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THREE NEW CHALCIDOID EGG-PARASITES.

By A. B. Gahan.

In this paper will be found descriptions of two species of *Mymaridae* and one species of *Trichogrammatidae*.

Family MYMARIDAE.

Tribe Gonatocerini.

Gonatocerus ornatus, new species.

This species should be easily recognized by the pallid lines on the head and thorax. No other species known to the writer is thus ornamented.

Female.—Length .9 mm. Head and thorax smooth and polished, only the face below the antennae weakly sculptured; abdomen apparently smooth (wrinkled somewhat in drying). Antennae not quite as long as the body; scape flattened, slightly swollen beyond the middle and rounded at apex, narrowly spatulate in outline; pedicel very slightly longer than broad at apex; funicle gradually thickening from base to club; joints one and two of the funicle subequal, slightly longer than broad, together about equal in length to the pedicel and approximately one-third as thick as the pedicel at apex; funicle joint three about one and one-half times as long as thick, shorter than joint four which is twice as long as thick; joints five, six, and seven subequal and each distinctly longer than four; joint eight slightly shorter than seven; club solid and a little longer than the three apical joints of funicle combined; face below antennae with a distinct fold extending from the base of each antenna to the clypeus and converging slightly anteriorly; antennal grooves narrow and shallow but distinct and well separated below, converging above at the front ocellus; parapsidal grooves impressed; propodeum apparently smooth; forewing moderately broad with dense evenly distributed cilia, the longest marginal cilia equal to less than one-fourth the greatest breadth of wing; submarginal vein with a single stiff bristle basad of the middle; abdomen rather robust, longer than the head and thorax, the ovipositor sheaths extending very slightly beyond the apex of abdomen. General color shining black; the antennal grooves, a narrow line on vertex from lateral ocellus to eye-

margin, a narrow curved line on occiput connecting the lateral ocelli, a line on each lateral margin of the praescutum following the parapsidal grooves, a broader line on the lateral margins of the scutellum, and a spot on each side of the postscutellum pale yellow or whitish; frequently also an obscure longitudinal pale line on each side of the middle of propodeum; antennae brownish black, the scape at base and the pedicel brownish testaceous; coxae entirely and all femora and the hind tibiae for the most part blackish, the trochanters, apices of all femora, fore and middle tibiae and all tarsi pallid, the middle tibiae more or less stained with fuscous; wings uniformly subhyaline.

Male.—In size and color markings agrees with the female. Antennae slightly longer than the body, the scape short, about twice as long as the pedicel which is barely as long as thick; first funicle joint slightly the shortest of the funicle joints and about one and one-half times the length of pedicel; joints beyond the first funicle joint subequal in length and tapering slightly in width toward the apex; club not differentiated. Otherwise like the female.

Type locality.—Tempe, Arizona.
Type.—Cat. No. 21698 U. S. N. M.
Host.—Eggs of *Stictocephala festina* Say.

Nineteen females and eighteen males, all from the type locality, and reared by V. L. Wildermuth under Webster No. 6190. Eighteen of the females bear, in addition to the Webster number, the label Tempe No. 2739 while one female and all of the males bear Tempe No. 2738. The type and allotype are mounted in balsam on slides for better preservation. All paratypes are on card points. The description was for the most part drawn from the types before being mounted on slides.

Polynema imitatrix, new species.

Very similar to *sibylla* Girault but differs by being smaller in size, the abdomen shorter and more robust, the marginal cilia of the forewing two-thirds as long as the breadth of the wing or a little more than two-thirds as long, the ovipositor not or barely exserted. Differs from *piceipes* Girault by having much longer marginal cilia on the forewing. Distinguished from *maculipes* Ashmead by having fine and moderately dense discal cilia on the forewing.

Female.—Length .95 m. Smooth and polished without apparent sculpture. Antennae about as long as the head, thorax and abdominal petiole combined; first funicle joint very slightly more than half as long as the second; third funicle joint approximately two-thirds as long as the second; the joints beyond the third subequal and about the same length as the first joint but distinctly thicker; club rather robust and nearly as long

as the three last joints of the funicle combined; forewings moderately broad with short moderately dense discal cilia; abdomen a little longer than the head and thorax and rather robust; legs slender. Head, thorax, and abdomen except the petiole polished black; antennal funicle and club black or blackish, the basal joints of funicle often slightly testaceous; scape, pedicel, legs including all coxae, and the basal joint of abdomen pale testaceous; apical joint of all tarsi blackish; the middle and front femora sometimes slightly infuscated; wings hyaline, venation testaceous.

Male.—Length .88 m. Antennae much longer than the whole body, the first funicle joint very slightly shorter than the second; second and third funicle joints nearly equal, the joints beyond the third to apex of antennae subequal and very slightly shorter than the third; other characters as in the female.

Type locality.—Tempe, Arizona.
Type.—Cat. No. 21703, U. S. N. M.
Host.—Eggs of *Stictocephala festina* Say.

Eighteen females bearing Tempe No. 2739 and twelve males bearing Tempe No. 2738, all reared by Mr. V. L. Wildermuth and recorded in the Bureau of Entomology under Webster No. 6190. Type, allotype, thirteen female paratypes, and nine paratype males mounted on slides in balsam. Four female and two male paratypes mounted on card points. The type series was evidently reared along with the types of *Gonatocerus ornatus* Gahan, ante, and from the same material, since the rearing numbers are identical for both series of specimens.

Family TRICHOGRAMMATIDAE.

Abbella (Ittys) perditrix, new species.

Very similar to *Abella (Ittys) ceresarum* (Ashmead) Girault but differs by being smaller in size, paler in color, the forewings distinctly less strongly ciliated discally, the fuscous stain below the stigmal vein entirely absent, the discal ciliation of hind wing more reduced. Differs from *subflava* Girault and allies in having the funicle joints distinctly longer, and a transverse row of discal cilia behind the stigmal vein. Differs from *nympha* Girault in the shorter marginal cilia of the forewing.

Female.—Length .85 mm. Antennae rather long, scape normal, pedicel longer than the whole funicle, approximately twice as long as broad; one distinct ring-joint and what appears to be a second which is distinctly separated from the base of the first funicle joint; first funicle joint longer than broad, the apex somewhat obliquely truncate, its upper margin longer than the lower; second funicle joint not longer than broad, narrower at base than apex; club long, narrowly fusiform, slightly thicker at base, distinctly three-jointed; the joints subequal in length, joints one

and two of the club combined about equal to the combined funicle and pedicel; forewing broad, evenly rounded at apex, the discal cilia sparse and arranged in several distinct rows as follows; a row from the uncus of stigmal vein to the anterior margin of wing near apex and corresponding to the radial vein of some Hymenoptera, the area before this row with only three or four irregularly placed cilia; a very distinct row from the apex of stigmal vein to the apical middle of wing and between this row and the one corresponding to radius lie about five shorter rows of less regularly arranged cilia; behind this median row and extending to the apex of the wing is a moderately broad nearly hairless streak bounded caudad by another distinct row of cilia; the ciliation behind this row sparse and consisting of about three or four more or less poorly defined rows with some irregularly placed cilia between; transverse row of cilia behind the stigmal vein composed of about six hairs; longest marginal cilia of the forewing equal to approximately one-fourth to one-fifth the greatest breadth of wing; discal ciliation of the hind wing very weak and apparently consisting of a very obscure row along the anterior margin, and a somewhat more distinct row medially, otherwise entirely bare; marginal cilia on the posterior margin of the hind wing fully twice as long as the width of wing, those on the front margin hardly half as long as the wing breadth; front tibiae slightly swollen with three obscure tooth-like projections on the anterior margin each bearing a short spine or hair; abdomen longer than head and thorax, pointed at apex; ovipositor barely exposed at apex. Color very pale lemon yellow, the eyes and ocelli reddish when mounted in balsam; mandibles brownish; first joint of funicle and the first and last joints of club blackish; pedicel also slightly fuscous above; apex of ovipositor sheaths black; apical tarsal joints blackish; wings hyaline, the venation pale.

Male.—Length .71 mm. Except for the slightly smaller size and the fact that the abdomen is slightly shorter and not pointed at apex the male agrees with the female.

Type locality.—Tempe, Arizona.
Type.—Cat. No. 21699 U. S. N. M.
Host.—Eggs of *Stictocephala festina* Say.

Described from nine females and twelve males reared by V. L. Wildermuth under Bureau of Entomology WebsterNo. 6190, Tempe No. 2740. Type, allotype, and seven paratypes mounted on slides. Others on card points.