

convex; when scutellum is reduced in size and flattened, tibiae are strongly spinose. 33

33. Tibiæ thickly set with long strong dark colored spines; corium narrow, acute apically (fig. 20); ocelli present; rostrum 4-segmented; tarsi 3-segmented; phytophagous (always?); generally shining black or blue, sometimes with lighter peripheral markings; rarely brownish in color, in which case length is less than 5 mm.; moderate to minute in size

CYDNIDÆ or THYREOCORIDÆ

Tibiæ not strongly spinose; corium broad, obtuse at apex; ocelli present; rostrum 4-segmented; tarsi 3-segmented; phytophagous; gray, brown or reddish species; moderate in size. SCUTELLERIDÆ

NEW AMERICAN SPECIES OF ASTEIA AND SIGALSOËSA.¹

BY J. M. ALDRICH,

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The two genera named are readily distinguished from other Drosophilidæ by the shortness of the second longitudinal vein, which surpasses the first but slightly, as the accompanying sketches show. *Asteia* has been known from the time of Meigen as a European genus, of which four species are recorded in the Palæarctic Catalogue; it has no posterior cross-vein, and the arista is plumose as in *Drosophila*. *Sigaloëssa* was established by Loew for a Cuban species *S. bicolor* (Centuries, VI, 100, 1865); it has a posterior cross-vein, and the arista is only microscopically pubescent in most cases, although in *frontalis* described below it is short-plumose.

The wing figured by Williston, Manual, 1908, p. 300, fig. 7, as a doubtful member of *Sigaloëssa*, belongs to a fly of another genus; his figure on page 311, fig. 7, is correctly named as a *Sigaloëssa*.

The *Asteia tenuis* of Walker, Trans. Ent. Soc., n. ser., V, 331, must belong somewhere else; he mentions the posterior cross-vein, which being near the border would also exclude the fly from *Sigaloëssa*. Walker himself gave the genus with a question, but Osten-Sacken dropped the interrogation point, perhaps only a clerical error.

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Fig. 1. Antenna of *Cosmopepla carnifex* Pentatomidae

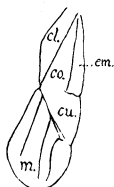


Fig. 2. Hemelytron of *Anthocoris musculus* Anthocoridae

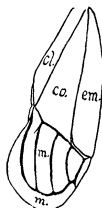


Fig. 3. Hemelytron of *Acanthia pallipes* Acanthidae



Fig. 4. Hemelytron of *Largus succinctus* Pyrrhocoridae

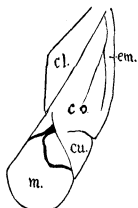


Fig. 5. Hemelytron of *Monalocoris filicis* Miridae

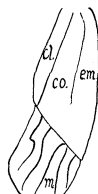


Fig. 6. Hemelytron of *Emblethis vicarius* Mydochidae

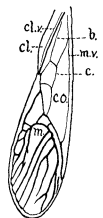


Fig. 7. Hemelytron of *Protenor beltragei* Alydidae

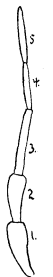


Fig. 8. Antenna of *Naegocys burmeisteri* Naegocidae

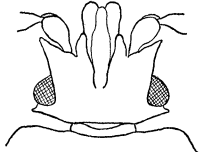


Fig. 9. Head of *Neuroctenus simplex* Dysodiidae



Fig. 10. Head of *Aradus quadrilineatus* Aradidae

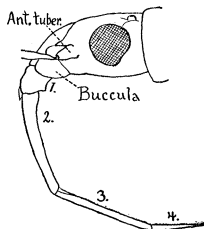


Fig. 11. Head of *Reduvius pallescens* Nabidae



Fig. 12. Front tarsus of *Gerris marginatus* Gerridae

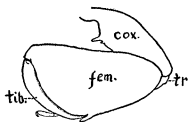


Fig. 13. Front leg of *Phymata fasciata* Macrocephalidae

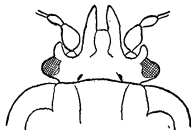


Fig. 14. Head of *Plesma cinerea* Plesmidae

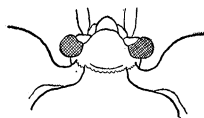


Fig. 15. Head of *Corythuca arcuata* Tingitidae

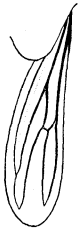


Fig. 16. Hemelytron of *Gerris buenoi* Gerridae



Fig. 17. Hemelytron of *Leptostyla oblonga* Tingitidae



Fig. 18. Hemelytron of *Pisma cinerea* Piesmidae



Fig. 19. Hemelytron of *Mormidea lugens* Pentatomidae



Fig. 20. Hemelytron of *Thyreocoris unicolor* Thyreocoridae



Fig. 21. Hemelytron of *Mesovelia bisignata* Mesoveliidae

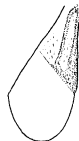


Fig. 22. Hemelytron of *Naeogeus burmersteri* Naeogecidae

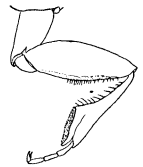


Fig. 23. Front leg of *Pagasa fusca* Nabidae

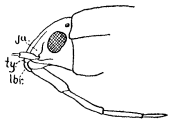


Fig. 24. Head of *Emblethis vicarius* Mydochidae

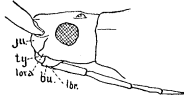


Fig. 25. Head of *Charisterus antennator* Coreidae

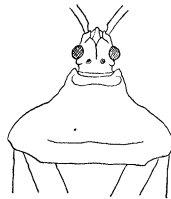


Fig. 26. Head and thorax of *Anasa repetita* Coreidae

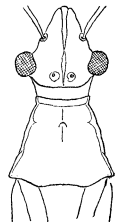


Fig. 27. Head and thorax of *Alydus pilosulus* Alydidae

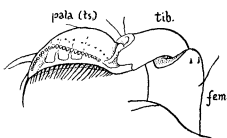


Fig. 28. Front leg of *Arctocoris interrupta* Corixidae

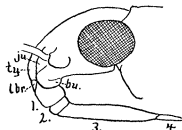


Fig. 29. Head of *Gerris buenoi* Gerridae

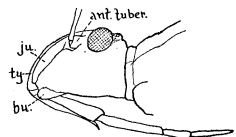


Fig. 30. Head of *Alydus pilosulus* Alydidae 197 P.S.

Types of new species are in the author's collection except where otherwise indicated.

A specimen of *Sigaloëssa flaveola* Coq. is in the author's collection, taken at Lawrence, Kans. The only other described species, *bicolor* Loew, has not been seen.

Asteia is here recorded from North America for the first time.

Asteia beata sp. nov.

♀. Yellow, the front brown and mesonotum shining black; abdomen with five rows of conspicuous black dots.

Front wider than one eye, brown above, gradually yellowish below; two pairs of small verticals, one frontal on each side close to eye and above middle of front, reclinate; ocellars minute; antennæ short, thick, yellow, a rather long erect hair on second joint; arista with about 7 alternating rays, jointed zigzag between them; face wide, short, mostly taken up with a silver crossband, which is very narrowly margined with black above and below; vibrissæ small but distinct; proboscis and palpi yellow, the epistoma with a sharp rim extending down to enclose these when retracted; lower part of occiput yellow.

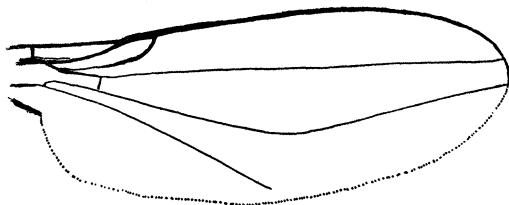


Fig. 1. *Asteia beata* sp. nov., wing.

Mesonotum shining black, narrowly yellowish

behind. 2 psdc, 1 npl, 2 yellow stpl, 1 pair scutellars, and apparently no other thoracic bristles; pleuræ yellow from the npl suture down, with a black spot on sternopleura and another behind it; scutellum pure yellow, somewhat swollen, with one pair of divergent, ascending bristles; metanotum yellow above, blackish below; halteres yellow, the knob elongated, black on outer side.

Abdomen yellow, soft and shriveled, with conspicuous deep black dots on the hind edges of the segments as follows: a median row of three, a lateral row of five, and a sublateral row (below the lateral) of four, each row beginning with the first segment.

Legs yellow, slender.

Wings hyaline, venation as figured.

Length, 2.4 mm.; of wing, 2.8 mm.

A single female, Chester, Mass., August 6, 1914, collected by C. W. Johnson, to whom it has been returned. A label bears the note, "Eyes green."

Asteia albovaria sp. nov.

♂. Shining brownish-black, abdomen largely yellow, legs yellow; a band on face, upper part of pleuræ, and scutellum, pure white.

Front about as wide as one eye, shining blackish to the anterior edge; antennæ brown, the lower edge of the third joint yellow; arista zigzag, with about 6 rays;

face yellow immediately below the antennæ, then with a narrow black band, below which is a wider pure-white band, below this again black, which extends to the bucca in less intensity; two small pairs of verticals; one of frontals, close to orbit and above middle of front; ocellars minute; vibrissæ distinct.

Mesonotum shining brownish-black; pleuræ with wide white stripe on upper part, a black one below this, and the lowest part yellow; scutellum pure-white, somewhat swollen, with one pair of divergent, ascending bristles; the remainder of the thoracic chætotaxy cannot be distinguished in the specimen, and the halteres are wanting.

Abdomen yellow with black bands, but not in condition to describe more fully.

Legs yellow, slender.

Wings hyaline, venation as in *beata*.

Length, 1.2 mm.; of wing, 1.6 mm.

One male, Peru, 1914, collected by H. A. Parish.

TABLE OF SPECIES OF SIGALOËSSA.

Mesonotum yellowish-red (D. C., N. H., Fla., Kans.).....	<i>flaveola</i> Coq.
Mesonotum shining black:	
Mesopleura with black stripe close up against notopleural suture (Potlatch, Ida.).....	<i>lineata</i> sp. nov.
Mesopleura with black stripe on lower edge:	
Front with two narrow silvery stripes on upper half (Peru)....	<i>frontalis</i> sp. nov.
Front without such stripes (Cuba, Porto Rico).....	<i>bicolor</i> Lw.
Mesopleura without stripe (Potlatch, Ida.).....	<i>hirta</i> sp. nov.

Sigaloëssa lineata sp. nov.

♂. Front wider than one eye, brown above, gradually yellower forward, with a large indistinct yellow crescent above the antennæ (not the true lunule, but above it); antennæ small, brownish-yellow, partly concealed by the overhang of the front; third joint rounded, arista black with microscopic pubescence; face wide, rather excavated under the antennæ, lower part white with a narrow jet-black band along edge of mouth; palpi, proboscis and bucca yellow, the same color continuing up the posterior orbits; a few hairs on sides of epistoma, but no distinct vibrissæ; ocellar triangle blackish with almost imperceptible bristles; two pairs of verticals, the inner smaller; front with minute scattered hairs.

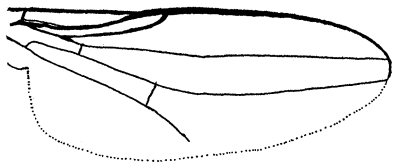


Fig. 2. *Sigaloëssa lineata*, sp. nov., wing of male.

Mesonotum shining black, yellow all round the edge except in front, between the humeri; pleuræ yellow, a black stripe just below the notopleural suture, a spot on sternopleura and another behind it; scutellum yellow; metanotum yellow above, black below; halteres yellow with a black knob. Dorsocentrals two, with a row of fine hairs extending forward from them; acrostichals also in the form of a single

row of minute hairs; notopleurals 2; scutellars two pairs, the inner larger; post-alar 1; intra-alar 1 small behind; sternopleural 2.

Abdomen (shriveled) black with yellow markings, of which the most evident are on the first and fourth segments, in the form of more or less distinct crossbands; fifth segment shining black.

Legs pale yellow, slender.

Wings hyaline, venation as figured.

Length, 1.6 mm.; of wing, 2.4 mm.

♀. Face even more excavated, yellow with black mouth margin; segments 1, 2 and 3 of abdomen broadly black above, the rest whitish; hairs of abdomen quite long.

Length, 2 mm.; of wing, 2.8 mm.

One male, two females, collected on window in the large sawmill of the Potlatch Lumber Company at Potlatch, Latah County, Ida., on September 6, 1912.

Sigaloëssa hirta sp. nov.

♀. Yellow, the mesonotum except borders, the vertex and occiput, a spot on halteres, and a stripe on lower part of mesopleura, black.

Vertex including ocellar triangle black, front rather pure yellow, wider than one eye, covered with comparatively coarse black hairs; two small fronto-orbitals on each side high up, close to the orbit, leaning outward and a little backward; post-verticals and ocellars distinct, the former divergent; two pairs of verticals of good size; antennæ partly concealed by the overhang of the front and the excavation of the face, moderately large, yellow, third joint round, brown on outer and apical part, arista long, with minute pubescence; face wide, entirely yellow; proboscis, palpi, bucca and posterior orbit yellow; the hind edge of bucca on each side bears half a dozen noticeable small bristles, from these a row of hairs extends forward ending in a distinct vibrissa.

Mesonotum shining black with a yellow lateral border including the humeri and extending to the corner of the scutellum; pleura yellow except the stripe noted above; scutellum yellow; metanotum dark brown; halteres yellow with large black spot on outer side of the knob; hairs and bristles quite strongly developed. There are two dorsocentrals on each side, with a row of strong hairs extending forward from them, acrostichals in a single row; notopleurals 2; post-alar 1; humeral 1 small; sternopleural 2; scutellars two pairs, the inner large and divergent.

Abdomen yellow, gradually blackish toward apex, extreme tip light yellow.

Legs yellow, slender.

Wings hyaline, venation as in *lineata*.

Length, 2.1 mm.; of wing, 2.6 mm.

Described from a single female, taken September 9, 1912, on a window in the sawmill at Potlatch, Ida., where I captured the type material of *lineata* and many other rare Diptera.

Sigaloëssa frontalis sp. nov.

♂. Front wider than one eye, shining black, a narrow silvery line on each side of the ocellar triangle, beginning at the declivity of the occiput and continuing straight forward half the length of front; anterior fourth of front yellow; compound eyes not limiting the vertex laterally, it being nearly twice as wide as the front and ending in a point each way; antennæ yellow, third joint brown on apical half or more, with upcurved short dense pale hair; arista black, short-plumose, with about a dozen rays; face concave, yellow, with slight whitish reflection; peristoma with a narrow shining black line almost in a horseshoe shape, between which and the eye the moderately wide bucca is pure silvery, which does not extend across the facial depression; proboscis and palpi yellow; a row of small hairs along the peristoma, the anterior one on each side forming a minute vibrissa. The chaetotaxy of the front is not well preserved, but one vertical and one fronto-orbital can be seen, the latter close to the eye about the middle of the side.

Mesonotum shining black, the sides beginning with humeri yellow as far as the corners of the scutellum, which is also yellow; pleura yellow, a blackish shining stripe on lower part of mesopleura, a spot on sternopleura and one behind it; halteres yellow with large black knob. Bristles of thorax not very well preserved, but the following can be seen: 2 dc, 2 npl, 1 stpl, 1 post-alar, scutellar 1 pair and a small hair each side.

Legs yellow, slender.

Abdomen blackish above, yellow below.

Wings hyaline, venation as in *lineata*.

Length, 1.5 mm.; of wing, 1.8 mm.

A single male, collected in Peru in 1914 by H. S. Parish.

NEW SPECIES OF TACHINIDÆ (DIPTERA) FROM NEW ENGLAND.

BY HARRISON E. SMITH,

U. S. Department of Agriculture, Bureau of Entomology, Cereal and Forage Insect Investigations.

Phasia (Alophora) phasiatrata sp. nov.

Black, densely brassy yellowish gray pollinose. Length 8.0 mm.

Frontal vitta as viewed from the side, velvety brownish black; as viewed from in front, yellowish gray pollinose. Ocellar triangle black, pollinose, the ocellar bristles distinct, proclinate. Sides of front yellowish gray pollinose, widely diverging below; at narrowest part less than one-third as wide as the frontal vitta. Frontal bristles in a single row, descending to base of the antennæ; outside of these sprinkled with black hairs. Orbital bristles absent. Antennæ black, pollinose, with a faint rufous tinge at apex of second and base of the third antennal joints. Third antennal joint less than two times as long as the second. Arista thickened on approximately the