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## Descriptions of North American Bees No. 1

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Cresson | & T |

DESCRIPTIONS OF NORTH AMERICAN BEES.—No. 1. By E. T.  
CRESSON.

Family ANDRENIDÆ.

Genus COLLETES Latr.

§. *Species from the United States and Canada.*

1. *C. valida*, n. sp. ♀. Black; head and thorax deeply and rather closely punctured; clypeus long, subconvex, with a broad shallow channel on its apical half, the space between their base and the eyes unusually long; labrum polished, with a more or less deep lateral impression; mandibles long, narrow, rufo-piceous at tip; head, thorax and legs clothed with long ochraceous pubescence, that on vertex and thorax above (which is tinged with fulvous) mixed with black, that on cheeks, pleura and metathorax pale; metathorax rugulose, the enclosed space at base shining, coarsely reticulated; wings hyaline, nervures black; abdomen shining, closely and finely punctured; basal segment clothed with a long, thin, pale ochraceous pubescence; apical margin of all the segments above, except the last, with a dense, even fascia of pale ochraceous pubescence; apical segment rugose, clothed with black pubescence; apical margin of ventral segments with a thin fringe of pale pubescence. Length six lines.

The ♂ differs by having the pubescence much more dense. Length five lines.

*Hab.* Massachusetts. Mr. Frank Stratton. (Coll. Am. Ent. Soc.)

This species is readily distinguished by the unusually long face, the space between the eyes and base of mandibles being twice the usual length.

2. *C. propinqua*, n. sp. ♀. Very similar to *C. valida*, but the pubescence is paler and rather shorter; the clypeus is much shorter, flat and coarsely sculptured; the labrum has two slight, central depressions; mandibles entirely black; the enclosed space at base of metathorax is less coarsely reticulated; the pubescence on the legs is paler and somewhat silvery; wing nervures brown; otherwise like *C. valida*. Length five and one-half lines.

The ♂ has the pubescence almost white, except on vertex and disk of thorax, where it is slightly dusky; tips of tarsi and wing nervures pale fulvous. Length five lines.

*Hab.* Mass., Pa., Va., Ill. (Coll. Am. Ent. Soc.)

This and *C. valida* are our largest and most robust species, and are easily separated by the form of the clypeus, which in this is short and depressed, and the space between the eyes and base of mandibles short.

**3. *C. compacta*, n. sp. ♀.** Closely resembles *C. propinqua*, but is smaller, and the pubescence shorter; the clypeus with a central longitudinal depression; the labrum with a central rounded elevation; the metathorax rugose, the basal space reticulated; the thorax above has the pubescence more blackish; abdomen less hairy, the fasciæ even and cinereous, that on apex of first segment broadly interrupted centrally, but becomes confluent with a band at base of second segment; the apical margin of the segments are depressed; the lateral margin of the last ventral segment is much elevated. Length four and three-fourths lines.

The ♂ is more slender, with the pubescence of head and thorax longer and more dense; antennæ longer; apical fascia of first segment entire; venter banded with cinereous, the last segment with lateral margin not elevated. Length four and one-half lines.

*Hab.* Connecticut, Illinois. (Coll. Am. Ent. Soc.)

**4. *C. inæqualis* Say, Bost. Journ. Nat. Hist., I, p. 391.** This is a robust species, with head and thorax coarsely sculptured, and with short cinereous pubescence, that on vertex and thorax above much mixed with black, that on metathorax and base of legs long and whitish; the prothorax has a prominent, acute, lateral spine; the abdomen is large, convex and shining, being delicately punctured, with the fasciæ even and white; the second segment has a fascia at base as well as at tip, and is confluent with a short band at apical sides of first segment; lateral apical margin of segments much depressed; venter obsoletely banded. Length four and three-fourths to five lines.

*Hab.* N. Y., N. J., Pa., Ill., Colorado. Eight ♀ specimens.

Resembles *C. compacta* in having a fascia of pubescence at base of second abdominal segment, and is readily distinguished by the prominent lateral prothoracic spine, which character (if this is really the true *C. inæqualis*) is not mentioned by Say.

**5. *C. canadensis*, n. sp. ♂.** Blackish, shining; head and thorax deeply and closely punctured, thickly covered by a rather long pale ochraceous pubescence, most dense on the face, cheeks and under surface of thorax, that on the mesothorax and scutellum slightly mixed with blackish; clypeus short, truncate in front; antennæ en-

tirely black; metathorax densely sculptured, the basal margin crenulated, or with a transverse row of short longitudinal striæ; tegulæ black, shining; wings hyaline, nervures piceous; legs black, thickly clothed with a pale ochraceous pubescence, longest and thickest on femora, apex of tarsi rufo-testaceous; abdomen elongate, subdepressed, closely and finely punctured, densely pubescent at base; apical margin of the segments, except the last, with a fascia of thin fusco-ochraceous pubescence, paler in certain lights; venter banded with dense pubescence of same color. Length six and one-half lines.

*Hab.* Canada West. Mr. Wm. Saunders. (Coll. Am. Ent. Soc.)

By the elongate, subdepressed form, this species has much the general appearance of an *Andrena*.

**6. *C. distincta*, n. sp. ♂.** Black, shining, head finely and closely punctured, clothed with pale ochraceous pubescence, very dense on face and cheeks, mixed with black on vertex, thorax with sparse, deep punctures, clothed with dense ochraceous pubescence, that on mesothorax pale yellowish-brown; postscutellum densely punctured; metathorax rugose, the basal space with a transverse row of short, distant, well-defined, longitudinal carinæ, the pubescence long; wings hyaline, apical half dusky, nervures black; legs slender, clothed with long ochraceous pubescence, tarsi fulvous; abdomen short, convex, shining, with fine, tolerably close punctures; basal segment thinly clothed with ochraceous pubescence, the apical margin of the segments above and beneath with a narrow fascia of pale ochraceous or cinereous pubescence. Length four lines.

*Hab.* Georgia. Mr. James Ridings. (Coll. Am. Ent. Soc.)

A very distinct species.

**7. *C. americana*, n. sp. ♀.** Small, robust, black, shining; head and thorax with distinct, rather close punctures, and clothed with short, dense lemon-yellow, sometimes ochraceous, pubescence, palest on metathorax; clypeus short, broad, depressed, rugosely punctured, apex truncate; tips of mandibles rufo-piceous; antennæ short, black; the pubescence on the under surface of thorax sometimes nearly white; pleura very densely and deeply punctured; postscutellum rugulose; basal margin of metathorax with a transverse row of short, distant, longitudinal carinæ; tegulæ dull testaceous; wings short, hyaline, nervures rufo-piceous; legs short, robust, black or piceous, clothed with pale ochraceous pubescence, very dense and long on outside of posterior femora; tibial spurs pale honey-yellow, tips of tarsi rufo-testaceous; abdomen ovate; convex, shining, finely and densely punctured, with a very short, fine, pale pubescence; first

segment smooth and polished, sometimes with a faint opaline iridescence, and with long lemon-yellow pubescence at base; apical margin of all the segments with a broad fascia of very dense, short, pale ochraceous or whitish pubescence. Length four lines.

The ♂ is narrower, with the pubescence longer and more dense, and white on cheeks, thorax beneath and legs; antennæ longer; the abdomen has the opaline iridescence at base more obvious; the venter is sometimes dull testaceous. Length four lines.

*Hab.* Mass., Del., Va., Ill. (Coll. Am. Ent. Soc.)

Readily distinguished by the short, robust form, short wings, lemon-yellow pubescence of head and thorax, and by the broad abdominal fasciæ. The space between the eyes and base of mandibles is unusually short.

8. *C. simulans*, n. sp. ♂. Black, shining; head densely and finely, thorax deeply, punctured, both clothed with long, dense, fulvo-ochraceous pubescence, palest on face, cheeks, thorax beneath and metathorax; clypeus rugose, metathorax sculptured as in *C. americana*; wings hyaline, faintly dusky at apex, nervures black; legs black, with ochraceous or whitish pubescence; abdomen closely and uniformly punctured; basal segment with long, pale ochraceous pubescence, the apical margin of the segments with a broad, even fascia of short, dense, whitish pubescence, those on venter narrower. Length four and one-half lines.

*Hab.* Colorado. Mr. Jas. Ridings. (Coll. Am. Ent. Soc.)

Closely allied to *C. americana* ♂, but is larger, with longer wings, the abdomen more densely punctured, and the fasciæ broader and more dense.

9. *C. consors*, n. sp. ♂. Differs from *C. simulans* by the more finely punctured thorax, narrower second submarginal cell, more robust legs, shorter and stouter hind tibiæ, and more delicately punctured abdomen; this is more hairy, having long, thin, ochraceous pubescence, more obvious on the two basal segments, and becoming shorter and more or less mixed with black toward apex; the pubescence of the fasciæ is less dense, not so appressed, and pale ochraceous. Length four and one-half lines.

*Hab.* Colorado. Mr. Ridings. (Coll. Am. Ent. Soc.)

10. *C. albescens*, n. sp. ♀. Short, robust, black; head and thorax closely punctured, and with base of abdomen clothed with rather short, dense, hoary pubescence; base of metathorax coarsely reticulated; tegulæ piceous; wings short, hyaline, nervures rufo-testaceous; legs black, with hoary pubescence; abdomen very closely and



minutely punctured, with very short hoary pile; first segment polished; apical margin of all the segments with a broad, even fascia of very short dense white pubescence. Length four lines.

*Hab.* Illinois. Dr. Samuel Lewis. (Coll. Am. Ent. Soc.)

Readily distinguished by the small size and short, dense, hoary pubescence.

§ §. *Species from Mexico and Cuba.*

11. *C. azteca*, n. sp. ♀. Black; head densely clothed with pale ochraceous pubescence, that on vertex orange-yellow; clypeus coarsely punctured; flagellum dull testaceous beneath; mesothorax and scutellum clothed with a short, dense, fulvo-ferruginous pubescence, that on the thorax beneath and on metathorax thin and pale ochraceous; tegulae testaceous, wings hyaline, nervures brown; legs slender, black, with long, pale ochraceous pubescence; abdomen short, ovate, convex, shining, with close, fine, distinct punctures; base of first segment with a thin, pale ochraceous pubescence, and apical margin of the segments, except the last, with a broad, entire fascia of dense whitish pubescence. Length four lines.

*Hab.* Orizaba, Mexico. Prof. F. Sumichrast. (Coll. Am. Ent. Soc.)

This is easily recognized by the color of the pubescence of the upper surface of the thorax, which is of a rich fulvo-ferruginous.

12. *C. æthiops*, n. sp. ♀. Robust, deep black, shining; head and thorax closely and deeply punctured, clothed with short, dense, black pubescence, slightly mixed with pale on face and cheeks; clypeus with large, deep punctures, apex subemarginate; metathorax rugulose, more coarsely so at base; wings hyaline, faintly dusky, especially at apex, nervures black; legs robust, with black, tarsi with pale, pubescence; abdomen broad at base, rapidly narrowed to apex, convex, delicately punctured, almost polished and nearly nude, having a thin, palish pubescence on apical margin of the segments, especially obvious on the sides. Length five lines.

*Hab.* Orizaba, Mexico. Prof. F. Sumichrast. (Coll. Am. Ent. Soc.)

13. *C. punctipennis*, n. sp. ♀. Robust, black; head closely punctured, clothed with dense whitish pubescence, longest on cheeks, and mixed with black on vertex; clypeus nude, depressed, coarsely and confluent punctured; labrum polished, bifoveolate at base, fringed beneath with golden pubescence; mandibles piceous; thorax densely punctured, clothed with short, dense, white or hoary pubes-

cence, that on mesothorax shortest and mixed with sparse black hairs, giving the surface a maculate appearance; scutellum with short black pubescence, margined entirely with whitish; metathorax and pleura with mixed black and hoary pubescence, long on the former; base of metathorax coarsely reticulated or crenulated; tegulae black, polished; wings hyaline, nervures black, a small blackish spot beneath stigma, and a larger one at tip of marginal cell, the nervures at apex of both wings margined with fuliginous; legs robust, black, with short, dense, hoary and black sericeous pubescence; abdomen short, broad, robust, convex, shining, closely punctured, with short black pubescence, longer and more obvious on apical segments; base of first segment with rather long, thin, hoary pubescence; apical margin of all the segments, except last, with a narrow fascia of white pubescence, sometimes more or less interrupted above; apical ventral segment sometimes fulvous. Length five lines.

*Hab.* Orizaba, Mexico. Prof. F. Sumichrast. (Coll. Am. Ent. Soc.)

Readily distinguished by the maculate wings.

**14. *C. submarginata*** Cresson, Proc. Ent. Soc., IV, p. 167, ♀. This is short, robust, black; head clothed with whitish pubescence, long on the cheeks, and mixed with black on vertex; flagellum dull testaceous beneath; thorax rather densely clothed with short hoary pubescence, that on upper surface much intermixed with black, that on scutellum mostly black, that on sides of metathorax long, and on pleura rather sparse and short; tegulae pale piceous; wings hyaline, faintly dusky at apex; legs piceous black, the four anterior femora clothed with long whitish pubescence, that on tarsi and posterior legs short and brownish; posterior femora and tibiae unusually robust; tarsal tips rufo-testaceous; abdomen ovate, convex, polished, black, with a slight opaline iridescence, delicately punctured, base of first segment with a thin hoary pubescence; apical margin of the segments narrowly fringed with white pubescence, widely interrupted centrally on three basal segments. Length five and one-half lines.

♂ more slender than ♀, the pubescence longer, antennae longer and entirely black, thorax less densely punctured, legs slender, the pubescence long and whitish, and the abdominal fasciae very slightly interrupted. Length five lines.

*Hab.* Cuba. Prof. Poey ♀; Dr. Gundlach ♂. (Coll. Am. Ent. Soc.)

**15. *C. mexicana***, n. sp. ♀. Very closely resembles *C. submarginata* in shape and color, and may be at once distinguished by the



patch of long, dense, ochraceous pubescence on the breast, between the four anterior legs; the posterior femora have a fringe of long pale pubescence beneath, and their tibiae have a short, dense, black pubescence; the abdomen is more highly polished, and the fasciae are entire. Length four and three-fourths lines.

The ♂ is smaller and narrower than ♀, and with the pubescence longer and more dense than in *C. submarginata* ♂; the thorax is deeply punctured, and the abdominal fasciae are broader, especially on apical segments. Length four lines.

*Hab.* Orizaba, Mexico. Prof. F. Sumichrast. (Coll. Am. Ent. Soc.)

§ § § *Species not recognized.*

*C. mandibularis* Smith, Brit. Mus. Cat. Hym., I, p. 5. Georgia.

*C. thoracica* Smith, Brit. Mus. Cat. Hym., I, p. 5. Florida.

