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II. New Norrth American Bees

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would have to be altered a little. Nothing certain can be said, however, until the embryonic larva of *quadrifasciatum* has been seen. It is to be observed that *L. robiniarum* Douglas, found at Las Cruces, N. M., on *Robinia pseudacacia*, has nothing whatever to do with *quadrifasciatum*, being a *Eulecanium*. It has doubtless been introduced into New Mexico from the Eastern States, though not hitherto recognized there by entomologists.

Diaspis toumeyi, n. sp. — ♀ scales circular or nearly so, moderately convex, about 2 mm. diameter, white tinged with yellowish or brown, exuviae sublateral, first skin exposed, pale straw; second skin, exposed by rubbing, orange. Removed from the twig, the scale leaves a white mark.

♂ scale as usual in genus, white, obscurely unicarinate, with the very pale yellowish exuviae at one end.

♀ (boiled in soda) very pale brownish (when dry, not boiled, dark brown). Rows of transversely oval pores, as usual in genus. Anal orifice small, subcircular, not very far from hind end. 5 groups of ventral glands, median round, caudolateral oval, cephalolateral long-oval. Caudolateral with 25

orifices, caphalolateral 36, median 24. Median lobes extremely large, separated by a wide interval in which is a pair of small spines, strongly divergent, pale brown, rounded, finely crenate. Remaining lobes practically obsolete. Following first lobe on margin is a low obscurely quadrifid structure representing the second lobe, then a pair of short broad cone like plates, then a slight prominence, then a conical plate, then a spine, then a conical plate, then a short interval, then two small conical plates, then an almost obsolete plate, then a pyramidal small blunt brownish projection apparently representing a lobe, then two small plates, then a spine, then three large conical plates separated by rather wide intervals.

Hab. Prof. Toumey, sending specimens, writes on April 29, 1895: "While at Maricopa a few days ago, I drove to the mountains some 10 miles south, and on the way found an interesting shrub which grows here to the size of a tree; I refer to *Holacantha emoryi*, which has not before been reported north of Mexico. In many places this plant was entirely covered" by *Diaspis toumeyi*. The species is allied to *D. cacti* in some respects, but very distinct.

II. NEW NORTH AMERICAN BEES.

BY T. D. A. COCKERELL.

Andrena salicinella, n. sp. — ♀ about 8 mm. long, black, with thin white pubescence, abdomen with hair-bands.

Head somewhat broader than long, vertex sub-depressed; clypeus prominent, shining, strongly and rather closely punctate, its disc almost bare. Vertex minutely roughened, more or less aciculated. A very distinct but short broad band of appressed snow-white pubescence before each anterior orbit. Flagellum slightly tinged with brown towards end. Thorax rather small; mesothorax with large, sparse, distinct punctures. Scutellum

with similar punctures. Metathorax finely roughened, enclosed area sculptured like the part beyond, enclosure bounded by a very obscure rim. Pleura with long white hairs, not dense. Tegulae testaceous, moderately shining. Wings distinctly yellowish, nervures and stigma honey-yellow. Legs with pale hairs; femora and tibiae piceous-black, all tarsi clear ferruginous.

Abdomen shining, its surface minutely tessellate, impunctate. Apical margins of segments narrowly testaceous, segments 2 to 5 with apical bands of dirty-white hairs,

that on 2 broadly interrupted in the middle. Hairs of tip of abdomen yellowish.

Hab., on *Salix* (narrow-leaved willow), by the acequia in Las Cruces, New Mexico, early in May, 1895 (Ckll., 1908).

This species is evidently distinct, but it must be separated from its allies with care. In its general appearance, and the color of its wings, it resembles the ♀ of *A. flavoclypeata* Smith. I have an Illinois specimen of the latter from Mr. Robertson, and can distinguish it from *salicinella* by its duller granulated mesothorax, not showing distinct sparse punctures as in our species. The clypeus also is comparatively impunctate in *flavoclypeata*; the abdominal bands also are thinner. Mr. Robertson describes from Illinois a species, *A. salicis*, which is evidently very near to *salicinella*. On going through the description I find that our species differs thus:—

The pubescence of head and thorax is white or dirty-white, not fulvous; the basal process of labrum is triangular, not truncate; the wings are not clouded beyond the marginal cell; the abdominal fasciae are dirty-white, not fulvous. Otherwise the two seem to agree.

A species I found in Wet Mountain Valley, Colorado, to the best of my recollection on willows, was named by Mr. Ashmead *Cilissa trizonata*. *A. salicinella* differs from *A. trizonata* (Ashm.) thus:—

The thorax is not closely punctate; the pubescence is not dense; all the tarsi are rufous, not black or piceous; the ocelli are not pale; the wings are yellowish. I have no doubt that other differences could be demonstrated by actual comparison of specimens.

Fordita nitidella var. *exclamans* n. var. — ♂ about 5 mm. long. Head moderately broad, vertex minutely roughened and sparsely punctate. Pubescence hardly noticeable, but cheeks beneath, bear long hairs. Antennae yellow, with the flagellum black above. Vertex and upper half of cheeks metallic greenish-blue. Face at and

below level of antennae entirely pale yellow, the labrum and mandibles becoming nearly white, except that the latter are ferruginous at tips. Above the level of the antennae the yellow extends irregularly upwards, becoming deeper in tone. The median upward extension of the yellow is broad and rounded and just reaches the anterior ocellus. It shows a slight projection on each side not far from its top; and on each side of its base close to the origin of the antennae, it encloses a dark spot by sending a bridge to join the lateral yellow extension. The lateral upward extension of the yellow follows the margin of the orbit, at first rapidly narrowing; and then continuing, narrow but of uniform width, to its oblique termination at about the level of the lateral ocelli. These face-makings strikingly resemble a person with uplifted arms in the act of making an exclamation—hence the varietal name. The median extension of the yellow represents the head, the lateral ones the arms. If the resemblance were not so obviously purposeless, I presume we should call it mimicry! Prothorax yellow, neck with a short dark band on each side. Pleura with its anterior half yellow, its posterior half covered by two large metallic blotches, separated by a narrow yellow band. Dorsum of mesothorax very shiny, hardly punctured, very sparsely hairy, dark metallic green, with the lateral margins yellow. Tegulae yellow, metathorax blue, in strong contrast with the green mesothorax, sides of metathorax with white hairs; its exposed dorsal surface minutely striolate. Four anterior legs entirely yellow; hind legs yellow with a spot at end of femur, posterior side of tibia, posterior side of first joint of tarsus and whole of remaining joints, dark brown. Wings hyaline, nervures pale brown, third discoidal cell excessively indistinct; stigma hyaline margined with brown. Abdomen yellow with a brown band at apex and base of each segment. Venter entirely yellow.

Hab. Close to the Agricultural College,

Las Cruces, N. M., 13th May, 1895. (Miss Jessie Casad, no. 296.) Taken on mesquite.

I had described this as a distinct species, but after prolonged consideration I believe it to be but a varietal form of *P. nitidella* Ckll. In typical *nitidella* the median excursion of the yellow does not extend to the middle ocellus, while in the variety it may be said to do so, the interval between its upper border and the ocellus being scarcely observable with a strong lens. In *nitidella* the incursion of the blue terminates in a right angle, whereas in the variety its termination is much more acute. Other differences will appear to any one comparing the descriptions.

Typical *nitidella* was taken in September.

Perdita punctosignata, n. sp. — ♂ about 4½ mm. long. Head moderately broad, vertex minutely roughened, not punctate. Cheeks beneath with sparse hairs. Antennae yellow; tip of scape, funicle, and flagellum except last two joints, brown above. Head, including face and cheeks, entirely dull yellow except a broad transverse black band stretching from eye to eye on vertex, and enclosing the two lateral ocelli; a black basi-occipital band connected with that on vertex in median line; and a conspicuous black spot close to the anterior orbit about as far above level of insertion of antennae as length of scape. The yellow of the face becomes paler downwards, the labrum being rather whitish.

Thorax bright lemon yellow, with two broad black bands extending backwards from near the anterior margin of the mesothorax to the metathorax, where they meet; making the whole of the dorsum of metathorax black except a couple of yellow spots in the median line near its anterior border. The dorsum of scutellum and post-scutellum are broadly greenish-yellow. Tegulae hyaline. Wings hyaline, nervures pale, stigma hyaline with a brown margin, third discoidal excessively indistinct. Legs all yellow, except a brownish shade behind middle tibiae, and a still stronger shade on hind tibiae and a slight brown spot at end of hind femora.

Abdomen yellow with sepia bands; first segment mostly sepia, with an interrupted yellow band and yellow anterior border; second and third segments each with a narrow proximal and a broad distal band, the latter narrowing suddenly before lateral margin; fourth segment similar, but the distal band narrower; fifth segment with the bands becoming obscure, or at least the distal one. Venter all yellow.

Hab. Close to the Agricultural College, Las Cruces, N. M., 13th May, 1895, on mesquite. (Miss Jessie Casad, no. 297.)

By the face-makings, this might be confounded with *P. martini* Ckll., but the yellow thorax with broad longitudinal bands will at once separate it.

III. A MUTILLID WHICH RESEMBLES THISTLE-DOWN.

Sphaerophthalma gloriosa Sauss., var. nov. *pseudopappus*. — ♀ about 13 to 16 mm. long, entirely dull black, clothed with very long pure white hairs. The long hairs on the dorsum of the second segment of abdomen are about 5 mm. long. The first abdominal segment widens gradually to the second, and is dorsally bare, with white hairs at base and apex.

Hab. Las Cruces, New Mexico, in June. One also on September 6. Mr. Fox knows it also from Arizona and California.

I have never seen typical *gloriosa*, in which the body color is reddish, but Mr. Fox assures me that the present insect is but a variety of it. It is, perhaps, rather a subspecies, for I have now seen about 8 specimens, every one of them black. A specimen of *S. sachenii*, collected in California, and sent to me by Mr. Wickham, is very different. It is larger, the hairs have a yellowish tinge, and the pubescence on the legs, venter, etc., is black; whereas in *pseudopappus* all the pubescence is white.