

## NOTES ON FIVE SPECIES OF MEGACHILE.

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I have spent more time than I like to think about identifying bees of the genus *Megachile*, so I have no apology to make for offering some notes which will, I hope, make the process easier for others:

*Megachile frugalis*, Cresson.—This species was described from the male. I have before me a female collected by Dr. Davidson at Lancaster, California. It practically agrees with the description of *M. zaplana*, Cresson, ♀, except that it has no lines of white pubescence on the thorax. *M. occidentalis*, Fox, ♀, is very similar, and has the lines of white pubescence, but it has a different clypeal margin, and the very scanty hair on the disc of the clypeus is white. In *M. frugalis*, ♀, the clypeus has long black hair; the ventral scopa is creamy white, black on the last segment. These bees are all of the elongate narrow type. The anterior margin of the clypeus in *frugalis*, ♀, can hardly be called excavated, but presents three gently-rounded prominences, the margin between them being slightly concave.

*Megachile montivaga*, Cresson.—At flowers of *Tourerea decapetala* (Sims), Raton, N. M., Aug. 27, one ♀ (W. P. Cockerell). Length nearly 14 millim. An Illinois sample is smaller (about 12½ millim.), and has the thorax more densely punctured. The species resembles *M. relativa*, Cr., but is larger and less shining, and the abdominal bands are pure white. A variety of *M. montivaga*, with more conspicuous black hair on the dark parts of the abdomen, was taken by Prof. Townsend at flowers of *Potentilla Thurberi*, on the Rio Ruidoso, N. M., about 6,500 ft., Aug. 1.

*Megachile inimica*, Cresson.—Las Vegas, N. M., one male at flowers of *Verbena Macdougalii*, Aug. 9 (W. Porter). This is *Sayi*, Cresson, said by Robertson to be a synonym of *inimica*. In our specimen the tegulæ are very dark brown. The insect has a long, narrow abdomen, and looks superficially like *M. occidentalis*, Fox. Upon closer study it is seen to be really nearer to *M. pugnata*, Say, from which it is easily distinguished by the hollow process on first tarsal joint being fringed along its whole length with dark fuscous hair; in *pugnata* the basal two-fifths is densely fringed with black hair, and the portion beyond has a short fuscous comb.

*Megachile pruina*, Smith.—Chaves, N. M., Aug. 6, two males (Townsend); Mesilla Park, N. M., one male at flowers of *Isocoma Wrightii*, Sept. 11 (Porter and Cockerell); near Los Angeles and