janeiro, Brazil, agrees in most respects with Malloch's description. However, the tibiae, instead of being entirely black, are brownish fulvous, and the pruinescence along lateral margins of thoracic disc is yellow instead of gray. Two females from Rio de Janeiro and Natal, Brazil, and one female from Ixtepec, Mexico, agree well with the male except the lighter central abdominal spots are broader and more distinct. The head and legs are bristled similarly in both sexes. The long, slender, ventral bristle near base of the hind femora should help to separate it from all known Neotropical species.

***Lispe tentaculata* (DeGeer)**

Musca tentaculata DEGEER, 1776, Mémoires pour servir à l'histoire des insectes, vol. 6, p. 86.

Stein has recorded this species from Lima, Peru. I have taken it along a fresh-water stream near Guatemala City, Guatemala. The female of *villis* Stein is unknown, but it is likely to be quite similar to *tentaculata*.

***Lispe planiseta*, new species**

MALE: Length 6 mm. Head black, face, cheeks and lower half of occiput grayish pruinulent and dorsal half of occiput grayish blue pruinulent. Posterior half of parafrontals and frontal vitta velvety black, frontal triangle extending to base of antennae as a long, narrow, grayish line. Parafacials moderately wide, with a few scattered, fine hairs. When viewed in profile, the juncture of parafacials and parafrontals slightly protuberant, the parafacials narrowed below. Cheeks as high as width of third antennal segment. Antennae black, third segment one and three-fifths as long as second. Longest arisal hairs not quite so long as width of third antennal segment; hairs on lower surface of arista much shorter than those on dorsal surface and fewer in number. Palpi fulvous, only moderately dilated; proboscis shiny black.

Thorax black, pleura bluish gray pruinulent; the disc, when viewed from behind, with a median and two dorsocentral black vittae, laterad the dorsocentral vittae is a broad, sparsely grayish pruinulent area; margins of disc with dense grayish pruinulence. Scutellum concolorous with median vitta. With a grayish transverse narrow pruinulent band in front of scutellum which joins a large, gray pruinulent area adjacent to the supra-alar bristles. Acrosticals 0:1, very weak; dorsocentrals 2:3, the anterior postsutural one weak. Scutellum with a pair of strong subbasals and apicals.

Legs black; knees, fore tarsi, and mid and hind tibiae fulvous, the tibiae with grayish pruinulence so that in certain lights the mid and hind tibiae appear dark. Fore femora normal. Fore tibiae with a submedian anterodorsal and posterior bristle. Fore tarsi slightly longer than fore tibiae, with several tubercles and a peculiar, apically flattened and dilated, median, apical bristle as in figure 1. Mid femora with a median anterior and a

subapical and apical posterior bristle. Mid tibiae with a submedian posterior bristle. Hind femora with a subapical and a submedian anteroventral bristle and with five to eight closely placed, almost thorn-like bristles on basal half and with a group of short thorns on basal one-eighth of posterior surface. Hind tibiae with a median posterodorsal and anterodorsal bristle and with an anteroventral one on apical one-third; basad of the anterodorsal bristle is a row of six to eight long, slender, almost hair-like bristles. Mid and hind tarsi normal.

Wings hyaline. Calyptrae white; halteres yellow.

Abdomen sublanceolate, rather long, shiny black, with a narrow white pruinescent band at apex of first to third visible tergites. Fourth tergite with a large, white lateral area at base. First to third tergites with a single lateral apical bristle and a complete row of strong apical bristles on fourth tergite.

FEMALE: Length 6 mm. Similar to the male. Thorax with the vittae brownish. The fore tarsi are black and normal. Hind femora with no anteroventral bristles but with four or five finer posterior basal setulae. Abdomen with paired, large, subtriangular black spots on second to fourth abdominal tergites which are separated by a grayish dorsocentral stripe. The apical lateral bristles on first and second tergites not developed. Other abdominal bristles as in the males.

TYPE MATERIAL: Holotype, male; and allotype, female, Robertsport, Liberia, near the village of Talla, December 4, 1943 (F. M. Snyder); numerous male and female paratypes from Robertsport, Liberia, and Accra, Gold Coast. Earliest, June 28, 1942; latest, December 8, 1943.

This is a very common species in the above localities. It was taken most commonly near fresh water, although some were collected near brackish water pools.

This species runs to *neo* Malloch in Van Emden's (1941, p. 270) key to Ethiopian *Lispe*, but it may be separated from *neo* by the three postsutural dorsocentrals and the posterodorsal bristle on the hind tibiae. It will run to *nana* Macquart in Curran's (1937, p. 2) key and may be separated from that species by the median anterodorsal and posterior bristle on the fore tibiae. The peculiar structure and armature of the fore tarsi of the male will separate it from all African *Lispe*.

LISPACOENOSIA, NEW GENUS

Front about one-third of head width in both sexes and with a single weak, reclinate, posterior parafrontal bristle; parafacials with fine hairs along their entire length; palpi moderately dilated. Only the following bristles are present on thorax: humerals 1; presuturals 1; notopleurals 2; dorsocentrals 0:1; supra-alars 1; postalars, 1 weak and 1 strong; scutellars 4; prothoracics 2; stigmatal 1; sternopleurals 3 in an equilateral triangle; mesopleura with a row of three or four bristles along posterior margin.

GENOTYPE: *Lispacoenosia fulvitorsus*, new species.

It is difficult to place this genus into its proper subfamily, since it shows affinities with both the Coenosiinae and the Lispinae. The Coenosiinae characters are the single posterior parafrontal bristle which is more reclinate than outwardly directed, the bare pteropleura, and the sternopleural bristles which are situated in a nearly equilateral triangle. The Lispinae characters are illustrated by the dilated palpi and presence of parafacial hairs and absence of presutural dorsocentral bristles. This last character is, of course, not exhibited by all of the Lispinae.

In habits it is similar to *Lispe*, being taken in grass along edges of water.

***Lispacoenosia fulvitorsus*, new species**

MALE: Length 3.5 to 4 mm. Head black, parafacials, cheeks, lower half of occiput, and an area from neck to inner vertical bristles silvery pruinulent; face brownish gray pruinulent, oral margin with a transverse dark brown band which, when viewed in certain lights, disappears; remainder of head velvety black, except the shiny broad frontal triangle. Head shape as in figures 2 and 3. Antennae brownish black. Palpi fulvous, apically dilated as in figure 4.

Thorax shiny black, with a trace of a short, broad, triangularly shaped, silvery gray pruinulent spot on anterior margin in center of pronotum which is in line with the silvery area on back of head; notopleural area with a broad, silvery gray pruinulent area; pleura except mesonotum silvery gray pruinulent.

Legs black; posterior four tibiae and all tarsi except the fore metatarsus fulvous yellow; black portion with dense silvery gray pruinulence. Trochanters fulvous brown. Fore femora with

posterodorsal and posteroventral series of bristles weak and widely separated, the latter series weakest. Fore tibiae rather broad and flattened posteriorly as in figure 5. Mid femora with a median anterior and subapical and apical posterior bristle. Hind femora with three or four short, widely spaced, anterodorsal bristles, none as long as diameter of femora where situated; other surfaces bare. Hind tibiae with a submedian anterodorsal, posterodorsal, and anteroventral bristle and with a strong apical anterodorsal and a subapical dorsal bristle and a short, weak, apical, anteroventral bristle. All tarsi normal.

Wings slightly yellowish brown hyaline, costal thorns and setulae undifferentiated; other veins bare; third and fourth veins parallel at apex; sixth vein not reaching wing margin. Seventh not curved forward. Calyptrae white, lower scale distinctly protruding beyond apex of upper. Halteres fulvous.

Abdomen sublanceolate, dorsoventrally flattened, shiny black, with a silvery gray pruinose basal spot on declivitous portion of second to fourth visible tergites; fourth tergite only with strong bristles, a single lateral discal and a row of four apicals.

FEMALE: Length 4.5 to 5 mm. Very similar to the male. The fore femoral bristles more well developed. Hind tibiae infuscated; apical anteroventral bristle on hind tibiae strong. The lateral silvery spots on abdominal tergites more extensive and with two instead of four strong apical bristles on fourth tergite.

TYPE MATERIAL: Holotype, male, and allotype, female, *in copula*, Accra, Gold Coast, August 2, 1942 (F. M. Snyder). Paratypes: six males and five females, same data as type; one male and three females, August 3, 1942; one female, June 3, and two males, June 27 and 28; all vicinity of Accra, Gold Coast.

Some of the specimens have a very faint, median, gray-dusted, abdominal vitta.

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