

## Descriptions of Four New Species of *Plagiognathus* from the Eastern United States (Hem., Miridae).\*

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*Plagiognathus atricornis* new species.

Color aspect of *chrysanthemii* Wolff, but distinguished by the pale pubescence and black antennae.

♂. Length 3.5 mm., width 1.2 mm. Head: width .77 mm., vertex .27 mm.; eyes prominent, black. Rostrum, length 1.17 mm., just attaining posterior margins of intermediate coxae, greenish yellow, apex black. Antennae: segment I, length .24 mm.; II, 1.07 mm.; III, broken; uniformly black, narrow tip of segment I pale. Pronotum: length .54 mm.; width at base 1.03 mm.

Color pale greenish testaceous, pronotum distinctly green, calli yellowish; hemelytra somewhat translucent, membrane and veins uniformly pale fumate, anal area slightly darker bordering vein, a small whitish opaque spot lying just outside apex of larger areole. Clothed with simple, pale yellowish pubes-

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cence, embolar margins and lateral margins of pronotum set with dusky to fuscous pubescence. Legs pale, femora and tibiae with black spots nearly identical with *chrysanthemi*, pubescence pale yellowish, tibial spines black.

♀. Length 3.4 mm., width 1.34 mm. Head: width .67 mm., vertex .31 mm. Antennae: segment I, length .24 mm.; II, 1 mm.; III, .66 mm.; IV, .34 mm. Form and coloration similar to the male.

*Holotype*: ♂. July 26, 1918, Point Treviuton, Pennsylvania (J. G. Sanders); author's collection. *Allotype*: same data as type. *Paratype*: ♀. taken with type.

### **Plagiognathus carinatus** n. sp.

Suggestive of *annulatus* Uhler but with rostrum shorter, also the yellowish femora somewhat obscured with fuscous on apical half yet not forming a distinct line above and below; left genital clasper with dorsal angle distinctively carinated along anterior margin.

♂. Length 4.2 mm., width 1.7 mm. Head: width .79 mm., vertex .31 mm.; black, vertex yellowish. Rostrum, length 1.28 mm., just attaining posterior margins of intermediate coxae, black, segments two and three sometimes brownish. Antennae: segment I, length .27 mm., black, narrow apex pale; II, 1.11 mm., brownish to black, black at base; III, .74 mm.; IV, .37 mm.; last two segments yellowish to dusky. Pronotum: length .64 mm., width at base 1.28 mm.

General coloration dark brownish black, base of cuneus somewhat translucent but not distinctly pale; femora pale to yellowish and provided with a double row of black spots on anterior face nearly as in *annulatus* Uhler, but hind femora obscured with dusky on apical half, with a subapical black spot above although never forming a distinct black line above and below. Dorsum clothed with simple, golden yellow pubescence, nearly as in *annulatus*. Left genital clasper distinctive, the dorsal angle being deeply impressed and distinctly carinated along anterior margin, terminating above in a rather blunt point, before which arises a single, rather long bristle-like hair.

♀. Length 3.8 mm., width 1.57 mm. Head: width .74 mm., vertex .34 mm.; antennal segment II, length .97 mm. Very similar to the male in pubescence and coloration although antennal segment II more yellowish in middle.

*Holotype*: ♂ June 2, 1917, Dewitt, Virginia (H. H. Knight); author's collection. *Allotype*: same data as the type. *Para-*

types: 10 ♂ 5 ♀, taken with types on persimmon (*Diospyros virginiana*) where the species was evidently breeding. Paratypes deposited in Cornell University collection and Iowa State College collection.

In my key to the species of *Plagiognathus* in the "Hemiptera of Connecticut," *carinatus* runs to *repetitus* Knight, from which it may be separated by the double row of prominent black spots on anterior face of hind femora, also by the larger size. Some specimens of *carinatus* have antennal segment II more yellowish than black, and such individuals will run to *punctatipes* Knight, in my key to the species of *Plagiognathus*. These species may then be separated by the relative length of antennal segments as compared with the head. In the male of *carinatus* the length of antennal segment II is equal to the width of head across eyes plus the width of vertex, while in the male of *punctatipes* the length of segment II is distinctly less than width of head plus width of vertex. In the female *carinatus* the length of antennal segment II is greater than width of head across eyes plus the dorsal width of an eye, while in the female *punctatipes* the length of segment II is less than width of head plus dorsal width of an eye.

#### ***Plagiognathus dispar* Knight.**

This species was originally described as a variety of *punctatipes* Knight, but more recent examination of the genital characters under the high power binocular microscope reveals a distinct difference in structure of the left genital clasper. In *punctatipes* the dorsal projection of the left clasper takes the form of an incurved acuminate claw, while in *dispar* the dorsal angle of left clasper is distinctly impressed and with anterior margin carinate much as in *carinatus*.

#### ***Plagiognathus inopinus* n. sp.**

This species runs to *punctatipes* and *dispar* in my key to the species of *Plagiognathus* in the "Hemiptera of Connecticut," but differs from both in that antennal segment II is equal to (♀), or greater than (♂) width of pronotum at base.

♂. Length 4 mm., width 1.4 mm. Head: width .77 mm., vertex .34 mm. Rostrum, length 1.6 mm., reaching upon middle of posterior coxae, yellow, basal and apical segments becoming fuscous. Antennae: segment I, length .26 mm.,

black, apex slenderly pale; II, 1.26 mm., yellow, narrowly dusky or fuscous at base; III, .80 mm., yellowish to dusky; IV, .43 mm., dusky. Pronotum: length .60 mm., width at base 1.17 mm.

Dark brownish black, moderately shining, clothed with simple, yellowish pubescence; base of vertex pale to yellowish, lateral margins of mesoscutum yellowish, cuneus narrowly pale at inner basal angle, the extreme apex of embolium also pale; membrane fuscous, somewhat paler on middle, veins and bordering apex of cuneus pale. Legs pale yellowish, femora with black spots similar to *dispar* but the tibia with much more prominent black spots at base of spines.

♀. Length 3.8 mm., width 1.4 mm. Head: width .71 mm., vertex .36 mm. Antennae: segment I, length .24 mm.; II, 1.11 mm., yellow, narrowly fuscous at base; III, .66 mm.; IV, .40 mm. Pronotum: length .57 mm., width at base 1.11 mm. Very similar to the male in pubescence and coloration.

*Holotype*: ♂ June 27, Harrisburg, Pennsylvania (Champlain), on Sycamore; author's collection. *Allotype*: same data as type. *Paratype*: ♂, taken with the types.

#### **Plagiognathus intrusus** new species.

In my key this species runs to *politus* Uhler, but differs in the shorter rostrum and larger size; size and coloration suggestive of *annulatus* Uhler, but differs distinctly in the short rostrum.

♂. Length 4.75 mm., width 1.7 mm. Head: width .86 mm., vertex .40 mm. Rostrum, length 1.31 mm., barely extending over posterior margin of sternum or to middle of intermediate coxae, blackish, segment three and apex of two yellowish. Antennae: segment I, length .39 mm., black, extreme apex pale; II, 1.42 mm., black; III, 1.12 mm., yellowish to fuscous; IV, .63 mm., fuscous. Pronotum: length .68 mm., width at base 1.38 mm.

General coloration nearly as in *politus* Uhler, but the pubescence yellowish; size and form very near that of *annulatus* Uhler, but differs in the short rostrum and black femora.

*Holotype*: ♂ July 31, 1920, Cranberry Lake, New York (C. J. Drake); author's collection. *Paratypes*: 2♂, ♀, July 3, 1904, McLean, New York (Cornell University Collection); these specimens somewhat teneral.