

Shaw, F.

1941

Fungus gnats from the Southern Appalachians

I

The American Midland Naturalist, 26 (1);  
168 - 173.

## Fungus Gnats from the Southern Appalachians—I.\*

Frank Shaw

In June, 1939, Dr. C. P. Alexander and party collected in the Southern Appalachians. Most of the collections were made in the Great Smokies but some material was taken on Mt. Mitchell and at Linville Falls, North Carolina. When the insects were identified some nineteen described species in nine genera were found. The list of identifications will appear in the Bulletin of the Brooklyn Entomological Society.

In addition there proved to be nine species which are herewith described.

*Platyura alexanderi* n. sp.

Length 4½ mm.

Head. Median portion of occiput dark brown, lateral portions light brown. Mouthparts and basal two segments of antennae yellow. Remainder of antennae dark brown.

Thorax. Mesonotum, scutellum and postnotum brownish yellow. Postnotum hairy. Pleurae and legs yellow, tarsi infuscated. Basitarsus of prothoracic leg about 1/9 shorter than its tibia. Wing. Length 3½ mm. Hyaline except for a narrow apical brown band. Sc<sub>1</sub> ends about its own length proximal of the fork of Rs. Sc<sub>2</sub> present. Fused portion of M<sup>5/6</sup> as long as its petiole. R<sub>1</sub> is oblique to R<sub>5</sub>. Anal vein incomplete.

Abdomen. Segment one yellow. Segment two brown with a narrow, median, yellow stripe. Segments three through five have anterior halves brown, posterior halves yellow. Remainder of abdomen brown. Hypopygium Fig. 1.

This species would run to *Platyura genualis* in Fisher's key. The dististyles of *alexanderi* are wholly distinct from those of *genualis*.

Described from one male collected at the Chimneys, June 5, 1939, at an altitude of 2700 feet by C. P. Alexander. Type in my collection.

I take pleasure in naming this species for Dr. C. P. Alexander who is responsible for my interest in this group of insects.

*Platyura mitchellensis* n. sp.

Length 5 mm.

Head. Brown, ocellar spot black. Palpi and basal two segments of antennae yellow. Remainder of antennae dark brown.

Thorax. Mesonotum ochreous-rubescens. A faint longitudinal stripe above

\* Contribution from the Department of Entomology, Massachusetts State College, Amherst, Massachusetts.

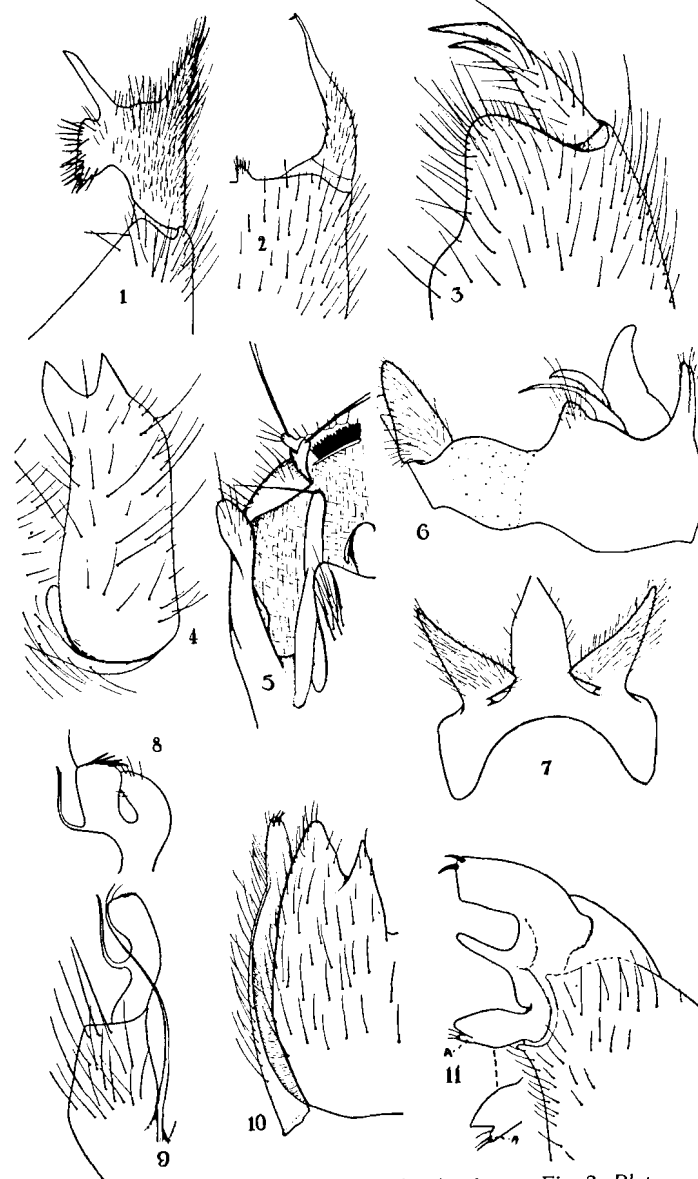


Fig. 1. *Platyura alexanderi*, ventral view of right clasper. Fig. 2. *Platyura mitchellensis*, dorsal view of left clasper. Fig. 3. *Platyura miriamae*, ventral view of right clasper. Fig. 4. *Macrocera hyalipennis*, lateral view of right clasper. Fig. 5. *Mycomia sphagnicola*, ventral view of left half of the hypopygium. Fig. 6. *Mycomia triacantha*, lateral view of hypopygium. Fig. 7. *Mycomia triacantha*, dorsal aspect of tergite. Fig. 8. *Mycomia sublittoralis*, lateral view left clasper. Fig. 9. *Mycomia sublittoralis*, ventral view left half of the hypopygium. Fig. 10. *Neuratelia insignifica*, ventral view of left clasper. Fig. 11. *Neuratelia scituloides*, lateral view of left clasper. Drawings by J. F. Hanson.

the base of each wing. Remainder of the thorax ochreous. Metanotum with bristles.

Wing. Length  $4\frac{1}{2}$  mm. Hyaline except for a narrow, terminal, light brown band.  $Sc_1$  ends about the length of  $R_4$  before the base of  $Rs$ .  $Sc_2$  present.  $R_4$  distinctly oblique to  $R_5$ . Fused portion of  $M$  subequal to the petiole.

Legs yellow, infuscated at tips. Basitarsus of prothoracic leg about  $\frac{1}{8}$  longer than its tibia.

Abdomen. First segment ochreous-rubescens. Segments two through five of same color but each has a dark brown anterior margin. Remainder of abdomen including hypopygium brown. Hypopygium Fig. 2.

In Fisher's key this insect would run to *Platyura discoloria*. It can be distinguished from *discoloria* by the shape of the hypopygium.

Described from one specimen taken on Bald Knob, Mitchell Range, June 22, 1939, at an altitude of 5200 feet by C. P. Alexander. Type in my collection.

#### *Platyura miriamae* n. sp.

Length  $6\frac{1}{2}$  mm.

Head brown. Front and basal two segments of antennae yellow. Remainder of antennae and palpi dark brown to black.

Thorax. Mesonotum yellow with brown stripes. A brown stripe above each wing. These join a median brown stripe. Median stripe extends from anterior margin of mesonotum to scutellum. The median band encloses two yellow areas about the middle of the mesonotum. Humeri are yellow. Scutellum yellow at base, outer margin brown. Metanotum with a brown triangular area having its base next to the scutellum. Pleurae yellow, a brown spot on the anepisternite. Hypopleurae brown.

Wing  $5\frac{1}{2}$  mm. long. Tip of wing from origin of  $R_4$  to distal margin broadly banded with brown. A brown spot also above the separation of  $M$  from  $R_{3+5}$ .  $Sc_1$  ends opposite the forking of  $Rs$  from  $R$ .  $Sc_2$  present.

Legs yellow, darker toward their tips. Tibial spurs black. Basitarsus of prothoracic leg  $\frac{1}{5}$  longer than its tibia.

Abdomen. First segment brown. Segments two through four yellow with posterior brown band. Segment five brown with two yellow spots at base. Remainder of abdomen brown. Hypopygium Fig. 3 resembles that of *P. bidentata* Fisher.

In Fisher's key this species would run to *Platyura discoloria*. It can be readily distinguished from *discoloria* by the structure of the dististyles of the hypopygium.

Described from one specimen taken at Linnville Falls, North Carolina, June 13, 1939, at an altitude of 3200 feet by C. P. Alexander. Type in my collection.

I take pleasure in naming this species for my wife Miriam Morse Shaw.

#### *Macrocera hyalipennis* n. sp.

Length 4 mm.

Head. Dark brown. Palpi and basal two segments of antennae brownish yellow.

Thorax. Mesonotum dark brown, a yellowish brown stripe above each wing. Pronotum yellow, the remainder of the thorax dark brown.

Wing. Length 3 mm. Hyaline. Costa produced about  $\frac{3}{7}$  of the distance from  $R_5$  to  $M_{1+2}$ .  $Sc_1$  ends in C about the length of  $R_4$  beyond the origin of  $Rs$ .  $R_4$  about as long as the petiole of  $M$ .

Legs. Coxae, trochanters, prothoracic and mesothoracic femora yellow. Metathoracic femora yellow with brown tip. Tibiae and tarsi appear brown because of the presence of the setulae. Prothoracic basitarsus about  $\frac{3}{7}$  as long as its tibia.

Abdomen. Somewhat variable in color. Some individuals are uniformly dark brown, others have segments two through five brown with light ochreous posterior margins. Hypopygium Fig. 4 dark brown.

In Johannsen's key this species would run to *immaculata*. It differs from *immaculata* in the structure of the dististyles of the hypopygium.

Described from 4 males from the following locations: Cade's Cove, Tennessee, June 10, at 2200 ft. by C. P. Alexander. Greenbriar Cove, Tennessee, June 15, by W. A. Harrison. Chimneys Camp, Tennessee, June 18, by W. A. Harrison. Clingsmans Dome, North Carolina, June 18, at 6400 ft. by C. P. Alexander. Types and paratypes in my collection.

#### *Mycomyia sphagnicola* n. sp.

Length 6 mm.

Head. Dark brown except palpi, basal two segments and about half of the third segment of the antennae which are brownish yellow.

Thorax. Mesonotum dusky yellow with one median and two lateral light brown stripes. Scutellum dusky yellow with 4 marginal setae. Pleurae dusky yellow. Wing 5 mm. long.  $Sc_1$  ends in the costa about opposite the middle of cell  $R_1$ .  $Sc_2$  ends in  $R_1$  before the middle of the cell. Petiole of  $M$   $\frac{3}{5}$  as long as  $M_3$ .  $Cu$  forks about the length of the r-m cross vein before this crossvein.

Legs. Coxae yellow tarsi appear darker because of setulae. Trochanters with a black stripe on the inner anterior margin. Prothoracic legs missing. Mesothoracic coxae lack spurs.

Abdomen. Segments one through five brown with a narrow posterior yellow band. Remainder of abdomen uniformly dark brown. Hypopygium Figure 5.

In Fisher's key this species would run to *M. flavohirta* Coq. It can be separated from *flavohirta* by the comparative length of the petiole of  $M$  and  $M_3$ .

Described from one male collected on Andrews Bald, North Carolina, June 11, 1939, by C. P. Alexander. Type in my collection.

*Mycomyia sublittoralis* n. sp.

Length 4 mm.

Head. Dark brown. Palpi and basal two segments of antennae yellow. Remainder of antennae dark brown.

Thorax. Mesonotum yellow with one median and two lateral brown stripes. Humeri yellow. Scutellum yellow with 4 marginal setae.

Wing 3 mm. long. Sc ends in  $R_1$  about the middle of cell  $R_1$ . Petiole of M about twice as long as  $M_3$ . Cu forks beyond the end of Sc.

Legs yellow. Prothoracic basitarsus  $4/5$  as long as its tibia. Mesothoracic coxae without spurs.

Abdomen uniformly dark brown. Hypopygium figures 8 and 9 resembles that of *Mycomyia littoralis* Say.

This species resembles *Mycomyia littoralis*. It can be distinguished by the structure of the dististyles.

Described from one male collected on June 21, 1939, at Linville Falls, North Carolina, at an altitude of 3200 feet by C. P. Alexander. Type in my collection.

*Mycomyia triacantha* n. sp.

Length  $5\frac{1}{2}$  mm.

Head. Dark brown, palpi, basal three segments of antennae and part of fourth brownish yellow. Remainder of antennae dark brown.

Thorax brown, large humeral area yellow. Scutellum brown with four marginal setae. Pleurae yellow, katepisternite with a brown spot.

Wing  $4\frac{1}{2}$  mm. long. Sc ends in  $R_1$  beyond the origin of  $R(s)$ . Petiole of M about  $4/5$  as long as  $M_3$ . Cu forks before the r-m crossvein. Halteres yellow.

Legs. Coxae yellow, trochanters have brown stripes along the inner and outer lower margins. Femora and tibiae yellow. Tarsi appear brown because of setulae. Middle coxae have long curved spurs. Prothoracic tibia  $4/5$  as long as its basi tarsus.

Abdomen dark brown. Dorsally, ventral region yellow. Hypopygium, figures 6 and 7 dark brown, resembles that of *Mycomyia echinata* Fisher but differs in the structure of the dorsal part of the hypopygium.

In Fisher's key this species would run to *Mycomyia sequax* but can be distinguished from this species by the structure of the hypopygium.

Described from one male taken June 10, 1939, in the Great Smokies at an altitude of 5500 feet. Type in my collection.

*Neuratelia insignifica* n. sp.

Length  $4\frac{1}{2}$  mm.

Head dark brown except for basal two segments of antennae which are yellow.

Thorax dark brown. Halteres yellow.

Wing 4 mm. long.

Legs yellow except for trochanters which are dark brown. Basitarsus of prothoracic leg about  $1/4$  longer than its tibia. Hypopygium, figure 10, dark brown.

In Fisher's key this species would run to *Neuratelia silvatica*. It is easily separated by the structure of the hypopygium.

Described from one male collected on Siler's Trail, June 6, 1939, at an altitude of 6000 feet by C. P. Alexander. Type in my collection.

*Neuratelia scituloides* n. sp.

Length 5 mm.

Head. Dark brown except for mouth parts and basal two segments of antennae.

Thorax. Varies from a yellowish brown to dark brown in color. Some individuals have a faint brown stripe over the base of the wings, others have a distinct stripe. Pleurae yellowish brown to dark brown.

Wing 4 mm. long.

Legs. Coxae yellowish to light orange in color. Trochanters dark brown. Basitarsus of prothoracic leg not over  $3/5$  as long as its tibia.

Abdomen. First segment dark brown. Segments two through five yellow at anterior border and along sides. A large subtriangular brown spot is on each of these segments. Remainder of abdomen dark brown. Hypopygium figure 11 resembles that of *Neuratelia scitula*. It differs from *scitula* in that the process "A" is about twice as long in *scitula* as in this species. This species seems to be somewhat variable in color. Some individuals are much darker than others.

In Fisher's key this species would run to *eminens* Joh. which was described from a female from Idaho. My species differ from *eminens* in the proportions of the basitarsus to the tibia and in markings.

Described from 3 specimens taken by C. P. Alexander at Little River, Tennessee, on June 10, 1939, at Cade's Cove at an altitude of 2100 feet on June 10 and on Clingmans Dome, North Carolina, June 18, 1939, at an altitude of 6400 feet. Types in my collection. One paratype in collection at Massachusetts State College.