

THREE NEW SPECIES OF LIPOSCELIS (=TROCTES) (PSOCOPTERA) FROM TEXAS

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These descriptions have been withdrawn from a comprehensive paper in preparation, which treats of the Liposcelidae, so that published records of the psocids taken in Texas by Dr. A. B. Gurney in the fall of 1951 may be complete. The terminology used here, for the most part, follows that proposed by Mr. J. V. Pearman in his 1946 and 1951 papers. I am also greatly indebted to Mr. Pearman for numerous sketches and personal correspondence that were of tremendous help to me in getting acquainted with the book-lice. Dr. E. Broadhead contributed specimens of many of the species he has reared, and Dr. Gurney kindly lent his Texas collections for study. It is a pleasure to express my gratitude for the kind and generous assistance received from these three fellow-workers.

When standard "permanent" mounting media, such as balsam, Euparal, and Hoyer's, are used for book-lice there is a considerable decrease in visibility of the sculpturing on the integument, which often results in a complete loss of detail, especially after a lapse of time. Therefore these specimens were cleared in warm NaOH or KOH solution, then rinsed in water, and studied in temporary water-mounts containing a tiny bit of detergent to facilitate handling. Slight underclearing is recommended. Normal clearing, as for permanent mounts or overclearing, makes the specimens more difficult to find and to handle. After study the specimens were returned to alcohol. Upon contact with alcohol the partially dissolved contents of these undercleared specimens coagulate, so it may be necessary to transfer the specimen momentarily to KOH upon future examination to make it translucent again.

The measurements apply to cleared specimens in water-mounts, which are neither swollen nor shrunken because the gut ruptures when the specimen is rinsed and in so doing the psocid relaxes to normal size. The color descriptions refer to uncleared alcoholic specimens. In general there is a slight but progressive change in the sculpturing on the abdominal terga from III-IX. In an attempt to standardize comparisons the sculpturing on terga II and III is described for each species. It might be well to stress that "tergum I," as used here, is composed of what appear to be two terga (I and II of Broadhead), each of which is further subdivided into an anterior and a posterior strip. This composite tergum I contains only two rows of setae, the same as each following tergum, when the setae are arranged in rows. M: d(orsal) on tergum VII refers to the seta behind the spiracle.

***Liposcelis lacinia* n. sp.**

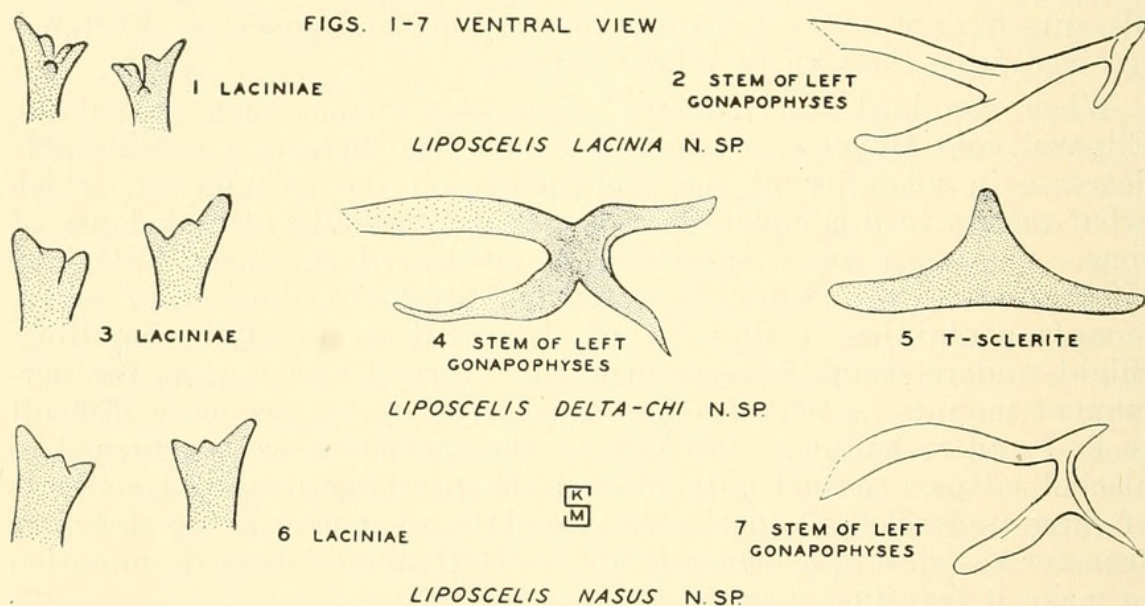
(Figs. 1 and 2)

On the basis of color this species superficially resembles the species in the

bostrychophilus complex, but differs from them and all other known species in the shape of the lacinia and in the combination of setation and sculpturing of the head, thorax, and abdomen, as well as abdominal infuscation.

Female.—Length 1.0 mm. Color dorsally against black background, almost uniformly light brown, exclusive of eyes.

Head: Proportions, length and width equal. Dorsally—Setae not dense, distance between them 1 to 2 times their length or 2 to 4 times width of areoles. Sculpturing areolate, imbricate; areoles ridge-marginate, 2 to 4 times longer than wide (the narrow ones toward mesal part of head) with 1 to 3 distinct nodules across width. Epicranial suture and arms indistinct. Eyes with 7 facets. Third antennal segment with approximately 16 rings. Ventrally—Prongs of laciniae incised and widely divergent (Fig. 1).



Thorax: Each lateral lobe of prothorax with long humeral seta plus 2 to 3 short setae usually posteriorly. Mesothorax with interrupted median internal thickening, lacking arched lateral thickenings, only 2 setae along each indistinct arch where lateral thickenings would be if present. Sculpturing on metathorax areolate, imbricate; areoles ridge-marginate, a few containing distinct modules. On anterior half of prothoracic sternum 3 long setae (median one slightly shorter), none posteriorly. On mesosternum 8 long setae in row anteriorly.

Abdomen: Infuscation of terga II and III diffuse, sculpturing behind each posterior row of setae similar to that anteriorly, and with very narrow but distinct linear intersegmental membrane between terga. Terga IV-VI with slightly paler band of sculpturing behind posterior row of setae. Pale median lineation on anterior margin of terga III-VII. Sculpturing of terga II and III areolate, not interrupted medianly; areoles long and narrow, about 5 to 7 times longer than wide, with margins ridged; areoles containing distinct modules, usually only 1 nodule across width of areole. Setae tending toward arrangement in 2 rows

across each of terga II-V, thereafter scattered; on tergum VIII density of unnamed setae similar to head. On terga VII, M: d,v both short; VIII, M: d short, v long, L short (not identifiable), stem of gonapophyses long, slender, bifid (Fig. 2), T-sclerite normal; IX, M: d,v subequal, D present, 8 setae in apical row between marginals; epiproct, 2 longest setae in second row.

Male.—Unknown.

Holotype, cleared female in alcohol, Kerrville, Tex., Sept. 20, 1951, under sycamore bark on tree trunks beside river, A. B. Gurney. Deposited in U. S. National Museum.

***Liposcelis delta-chi* n. sp.**

(Figs. 3 to 5)

This species is most closely related to *entomophilus* (Endl. 1907) but can be distinguished readily from it by the darker color and different color pattern, and by the shape and conspicuous brown color of the T-sclerite and stem of the gonapophyses.

Female: Length 1.4 mm. Color dorsally against black background—head, femora and anterior three-fourths of abdomen light yellow-brown, thorax light brown, tip of abdomen brown; indefinite lateral fuscous patches on abdominal terga becoming progressively larger posteriorly. Ventrally—part of paraprocts, stem of gonapophyses, and T-sclerite conspicuous brown.

Head: Proportions, length to width at 25 to 24. Dorsally—Setae dense, distance between them $\frac{1}{2}$ to 1 times their length or 1 to 4 times width of areoles. Sculpturing areolate, imbricate; areoles delicately ridge-marginate and narrow, especially toward middle of head, those near eyes more boldly ridge-marginate and wider; areoles for most part with extremely fine pin-point nodules, too fine to count, but a few toward middle of head and near eyes with large, distinct nodules; areoles 2 to 5 times longer than wide. Epicranial suture and arms distinct, suture with internal thickening posteriorly. Eyes with 8 facets. Third antennal segment with approximately 20 rings. Ventrally—Prongs of laciniae stubby (Fig. 3).

Thorax: Each lateral lobe of prothorax with long humeral seta plus 2 to 3 slightly shorter setae on anterior margin, and 3 to 5 shorter setae posteriorly. Mesothorax with distinct median internal thickening with adjoining arched lateral thickenings having 5 setae, including 1 mesally, along each lateral arch. Sculpturing on metathorax areolate, areoles nodule-marginate and containing distinct nodules. On anterior half of prothoracic sternum, 6 to 7 long setae in arched row, the posterior ones longest, none isolated on posterior half. On mesosternum, 8 to 9 setae in row anteriorly.

Abdomen: Infuscation of terga II and III diffuse, with very narrow but distinct linear intersegmental membrane between terga; terga V-VI with paler band of sculpturing posteriorly. Bold median lineations on anterior margin of terga II-VII. Sculpturing on terga II and III non-areolate but distinctly nodulate, suggestive of patterned stippling. Unnamed setae on tergum VIII truncate, numerous and scattered, as dense as setation on head. On terga VII, M: d, v long, subequal, but not so long as VIII M: VIII, M: d, v long, subequal, L present, stem of gonapophyses extremely short and stout, wider than long, bifid,

(Fig. 4), T-sclerite (Fig. 5); IX, M: d, v subequal, D present; epiproct, 2 longest setae in second row.

Male.—Unknown.

Holotype, uncleaned female in alcohol, Garner State Park, Texas, Sept. 22, 1951, beating mesquite with air plants on twigs, A. B. Gurney. *Paratype*, cleared female in alcohol, same data. Both specimens deposited in USNM.

The name refers to the conspicuous brown T-sclerite and stem of the gonapophyses, the first being somewhat deltoid in shape and the latter suggestive of the Greek letter "X".

***Liposcelis nasus* n. sp.**

(Figs. 6 and 7)

This species is perhaps most closely (but rather remotely) related to *hirsutus* Badonnel 1948 from which it differs in many ways, the most conspicuous being color and color pattern, and sculpturing of the head.

Female.—Length 1.4 mm. Color dorsally against black background yellow-buff; indefinite fuscous patch (pigment granules) antero-mesad of each eye and at tip of second antennal segment; labrum and anterior part of clypeus brown gradually fading to yellow-buff at vertex of head; terminal part of abdomen pale.

Head: Proportions, length to width as 22 to 20. Dorsally—Setae not dense, distance between them equal to their length. Sculpturing areolate, imbricate; areoles ridge-marginate (some fused nodule-marginate), areoles containing 1 to 2 small nodules across width; areoles 3 to 8 times longer than wide, narrow ones toward middle of head. Epicranial suture indistinct. Eyes with 8 facets. Third antennal segment with approximately 14 rings. Ventrally—Prongs of laciniae normal (Fig. 6).

Thorax: Each lateral lobe of prothorax with long humeral seta plus 2 shorter setae on anterior margin and 3 to 4 posteriorly. Mesothorax with short median internal thickening, lacking arched lateral thickenings. Sculpturing on metathorax nonareolate but distinctly nodulate, suggestive of patterned stippling. On anterior half of prothoracic sternum 4 to 5 long setae, none on posterior half. On mesosternum 8 to 9 long setae in row anteriorly, lateral ones longest.

Abdomen: Infuscation on terga II and III diffuse, with very narrow but distinct linear intersegmental membrane between terga. Terga IV-VI lacking obvious pale band of sculpturing posteriorly. Sculpturing on terga II and III nonareolate but distinctly nodulate, suggestive of patterned stippling, not interrupted medianly. No median lineations or heavy infuscation on anterior margin of terga II-VII. Two longer setae near mid-line on terga VII, VIII and IX. Unnamed setae on tergum VIII not so dense as on head. On terga VII, M: d short, v long, but not so long as VIII M; VIII, M: d, v long, subequal, L short (not identifiable), stem of gonapophyses very wide, delicate, bifid (Fig. 7), T-sclerite normal; IX, M: d, v subequal, D present; epiproct, 2 longest setae in second row.

Male.—Length 0.8 mm. Differs from female as follows: Fuscous markings much less conspicuous.

Head: Proportions, length to width as 16 to 15. Eyes with 5 facets. Lacinia similar to female but more delicate.

Thorax: Each lateral lobe of prothorax with long humeral seta plus 1 slightly shorter seta on anterior margin and 2 shorter ones posteriorly. On anterior half of prothoracic sternum 4 long setae, none posteriorly. On mesosternum 6 long setae in row anteriorly.

Holotype, uncleared female in alcohol, Mission, Tex., Sept. 30, 1951, beating Fan palm leaves, A. B. Gurney. *Allotype*, same data. *Paratypes*, 21 females (3 cleared) same data. All deposited in U. S. National Museum excepting 1 uncleared and 2 cleared paratypes, which are in my collection. Additional Texas records taken by A. B. Gurney in 1951 include: 2 mutilated females, same data as holotype; Mission, Bentson State Park, Sept. 28, beating mesquite, ♀; Mission, Sept. 30, beating ebony bushes on pasture land, ♀; Weslaco, Oct. 1, beating dead leaves on palm trees, ♂, 8 ♀; S. of Brownsville, Rabb Palm Grove, Oct. 3, beating dead palm leaves, ♂, 2 ♀; 9 mi. N. of Brownsville, Olmita Resaca, Oct. 4, beating palms and palmettos ♂, 2 ♀.

REFERENCES

- Broadhead, E. 1950. A revision of the genus *Liposcelis* Motschulsky with notes on the position of this genus in the order Corrodentia and on the variability of ten *Liposcelis* species. Trans. Roy. Ent. Soc. Lond. 101(10): 335-388.
- Pearman, J. V. 1946. A specific characterization of *Liposcelis divinatorius* (Mueller) and *mendax* sp. n. (Psocoptera). Entomologist 79: 235-244.
- , 1951. Additional species of British Psocoptera. Ent. Monthly Mag. 87: 84-89.

ASHMEAD'S METEORIDEA

(HYMENOPTERA: BRACONIDAE)

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In 1900 Ashmead (Proc. U. S. Nat. Mus. 23: 128, 129) briefly characterized the genus *Meteoridea* in his key to the Microdini. The description as extracted from the key is as follows:

“First cubital and first discoidal cells separated; areolet wider than long, trapezoidal; first abscissa of the radius thrice as long as the second; marginal cell very wide; maxillary palpi 5-jointed; abdomen narrow, subcompressed and acute at apex, the first segment long, petioliform, coarsely rugulose, the sides parallel.

Meteoridea Ashmead, new genus

(Type, *Meteoridea longiventris* Ashmead, manuscript.)”

Szepligeti (1904, Genera Insectorum, fasc. 22:100) repeated Ashmead's description and placed the genus in the Agathidinae. Muese-



Sommerman, Kathryn M. 1957. "Three new species of *Liposcelis* (=Troctes) (Psocoptera) from Texas." *Proceedings of the Entomological Society of Washington* 59, 125–129.

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