Excerpt from Canadian En/tomologist, October, 1928.

NEW SPECIES OF LABOPIDEA AND MACROTYLOIDES (HEMIPTERA, MIRIDAE)*.

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Labopidea arizonae n. sp.

Allied to *simplex* Uhler, but distinguished by the fine, uniformly pale pubescence, shorter rostrum and more tumid frons.

8. Length 5 mm., width 1.8 mm. Head: width 1.09 mm., vertex .666 mm.; frons more tumid than in *simplex*, pale greenish, becoming fuscous each side of frons and a spot each side of vertex. Rostrum, length 1.09 mm., just attaining hind margin of sternum, pale greenish, last two segments blackish. Antennae: segment I, length .42 mm.; II, 1.6 mm.; III, 1.18 mm.; IV, broken; black. Pronotum: length .72 mm., width at base 1.54 mm.; calli becoming blackish on hind margins.

Dorsum clothed with fine, simple, pale to yellowish pubescence, with only a few stiff brown hairs set around margins of calli and on base of head. Color greenish, basal margin of pronotum and the clavus dusky green, tibiae dusky, tarsi blackish; membrane uniformly dark fuscous. Genital claspers have a general similarity to those of *simplex*, but the left clasper more broadly and sharply incurved above.

2. Length 5.1 mm., width 1.9 mm. Head: width 1.12 mm., vertex .71 mm. Rostrum, length 1.12 mm., scarcely attaining hind margin of sternum. Antennae: segment I, length .38 mm.; II, 1.48 mm.; III, 1.06 mm.; IV, .47 mm. Pronotum: length .75 mm., width at base 1.62 mm. More robust than the male but very similar in pubescence and coloration, although the head and calli without black marks.

Holotype: & April 5, 1924, Tucson, Arizona (A. A. Nichol); author's collection.

Allotype: same data as the type.

Paratypes: 9 April 12, 1924, Tucson, Arizona (A. A. Nichol). 22 8 9 April 16, 1928 (alt. 2400 ft.), Superior; 8, 39, May 20, 1928, (alt. 5000 ft.), Empire Mts., Ariz. (A. A. Nichol).

Labopidea pallida n. sp.

Allied to simplex Uhler, but smaller; distinguished by the pale color, soft pale pubescence, with front of head, antennae, and calli only, black.

2. Length 3.34 mm., width 1.8 mm. Head: width 1 mm., vertex .58 mm.; pale, frons, tylus, apical half of lora, and margins of juga, black. Rostrum, length 1.15 mm., just about attaining hind margins of middle coxae, pale, apex black. Antennae: segment I, length .355 mm.; II, 1.23 mm.; III, .68 mm.; IV, broken; black. Pronotum: length .55 mm., width at base 1.18 mm., pale, callia and spot at top of coxal cleft, black.

Color pale yellowish, probably tinged with green in life, venter greenish;

basal margin of coxae, tarsi, and spines on tibia, blackish. Clothed with soft pale pubescence. Embolar margins strongly arcuate, cuneus triangular, membrane short, scarcely covering tip of abdomen, pale.

Holotype: 9 May 10, 1926, Tampico, Washington (E. W. Davis); author's collection.

Labopidea viridula n. sp.

Distinguished by the uniformly green color, prominent tylus and short rostrum; clothed with pale and fuscous pubescence intermixed.

8. Length 4.7 mm., width 1.5 mm. Head: width .89 mm., vertex .50 mm.; vertex flattened on middle, leaving a blunt ridge at base; tylus prominent on base, extending well forward of frons as viewed from above, sloping sharply backward so that apex lies within a vertical plane that would pass just behind base of antenna. Rostrum, length 1.03 mm., just attaining hind margin of sternum, green, apex black. Antennae: segment I, length .44 mm.; II, 1.95 mm., greenish to fuscous; III, 1.48 mm., fuscous; IV, broken. Pronotum: length .65 mm., width at base 1.27 mm.; disk moderately flat, lateral margins straight, hind margin very slightly sinuate; mesoscutum moderately exposed, uniformly green like the scutellum.

Color uniformly bluish green, head and calli more yellowish, hind tibiae somewhat yellowish, apical segment of tarsi fuscous. Membrane uniformly pale fuscous, veins green, a white calloused mark bordering larger areole. Clothed with pale simple pubescence, intermixed on the dorsum with fuscous hairs, but the specimen is so badly rubbed that the exact proportion cannot be stated.

Genital claspers very similar to those of *simplex*, indicating that this type of clasper is chiefly generic in character.

Holotype: & June 1926, Sheep Creek, Duchesne County, Utah (Vasco M. Tanner); author's collection.

Labopidea planifrons n. sp.

Allied to allii Kngt., and might easily be taken for that species, but the male genitalia are very different while the calli and anterior margin of pronotum are scarcely raised above the flat surface of the disk.

8. Length 4 mm., width 1.2 mm. Head: width .83 mm., vertex .50 mm.; similar to allii but vertex broader with vertex and frons nearly flat. Rostrum, length .59 mm., just attaining hind margins of front coxae. Antennae: segment I, length .32 mm.; II, .99 mm.; III, .88 mm.; IV, broken; greenish to dusky brown, segment I blue green. Pronotum: length .46 mm., width at base 1.01 mm.; disk strongly flattened, calli scarcely raised above level of disk.

Color bluish green, more yellowish beneath; membrane uniformly pale dusky, veins green. Clothed with simple pale to yellowish pubescence much as in *allii*. Genital claspers distinctive, left clasper as viewed from the rear very suggestive of *Melanotrichus flavosparsus* Sahlbg., but the lower margin is formed like a tightly compressed hook, the extreme tip turned outward and upward; right clasper ligulate, the broad distal margin turned sharply inward, contracted to form a rather long acuminate spine which is directed obliquely upward.

Holotype: & August 7, 1922, Brookings, South Dakota (H. C. Severin); author's collection.

Labopidea ainsliei n. sp.

Allied to *allii* Kngt., but differs in the wider vertex, shorter pubescence and pale yellowish green color; distinguished by form of male genital claspers.

\$. Length 3.5 mm., width 1.15 mm. Head: width .86 mm., vertex .50 mm.; nearly as in *allii* but vertex somewhat wider. Rostrum, length .62 mm., just attaining hind margins of front coxae. Antennae: segment I, length .28 mm.; II, 1.12 mm.; III, .80 mm.; IV, .42 mm.; greenish yellow, last two segments brownish. Pronotum: length .42 mm., width at base .92 mm.; calli and anterior margin of disk slightly raised as in *allii*.

Clothed with rather short, fine pale pubescence. Color greenish yellow, hemelytra more green, but not blue green as in perfect specimens of *allii*. Membrane and veins pale. Genital claspers distinctive; left clasper more slender than in *allii*, basal lobe produced above to form an acuminate spine; right clasper slender, widened at base to form a subtriangular lobe dorsally, apical half slender, incurved and acuminate.

Holotype: & June 25, 1925, Sioux City, Iowa (C. N. Ainslie); author's collection.

Labopidea simplex nigriventris new variety.

Structurally very similar if not identical with *simplex* Uhler, but distinguished by having the venter, tibiae, tylus, frons, juga, and tip of lora, black; mesoscutum and more or less on basal half of scutellum also black.

Type: Aug. 15-22, 1924, Pingree Park, Colorado (Drake & Hottes); author's collection.

Labopidea simplex (Uhler). The writer took a good series of this species, Aug. 9, 1925, Veta Pass, Colorado, where the bugs were evidently breeding on Senecio eremophilus Rich., one of the ragworts. The plants were growing in a little valley along the banks of small stream which the road crosses on the way up to Veta Pass from the east slope, altitude probably 8000 to 8500 feet.

Macrotyloides apicalis Van Duzee. Specimens of both sexes are at hand from Quincy, Calif., July 23, 1912, collected by Dr. E. D. Ball; also from Fresno, Calif., June 20, 1926 (C. J. Drake). This species was described from the female only which is conspicuously marked with black on tip of wing membrane. In the male the membrane is uniformly pale, and this at first suggested that another species was present. After failing to find a male with black apex to membrane the fact dawned that the male of this species is differently colored. The male genital claspers are very distinctive; the left clasper in the shape of a crescent, of which the dorsal horn terminates as an acute point; right clasper almost crescent-shaped, but the lower half thicker with apex bearing a short incurved hook, the dorsal arm long, gradually acuminate, its apex reaching median line of segment; within the crescent formed by right clasper, a thin blade of chitin extends from dorsal margin of genital segment and terminates in the shape of a fish tail.

Allotype: 3, July 23, 1912, Quincy, California (E. D. Ball); author's collection.

Macrotyloides symetricus n. sp.

Allied to *vestitus* Uhler, but differs in the more sharply prominent tylus, and in lacking black bristles on frons and base of tylus; distinguished by the

different and essentially bilaterally symetrical genital claspers.

8. Length 4.2 mm., width 1.5 mm. Head: width .77 mm., vertex .385 mm.; vertex nearly flat, tylus sharply prominent, distinctly compressed; clothed only with silvery and pale pubescence, although with one black bristle each side on the bluntly defined carina. Rostrum, length 2.1 mm., almost reaching base of genital segment, greenish yellow, apex blackish. Antennae: segment I, length .326 mm., yellowish green, shorter than in *vestitus;* II, 1.45 mm., green to brownish; III, 1.18 mm., fuscous; IV, broken. Pronotum: length .59 mm., width at base 1.12 mm.; form nearly as in *vestitus* but calli less prominent.

Coloration and pubescence nearly as in *vestitus* except without black bristles on head; clothed with silvery, sericeous pubescence and intermixed with prominent, erect black bristle-like hairs which are spaced for the most part about the length of a bristle apart. Membrane pale fuscous, veins green. Genital rlaspers very distinctive, in form apparently bilaterally symetrical, a rare combination in the family Miridae; both claspers being very similar in form to the right clasper of *vestitus*.

Holotype: & Aug. 27, 1920, alt. 8800 ft., Estes Park, Colorado (H. C. Severin); author's collection.