

THREE NEW HYMENOPTEROUS PARASITES OF  
*PEGOMYIA BRASSICÆ*, BOUCHE.

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In the course of some insectary work on the Cabbage Maggot during the summer of 1907, three new parasites were reared from its puparia by R. L. Webster, at that time in charge of our breeding experiments. These were named by Charles T. Brues, of the Public Museum, Milwaukee, Wis. His description of the species follows:

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FAMILY DIAPRIIDÆ.

*Loxotropa pegomyiæ*, sp. nov.

FEMALE. Length 2 mm. Black, shining; legs including coxæ, brownish-yellow. Antennæ rufo-piceous, with black club. Head very highly polished; quadrate when seen from above and slightly narrowed behind, the occiput margined. Front with a deep transverse impression at the base of the antennæ, and a distinct submarginate frontal ledge upon which the antennæ are inserted. Eyes rounded, rather small, clothed with a few scattered erect hairs. Face below the antennæ trapezoidal, higher than wide, its surface very coarsely and irregularly wrinkled; the lateral margins distinctly raised to form a broad rounded rim or margin. Mouth opening large, acutely margined on the sides; mandibles retracted; palpi dull yellow. Antennæ 12-jointed, the scape nearly straight, rather slender, one-half as long as the flagellum; pedicel obconical, nearly twice as long and much thicker than the first flagellar joint which is about one-half longer than thick; following funicular joints nearly quadrate, the apical ones becoming moniliform and a trifle wider. Club very large,

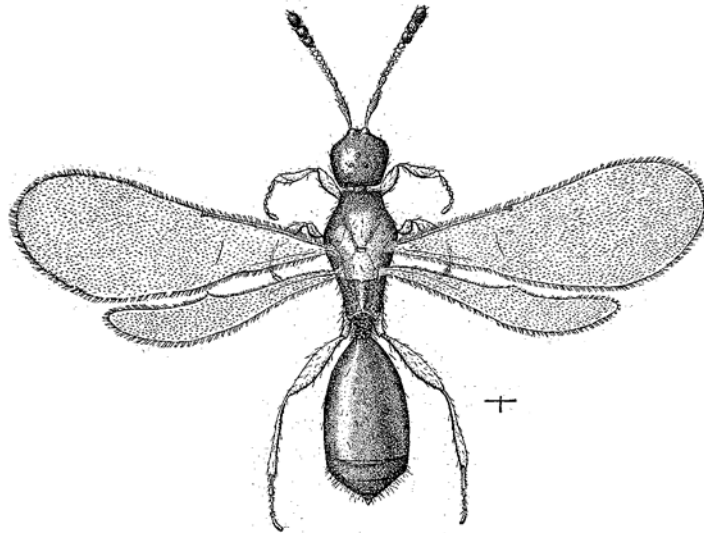


Fig. 1. *Loxotropa pegomyia*, Brues. Female.

three-jointed, nearly as long as the scape, the first two joints each about as wide as long, the apical one conically pointed and one-half longer. Thorax shining; pro- and metapleuræ woolly. Mesonotum without parapsidal furrows, but with more or less distinct broad parapsidal depressions. Scutellum shining, with a single basal fovea; its posterior quadrate portion with distinct grooved lines laterally. Metathorax irregularly rugose; deeply emarginate behind; with a median carina which meets a strong transverse one that follows the posterior margin; also with a lateral carina which fades out anteriorly. Abdomen elongate, highly polished; toward the tip obsoletely shagreened and furnished with a few bristly hairs. Petiole less than two times as long as wide, deeply and closely punctate; second segment more than twice as long as the following together, gradually widened toward the apex; following growing sharply narrower to the pointed tip. Legs yellow, the femora, especially the anterior pair darker below. Wings hyaline, the submarginal vein reaching about two-fifths the length of the wing; basal vein very distinct.

**MALE.** Differs by its uniformly paler legs and filiform black antennæ with brownish-yellow scape. The pedicel is distinctly shorter and thicker than the first flagellar joint; first and second about equal, each two and one-half times as long as thick; following joint about twice as long as thick, subequal; the last longer.

Described from three specimens bred from *Pegomyia brassicæ*, Bouché.

This resembles the western *L. californica*, Ashmead, but differs by its much darker and more slender antennæ. The scutellar fovea is quadrate and the lateral grooves entire.

FAMILY ALYSIIDÆ.

*Mesocrina pegomyia*, sp. nov.

FEMALE. Length 2.75 mm. Shining black, legs and abdomen beneath brownish-yellow. Head shining, three times as wide as thick. Antennæ 28-jointed, one-half longer than the body; filiform, slender. Pedicel and second flagellar joint about equal, the first one-third longer; following joints growing gradually shorter; scape brownish-yellow, the remaining joints black. Face shining, smooth; convex, about two times as wide as high; clypeus honey-yellow, convex, with a groove at the

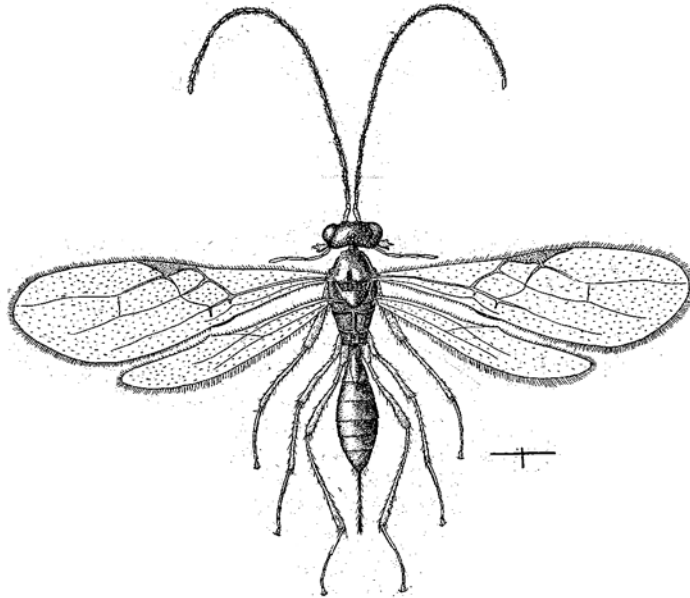


Fig. 2. *Mesocrina pegomyia*, Brues. Female.

base; strongly protuberant. Maxillary palpi six-jointed, pale, their tips attaining the tegulæ; labials rather short. Mandibles honey-yellow, tridentate; the anterior tooth very blunt, median one the longest, posterior

one small. Mesonotum with obsolete furrows anteriorly and a small circular fovea just before the scutellum. Scutellum elongate, with a broad and deep transverse fovea anteriorly, which is imperfectly divided by a median carina; sides anteriorly strongly carinate; posterior portion strongly convex, highly polished. Metanotum rugose anteriorly, with a transverse carina and constriction, behind which are two large completely closed areas separated by a median carina; apically with an elongate petiolar area and a quadrate lateral area on each side. Pleuræ shining. Mesopleuræ depressed at its junction with the metapleuræ, the latter above with a deep circular fovea and below with a coarse punctate frenum. Abdomen subpetiolate, scarcely longer than the thorax. Petiole twice as wide as long as the tip; basally with a median triangular impression on each side of which is a smaller rounded one; surface irregularly aciculate; spiracles placed slightly before the middle, connected with the posterior angles by a lateral raised line. Second segment smooth, as long as the first; gradually widened to its apex, where it is as wide as long; following segments about equal in length, the third the widest. Ovipositor nearly as long as the abdomen. Legs slender, dull yellow. Wings hyaline, the veins grayish; stigma narrow, but distinctly triangular, being about four times as long as thick. Three cubital cells; first section of the radius extremely short, second over twice as long as the second transverse cubitus; recurrent nervure interstitial; submedian vein distinctly longer than the median.

Described from one specimen bred from a puparium of *Pegomyia brassicæ*, Bouché.

This seems to be the only North American species remaining in the genus as at present understood.

*Aphareta pegomyiæ*, sp. nov.

FEMALE. Length 2.2 mm. Ovipositor 1 mm. Black, the first two antennal joints, first abdominal segment and the legs bright honey-yellow. Head twice as wide as thick, the occiput distinctly emarginate; front and vertex smooth, without grooves except for the trace of a longitudinal one at the ocelli, which however does not extend toward the occiput. Eyes rounded with a few sparse hairs. Mandibles yellow, tridentate, all the teeth acute. Antennæ 21-jointed, distinctly longer than the body; second flagellar joint almost twice as long as the first; following joints elongate, but growing shorter, covered with a pale pubescence. Palpi long, pale. Thorax shining black except the prosternum which is bright honey-yellow. Mesonotum convex, without any depressions or trace of parapsidal furrows; scutellum with a long, broad, smooth fovea which extends almost across the base, divided by a median raised line; tip of scutellum behind the fovea subtriangular, strongly convex. Metanotum smooth,

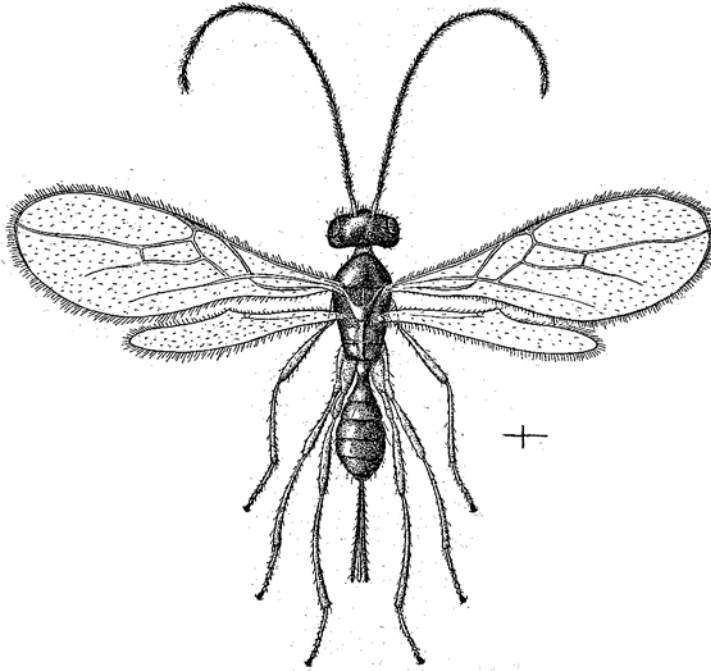


Fig. 3. *Aphareta pegomyia*, Brues. Female.

with a median carina and four quadrate, well-defined areas above, the lateral and pleural areas much confused. Abdomen subpetiolate, the first segment longitudinally aciculated, with two stronger median carinae; spiracles placed near the middle, not giving rise to any distinct lateral carinae; remainder of abdomen smooth. Ovipositor as long as the abdomen. Legs yellow, the apical tarsal joint dark; posterior tibiae subclavate. Wings hyaline, the veins piceous; stigma narrow, but of quite perceptible width. First discoidal cell and first submarginal confluent; first section of the radius one-half as long as the first transverse cubitus, and one-fourth as long as the second section of the radius; second transverse cubitus one-half as long as the first; second discoidal cell wanting.

MALE. This sex differs in having 23-jointed antennae; otherwise noticeable differences are wanting.

This is the seventh species to be discovered in North America. It comes closest to *A. muscæ*, Ashmead, from which it differs in the number of antennal joints of the male, and the length of the basal flagellar joints in both sexes. Our species may be distinguished by the following dichotomy:

