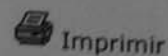


FORMULÁRIO DE ENCAMINHAMENTO - PERIÓDICO



Nº PEDIDO PE000419185/2009

IDENTIFICAÇÃO DO PEDIDO

TÍTULO DO PERIÓDICO: CANADIAN ENTOMOLOGIST

ANO: 1980 VOLUME: 112 FASCÍCULO/MÊS: ?

SUPLEMENTO:

ISSN:

AUTOR DO ARTIGO: VOCKEROTH, J. R.

TÍTULO DO ARTIGO: NEW GENERA AND SPECIES OF MYCETOPHILIDAE...

PÁGINA INICIAL: 529 PÁGINA FINAL: 544 TOTAL DE PÁGINAS: 16

BÔNUS UTILIZADOS: 0

FORMA DE ENVIO: GRUPO

SITUAÇÃO DO PEDIDO: ☒ Atendido ☐ Repassado ☐ Cancelado

FORMA DO DOC.ORIGINAL:

TOTAL DE PÁG.CONFIRMAÇÃO:

MOTIVO:

OBSERVAÇÃO:

(16) lp
28/04/09

FORMULÁRIO DE ENCAMINHAMENTO - PERIÓDICO

BIBLIOTECA-BASE

NOME: USP/MZ/BT - BIBLIOTECA

ENDEREÇO: AVENIDA NAZARETH, 481

CEP: 04263000

CIDADE-UF: SAO PAULO-SP

Nº PEDIDO PE000419185/2009

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(16) lp

DESTINATÁRIO

NOME: USP/BCRP/SBD - BIBLIOTECA

ENDEREÇO: AVENIDA DOS BANDEIRANTES, 3900

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Recebi o pedido Nº

Data ____/____/____

Assinatura _____

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No. 6

NEW GENERA AND SPECIES OF MYCETOPHILIDAE (DIPTERA) FROM THE HOLARCTIC REGION, WITH NOTES ON OTHER SPECIES

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Abstract

Can. Ent. 112: 529-544 (1980)

Eight new genera, seven Nearctic and one Holarctic, are described in the subfamily Sciophilinae. These genera, and their type-species, are: *Loicia* (*L. basifurca* n. sp.), *Acadia* (*A. polypori* n. sp.), *Acomoptera* (*Eudicrana plexipus* Garrett), *Adicroneura* (*A. biocellata* n. sp.), *Aglaomyia* (*A. gatineau* n. sp.), *Drepanocercus* (*D. ensifer* n. sp.), *Garrettella* (*Leia shermani* Garrett), *Saigusaia* (*Boletina cincta* Johannsen). Sixteen other new combinations and two new synonyms, mostly for species described by Garrett and Sherman, are proposed.

Résumé

Nous décrivons huit nouveau genres, sept néarctiques et un holarctique, appartenant à la sous-famille des Sciophilinae. Ces genres et leur espèces types sont: *Loicia* (*L. basifurca* esp. nouv.), *Acadia* (*A. polypori* esp. nouv.), *Acomoptera* (*Eudicrana plexipus* Garrett), *Adicroneura* (*A. biocellata* esp. nouv.), *Aglaomyia* (*A. gatineau* esp. nouv.), *Drepanocercus* (*D. ensifer* esp. nouv.), *Garrettella* (*Leia shermani* Garrett), *Saigusaia* (*Boletina cincta* Johannsen). Nous proposons seize nouvelles combinaisons et deux nouveaux synonymes, dont la plupart des espèces furent décrites par Garrett et Sherman.

Eight new genera of Mycetophilidae are described here so they may be included in a manual of genera of Nearctic Diptera now in preparation. One genus, *Saigusaia*, occurs in eastern North America and eastern Asia; the other seven genera are known only from North America.

All eight genera are referable to the subfamily Sciophilinae. If the current definitions of the tribes of this subfamily are adopted the genera would probably be assigned as follows: Sciophilini: *Loicia*; Gnoristini: *Acadia*, *Acomoptera*, *Adicroneura*, *Aglaomyia*, *Drepanocercus*, *Saigusaia*; Tetragoneurini (syn. Leiini): *Garrettella*. However, *Acomoptera*, without wing macrotrichia, is similar in several characters to *Paratinia* Mik of the Sciophilini, and may be closely related to that genus. Other genera, not treated here, indicate that the distinction between Gnoristini and Tetragoneurini is uncertain and probably artificial. A reclassification of the Sciophilinae would be desirable but is beyond the scope of this paper. I think certain characters, previously overlooked or little used, might be useful in such a study. Some of these are the presence or absence of hairs between the ocelli and antennal bases, the development and hairing of the face, the presence or absence of hairs on the mediotergite, the presence or absence of a hair or hairs on the metanotum medial to the base of the halter, the distribution of hairs on the hind coxa, the presence or absence of fold-lines on the sternites, and in the male, the relative development of the sclerites of abdominal segments 7 and 8 and the distribution of hairs on segment 8.

All the genera described below have the flagellum slender, slightly tapering, and with short fine hairs, and with 14 flagellomeres (if the antennae are unbroken). All have the legs without striking modifications such as sensory areas or spurs. All except *Adicroneura* have the flattened area at the apex of the anterior surface of

the fore tibia subtriangular and about as long as wide; in *Adicroneura* no flattened area is apparent. All have at most a poorly developed posterior comb at the apex of the hind tibia. The tibial spur formula indicates the length of each tibial spur divided by the maximum width of the tibial apex, in the following order: spur of fore tibia; anterior spur of mid tibia; posterior spur of mid tibia; anterior spur of hind tibia; posterior spur of hind tibia. The presence or absence of a sensory structure on palpomere 3 is mentioned only if a macerated palpus has been examined.

Loicia new genus

Figs. 1,9

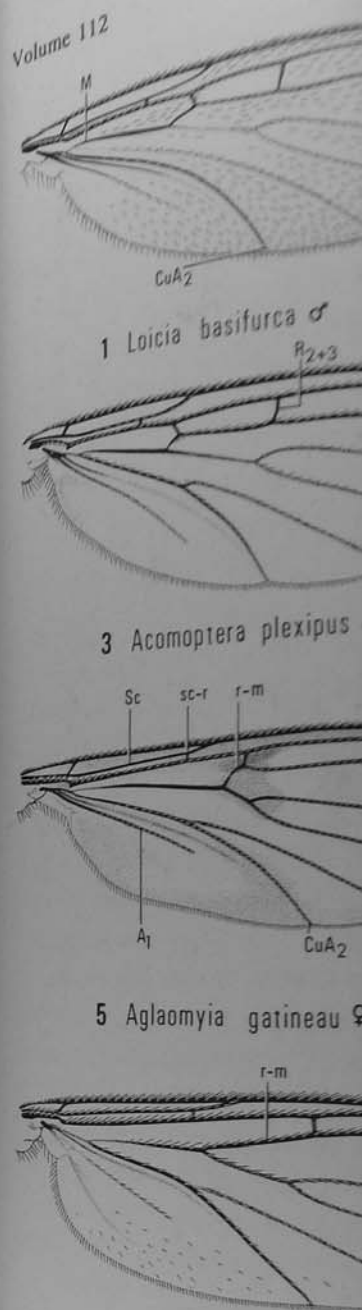
Type-species: *Loicia basifurca* new species.

Male only. Length 4.4 mm. Ocelli three, subequal, lateral ocellus separated from median ocellus by about twice its own diameter and from eye margin by a little less than its diameter. Eye with broad and rather deep emargination above antennal base, with very short scattered hairs. Frons bare between ocelli and antennal bases. Face narrow, bare, weakly sclerotized; clypeus large, strong, broadened below, with strong hairs. Palpus with five palpomeres, their relative lengths 1:1:2:4:5; palpomere 3 without discernible sensory area. Antenna with flagellomere 1 about 4.3 times as long as wide, flagellomere 8 about 4.9 times as long as wide (flagellomeres beyond 8th missing).

Scutum with very short acrostichal hairs, with longer and stronger dorsocentral and sublateral hairs, the intervening areas bare. Scutellum with a single transverse row of short hairs (perhaps longer hairs abraded). Mediotergite and laterotergite bare. Metanotum with one short strong hair medial to base of halter. Mesopleuron, metapleuron, and prosternum bare. Wing (Fig. 1) unmarked, with dense microtrichia, with rather long but sparse macrotrichia. CuA_1 arising from M near base of wing. Crossvein r-m, and all longitudinal veins except R_{2+3} , first section of M, and Cu_1 , with strong setae above; the same veins, except CuA_1 and CuA_2 , with at least a few setae below. Hind coxa with a vertical row of a few rather long stiff hairs, near apex with a few short to long hairs in front of this row. Tibial bristles rather abundant, weak but distinct, the longest a little shorter than tibial diameter. Tibial spur formula 1.0; 1.3, 1.5; 1.8, 1.9. Tarsal claws each with a small ventral tooth. Empodia very small.

Sternite 1 not visible. Sternites 5 and 6 with broad indistinct sublateral fold-lines, sternites 7 and 8 without fold-lines. Segment 7 only slightly shorter than segment 6. Terminalia (Fig. 10): Tergite 8 just over 1/2 as long as tergite 7; sternite 8 about 4/5 as long as sternite 7, both extensively haired. Tergite 9 and proctiger accidentally lost. Sternite 9 fused with gonocoxites, the synsclerite with a median V-shaped emargination, the anterior end of the emargination with a short narrow apically notched process projecting anteroventrad; on either side of the emargination the synsclerite with an oblique concave area produced into three blunt points. Gonostylus with a broad, thick, haired, subtriangular, medially directed lobe and a bare, rather heavily sclerotized, compressed, slightly curved ventral process. Aedeagus and paramere with a nearly flat dorsal surface, with a moderately broad tapering median process and two slender anterolateral arms, in lateral view as in Fig. 9d.

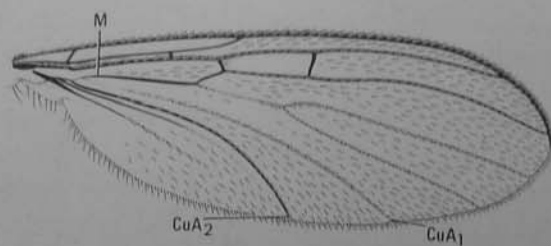
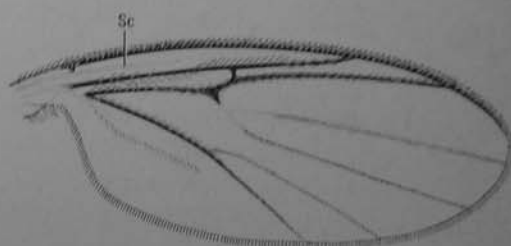
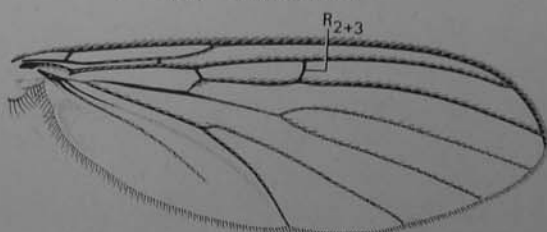
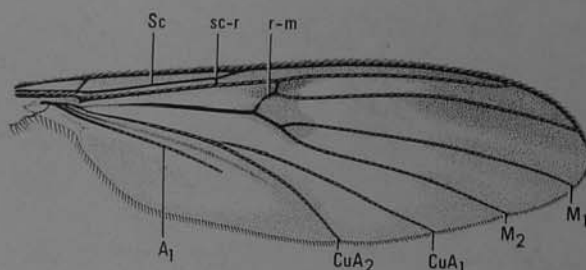
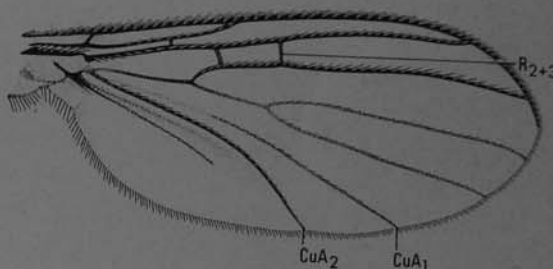
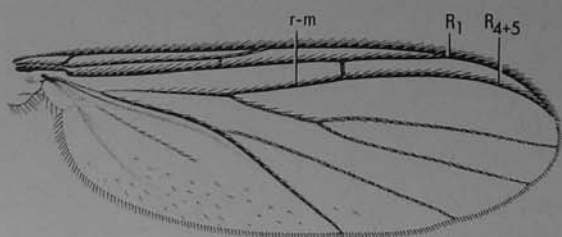
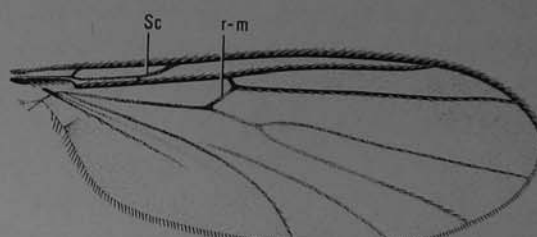
Loicia is apparently closely related to *Paratinia* Mik which it resembles in eye shape, antennal structure, and thoracic hairing and, except for the branching of CuA_1 , in wing venation. These are the only two Nearctic genera of Sciophilini with a bare laterotergite, and only these two, plus *Syntemna* Winnertz, have a bare mediotergite. In *Loicia* the palpus is more than twice as long as flagellomere 1.



FIGS. 1-8. Wings. 1, *Loicia basifurca* (Garrett); 4, *Adicroneura biocellata* n. sp.; 7, *Garrettella shermani* ♂

CuA_1 arises from M near the base of the wing, the tibial bristles, and the tarsal claw of the palpomeres are 1:2:4:5; of the wing, the tibiae lack bristles.

Yellow-brown, subshining, thinly pollinose; hairs yellow. HOLOTYPE. ♂, Mt. Thor (B. Heming). Type No. 1605.

1 *Loicia basifurca* ♂2 *Acadia polypori* ♀3 *Acomoptera plexipus* ♂4 *Adicroneura biocellata* ♂5 *Aglaomyia gatineau* ♀6 *Drepanocercus ensifer* ♂7 *Garrettella shermani* ♂8 *Saigusaia cincta* ♂

FIGS. 1-8. Wings. 1, *Loicia basifurca* n. sp.; 2, *Acadia polypori* n. sp.; 3, *Acomoptera plexipus* (Garrett); 4, *Adicroneura biocellata* n. sp.; 5, *Aglaomyia gatineau* n. sp.; 6, *Drepanocercus ensifer* n. sp.; 7, *Garrettella shermani* (Garrett); 8, *Saigusaia cincta* (Johannsen).

CuA₁ arises from M near the base of the wing, the tibiae have short but distinct bristles, and the tarsal claws each have a distinct ventral tooth. In *Paratinia* the palpus is shorter than flagellomere 1 (in *P. recurva* Johannsen the relative lengths of the palpomeres are 1:2:4:4:6), CuA₁ arises from CuA well beyond the base of the wing, the tibiae lack bristles, and the tarsal claws are untoothed.

Loicia basifurca new species

Figs. 1, 9

Yellow-brown, subshining; front grey-brown, pollinose; antenna brown; scutum thinly pollinose; hairs yellow to yellow-brown.

HOLOTYPE. ♂, Mt. Thornhill, nr. Terrace, British Columbia, 1500', 26.VII.1960 (B. Heming). Type No. 16050, CNC, Ottawa.



Loicia basifurca ♂

Fig. 9. Male terminalia of *Loicia basifurca* n. sp. a, terminalia, dorsal (tergite 9 lost); b, terminalia, ventral; c, gonostylus, posterior; d, aedeagus and parameres, lateral.

Acadia new genus

Fig. 2

Type-species: *Acadia polypori* new species.

Length 2.1 mm. Ocelli three, subequal, lateral ocellus touching eye margin, separated from median ocellus by about twice diameter of latter. Eye very slightly emarginate above base of antenna, with dense long hairs. Frons with about 10 short strong hairs between ocelli and antennal bases. Face with weak hairs; clypeus haired, not longer than face. Palpus with five palpomeres, their relative lengths 1:1:3:5:7; palpomere 3 with large shallow sensory pit on basal half of dorsomedian surface. Antenna of male about 1.4 times, that of female about 1.3 times, as long as thorax; flagellomere 1 about 1.4 times as long as wide, following flagellomeres successively slightly shorter.

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Scutum with dense subappressed and supraalar areas a little longer and two shorter and weaker hairs bare; laterotergite with many short hairs and prosternum bare. Wing (Fig. macrotrichia. R, R₁, R₄₊₅, crossvein setae above; M₁, M₂, CuA, CuA₁, R₄₊₅, and crossvein r-m with setae thickened towards apex, fore tibiae strong bristles, the longest a little longer than the longest of the hind tibiae. 2.4; 2.0, 3.2; 2.0, 3.0. Tarsal claws 2.4; 2.0, 3.2; 2.0, 3.0. Sternites with setae.

Sternite 1 bare. Sternites with setae clockwise through 180°C, the rotation as segment 6; tergite 7 with a posterior projection similar to that of segment 6, a similar but less distinct projection. Segment 8 as long as segment 7; margin; tergite 8 deeply excavate except at extreme base, slender, triangular, subquadrate and bare, the apical part with strong hairs, tapering to a truncate apex, the apical part a comb of depressed and closely-pilose hairs, not weaker medially, the synsclerites strong and bristle-like. Synsclerites each process bifid; the inner lobe to an acute apex and with a small process posteroventrally, broader, depressed on ventrolateral part of synsclerite, blunt and with a short stout apical process, the outer lobe, rather slender, with apical process a blunt ventral tooth at 2/3 its length, the apical part sclerotized, indistinct. Cercus very enlarged and with several hairs. Hypopygium with setae.

Female with tergite 7 about as long as sternite 6. Tergite 8 slightly longer laterally as long as tergite 7. Sternite 8, bare, convex below, bluntly rounded apically, in lateral view, about three times as long as wide, well sclerotized, anterior margin branched except for narrow lateral part very weak. Sternite 10 not apically as long as its greatest upcurved apex, with two setae on apical part.

Acadia differs from all *Hololepta* and *Speolepta* Edwards, in having Scutellum differs from *Acadia* in its slender shape, R₂₊₃, in the sparsely haired scutellum the fore and mid tibia (subequal to that of the male).

Scutum with dense subappressed hairs on entire surface, those in dorsocentral and supraalar areas a little longer and more erect. Scutellum with two very strong bare; laterotergite with many short hairs on posterior half. Mesopleuron, metapleuron, macrotrichia. R, R₁, R₄₊₅, crossvein r-m, and first section of M with dense long setae above; M₁, M₂, CuA, CuA₁, CuA₂, and A₁ with shorter setae above; R, R₁, R₄₊₅, and crossvein r-m with setae below. Femora rather stout, tibiae gradually thickened towards apex, fore tibia slightly shorter than fore femur. Tibiae with rather strong bristles, the longest a little longer than tibial diameter. Tibial spur formula 2.4; 2.0, 3.2; 2.0, 3.0. Tarsal claws each with strong ventral tooth. Empodia small.

Sternite 1 bare. Sternites without fold-lines. Male with segment 9 rotated clockwise through 180°C, the rotation beginning with segment 7. Segment 7 as long as segment 6; tergite 7 with a posteromedian triangular projection, sternite 7 with a similar but less distinct projection, both sclerites haired only near posterior margin. Segment 8 as long as segment 7, retracted, the sclerites haired only on posterior margin; tergite 8 deeply excavated posteriorly, very short medially. Tergite 9 free except at extreme base, slender, transversely divided at 1/3 its length, the basal part subquadrate and bare, the apical part 2½ times as long as broad, with weak to very strong hairs, tapering to a truncate apex which bears a dense downwardly directed comb of depressed and closely-placed setulae. Sternite 9 fused with gonocoxites, not weaker medially, the synsclerite haired except near base, the hairs near apex strong and bristle-like. Synsclerite with a pair of submedian posterior processes, each process bifid; the inner lobe directed posteriorly, compressed, slender, tapering to an acute apex and with a short dark lateral tooth; the outer lobe directed posteroventrally, broader, depressed, obliquely truncate apically. Gonostylus inserted on ventrolateral part of synsclerite, bilobed, sparsely haired; inner lobe short, stout, blunt and with a short stout apical spine; outer lobe about twice as long as inner lobe, rather slender, with apical half dark, tapering slightly toward apex and with a blunt ventral tooth at 2/3 its length. Aedeagus and parameres very weakly sclerotized, indistinct. Cercus weak, long, basal half very slender, apical half enlarged and with several hairs. Hypoproct apparently absent.

Female with tergite 7 about 2/3 as long as tergite 6, sternite 7 as long as sternite 6. Tergite 8 slightly inflated, medially about 1/5 as long as tergite 7, laterally as long as tergite 7. Sternite 8 about twice as long as lateral margin of tergite 8, bare, convex below, broadly and deeply emarginate anteriorly, tapering posteriorly to a bluntly rounded apex, without posterolateral lobes. Tergite 9 oblique in lateral view, about three times as long laterally as medially. Sternite 9 in part well sclerotized, anterior margin with sublateral emarginations, posterior half membranous except for narrow lateral margins. Tergite 10 lying in median emargination of tergite 9 and not projecting beyond it, the anterior end acute, the posteromedian part very weak. Sternite 10 not apparent. Cercus unsegmented, strongly compressed, about twice as long as its greatest width, tapering to a bluntly rounded and slightly upcurved apex, with two setae on lateral surface.

Acadia differs from all Holarctic genera referable to the Gnoristini, except *Speolepta* Edwards, in having Sc ending free rather than in C, R, or R₁. *Speolepta* differs from *Acadia* in its slender habitus, in the presence of crossvein sc-r and vein R₂₊₃, in the sparsely haired scutum, in the bare laterotergite, in the short spurs of the fore and mid tibia (subequal to tibial diameter), and in the large exposed segment 7 of the male.



terminalia (tergite 9 lost); b, terminalia; d, terminalia.

cellus touching eye margin of latter. Eye very slightly larger than eye of latter. Frons with about 10 setae. Relative lengths of dorsomedian surface of flagellomeres successively 1.3 times, as long as those of the preceding flagellomeres.

Acadia polypori new species

Fig. 2

Greyish brown with pedicel, first two or three flagellomeres and legs yellowish. Vestiture mostly yellowish, only the stronger hairs on thorax, legs and male terminalia, and the setae on wing veins, dark.

TYPES. Holotype ♂, Ludlow, New Brunswick, 2.VI.1968, D. P. Pielou, ex *Polyporus betulinus*. Type No. 16051, CNC, Ottawa.

Paratypes, 2♂♂ 1♀, same data as holotype. In CNC.

Acomoptera new genus

Fig. 3

Type-species: *Eudicrana plexipus* Garrett, 1925.

Length 5.4 to 5.7 mm. Ocelli three, subequal, lateral ocellus separated from eye margin by a little less than, and from median ocellus by a little more than, its own diameter. Eye with a broad distinct emargination above antennal base, with rather long but very scattered hairs. Frons bare between ocelli and antennal bases. Face short, wide, bare; clypeus about twice as long as face, with strong hairs. Palpus with five palpomeres, their relative lengths about 1:1.5:2:3.5:5.5 in dry specimen. Antenna in both sexes about 3.0 times as long as thorax; flagellomeres each about 5.0 times as long as wide.

Scutum with short appressed acrostichal and dorsocentral hairs and longer and more erect sublateral hairs, the intervening areas bare. Scutellum with three or four irregular rows of short to long hairs. Mediotergite and laterotergite bare. Metanotum with two or three strong erect hairs laterad of base of halter. Mesopleuron, metapleuron, and prosternum bare. Wing (Fig. 3) unmarked, with dense microtrichia, without macrotrichia. Crossvein r-m and all longitudinal veins except R_{2+3} , first two sections of M, and CuP, with strong setae above; R_1 , R_{4+5} , and apical part of M, with setae below. Hind coxa with a single vertical row of rather strong hairs. Tibial bristles short but distinct, the longest a little shorter than tibial diameter. Tibial spur formula 1.5; 2.5, 2.5; 2.6, 2.6. Tarsal claws each with one or two small ventral teeth. Empodia small.

Sternite 1 bare. Sternites 2 to 7 each with a pair of broad, poorly defined, submedian to sublateral fold-lines. Male with segment 7 subequal to segment 6. Tergite 8 about 1/2 as long as tergite 7, slightly shorter medially than laterally. Sternite 8 about 4/5 as long as sternite 7, both sclerites extensively haired. Terminalia not rotated. Tergite 9 large, not fused with gonocoxites, about twice as wide as long, its posterolateral angles rounded. Sternite 9 fused with gonocoxites, the synsclerite with a narrow transverse membranous area across ventral surface at about 4/5 its length, the posteroventral margin broadly and shallowly emarginate and with a preapical ventral short slender hook-like process directed posteriorly. Gonostylus very short, broad, its posterior surface slightly concave, divided into three lobes; inner lobe directed medially, triangular, tapering irregularly to an acute apex; outer lobe directed posterolaterally, finger-like, blunt; dorsal lobe directed posteriorly, broad basally, tapering strongly to an acute and slightly incurved apex; dististylus consisting of a dorsal plate attached to the posteromedian dorsal angles of the gonocoxites with its base deeply and triangularly emarginate and its posterior margin produced as a narrow and deeply bifid median process; attached to the ventral surface of the base of this process is a trough-like structure (probably the aedeagus) which is broadened anteriorly as two lateral wings and is attached posteroventrally.

to the posterior margin of the synsclerite with fine hairs. Hypoproct broad, with segment 7 very short.

Female with segment 7, a little shorter than tergite 8, deeply emarginate each lobe so formed with the oblique and the apex bluntly rounded. Slender spine-like process projected almost to apical area and extending almost to apical shorter laterally, haired on above. Weakly sclerotized anterolateral sclerotized submedian processes, two long and a few short hairs, developed, membranous medial first segment of cercus. Cercus wide, second segment missing.

Acomoptera resembles *Paratinia* in thoracic hairing and wing venation, macrotrichia on the wing membrane. The former genus is referable to these tribes are presently defined. *Acomoptera* has the palpus more with short but distinct bristles. *Paratinia* has the palpus shorter, the tarsal claws untoothed.

I have examined the holotype B.C., and 2♂♂, presumably 26.VII.1960 (C. H. Mann) and (W. R. Mason).

Type-species: *Adicroneura*

Female only. Length 2.6 mm. One another by about twice their diameter. Eye with dense hairs and antennal bases. Face short, face, haired throughout. Palpus 1:1.1:1.5:4:8 in dry specimen. Antenna about 2.0 times as long as wide, flagellomere 14 about 3 times as wide.

Scutum nearly denuded but with lateral hairs present; intervening areas with a pair of rather long subequal erect hairs; laterotergite with four erect hairs; mesopleuron and metasternum bare with dense microtrichia, without setae above and below, the vertical row of long stiff hairs in this row. Tibiae without distinct

to the posterior margin of the synsclerite. Cerci broad, flat, broadly rounded apically, with fine hairs. Hypoproct broad, semicircular, weakened anteromedially.

Female with segment 7 very little shorter than segment 6. Tergite 8 about half as long as tergite 7, a little shorter medially than laterally. Sternite 8 a little longer than tergite 8, deeply emarginate posteriorly, the rest of the median area membranous, each lobe so formed with the median margin almost straight, the lateral margin oblique and the apex bluntly rounded; infolded inner margin of each lobe with a slender spine-like process projecting posteriorly from anterior margin of sclerotized area and extending almost to apex of lobe. Tergite 9 medially as long as sternite 9, shorter laterally, haired on about posterior 1/3. Sternite 9 rather broad, with two weakly sclerotized anterolateral areas and two slender compressed more heavily sclerotized submedian processes projecting posteriorly. Tergite 10 very short, with two long and a few short hairs, fused on either side with sternite 10 which is well developed, membranous medially, tapers on posterior half and extends to apex of first segment of cercus. Cercus 2-segmented, first segment almost twice as long as wide, second segment missing.

Acomoptera resembles *Paratinia* Mik in eye shape, facial and antennal structure, thoracic hairing and wing venation. The most striking difference is the absence of macrotrichia on the wing membrane of *Acomoptera* and their presence in *Paratinia*. The former genus is referable to the Gnoristini and the latter to the Sciophilini as these tribes are presently defined. It is possible that the two tribes should be redefined and the two genera combined. The two genera do show other differences. *Acomoptera* has the palpus more than 2.5 times as long as flagellomere 1, the tibiae with short but distinct bristles, and the tarsal claws each with a ventral tooth. *Paratinia* has the palpus shorter than flagellomere 1, the tibiae without bristles, and the tarsal claws untoothed.

I have examined the holotype ♀ of *Eudicrana plexipus* Garrett from Vancouver, B.C., and 2♂♂, presumably conspecific, from Mt. Thornhill, Terrace, B.C., 26.VII.1960 (C. H. Mann) and Johnston Canyon, Banff, Alta., 4700', 18.VII.1962 (W. R. Mason).

Adicroneura new genus

Figs. 4, 10

Type-species: *Adicroneura biocellata* new species.

Female only. Length 2.6 mm. Ocelli two, near middle of frons, separated from one another by about twice their diameter and from eye margin by about four times their diameter. Eye with dense long hairs. Frons with a few hairs between ocelli and antennal bases. Face short and broad, haired medially; clypeus not longer than face, haired throughout. Palpus with five palpomeres, their relative lengths about 1:1:1.5:4:8 in dry specimen. Antenna about 1.5 times as long as thorax; flagellomere 1 about 2.0 times as long as wide, flagellomeres 2-13 each about 1.5 times as long as wide, flagellomere 14 about 3.0 times as long as wide.

Scutum nearly denuded but with sockets of acrostichal, dorsocentral, and sub-lateral hairs present; intervening areas bare. Scutellum with very scattered short hairs and a pair of rather long sublateral hairs. Mediotergite posteriorly with six long erect hairs; laterotergite with four or five similar hairs. Metanotum without hairs. Mesopleuron and metasternum bare. Prosternum not visible. Wing (Fig. 4) unmarked, with dense microtrichia, without macrotrichia. All longitudinal veins except CuP with setae above and below, those on M, CuA, and A₁ very short. Hind coxa with a vertical row of long stiff hairs and, near apex, with a few short hairs in front of this row. Tibiae without distinct bristles. Fore tibia without anterior flattened area

at apex. Tibial spur formula 1.8; 1.5, 1.6; 1.7, 1.5. Tarsal claws apparently without ventral tooth. Empodia very small.

Sternite 1 haired. Tergite 8 almost as long as tergite 7, extensively haired. Sternite 8 about as long as tergite 8, extensively haired, slightly narrowed posteriorly, with broad triangular posterior emargination. Tergite 9 (or possibly 10) short, haired posteriorly, weakly emarginate posteriorly. Sternite 9 very weak. Sternite 10 distinctly sclerotized and haired only laterally, membranous medially. Cercus 2-segmented, second segment as long as first but much more slender.

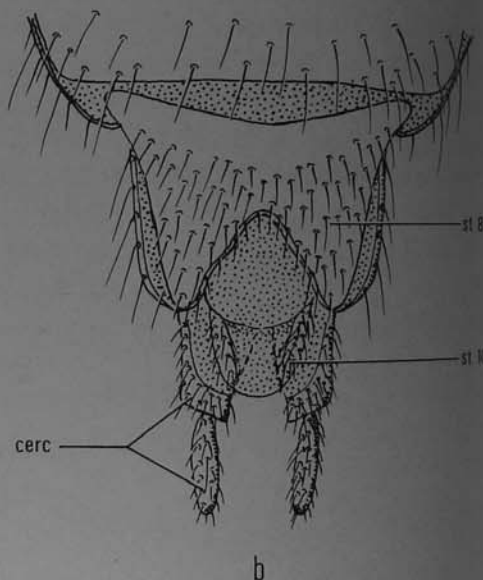
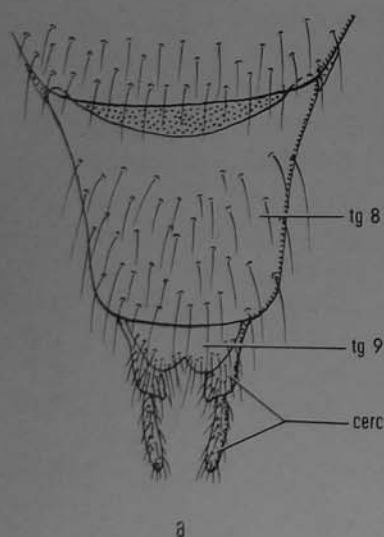
Adicroneura is the only genus of Gnoristini known to me in which M is unbranched and in which the median ocellus is absent. The only other genus of the tribe with hairs on the mediotergite is *Coelophthiria* Edwards, but in that genus the laterotergite is bare, three ocelli are present, and M is branched.

Adicroneura biocellata new species

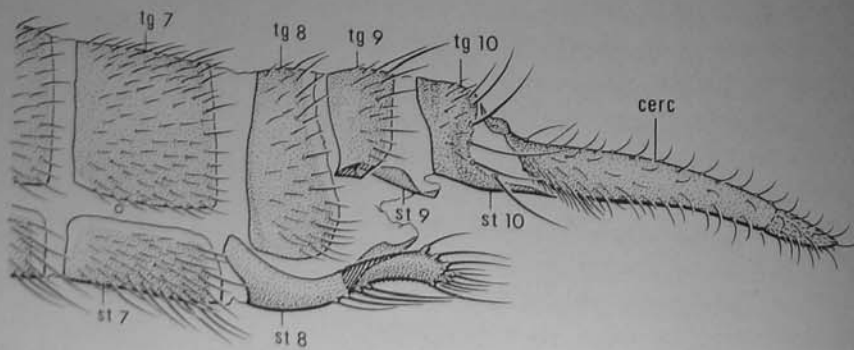
Figs. 4, 10

Very pale yellowish brown; vertex pale brown.

HOLOTYPE. ♀, Wetmore Campground, Baker Co., Oregon, 4500', 29.VI.-5.VII.1965 [E. G. Munroe], ex Malaise trap. Type No. 16052, CNC, Ottawa.



10 *Adicroneura biocellata* ♀



11 *Drepanocercus ensifer* ♀

FIGS. 10, 11. Female terminalia. 10, *Adicroneura biocellata* n. sp.; 11, *Drepanocercus ensifer* n. sp. lateral. a, terminalia, dorsal; b, terminalia, ventral. ABBREVIATIONS: cerc, cercus; st, sternite; tg, tergite.

Type-species: *Aglaomyia ga*

Female only. Length 8.2 mm. of each lateral, the latter separated from the median ocellus by about above antennal base, with short and antennal bases. Face short on lower part. Palpus long, palp 1.6 times as long as thorax; flag 1.5 times as long as wide, other more slender.

Scutum with many suberect hairs. Scutellum with several hairs. Mediotergite and laterotergite to base of halter. Mesopleuron short fine subappressed hairs yellowish, with small brownish on anterior half of wing apex margin of wing and anal angle macrotrichia, with dense micro bare: base of first costal cell, 2/3 of cell r, anterior part of R₁, R₄₊₅, M₁, M₂, apical 1/4 half of crossvein r-m with many with short setae below. Hind several irregular rows of short apex. Tibial bristles moderate diameter. Tibial spur formula small ventral teeth. Empodia small.

Abdomen slender, elongated specimen.

Aglaomyia has wing venation *zekia* Edwards, but *collaris* (acrostichal hairs, has the meter beyond the level of the base of shorter than the tibial diameter.

Aglaomyia

Female. Head black, subshiny flagellomeres dull yellow, rest yellowish, becoming brownish shining, with black setae, the flag posteriorly-tapering yellow stripe lateral to scutal stripe near mid Halter yellow. Legs mostly yellow basal 1/5 of hind coxa, and palpi brownish. Abdomen mostly dark 1/4 to 1/3 of tergites 2 to 4 yellow apically.

Aglaomyia new genus

Fig. 5

Type-species: *Aglaomyia gatineau* new species.

Female only. Length 8.2 mm. Ocelli three, the median about half the diameter of each lateral, the latter separated from the eye margin by its own diameter and from the median ocellus by about twice its own diameter. Eye scarcely emarginate above antennal base, with short and very scattered hairs. Frons bare between ocelli and antennal bases. Face short, weak, bare; clypeus large, with many short hairs on lower part. Palpus long, palpomeres not distinct in dry specimen. Antenna about 1.6 times as long as thorax; flagellomere 1 about 2.0 times as long as wide, 2 about 1.5 times as long as wide, others about as long as 2 but becoming progressively more slender.

Scutum with many suberect dorsocentral and sublateral hairs, without acrostichal hairs. Scutellum with several irregular transverse rows of hairs of varying lengths. Mediotergite and laterotergite bare. Metanotum with one strong erect hair medial to base of halter. Mesopleuron and metepimeron bare; metepisternum with many short fine subappressed hairs near lower margin. Prosternum bare. Wing (Fig. 5) yellowish, with small brownish cloud over Rs and crossvein r-m, a large faint cloud on anterior half of wing apex and a faint cloud along and behind CuA₂; anterior margin of wing and anal angle very slightly darkened. Wing membrane without macrotrichia, with dense microtrichia on most of surface but with following areas bare: base of first costal cell, base of second costal cell, posterior part of basal 2/3 of cell r, anterior part of cell m almost to crossvein r-m, most of alular area. R₁, R₄₊₅, M₁, M₂, apical 1/4 of CuA, CuA₁, CuA₂, apical half of A₁ and apical half of crossvein r-m with many short setae above; apical 2/3 of R₁ and of R₄₊₅ with short setae below. Hind coxa with basal 1/4 bare, beyond this point with several irregular rows of short hairs which become moderately long towards coxal apex. Tibial bristles moderately strong, the longest about twice as long as tibial diameter. Tibial spur formula 1.5; 2.5, 3.0; 2.9, 3.6. Tarsal claws each with two small ventral teeth. Empodia small.

Abdomen slender, elongate, tapering apically, strongly compressed in dry specimen.

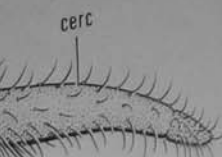
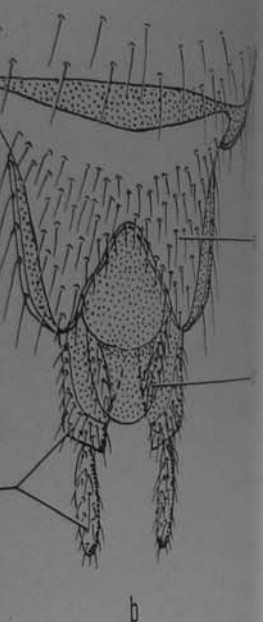
Aglaomyia has wing venation similar to that of the Palaearctic genus *Grzegorzekia* Edwards, but *collaris* (Meigen), the only species of the latter genus, has acrostichal hairs, has the metepisternum bare, has Sc setose above and ending well beyond the level of the base of Rs, has vein R₄ present, and has the tibial bristles shorter than the tibial diameter.

Aglaomyia gatineau new species

Fig. 5

Female. Head black, subshining, with black setae. Scape, pedicel and first two flagellomeres dull yellow, rest of flagellum dark brown. Mouthparts yellow. Palpus yellowish, becoming brownish apically. Thorax mostly dark brown to black, subshining, with black setae, the following areas yellow-orange; postpronotum, a broad posteriorly-tapering yellow stripe on anterior 2/3 of scutum, a small indistinct area lateral to scutal stripe near mid length of scutum, and area around anterior spiracle. Halter yellow. Legs mostly yellow; extreme bases of fore and mid coxae, about basal 1/5 of hind coxa, and part of ventral surface of trochanters dark brown; tarsi brownish. Abdomen mostly dark brown, shining, with black setae; about apical 1/4 to 1/3 of tergites 2 to 4 yellow-orange; tergites 5 to 7 narrowly yellow-orange apically.

er Co., Oregon, 450
No. 16052, CNC, Ottawa



sp.; 11, *Drepanocercus engelmanni*
cerc, cercus; st, sternite; lg, leg

The specific name is derived from the Gatineau Hills among which Duncan Lake is situated.

Figs. 6, 11

Length 3.3 to 3.9 mm. Ocelli three, subequal, lateral ocellus separated from median ocellus by about $1\frac{1}{2}$ times its own diameter and from eye margin by about half its own diameter. Eye with a broad and moderately deep emargination above antennal base, with very short and scattered hairs. Frons bare between ocelli and antennal bases. Face weak, bare; clypeus large, with strong hairs, not longer than face. Palpus with five palpomeres, their relative lengths 1:1:2:4:5; palpomere 3 without discernible sensory area. Antenna of male about 2.4 times as long as thorax, that of female about 1.6 times as long as thorax; flagellomere 1 about 2.5 times as long as wide, 2 to 14 each about 2.0 times as long as wide.

Scutum with mixed long erect and short subappressed acrostichal, dorsocentral and sublateral hairs, the intervening areas bare. Scutellum with four long and several short hairs in an irregular double row. Mediotergite and laterotergite bare. Metanotum with one long strong erect hair medial to base of halter. Mesopleuron, metapleuron, and prosternum bare. Wing (Fig. 6) unmarked, with dense microtrichia, without macrotrichia. Sc, R, R₁, R_s (except basal section), R₄₊₅, and crossvein r-m with long setae above; M₁, M₂, CuA₁ (except about basal 1/4), CuA₂, and A with short setae above; R₁, R_s (except basal section), R₄₊₅, and crossvein r-m with long setae below. Hind coxa with a complete vertical row of about eight long strong hairs and, in front of these, an irregular row of shorter hairs. Tibial bristles weak, the longest subequal in length to tibial diameter. Tibial spur formula 1.7; 2.6, 2.6; 2.3, 2.3. Tarsal claws each with a small ventral tooth. Empodia very small.

Abdomen with sternite 1 bare. Sternites 2 to 7 each with a pair of submedian to sublateral fold-lines. Male with tergite 7 and sternite 7 at most slightly shorter than sclerites of segment 6. Tergite 8 about half as long as tergite 7; exposed at least laterally, extensively haired; sternite 8 about 2/3 as long as sternite 7, extensively haired. Tergite 9 free, large, a little broader than long. Sternite 9 apparently fused with gonocoxites, the latter separated ventrally by a narrow parallel-sided membranous area which extends almost to base of segment 9; gonocoxite extending medioventrally slightly beyond base of gonostylus. Gonostylus broadly articulated to dorsolateral part of gonocoxite, forming a subquadrate plate with three long and several shorter lateral setae, the upper third slightly thickened and with a row of fine short moderately strong setae along apicodorsal margin. Aedeagus and parameres weakly sclerotized, the latter H-shaped in dorsal view. Cercus weak, subquadrate, with weak setae. Hypoproct weak, subtriangular, with a pair of apical setae.

Female (Fig. 11) with segment 7 very little smaller than segment 6. Tergite 8 medially about 1/3 as long and laterally about 1/2 as long as tergite 7. Sternite 8 with body about as long as lateral margin of tergite 8, bare, broadly emarginate anteriorly, bearing a pair of slender, slightly curved, long-setose posterolateral lobes and, posteriorly, between the lobes, a flat bare median process which is broadest at mid length and ends in a pair of slender apicolateral processes. Tergite 9 as long as median part of tergite 8. Sternite 9 very weak, indistinct. Tergite 10 almost as long as tergite 9, fused on each side to a slender remnant of sternite 10 which

Drepanocercus differs markedly from *region* by having CuA forked very noticeably elongated, but this similarity to convergence.

Drepanocercu

Male. Dull yellow to yellow brown following brown: palpomeres 4 and 5 of scutum or median and sublateral anepisternum and katepisternum, lateral abdomen except for yellowish terminal segments 1 to 5 and all of segments 6 to 10. Colour similar to that of

Female. Colour similar to male.
lobes of sternite 8 dark brown; cercus

Types. Holotype ♂, Highlands, Type No. 16054, CNC, Ottawa. Paratype 1150', 15.VI.1964 (Vockeroth); ♀, Old Twp., Gatineau Co., 1.VII.1974 (D. 18.VII.1970 (J. F. McAlpine); 2♂, Mt. N.S.: ♂, Lockeport 1.VIII.1958 (Vockeroth). Me.: 3♂♂, Hunt Trail, Mt. ♂, Mt. Katahdin, 4.VII.1968 (Wood). 22.VI.1977 (R. J. Gagné). Vt.: ♂, (H. J. Teskey); ♀, Jay Peak, 3000 Whiteface Mt., Adirondacks, above 319.VII.1962 (Vockeroth). Tenn.: 12♂ Smoky Mt. Nat. Pk., 5200-6600', 6. Gap, Great Smoky Mt. Nat. Pk., 5100 3♀♀, Clingman's Dome, Great Smoky ♂, Clingman's Dome, 5.VIII.1957 (R. 28.VII.1957 (Chillcott); ♂, Chestnut E 2.VIII.1957 (Chillcott); ♂, Devil's C (Richards); 4♂♂, Highlands, 3800', 21 3800', 25.VIII.1957 (Chillcott); ♂, (Vockeroth). Ga.: ♀, Rabun Co., USNM, Washington; CAS, San Francisco Mus., Helsinki; Zool. Inst., Leningrad

Garrett

Type-species: *Leia shermani* Garrett
Length 3.3 to 4.2 mm. Ocelli
laterals, lateral ocellus separated from
diameter and from eye margin by a line
emarginate above antennal base, with
between ocelli and antennal base.

projects far beyond the tergite. Cercus a long slender unsegmented tapering slightly curved blade-like structure which is fused at its base with other cercus and bears many short hairs on lateral surface.

Drepanocercus differs markedly from other genera of Gnoristini in the Holarctic region by having CuA forked very near its base. The elongate female cerci also differ from those of other genera. In *Boletina oviducta* (Garrett) the cerci are noticeably elongated, but this similarity between the two species is undoubtedly due to convergence.

Drepanocercus ensifer new species

Figs. 6, 11

Male. Dull yellow to yellow brown, vertex and postcranium dark brown, the following brown: palpomeres 4 and 5, flagellomeres 2 to 14, usually either most of scutum or median and sublateral postsutural scutal stripes, usually most of anepisternum and katapisternum, laterotergite, usually most of mediotergite, entire abdomen except for yellowish terminalia and dark brown posterior incisures of segments 1 to 5 and all of segments 6 to 8.

Female. Colour similar to that of male but dark areas usually more extensive; lobes of sternite 8 dark brown; cercus yellow, translucent.

TYPES. Holotype ♂, Highlands, N.C., 3900', 7.VI.1957 (J. R. Vockeroth). Type No. 16054, CNC, Ottawa. Paratypes: **Que.**: ♂, Summit King Mt., Old Chelsea, 1150', 15.VI.1964 (Vockeroth); ♀, Old Chelsea, 11.VI.1959 (Vockeroth); ♂, Masham Twp., Gatineau Co., 1.VII.1974 (D. M. Wood); ♂, Duncan Lake, nr. Rupert, 18.VII.1970 (J. F. McAlpine); 2♂, Mt. Orford, 1200-2000', 21.VII.1968 (Vockeroth). **N.S.**: ♂, Lockeport 1.VIII.1958 (Vockeroth); ♀, Shelburne, 10.VIII.1958 (Vockeroth). **Me.**: 3♂♂, Hunt Trail, Mt. Katahdin, 1600-2400', 1-6.VII.1968 (Wood); ♂, Mt. Katahdin, 4.VII.1968 (Wood). **N.H.**: ♂, Pinkham Notch, White Mountains, 22.VI.1977 (R. J. Gagné). **Vt.**: ♂, 5 mi W. Bloomfield, Essex Co., 20.VI.1972 (H. J. Teskey); ♀, Jay Peak, 3000-3400', 20.VII.1968 (Vockeroth). **N.Y.**: ♂, Whiteface Mt., Adirondacks, above 3800' (J. M. Aldrich); ♂, Lake Placid, 2000', 19.VII.1962 (Vockeroth). **Tenn.**: 12♂♂ 1♀, Indian Gap to Clingman's Dome, Great Smoky Mt. Nat. Pk., 5200-6600', 6.VIII.1957 (J. G. Chillcott); 4♂♂ 1♀, Indian Gap, Great Smoky Mt. Nat. Pk., 5100', 24.VII.1957 (W. R. Richards). **N.C.**: 4♂♂ 3♀♀, Clingman's Dome, Great Smoky Mt. Nat. Pk., 6.VIII.1957 (C. J. Durden); ♂, Clingman's Dome, 5.VIII.1957 (Richards); ♂, Wayah Gap, Macon Co., 4100', 28.VII.1957 (Chillcott); ♂, Chestnut Bald, Pisgah Nat. Forest, Haywood Co., 5800', 2.VIII.1957 (Chillcott); ♂, Devil's Court House, Blue Ridge Parkway, 2.VIII.1957 (Richards); 4♂♂, Highlands, 3800', 21.VI and 8.VII., 1957 (Vockeroth); ♀, Highlands, 3800', 25.VIII.1957 (Chillcott); ♂, Wilson's Gap, Highlands, 3100', 25.V.1957 (Vockeroth). **Ga.**: ♀, Rabun Co., 13.VII.1957 (Richards). Paratypes in CNC; USNM, Washington; CAS, San Francisco; BMNH, London; MNHN, Paris; Zool. Mus., Helsinki; Zool. Inst., Leningrad.

Garrettella new genus

Fig. 7

Type-species: *Leia shermani* Garrett, 1925.

Length 3.3 to 4.2 mm. Ocelli three, median ocellus slightly smaller than laterals, lateral ocellus separated from median ocellus by almost twice its own diameter and from eye margin by a little less than its own diameter. Eye slightly emarginate above antennal base, with dense and moderately long hairs. Frons bare between ocelli and antennal bases. Face short, a little wider than long, haired;

clypeus about twice as long as face, haired. Palpus with five palpomeres, their relative lengths 1:1:3:4.5:9; palpomere 3 without discernible sensory area. Antenna of male about 2.8 times as long as thorax, that of female about 1.8 times as long as thorax, flagellomeres 1 and 14 each about 3.0 times as long as broad, 2 to 13 each about 2.5 times as long as broad.

Scutum rather sparsely haired; acrostichal hairs in one irregular row; dorsocentral and sublateral hairs longer and stronger posteriorly. Scutellum with four long bristle-like hairs and a transverse row of short hairs. Mediotergite and laterotergite bare. Metanotum with one or two fine erect hairs lateral to base of halter. Mesopleuron, metapleuron, and prosternum bare. Wing (Fig. 7) unmarked, with dense microtrichia, with a few macrotrichia posteriorly, especially on anal lobe. Crossvein r-m, and all longitudinal veins except Rs, setose above; Sc, R near its apex, R_1 , R_{4+5} , and crossvein r-m setose below. Hind coxa with one irregular vertical row of strong hairs on most of its length. Tibiae with moderately strong bristles, the longest about 2.5 times as long as tibial diameter. Tibial spur formula 2.5; 2.8, 3.3; 2.8, 3.4. Tarsal claws each with a large ventral tooth which is preceded by one or two smaller teeth. Empodia large, slightly longer than claws.

Abdomen with sternite 1 haired posteriorly. Sternites 2 to 7 without fold-lines. Male with segment 9 rotated clockwise through 180° or less, the rotation beginning with segment 7. Tergite 7 and sternite 7 about $2/5$ as long as sclerites of segment 6, the posterior half of each haired and moderately exposed. Tergite 8 about $1/2$ as long as tergite 7, only slightly shorter medially than laterally, retracted, with a row of posterior hairs. Sternite 8 a little longer than sternite 7, mostly retracted, bare only anteriorly. Tergite 9, gonocoxites, and sternite 9 fused into a ring-like synsclerite which bears a V-shaped incision almost to its base mid-dorsally and mid-ventrally. Dististylus short and broad, attached along whole lateral apical part of synsclerite, deeply divided into a dorsal, slender, slightly sinuate, tapering, acute lobe, and a very broad compressed lower lobe which is partly hidden under synsclerite, has a short hook-like projection near its upper end and tapers to a bluntly rounded lower end. Aedeagus short and rather weak, composed of two slender lateral struts. Parameres fused, forming a large hood with downcurved lateral margins over aedeagus, the base deeply excavated and the apex tapering and broadly rounded. Cerci lying in dorsal emargination of synsclerite, each cercus rather weak, large, broad basally, tapering to a bluntly rounded apex, with fine hairs; hypoproct as long as cercus, divided medially, each half similar in shape to cercus.

Female with segment 7 about $3/5$ as long as segment 6. Tergite 8 with short hairs posteriorly, medially $2/5$ as long and laterally $5/6$ as long as tergite 7. Sternite 8 a little longer than greatest length of tergite 8 and projecting well beyond the latter, divided medially almost to its base to form two subtriangular lobes with bluntly rounded apices, with distinct hairs near posterior margin. Tergite 9 either absent or very short and nearly fused with tergite 10. Sternite 9 a weak anteriorly-thickened plate lying above sternite 8. Tergite 10 (plus perhaps tergite 9) extremely short, extending posteriorly on each side as a slender process lying above, and closely appressed to, one-half of the narrow medially-divided sternite 10. Cercus 2-segmented, first segment about twice as long as wide, second segment narrower and much shorter, about $1\frac{1}{2}$ times as long as wide, rounded apically.

Garrettella has a few macrotrichia on the posterior part of the wing membrane (as do many species of *Trichosia* Winnertz in the subfamily Mycetophilinae) but its marked similarity to *Leia* Meigen in venation and habitus suggests that it should be referred to the Tetragoneurini rather than to the Sciophilini. The two genera may be distinguished as follows:

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Garrettella: Lateral margin. Flagellomeres 1 and 14 about 3.0 times as long as broad, 2 to 13 each about 2.5 times as long as broad.

Leia: Lateral ocellus at most 1.5 times as long as broad, 2 to 13 each about 2.5 times as long as broad.

I have examined plus 18♂♂ and 62♀♀ 1969-1971 (D. D. Munro).

Type-species: *Bolita*

Length 3.8 to 5.0 mm. Lateral ocellus from eye margin and from eye margin shallow emargination a little longer than others, flagellomeres from 2 to 14 about 1.5 to 2.0 times as long as broad.

Scutum with mixed hairs, the hairs scattered short hairs on the surface with one weak erect hair; metepisternum unmarked, with dense hairs, about apical half of M_2 , about apical half of A_1 setose above; R_1 with three times as long as broad.

Abdomen with sternite 7 and sternite 7 about as long as tergite 7, hidden in dry specimen, usually partly exposed in direction through from a distinctly emarginate over most of the surface with gonocoxites laterally

Garrettella: Lateral ocellus separated by almost its own diameter from eye margin. Flagellomeres at least 2.5 times as long as wide. Laterotergite bare. Wing membrane with a few macrotrichia posteriorly. Sc setose above and below and ending well beyond level of base of Rs; crossvein sc-r at about 4/5 length of Sc. Hind coxa with an irregular vertical row of strong hairs over most of its length.

Leia: Lateral ocellus usually touching eye margin or nearly so. Flagellomeres at most 1.5 times as long as wide. Laterotergite with long strong hairs. Wing membrane without macrotrichia. Sc bare and ending well before level of base of Rs; crossvein sc-r scarcely beyond mid length of Sc. Hind coxa with hairs near base and apex but bare on about 2/3 of its length.

I have examined the holotype ♀ of *Leia shermani* Garrett from Agassiz, B.C., plus 18♂♂ and 62♀♀ from Alpine L., Marin Co., California, 1500', IV and V, 1969-1971 (D. D. Munroe), ex Malaise trap.

Saigusaia new genus

Fig. 8

Type-species: *Boletina cincta* Johannsen, 1912.

Length 3.8 to 5.7 mm. Ocelli three, median ocellus slightly smaller than laterals, lateral ocellus separated from median ocellus by about twice its own diameter and from eye margin by about 0.5 to 1.0 times its own diameter. Eye with broad shallow emargination above antennal base, with long and moderately abundant hairs. Frons bare between ocelli and antennal bases. Face weak, bare; clypeus longer than face, with strong hairs on upper half. Palpus with five palpomeres, their relative lengths 1:1:2:4:8; palpomere 3 with a large rounded sensory pit on basal half of dorsomedian surface. Male with antenna 2.2 to 2.5 times as long as thorax, flagellomeres from 2 to 3 times as long as broad, subequal in length or with flagellomeres 1 and 14 about 1.5 times as long as each of 2 to 13; female with antenna about 1.5 to 2.0 times as long as thorax, flagellomere 1 and sometimes 14 slightly longer than others, flagellomeres proportionally shorter and broader than in male.

Scutum with mixed long erect and short subappressed acrostichal, dorsocentral and sublateral hairs, the intervening areas bare. Scutellum with two long hairs, with scattered short hairs on most of disc. Mediotergite and laterotergite bare. Metanotum with one weak erect hair lateral to base of halter. Mesopleuron and metepimeron bare; metepisternum with many short fine hairs. Prosternum bare. Wing (Fig. 8) unmarked, with dense microtrichia, without macrotrichia. R_1 , R_{4+5} , most of M_1 and of M_2 , about apical half of CuA_1 and of CuA_2 , and sometimes basal half or more of A_1 setose above; R_1 and R_{4+5} setose below. Hind coxa with two to three irregular vertical rows of strong hairs. Tibial bristles moderately strong, the longest about three times as long as tibial diameter. Tibial spur formula 1.6; 2.5, 3.6; 2.5, 3.3. Tarsal claws each with a small ventral tooth. Empodia very small.

Abdomen with sternite 1 bare. Sternites 2 to 7 each with a median and a pair of sublateral fold-lines, sternite 8 of male with median fold-line. Male with tergite 7 and sternite 7 about 3/4 as long as sclerites of segment 6. Tergite 8 about 1/2 as long as tergite 7, slightly narrowed laterally, haired only posteriorly, usually hidden in dry specimens; sternite 8 about 2/3 as long as sternite 7, extensively haired, usually partly exposed. Segment 9 in many specimens rotated in a clockwise direction through from 80° to 180°. Tergite 9 not fused with gonocoxites, parallel-sided or broadened apically, the apical portion turned sharply ventrad, narrowed to a distinctly emarginate apex, and with many very short rather strong black setae over most of the surface or in two narrow irregular triple rows. Sternite 9 fused with gonocoxites laterally and membranous medially. Gonocoxite tapering evenly

to apex or with a pronounced posteromedian angle on ventral surface. Gonostylus inserted at apex of gonocoxite, deepened beyond base, slightly to strongly incurved, with a slight to strong preapical constriction with weak setae or with two strong dorsal setae, and with many short strong slightly flattened black setae at apex. Fused parameres short, weakly sclerotized, either subconical and tapering apically or in the form of a rather flat subtriangular plate with a subcylindrical ventral process near its base. Proctiger weakly sclerotized, retracted under tergite 9; cercus rounded with weak scattered setae; epiproct absent; hypoproct subtriangular, with two preapical setae.

Female with segment 7 a little over half as long as segment 6. Tergite 8 longer laterally than medially, at most about $1/2$ as long as tergite 7. Sternite 8 membranous medially, the posterior lobes rather broad, narrowed preapically, bluntly rounded apically, with rather strong apical setae. Tergite 9 about $1/2$ as long as lateral part of tergite 8. Sternite 9 subquadrate or subtriangular, nearly flat, moderately sclerotized, not protruding beyond tergite 9. Sternite 10 not discernible. Cercus 2-segmented; basal segment about $1\frac{1}{2}$ times as long as broad, apical segment slightly narrower, rounded apically, about two-thirds as long as basal segment.

Two species are referable to *Saigusaia*: *Boletina cincta* Johannsen, 1912, the type-species, and *Boletina taiwana* Saigusa, 1968 (n. comb.). *S. cincta* (Johannsen) was described from Vermont and New York; 29♂♂ and 11♀♀ in the CNC range from Quebec (ca. 50 km N of Hull) south to northern Georgia (ca. 1500 m altitude). The male terminalia were figured by Johannsen. *S. taiwana* (Saigusa) was described from Taiwan; I have tentatively identified 3♂♂ and 2♀♀ from Nepal (all taken at or near 27°56' N, 85°00' E, at 9,900' and 10,100') in the CNC as *taiwana*. The specimens agree well with the description and with the figures of male and female terminalia given by Saigusa, but the legs of the Nepalese specimens are less extensively blackened and the aedeagus and parameres differ slightly in form. The two species may be distinguished as follows:

S. cincta: Mediotergite, laterotergite, and mesopleuron yellow to reddish yellow, much paler than scutellum. Male with deflexed apical portion of tergite 9 bearing short black setae over its entire surface (eastern Nearctic).

S. taiwana: Mediotergite, laterotergite, and about upper $1/2$ of mesopleuron dark brown to black, concolorous with scutellum. Male with deflexed apical portion of tergite 9 bearing short black setae in two irregular triseriate rows (eastern Palaearctic).

Saigusaia is probably closely related to *Boletina* Staeger, which has very similar wing venation. The two genera may be distinguished as follows:

Saigusaia: Face weakly sclerotized, bare. Laterotergite bare. Metepisternum with short fine hairs. Prosternum bare. Sc ending well before level of base of crossvein r-m. Sternite 1 bare. Sternites 2 to 7 or 8 with median fold-line. Male with tergite 7 and sternite 7 haired, subequal in length, each about $2/3$ as long as sclerites of segment 6; tergite 8 haired posteriorly; tergite 9 not fused with gonocoxites, its apical portion sharply deflexed, narrowed towards apex, with narrow apical emargination and bearing short spinose setae; cerci retracted below tergite 9, with only weak hairs. Female with sternite 8 deeply emarginate posteriorly, portion anterior to emargination membranous medially; cercus 2-segmented.

Boletina: Face strongly sclerotized, haired. Laterotergite haired or bare. Metepisternum bare. Prosternum haired or bare. Sc ending opposite or beyond level of base of crossvein r-m. Sternite 1 haired. Sternites 2 to 7 or 8 with or without median fold-line. Male with tergite 7 bare, much shorter than sternite 7, medially at most $1/6$ as long as tergite 6; tergite 8 very short, usually bare but haired

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*Hadroneura occid**Hadroneura pullat**Hadroneura rutila*

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posteriorly in at least *Boletina sahlbergi* Lundström; tergite 9 usually broadly fused with gonocoxites anterolaterally but sometimes separate, its apical portion not deflexed, narrowed, narrowly emarginate, nor spinose; cerci exposed beyond tergite 9, usually with transverse rows of strong black setae but with only weak hairs in *sahlbergi* and several related species. Female with sternite 8 posteriorly entire or emarginate, anterior portion not membranous medially; cercus usually 2-segmented, sometimes 1-segmented.

New Combinations and New Synonymy

Several Nearctic species of Mycetophilidae should be assigned to genera other than those in which they are currently placed, or are synonyms of Palearctic species. A number of these are species described by Sherman and Garrett, mostly from British Columbia; the types of these species, with the exceptions noted below, are in the Canadian National Collection, Ottawa and have been examined by me. The types of the species described by Garrett in *Sciophila* Meigen are in the British Museum (Natural History), London and the types of *Mycomya mutabilis* Sherman and *Platyura intermedia* Sherman were accidentally destroyed (C.B.D. Garrett, pers. comm.). Types of other species mentioned below were not examined unless this is specifically indicated. The first five species listed below are new combinations only because I would, following in part recent European authors, give generic rank to the subgenera in which they are currently placed. Comments are given at appropriate places in the list in connection with the other new combinations and the new synonymy. For each new combination the genus in which the species was originally placed is given in parentheses.

Cerotelion johannseni (Fisher, 1940) (*Keroplatus*), **n. comb.**

Euceroptatus fasciatus (Garrett, 1925) (*Cerotelion*), **n. comb.**

Heteropterna cressoni (Fisher, 1941) (*Keroplatus*), **n. comb.**

Macrorrhyncha coxalis (Loew, 1869) (*Asindulum*), **n. comb.**

Stigmatomeria crassicornis (Stannius, 1831) (*Mycetophila*), **n. comb.**

Syntemna johannseni (Sherman, 1921) (*Dziedzickia*), **n. comb.**

Syntemna vernalis (Sherman, 1921) (*Dziedzickia*), **n. comb.**

Dziedzickia columbiana Sherman, 1921 = *Syntemna hungarica* (Lundbeck, 1912) (*Loewiella*), **n. syn.**

I have examined the single male type of *columbiana*, seven other ♂♂ from Alaska, British Columbia, Manitoba and Colorado, and one ♂ from Abisko, Sweden; the terminalia of all nine specimens were macerated. They are undoubtedly conspecific; the terminalia agree with those of *hungarica* as figured by Hutson (1979). The genus *Syntemna* was first properly recorded from North America by Hutson; species referred to the genus by Loew and Johannsen are now placed in *Dziedzickia*. The venation of *Syntemna* resembles that of *Dziedzickia*, with Sc ending in R, but the wing membrane bears many macrotrichia. *Dziedzickia johannseni* Sherman is a primary homonym of *D. johannseni* Meunier 1917 but renaming should not be considered until the Nearctic fauna is revised.

Hadroneura occidentalis (Sherman, 1912) (*Dziedzickia*), **n. comb.**

Hadroneura pullata (Coquillett, 1904) (*Neoempheria*), **n. comb.**

Hadroneura rutila (Sherman, 1921) (*Dziedzickia*), **n. comb.**

The two species previously referred to *Hadroneura* Lundström, *Hadroneura palmeni* Lundström and *Neoempheria kincaidi* Coquillett, have the lower part of the head produced slightly but distinctly downward. The three species listed above do not have the head produced but are otherwise very similar to *kincaidi*. The species of *Hadroneura* may be distinguished from Nearctic species of *Dziedzickia* with a

haired laterotergite by having R_{2+3} present and more than twice its own length from the outer end of crossvein r-m; those species of *Dziedzickia* with a haired laterotergite either lack R_{2+3} or, if it is present, it is less than its own length from the outer end of crossvein r-m. I have examined the holotype of *Neoempheria pullata* Coquillett in the USNM, Washington.

Synapha astacus (Garrett, 1924) (*Boletina*), **n. comb.**

In both the holotype ♂ and the allotype ♀ Sc ends in C and R_{2+3} is absent. The dististyle ends in a short acute point and a bunch of fine hairs as long as the point and medial to it. The fore tibia of the female has the depressed anterior area extending about 5/7 the length of the tibia. The species is quite distinct from *Synapha disjuncta* (Garrett), the other described western Nearctic species of the genus. Hutson (1979) says that the eastern Nearctic species *Synapha tibialis* (Coquillett) should be referred to another genus but I disagree. Although it, unlike other species, has Sc ending in R, in other characters, including the male terminalia, it agrees well with the type-species of *Synapha*.

*Greenomyia cephal*a (Garrett, 1925) *Leia*, **n. comb.**

Greenomyia jocular (Laffoon, 1965) *Leia*, **n. comb.**

Greenomyia Brunetti was based on one species from India but remained poorly known until two species from Mongolia were described by Laštovka and Matile (1974). The male terminalia of the two species listed above, plus those of one undescribed Nearctic species, are very similar to those of the species from Mongolia and all are undoubtedly congeneric. The Nearctic species of *Greenomyia* have the lateral ocelli far removed from the eye margin, the prosternum with strong bristle-like lateral hairs, and the apex of R_{4+5} well before the level of the apex of M_2 . The species of *Leia* have the lateral ocelli near the eye margin, the prosternum bare, and the apex of R_{4+5} above or beyond the level of the apex of M_2 . I have examined the two female syntypes of *cephala*.

Rhymosia brevicornis Sherman, 1921 = *Allodiopsis cristata* (Staeger, 1840) (*Mycetophila*), **n. syn.**

I have compared the single male type, and several other Canadian specimens of *brevicornis*, with several specimens of *cristata* from Sweden.

Brachypeza errans (Garrett, 1925) (*Dynatosoma*), **n. comb.**

Pseudobrachypeza bulbosa (Johannsen, 1912), (*Allodia*), **n. comb.**

These two species are placed on the basis of the generic descriptions given by Tuomikoski (1966). I have examined the two female syntypes of *errans*.

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DESCRIPTION D'UN
NORD-AMÉ

Institut de Recher

Résumé

Robsonomyia reducta,
récoltés en Colombie B
ce genre des autres Mac

Abstract

Robsonomyia reducta,
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