

NEW NORTH AMERICAN BEES.

BY

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PROSAPIS SCHWARZII, *n. sp.*

♀. Length, 8 mm., stout, black with very pale yellow markings. Head longer than broad; punctures of front strong and very close, those of vertex and occiput less so; an elevated flattened area between the antennæ, longitudinally grooved; clypeus long, with the sides nearly parallel, granular, with large sparse shallow punctures; mandibles wholly dark; sides of face narrowly very pale yellow, the yellow extending upwards only as far as level of antennæ, and at its broadest not half the breadth of the distance between the antennæ. Antennæ wholly dark, scape rugulose, cylindrical, not at all dilated; 2nd joint of flagellum shorter than 1st or 3rd. Very little pubescence on head, some white hairs near the antennæ and on occiput and cheeks. Thorax virtually bare, except sparse white pubescence on pleura, a fringe along hind border of postscutellum, failing in the middle, and a conspicuous fringe along lateral edges of metathorax. The basin of the metathorax is hoary with appressed pubescence. The tubercles have a pale fringe. Prothorax all black, except a yellow patch (without any dark dot) on tubercles; tegulæ wholly dark. Mesothorax and scutellum minutely granular, with large and very close but not confluent punctures; pleura with the punctures more or less confluent; postscutellum with shallow punctures; enclosed area of metathorax shining, irregularly rugulose, laterally with pits, causing it to be subcancellate. Wings hyaline at bases, otherwise fuliginous, including the first discoidal cell; a hyaline line runs from base of stigma diagonally across the 1st submarginal, across 2nd submarginal at its lowest part, and a little beyond; another hyaline line starts in 1st discoidal below the basal angle of

1st submarginal, and runs to a point just below the termination of the 1st recurrent nervure, thence bifurcating, the arms at first rapidly diverging, then running parallel or nearly so to beyond the 2nd recurrent nervure. 2nd submarginal cell long, narrowed, less than one-half to marginal. Legs wholly black, except an inconspicuous reddish streak on anterior tibiæ, and the clear yellowish-white basal third of hind tibiæ; spines pallid; claws rufescent, rather deeply bifid. Abdomen smooth and very shiny, its hindmost half with a fine sericeous pile; dorsum of first segment wholly impunctate.

Hab.: Dade Co., Florida (E. A. Schwarz; U. S. N. M., No. 19113).

In its large size, this agrees only with *basalis*, to which it is not nearly related. Its affinity is with *confluens*, Smith, which also occurs in Florida, but that is smaller, and differs in the punctuation of the thorax and the colour of the legs.

CALLIOPSIS SEMIRUFUS, *n. sp.*

♀. Length, 10 mm., head and thorax black, abdomen bright rufous, the whole insect shining, pubescence greyish. Head broader than long, front with a median groove, punctures sparse throughout; antennæ short, black, with the last six joints of the flagellum beneath wholly, and the others more or less, rufous; scape long. Head tolerably hairy, the hairs rather long, but not dense enough (except on cheeks) to hide the surface. Anterior margin of clypeus with shining rufous hairs. Clypeus broad and low, reaching to bases of mandibles; labrum prominent, with a transverse ridge; mandibles stout, beset with long hairs, rufous towards tips, with a cream-coloured patch near base. Tip of glossa acute, not bristly. Ocelli placed in a curve. The pale face-markings are cream colour, and consist of a large irregularly triangular patch constituting the lateral extension of the clypeus on each side, a small spot at the angle between the clypeus and the orbit, a semilunar supraclypeal mark, and triangular dog-ear marks. Thorax with the pubescence sparse, except on pleura and sides of metathorax. Tegulæ shining testaceous, with a cream-coloured spot; tubercles wholly dark. Punctures of mesothorax and scutellum extremely sparse; scutellum not bilobed. Margins of postscutellum very hairy. Base of metathorax shining, bare, impunctate, with a shallow median depression. Wings hyaline, the extreme apex with a small fuscous cloud, nervures and stigma sepia-brown. Stigma excessively narrow, almost obsolete, much as in *Perdita latior*; marginal cell long, rather obliquely truncate and minutely appendiculate at tip; second submarginal long, narrowed one-half to marginal, receiving the recurrent nervures at the end of its first and the beginning of its last fifths. Legs black, a small yellowish spot at base of four anterior tibiæ, hairs on tarsi shining brownish. Abdomen shining rufous, more or less hairy at sides, and especially tip, dorsum of first segment impunctate, venter nearly all black.

Hab.: Las Cruces, N. M., on *Sphæralcea angustifolia* in the garden of my house, August 25th, 1895.

Allied to *C. abdominalis*, Cr., but differs by the clear wings, dark tubercles, &c.

This species differs from true *Calliopsis* somewhat as *Macrotera* differs from *Perdita* s. str., and should perhaps fall with *abdominalis* into a distinct genus. At one time I thought it might be a *Scapter*, but that was surely an error.

ANDRENA CERASIFOLII, n. sp.

♂. Length, 10 mm. or a little over, head black, thorax and abdomen Prussian-blue, tegulae shining piceous, legs black, antennae wholly black; wings hyaline, minutely hairy, apex slightly clouded, nervures and stigma piceous, the latter dark rufescent in middle. Pubescence of head and thorax tolerably long and dense, more sparse on dorsum of mesothorax and vertex, pale grey, mostly black on hindmost half of metathorax, or scutellum and dorsum of mesothorax; entirely black also on clypeus, sides of face and about the antennae, black hairs also on the anterior part of occiput. The pubescence of the cheeks, and of the middle of the face below the antennae, is dull white. Abdomen shining, pubescence white, sparse, mainly confined to first segments, sides of the others, and venter. There is some short black pubescence on the hindmost halves of the segments dorsally, only noticed when the insect is viewed from the side. Pubescence of legs rather short, dirty white, and longest on femora, more or less mixed with darker on tibiae and tarsi. The hairs on hind femora are clear shining white. Head broader than long, eyes small, distance between the ocelli less than the diameter of the middle one. Clypeus more or less bluish. Face and front strongly and closely punctured, punctures of clypeus just as close in middle as at the sides; labrum shining, prominent, with a central pit, lower margin of labrum fringed with reddish hairs. Second joint of flagellum barely shorter than third. Mesothorax and scutellum with large, comparatively sparse, punctures; metathorax black, strongly rugulose or subcancellate, enclosed area not bounded by a distinct rim, and sculptured much as the rest. Second submarginal cell very short, higher than broad; third narrowing more than half to marginal. Abdomen strongly and closely punctured, the apical margins of the segments somewhat constricted.

Hab.: Santa Fé, N. M., on foliage of cherry in Mr. Boyle's garden, morning of July 10th, 1895 (Ckl., 3432). Seven others taken at the same time and place, flying round and settling on the foliage of a peach tree; all were males. In one the wings are slightly dusky throughout. One specimen of this species was taken on July 8th, 1894, at Sta. Fé (Boyle).

This differs at once from *A. caerulea*, Sm., by the colour of the pubescence on the face, the punctured abdomen, &c. Using the table given by Schmiedeknecht for the European species, it comes in the neighbourhood of *A. pilipes*, Fl.

PERDITA IGNOTA, n. sp.

♀. Length, about 5 mm., head and thorax dark blue-green, tolerably hairy, supraclypeal area brassy. Head of ordinary size, face and front shining, front with very sparse punctures; clypeus, except the usual dots, and nearly circular lateral

marks, white. External bases of mandibles white or whitish. Scape yellowish on one side, flagellum dull orange beneath. Cheeks hairy. Mesothorax minutely rugulose but shiny, with short white hairs; metathorax shiny, nude, except the fringe of hairs at the side. Tubercles and hind border of prothorax with a very little white. Tegulae very pale. Wings hyaline, iridescent. Nervures and stigma colourless, 3rd discoidal distinct, marginal cell with the substigmatal portion about as long as, or a little longer than, the poststigmatal. A stripe on anterior tibiae in front, and all the tarsi entirely, white. Abdomen piceous, with interrupted white bands on segments 2 to 4, that on 4 reduced to a couple of small streaks. Pygidium orange. Venter piceous.

Hab.: on *Aster spinosus*, Mesilla, New Mexico, June 24th, 1896.

In Proc. Phila. Acad., 1896, p. 38, I remarked that *A. spinosus* had produced no *Perdita*. Whether the present insect is attached especially to that plant, or merely a stray from some other, may be doubtful, as repeated sweepings failed to bring to light more than a single specimen.

In my table of *Perdita* (t. c.) this will fall next to *pectidis*, from which it will easily be known by the white clypeus, the straight instead of oblique abdominal marks, &c.

I had asked myself whether this might be the unknown ♀ of *P. erigeronis*, but it differs from that species by its white instead of yellow marks, its clear wings with the nervures not dark, its much more shiny mesothorax, and its shiny front, the front in *erigeronis* being dull.

Mesilla, New Mexico, U. S. A.:

July, 1896.
