

extending from each humerus to the wing densely white pruinose, body elsewhere and the front polished, the mesonotum somewhat scabrous; hind margin of wings broadly grayish hyaline, base of the remainder yellowish, changing to brown outwardly, a white fascia crosses the wing midway between the hind cross-vein and the tip of the wing, the latter narrowly bordered with whitish; second vein extending rather close to the first and to the costa. Length, 3 mm.

Three specimens from Chinandega, Nicaragua.

Type.—No. 7806, U. S. National Museum.

Family OSCINIDÆ.

Chlorops capillata, n. sp.

Yellow, the upper apical angle of the third antennal joint, an ocellar dot, a dot behind and another below each humerus, black, apices of tarsi brown, mesonotum marked with three reddish yellow vittæ, antennal arista except at base white. Front rather strongly produced forward, frontal triangle polished, almost wholly covered with short hairs, without a median furrow, unusually broad, the sides strongly convex, extending to lower edge of the front where they form a blunt point; third joint of antennæ slightly longer than wide, the upper edge concave, the lower convex, the apex bluntly rounded; cheeks about one-fifth as wide as the eye-height. Body somewhat polished, not pruinose, the scutellum convex above. Wings hyaline, third and fourth veins diverging, hind cross-vein nearly three times its length beyond the small. Length 2 to 3 mm.

Three specimens. Granada, Nicaragua; Georgia, and North Carolina; the specimens from the two last-mentioned localities were collected by H. K. Morrison.

Type.—No. 7938, U. S. National Museum.

SOME NEW OSMIINÆ IN THE UNITED STATES NATIONAL MUSEUM.

By E. S. G. TITUS.

Ashmeadiella schwarzi, n. sp.

♀.—Length 5 mm. Black, clothed with white pubescence, punctuation very dense and regular, more separate on thorax dorsally. Head, except occiput, densely clothed with long pubescence, thorax bare discally, scutellum with sparse pubescence, abdominal fasciæ regular and distinct, last segment with fine short hair. Legs with exceptionally sparse pubescence, tarsi slightly fuscous; mandibles tipped with red.

♂.—3.5-4.5 mm. Closely resembles the female, more stoutly built; tarsi, especially claw-joint, and claws fuscous. Apical abdominal teeth all short, the lateral teeth sharp, middle teeth rounded; all the teeth are

ferruginous and the color extends back of the lateral teeth onto the segment for a *very* short distance. Red color on the mandibles extending over a greater area than in female.

Hab.—♀, Chiricahua Mts., Ariz., May 30 (H. G. Hubbard); ♂, Catalina Springs, Ariz., April 14 (Hubbard and Schwarz); ♂, Ariz., 2546, Baker collection; "Tucson, Ariz., June 10, 1897 (R. E. Kunze)."

Type.—♀ and ♂, No. 6855, U. S. National Museum.

Ashmeadiella coquilletti, n. sp.

♀.—Length 7.5 mm. Black, head very large, punctures dense and of medium size on head and thorax, finer and closer on abdomen. Cheeks, sides of face, pleura, legs (except tarsi beneath), with white pubescence. Remainder of pubescence dull ochraceous, rather pale on bands of abdomen and ventral scopa. Punctures of clypeus very close, apical margin faintly crenulate; flagellum black, faintly fuscous beneath; mandibles black with a red band back of teeth, tegulæ black with a ferruginous spot, nervures and stigma all dark; claws reddish; second recurrent nervure not quite reaching to tip of second submarginal cell.

♂.—Length 8 mm. Closely resembles the female. Pubescence of face denser and all white; of occiput and mesothorax very sparse, of metathorax dense and ochraceous; sides of thorax with dense white pubescence, bands on abdomen very distinct. Mandibles black, except for a red spot above near base; front tarsi fuscous, middle and hind tarsi faintly colored, especially beneath; spurs black. Lateral teeth at apex of abdomen short and pointed, middle teeth long, narrow, and rounded at tips; last dorsal segment with scattered white pubescence. Abdominal bands on segments 2 and 3 continued on venter.

Hab.—♀, San Diego Co., California, August 26, 1891 (collection W. J. Fox); ♂, San Diego Co., California (D. W. Coquillett).

Type.—No. 6877, U. S. National Museum.

Ashmeadiella rufipes, n. sp.

♀.—Length 7.5 mm. Head, thorax, and abdomen black, front legs black suffused with red; middle femora and hind legs red, hind tarsi with sparse black markings; tegulæ ferruginous in front, black behind; nervures black except for a short distance near base where they are reddish-yellow; mandibles broad, very dark, tinged with red above and clothed with white hair. Pubescence rather dense and white, especially on clypeus. Thoracic disk almost bare. Punctuation dense on head, more separate on thorax dorsally, and fine and dense on abdomen.

Hab.—San Diego Co., California, August 30, 1891 (D. W. Coquillett).

Type.—No. 6861, U. S. National Museum.

Very much resembles the preceding species, but readily separated by the color of pubescence and legs.

Ashmeadiella curriei, n. sp.

♀.—Length 5.5 mm. Black, rather stout, closely finely punctured. Pubescence of face (except sides), clypeus, occiput, thoracic dorsum, tibiae and tarsi ochraceous; of sides of face, cheeks, pleura, thorax beneath, femora, abdominal bands and ventral scopa white, mandibles sparsely fringed with long yellow hairs. Antennæ short, jet black, clypeus at apex faintly emarginate, fringed with very short white pubescence, two outer mandibular teeth ferruginous, claws and claw joints of tarsi ferruginous; tegulae punctured, black with a faint reddish tinge, nervures and stigma black, second marginal narrowed fully one-half above, second recurrent nervure reaching second submarginal cell one-fifth length of cell from tip; tibial spurs black.

Hab.—Kaslo, British Columbia, June 11, 1903 (R. P. Currie).

Type.—No. 6876, U. S. National Museum.

May be separated from *A. prosopidis* Ckll., *A. cactorum* Ckll. and *A. meliloti* Ckll., by the absence of white pubescence on the clypeus and thoracic dorsum, lack of red on legs and from all but *A. prosopidis* by its size.

Ashmeadiella gillettei, n. sp.

♀.—Length 6-7 mm. Stout, but not as broad as *A. californica* Ashm. Densely, finely punctured. Head and thorax black, mandibles black with faintly reddish tips, flagellum ferruginous beneath; claw-joint and claws of all the legs reddish, middle and hind femora reddish, sometimes with some black, hind tibiae reddish on inside. Abdomen black with first dorsal segment red excepting an irregular transverse blotch in center near hind margin, second segment red at sides and a third of the way toward the middle, third segment with a small red space on each side. Pubescence white, dense on face, cheeks and thorax, except disk, where it is present, but sparse and short. Ventral scopa and all the tarsi, beneath, with ochraceous pubescence, bands on abdomen very distinct, last dorsal segment with fine, short hairs; tibial spurs black; tegulae pale yellow with an anterior black spot.

Hab.—Ft. Collins, Colorado, June 8 and 20, 1900 (Titus).

Type.—No. 6880, U. S. National Museum.

Cotype in Colorado Agricultural College Museum. Three specimens.

There is in the National Museum collection a headless female from La Mesa, San Diego Co., California, 21 April, 1898 (L. O. Howard), that very closely resembles this species; the legs, however, are blacker and the 5th dorsal abdominal segment is also densely clothed with fine white pubescence.

Hoplitis sambuci, n. sp.

♀.—Length 8.5 mm. Black, abdomen shining black; stout, head fully as wide as thorax, strongly produced behind the eyes. Punctuation dense and exceedingly regular over the entire insect, including femora and tibiae. Pubescence varying from gray to white. Pubescence dense on face, cheeks, scutellum, and sides of thorax, very sparse on occiput and thoracic disc. Front legs with rather dense pubescence, that on middle and hind legs shorter and sparser. Dorsal abdominal segments 1-5 with snow-white apical hair bands broadly interrupted (rubbed?) in the middle, 6th segment with short white pubescence. Ventral scopa dense and white. Antennæ black, scape somewhat enlarged, mandibles jet black, grooved externally, with three teeth, the outer one slightly longer and more pointed, the second and third separated by a shallow curve; clypeus truncate; tibial spurs black, spine at apex of front tibia strongly produced. Labial palpi four jointed, second joint $1\frac{1}{2}$ times as long as first, first two joints very slender, third and fourth stout subequal, maxillary palpi five-jointed, first stout and globular, third longest, equal to $4 + 5$, two and four subequal, five slender, short.

♂.—Length 8.5 mm. Black, closely resembling female, facial pubescence whiter and denser, thoracic pubescence cinereous and dense; abdominal bands present on segments 1-6, interrupted in the middle, sixth segment narrowly ferruginous apically, dentate laterally; seventh segment truncate, broad, curving laterally to its base; sides of abdomen and last segment fringed with long, white pubescence; ventral segments neither enlarged or toothed. Antennæ black, flagellum brown beneath, all the flagellar joints strongly crenulated, last joint hooked.

Hab.—Pullman, Wash., 2 ♀♀ (May 7); ♂ (May 14); all reared from stems of *Sambucus glauca*, by C. V. Piper.

Type.—No. 6860, U. S. National Museum.

I have examined the type species of the genus *Hoplitis* Klug (*Osmia adunca* L.) and feel sure that this species and *Alcidamea truncata* Cress. belong therein. It can be readily separated from *A. truncata* by size, form, and pubescence. The antennæ in *Hoplitis* are quite varied, but the majority of species have deformed antennæ.

Acanthosmiades ashmeadii, n. sp.

♂.—Length 10 mm. Head and thorax dull blue, abdomen shining steel-blue. Head and thorax disproportionately large for the abdomen, head as wide as thorax, abdomen slender. Punctuation confluent on head and thorax, dense and fine on abdomen. Pubescence of face, cheeks, occiput, borders of thoracic dorsum, and sides of thorax dull white in some places discolored with yellow, of abdomen very sparse, but where occurring is short and black; on dorsal segments 3-6 it can be plainly seen from the side, beneath the sides of the abdomen are fringed with black

hairs. Antennæ bicolored, scape black, flagellum pale testaceous, excepting a black tip to the flattened last joint; mandibles black; outer tooth long and sharp; tegulæ blue with a large fuscous spot; wings hyaline, nervures and stigma black; legs very stout, front and middle pairs blue-black with fuscous tarsi, hind pair brownish-black, tarsi fuscous, hind femora swollen at base, hind tibiæ very large, greatly swollen in the middle beneath, first hind tarsal joint swollen at base, tibial spurs large and black; sixth dorsal abdominal segment entire, not broadly rounded, seventh segment deeply bidentate; first ventral segment with a longitudinal central apical carina, testaceous in color, second segment with a testaceous strongly produced finger-like process, remainder of segment polished and blue.

Hab.—Dalles, Oregon (collection W. H. Ashmead).

Type.—No. 6859, U. S. National Museum.

This can be readily separated from *A. odontogaster* (Ckll.), by the antennæ, larger size, more strongly produced legs, and deeper color. In *A. odontogaster* there is a fine longitudinal groove on the second ventral segment which ends on the finger-like process, causing it to appear bifid at the tip; the first segment has no longitudinal carina.

—Mr. Benton exhibited a photograph from life, published in a recent number of an apicultural journal* labeled "Bees working on Chrysanthemums." An examination of the picture showed him that the "bees," so-called, are in reality drone flies (*Eristalis tenax*). It is well-known that these Syrphid flies have a habit of visiting chrysanthemums to feed upon the pollen, and this fly has been credited with effecting, to a greater or less degree, the fertilization of these blossoms. The plan of introducing it into countries where chrysanthemums do not seed has been seriously discussed. Drone flies have frequently been mistaken for bees. At the famous Utter trial† Mr. Benton, who was a witness for the National Bee-Keepers' Association, brought with him a small case of insects containing workers, queens and drones of *Apis mellifera* and a number of drone flies. This case, when passed around, revealed the fact that the prosecution were unable to distinguish drone flies from bees with certainty, and therefore unable to prove positively that bees were the cause of the alleged damage. Even some of the skilled bee-keepers, to whom the

* The American Bee-Keeper, xiv, No. 3, p. 52, March, 1904.

† Described in Gleanings in Bee Culture for 1900 and 1901.