

them for the hairs covering the surface. Two sterno-pleurals, the front one sometimes very weak.

Four males from Mt. Moscow, Idaho, July 25, 1920, R. C. Shannon, collector. Deposited in the collection of U. S. National Museum.

The following note on the habit of this species was given to the author by Mr. Shannon: "Occurs near summit of Moscow Mountains (Cedar Mountain of government maps,—a name not in local use) where the slope is moist and there is a heavy growth of cedars. The females may be collected by sweeping the undergrowth but the males are found strutting about on the fallen logs, displaying their charms as proudly as the partridge on the log in the drumming season."

THE MALES OF THE ICHNEUMONID GENERA MYERSIA AND THAUMATOTYPIDEA, WITH DESCRIPTIONS OF NEW SPECIES.

(HYM.)

By R. A. CUSHMAN, U. S. Bureau of Entomology.

Among the undetermined Ichneumonidae in the National Collection I have recently found what I am confident are the males of these two anomalous genera together with an undescribed female *Myersia*, and another new species of that genus has been received from C. W. Johnson of the Boston Society of Natural History.

As pointed out in an earlier paper¹ these two genera should be referred to the Stilpnini.

Genus **MYERSIA** Viereck.

The two new species of this interesting genus described below extend the known range of the genus to Maine and British Columbia, and double the number of known species. The females may be separated by the following key:

Key to females.

1. Temples broad, flat and nearly straight behind eyes; first tergite increasing gradually in width from base to apex, the spiracles not prominent; a large species, 6 mm. *grandis*, new species.
Temples narrow, convex and receding; first tergite increasing suddenly in width beyond the prominent spiracles; smaller species. 2.
2. Pale rufous *pallida* Cushman.
Black 3.
3. Subapical flagellar joints fully as long as thick; postpetiole at apex little more than twice as wide as petiole *johnsoni*, new species.
Subapical flagellar joints thicker than long; postpetiole at apex nearly three times as wide as petiole *laminata* Viereck.

¹Proc. U. S. Nat. Mus., vol. 55, 1919, p. 521.

Myersia laminata Viereck.

What I am convinced is the male of this species is represented in the National Collection by ten specimens, one from Jackson's Island, Md. (P. R. Myers); one from Rosslyn, Va. (H. H. Smith); two from Dixie Landing, Va. (Ashmead); five from Langdale, Ala. (H. H. Smith); and one from Long Island, N. Y. The most striking difference between the male and female is in the possession by the male of a depressed and normally segmented abdomen, the second and third tergites being not at all fused. Other points of difference are in the relatively shorter (facial view) head; shorter malar space; more distinctly carinate anterior margin of cheek; nearly paralleled eyes; basally thickened and apically tapering antennae; less deeply concave propodeum with less prominent angles; and narrower and more roughly sculptured postpetiole. The color of the two sexes is the same except that the male has the antennae beyond the second joint of the flagellum and usually the posterior tibiae and tarsi fuscous. In some of the specimens, especially those from the south, the base of the abdomen is quite red.

Myersia johnsoni, new species.

Female.—Length 4 mm.

Differs from *laminata* Viereck in having the antennae somewhat more slender, the subapical joints being fully as long as thick; the abdomen less stout, the postpetiole at apex being but little more than twice as wide as the petiole and the rest of the abdomen nearly twice as long as wide; all coxae and the hind femora and tibiae fuscous.

The apical abscissa of radius in this and in *laminata* is basally slightly curved but otherwise straight, not sinuate as in *pallida*.

Type-locality.—South West Harbor, Mt. Desert Island, Maine.

Type.—Cat. No. 24143, U. S. N. M.

A single specimen taken by C. W. Johnson.

It is entirely possible that the differences noted between this and *laminata* are within the range of specific variation.

Myersia grandis, new species.

Female.—Length 6 mm.

Head in dorsal view transversely oblong, deeply concave behind, temples broad, flat, nearly straight, the occiput nearly as broad as eyes; in front view almost as long as broad, cheeks weakly convex, malar space more than twice as long as basal width of mandible; clypeus hardly twice as wide as long, broadly truncate at apex and with a narrow reflexed margin, weakly sculptured at base; face granular medially, subpolished laterally; eyes strongly divergent below; frons with deep, subpolished scrobes, separated by a low ridge; vertex granulated; cheeks and temples highly polished; antennae slightly more slender than in *laminata*, the subapical joints longer than thick, scape about two-thirds as thick as long. Thorax granulate dorsally, largely longitudinally striate laterally;

sternauli distinct; metapleurum granulate rugulose; propodeum mostly transversally rugulose opaque, areolopetiolear area subpolished, deeply concave, apophyses prominent; legs rather slender. Abdomen narrow fusiform; first tergite gradually wider from base to apex, where it is a little more than a third as wide as long, dorsal carinae highest just beyond spiracles, petiole striate, post-petiole striate except between the high carinae where it is shagreened; abdomen beyond first tergite barely half as wide as long; ovipositor sheath about as long as first tergite.

Black; abdomen piceous; antennae, clypeus, mandibles, palpi, legs, and tegulae ferruginous to testaceous; wings hyaline, venation brownish.

Type-locality.—Kaslo, British Columbia.

Type.—Cat. No. 24144, U. S. N. M.

One female captured June 5, by Dr. H. G. Dyar.

Genus **THAUMATOTYPIDEA** Viereck.

The male of this genus has heretofore been unknown. In the National Collection I have found a single specimen of this sex that I have no hesitation in referring to the genus. The sexual antigeny is so great that I do not attempt to associate it with either of Ashmead's species, which differ so little from each other that they may, with the study of more material, prove to be synonymous.

The male is almost exactly what one knowing the genus *Pezomachus* might expect it to be. It is, in fact, to *Myersia* what *Pezomachus* is to *Hemiteles*: with less completely areolated more sloping propodeum; slender, subclavate, normally segmented abdomen; and broad, rather weakly veined wings.

The male differs from the female of the genus in having the wings fully developed and the thorax normal; head shorter both from above and in facial view; eyes and ocelli larger; malar space much shorter; temples narrower antero posteriorly—in other words the head is normal as compared with that of the female exactly as is the case in *Pezomachus*; antennae slender, not subclavate, all flagellar joints (the apex is broken off) much longer than broad; thorax with all sclerites normally developed, but the propodeum with only the combined areola and petiolear area and the apical lateral areas defined, the other carinae entirely lacking; abdomen narrow, subclavate, depressed; second and third tergite not fused; first tergite less strongly curved and relatively shorter.

From the male *Pezomachus* it is at once distinguished by the very large and deep clypeal foveae; the posterior face of the propodeum extending medially much nearer to the base; the quite different venation, the stigma being narrow, the radial cell long with the radius broken at a nearly acute angle, the practically contiguous radius and cubitus (the intercubitus almost obliterated), the entirely wanting areolet and barely indicated

apical abscissa of cubitus, the abscissula barely longer than intercubitella, and the straight nevellus with entirely lacking discoidella; the long, slender, and nearly parallel sided first tergite; and by the probably much less numerous jointed antennae.

***Thaumatotypidea koebelei*, new species.**

Male.—Length 4.5 mm.; front wing 4.5 mm.

Head broad behind eyes, temples strongly convex; occiput concave; face granularly opaque, subpolished at sides; clypeus obscurely transversely striate; head otherwise polished; eyes slightly divergent below; malar space equal to basal width of mandible; temple slightly wider antero-posteriorly than eye; diameter of lateral ocellus slightly more than half as long as ocell-ocular line; antennae slender filiform, the thirteenth flagellar joint (which is the most distal one left) nearly twice as long as thick. Thorax largely polished; notauli weakly indicated in front, their position behind indicated by granular sculpture; mesopleurum striate above and in region of the scarcely indicated sternauli; metapleura punctate; propodeum subopaque coriaceous; combined areola and petiolar

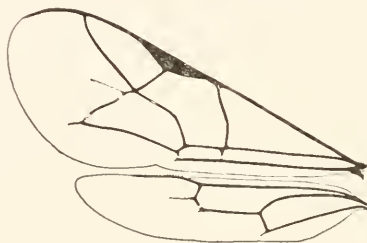


FIG. 1.—Wings of *Thaumatotypidea koebelei*.

area reaching the basal third of propodeum, the apical carina not angulate at sides; legs slender; front wing as long as body, venation as indicated in figure. Abdomen narrow, widest near apex; first tergite very narrow, but little wider at apex than at base, with spiracles prominent, longer than second tergite, longitudinally striate; second tergite narrow at base, broad at apex, longer than apical width and nearly twice as long as third.

Black; mandibles and palpi yellowish; clypeus piceous; antennae fuscous; thoracic sutures and tegulae reddish; front and middle legs stramineous, hind legs testaceous, the femora slightly infuscate; wings hyaline, venation pale brownish gray; first tergite black; rest of abdomen piceous with second and third tergites at apex and the third medially yellowish.

Type-locality.—Easton, Washington.

Type.—Cat. No. 24145, U. S. N. M.

One specimen captured by Albert Koebele.