

This form must be allied to *inceptaria* Walk., which is, in my opinion, distinct from *argillacearia* Pack. Dyar's reference is also incorrect. It was described as *Numeria inceptaria* in the Canadian Naturalist and Geologist, Vol. 5, pp. 241-266, Aug. 1860. *Argillacearia* Pack. seems to lack definite lines, while, according to the description, *inceptaria* has two on the hind wings and three on the fore wings. I rather think it is nearer *evagaria* Hulst and *inceptaria* than *argillacearia*.

SOME ROCKY MOUNTAIN ANDRENID BEES.

BY T. D. A. COCKERELL, BOULDER, COLORADO.

Andrena cyanura, sp. n.

♀.—Length about 12 mm.; black, with the abdomen shining dark blue; hair of head and thorax abundant, mainly very pale ochreous or white, with an ochreous tint, but black at sides of face, on lower part of clypeus, on front, vertex anteriorly, cheeks, posterior part of mesothorax and pleura except upper part; sides of metathorax with copious entirely pale hair; facial quadrangle much broader than long; process of labrum very broadly rounded; clypeus strongly and closely punctured, with a median raised line; facial foveæ dark chocolate, broad, ending a little below level of top of clypeus; antennæ dark, third joint a little longer than next two together; mesothorax entirely dull, with small punctures; area of metathorax granular, defined by absence of hair; tegulæ black; wings strongly brownish; stigma rather small, ferruginous, with a dark fuscous margin; nervures fuscous; second s. m. very broad, receiving first r. n. at or near middle; legs with black or sooty hair, floccus on hind trochanters white; hind femora with long white hair on upper side; tibial scopa with stiff, nearly straight hair; abdomen without bands, dorsally almost without hair, shining, without distinct punctures; dense hair at apex black; second segment depressed about a third.

Hab.—Troublesome, Colorado, 2 ♀'s at flowers of *Salix*, June 8, 1908 (S. A. Rohwer). A remarkable species, superficially like *A. vicina*, but easily known by the blue impunctate abdomen. From *A. lawrencei* V. & C., it is known by the larger size and black thorax. Also at Troublesome, on the same day, Mr. Rohwer took *A. vierecki* Ckll. at flowers of *Amelanchier*.

July, 1916

***Andrena hirticincta surda*, Ckll.**

This was described from Colorado, the precise locality unknown. Mr. S. A. Rohwer took a male at flowers of *Polygonum*, along with a female *A. vierecki* Ckll., at Boulder, Colo., Aug. 24, 1908. The occurrence of *vierecki*, a spring species, on this date is surprising, and seems to indicate a second brood.

***Andrena pertarda*, Ckll.**

A female was taken at Meeker, Colorado, Aug. 7, 1909 (*Terry Duce*).

***Andrena apacheorum*, Ckll.**

This occurs in Colorado; Green Mountain Falls, August (*J. W. Frey*).

***Andrena tacitula grossulariæ*, V. & C.**

Only the male has been described. I took a female at flowers of *Prunus melanocarpa*, Florissant, Colo., June 24. It looks like *A. cyanophila*, but is quite distinct by the less broadly depressed second abdominal segment, the details of area of metathorax, and colour of hair on hind tarsi. It is also near to *A. salicifloris*, but the metathorax is different. Clypeus very densely and coarsely punctured, with a smooth median line; facial foveæ narrow, separated from eye only by a shining line, extending far below level of antennæ; third antennal joint about as long as the two following together; flagellum largely red beneath, broadly so apically; mesothorax and scutellum strongly and densely punctured, but disc of mesothorax posteriorly shining between the more widely separated punctures; area of metathorax with strong longitudinal rugæ; stigma dark reddish; hair of head and thorax above fox-red; abdomen shining, well punctured, second segment depressed a little more than half; second to fourth segments with yellowish white hair-bands at sides; hair at apex fawn colour; hair on inner side of tarsi light reddish.

***Andrena nigritarsis*, V. & C.**

Mr. S. A. Rohwer took both sexes at flowers of *Opulaster ramaleyi*; at Boulder, May 23; also a female, June 1. The species is close to *A. fragariana* Graen., but larger; it has the venational

and other characters of typical *Micrandrena*. The male has the tegument of the face entirely black, and the long flagellum is obscurely brownish beneath.

***Andrena candidiformis*, V. & C.**

The facial quadrangle is broader than long, not the reverse, as stated in the original description.

***Halictus cyaneiceps*, sp. n.**

♀ (Type).—Length 8-9 mm.; black, with the front and upper part of sides of face more or less distinctly bluish, contrasting with the pure black clypeus and supraclypeal area; pubescence dull white, forming broad bands at bases of abdominal segments; clypeus little produced; antennæ black; mesothorax shining and sparsely punctured on disc posteriorly; scutellum shining, with punctures of different sizes; area of metathorax dull, finely roughened, basally obscurely sublineolate, at apical middle there is a depression; posterior truncation not distinctly defined; tegulæ piceous; wings greyish hyaline, stigma and nervures dusky amber colour; punctures of abdomen excessively minute; hind spur with short blunt teeth.

♂.—Length hardly 8 mm.; face broad; clypeus shining, with a broad creamy-white band; flagellum long, marked with ferruginous beneath; area of metathorax shining apically; tarsi dark brown.

Hab.—Rio Ruidoso, New Mexico (C. H. T. Townsend); the type taken at flowers of *Heliopsis scabra*, July 31, alt. prox. 6500 ft.; also found (both sexes) on flowers of *Potentilla thurberi*, July 31, and on July 20, at 6900 ft., at flowers of *Verbascum thapsus*. South Fork Eagle Creek, New Mexico, at flowers of *Sicyos parviflorus*, Aug. 18, at 8000 ft., and Aug. 19, at 8250 ft. (C. H. T. Townsend). I have had *H. cyaneiceps* a number of years, and have referred it with hesitation to *H. bardus* Cresson and to *H. forbesii* Rob. It is very closely related to *forbesii*, but distinguished by the bluish front of the female and dark tarsi of the male. I have not described the structure in detail, where it agreed with *H. forbesii*. The male is very like that of *H. trizonatus* Cress, but is readily distinguished by the broad, short head. Male *trizonatus* was taken on *Potentilla thurberi* at the same time and place as *cyaneiceps*.



1916. "Some Rocky mountain andrenid bees." *The Canadian entomologist* 48, 252–254. <https://doi.org/10.4039/Ent48252-7>.

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