

Some California Bees, *Townsendiella* and *Hesperapis* (Hymen.: Apoidea).

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Until now only one species of *Townsendiella* has been known. An additional species, therefore, is of unusual interest, especially when it is found to be perhaps generically distinct from the type *T. pulchra* Cwfd., from New Mexico. The present species does not have flattened claws. The proportions of the joints of the palpi are different from those given by Crawford, the venation is somewhat different, and the general appearance is that of a black, finely punctured *Holcopasites*, rather than of a *Neolarra* as stated by Crawford for *T. pulchra*. The types of the new species are in the author's collection.

Townsendiella californica n. sp.

♀ : Length $4\frac{1}{2}$ to a little over 5 mm.; black, the clypeus, labrum, mandibles except apices, and sides of first two tergites pale red; head about round viewed from in front; entire body covered with very short dense pubescence except a large triangular area on propodeum which is dull and very finely roughened; pubescence of sides of face, cheeks, longitudinal band through median ocellus, pleura, propodeum, most of scutellum, lateral edges and a pair of longitudinal discal lines on scutum, white; rest of pubescence on head and thorax pale brown; posterior outer edge of tegulae bare and shiny; femora and to a lesser extent the tibiae somewhat reddish; outer faces of hind and middle tibiae with a number of small spines; pubescence of abdomen nearly white, the following markings nearly black: transverse band with a median apical lobe on first tergite; similar but broader bands on second and third tergites, these extending to the anterior margins of the tergites, and the lobes extending to the posterior margins, the ends of the bands bent posteriorly; three spots on posterior half of fourth tergite, these faintly connected anteriorly. Posterior margin of fifth tergite bare, shiny, with a few small punctures; pygidial area parallel sided, broadly rounded posteriorly, bare, with abundant coarse punctures; wings short, the apical margin broadly dusky, the veins and stigma black, the first recurrent vein meeting or basad to first transverse cubital, the second recurrent vein half way from base to apex of second submarginal cell, the latter narrowed almost to a point above, the marginal cell rounded at apex, with a small appendage; maxillary palpi six jointed,

the second joint longest, the first, third, and fourth of about equal length and shortest, the fifth and sixth of about equal length; labial palpi four jointed, the second joint about two thirds as long as first, the third and fourth of about equal length, together a little less than two thirds as long as second; tongue a little shorter than labial palpi; under side of flagellum dull brownish, the scape about as long as next three joints together; mandibles simple; labrum broader than long.

One individual has the pubescence rather worn, so that the sculpturing of head and thorax can be seen. Wherever visible the surface is only faintly shining, with numerous close minute punctures (except as described above for propodeum).

♂. Similar to female but clypeus appearing blackish, its lateral margins reflexed; tegulae reddish; legs blacker; pubescence usually paler; pygidial area more slender, its sides converging posteriorly.

Holotype, a female, and paratypes, Altadena, CALIFORNIA, June 24 and 26, 1935, flying close over the ground in a colony of *Hesperapis rufipes* (Ashm.) where they were doubtless parasitic (Michener).

HESPERAPIS RUFIPES (Ashmead).

♂. Length 4 to 5½ mm.; form robust, the flagellum short as in a female; black, the anterior edge of clypeus broadly dull yellow, the labrum, mandibles except apices, and malar space also dull yellow; flagellum ferruginous, paler beneath; legs except for the coxae red, the anterior femora infuscated with black above; tegulae rather dark testaceous; eyes converging below; facial line longer than transfacial; head and thorax rather shiny, hardly sculptured, though the clypeus has a few punctures; enclosure of propodeum shining; anterior edge of clypeus depressed; head and thorax largely covered with short hair, that on top of head and thorax rather moss-like, dense, fulvous to pale ochraceous, that on cheeks and sides of thorax paler, sometimes white; abdomen only slightly shining, the tergites with apical bands of ochraceous to white pubescence, the apices of the tergites beneath the bands translucent whitish; pygidial area reddish; wings slightly dusky, the veins and stigma black.

♀. Length 6 to 7 mm.; black, the anterior margin of clypeus broadly dull red; mandibles except for the blackish apices, labrum, and malar space also dull red; legs black; venter of abdomen red; tergites one to three red, two and three black at extreme sides; tergite four black, faintly red at base; remaining

tergites black, the base of pygidial area red; flagellum red, paler beneath; sculpture and structure similar to that described for male; pygidial area with a longitudinal median groove in apical part; abdomen with bands of white pubescence similar to those of male; pubescence of head and thorax sparser than in the male, white except for dorsum of head and thorax where it is ochraceous and moss-like; vertex with some black hairs.

Many specimens from Altadena, CALIFORNIA, June 11, 1933, May 12, 1934, and June 26 and 28, 1935 (Michener). They were flying over the ground within two small areas about half a mile apart. Here they were very abundant, nesting in the hard flat ground and visiting flowers, chiefly those of *Hugelina virgata*. Outside of these areas none could be found, although the *Hugelina* and other vegetation appeared just the same and the ground looked the same.

The nearest relative is *H. elegantula*, (Ckll.), which has paler wings and stigma. Mr. P. H. Timberlake first identified my specimens as *H. rufipes*. In his very extensive collecting at Riverside, he has never taken it.

***Hesperapis arida* n. sp.**

♂. Length 6 to 7 mm.; form robust, the abdomen flattened, and the antennae short, much like the female; flagellum ferruginous beneath; eyes strongly converging below; mandibles red, the bases black, the apices blackish; clypeus somewhat shining with fine punctures; rest of head and thorax about the same, the enclosure of propodeum entirely dull; tegulae testaceous; wings clear, the veins nearly black, the stigma rather dark brown, shorter than in *H. wilmattae* Ckll.; abdomen absolutely dull, except for base of first tergite, which has a very faint shininess; tergites with broad white apical bands, the tegument beneath them testaceous; pygidial area red; legs black, the tibial spurs, hind knee plate, and extreme apices of tibiae reddish; pubescence mostly white, short, longest on lower part of cheeks, abundant on face, cheeks, pleura, sides of propodeum, and legs, that on under side of metatarsi ferruginous; sides of tergites with considerable hair between the bands; scutum with short, dull ochraceous, moss-like hair, and some longer white hairs.

♀. Length 8 mm.; similar to the male; anterior margin of clypeus dark red; moss-like hair of scutum more copious; pygidial area hardly red; entire first tergite with a very faint shininess; hind tibiae and tarsi with some rather long black hair.

Holotype, a male, and numerous paratypes from 20 miles south of Twenty Nine Palms, San Bernardino County, CALIFORNIA, April 14, 1935, on *Larrea tridentata* var. *glutinosa* (Michener, Coll.) The male is very distinct from *H. wilmattae* Ckll. by the short antennae, robust form, etc. The females, however, are not easily separated. The following characters are useful in their separation:

<i>wilmattae</i> .	<i>arida</i> .
Anterior margin of clypeus black.	Anterior margin of clypeus dark red.
Abdomen faintly shiny.	Abdomen beyond second tergite very dull.
Hind tibiae with few black hairs.	Hind tibiae with many black hairs.
Labrum black.	Labrum dark red.
Apices of mandibles red.	Apices of mandibles black.

Hesperapis leucura Ckll. is somewhat similar but smaller and more shiny.

HESPERAPIS WILMATTAE Cockerell.

♂. Similar to female, the antennae black; abdomen a little more shining; hind legs without black hairs; pubescence rather long, white, entirely covering face, and abundant on thorax, there being no moss-like hair on scutum.

Dry Lake (east of Borego Valley) (T. D. A. & W. P. Cockerell); Cottonwood Springs, Riverside County, April 14, 1935 (Michener), all in California.

The male is close to *H. nitidula* Ckll. but larger, eyes gray (green in *nitidula*); face narrower; posterior part of enclosure of propodeum duller (strongly shining, though not smooth in *nitidula*); genitalia nearly black in *wilmattae*, brown in *nitidula*.

Hesperapis may be divided into two subgenera, as follows:
Male robust, with the form of a female, the flagellum short, its joints broader than long; moss-like pubescence present on dorsum *Hesperapis* s. str.
Male slender, the flagellum long, most of the joints longer

than broad; moss-like pubescence absent except in female
H. wilmattae *Panurgomia* Vier.

Zacesta Ashm. is a synonym of *Hesperapis* s. str.

Hesperapis s. str. includes *elegantula* Ckll., *rufipes* (Ashm.), and *arida* Mich. Although male *elegantula* is unknown, I think that there is no doubt of its relation to *rufipes*.

Panurgomia includes all the American species which I have seen except those mentioned above.

Notes On Some American Colydiidae. (Coleoptera).

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This paper, one of the last of a series, is a result of the study of a few remaining species of neotropical Colydiidae represented in the various collections before the writer from the United States National Museum and Mr. F. Nevermann. One genus is here relegated to synonymy, two new species are described, one species is removed from one genus and placed in another, and notes and additional locality records are given for five other species.

The writer takes this opportunity of expressing his thanks to Dr. K. G. Blair of the British Museum (Natural History) and Dr. A. D. Imms of Cambridge University for their generous assistance in the preparation of this and other papers of the series.

LAPETHINI.

LAPETHUS Casey

1890. *Lapethus* Casey, Ann. N. York. Acad. V, p. 317, 321.

1895. *Lapethus* Sharp, Biol. Centr.-Amer. Col. II, 1, p. 494.

1895. *Lytopeplus* Sharp, Biol. Centr.-Amer. Col. II, 1, p. 494.

1898. *Brachylon* Gorh. Biol. Centr.-Amer. Col. VII, p. 256.

1913. *Lytopeplus* Champion, Trans. Ent. Soc. London, p. 79.

The only character separating *Lapethus* Casey from *Lytopeplus* Sharp is the greater separation of the front and middle coxae in the latter, but as this difference is only a matter of degree and is bridged by certain species (*Lapethus sharpi* Champ, etc.), it seems undesirable to retain the genus *Lytopeplus* Sharp.



1936. "Some California bees, Townsendiella and Hesperapis (Hymen.: Apoidea)." *Entomological news* 47, 181–185.

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