

ON THE *MEGACHILE* OF SOUTH DAKOTA¹

BY THEODORE B. MITCHELL.

The following records are based on a collection of bees of the genus *Megachile* from South Dakota which were received from Professor H. C. Severin.

Megachile latimanus Say.

14 ♂♂, 19 ♀♀ : Elmira, Big Stone, Brookings (July-Oct.), Milbank, Elk Point, Wentworth, Mobridge, Buffalo, L. Oakwood and Ft. Pierre.

Megachile dentitarsis Sladen.

6 ♀♀ : Hot Springs, Rapid City, Newell and Interior (Aug.)

Megachile perihirta Ckll.

1 ♂, 1 ♀ : Custer (no date) and Brookings (Aug. 27).

Megachile inermis Prov.

1 ♂, 1 ♀ : Brookings (no date) and Harney Peak (July 22).

Megachile fidelis Cress.

1 ♂ : Rapid Canyon (Aug. 4).

Megachile mendica Cress.

3 ♂♂, 1 ♀ : Brookings (June) and Custer (July).

Megachile generosa Cress.

1 ♂ : Gettysburg (Aug. 12).

Megachile brevis Say.

11 ♂♂, 10 ♀♀ : Springfield, Hot Springs, Buffalo, Spearfish, Newell, Phillip, Ft. Pierre, Gettysburg, Capa, Elk Point, Brookings, Interior and Custer (June-Sept.).

Megachile pugnata Say.

6 ♀♀ : Custer (no date) and Rapid Canyon (Aug. 4). The single specimen from Rapid Canyon has a small amount of pale appressed pubescence on segment 6, approaching the condition

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in *M. pugnata pomonæ* Ckll., but the pubescence is white, not ochraceous.

Megachile mucida Cress.

2 ♀ ♀ : Spearfish (no date) and Harney Peak (July 22).

Megachile montivaga Cress.

1 ♀ : Custer (no date).

Megachile integra Cress.

1 ♂ : Elk Point (Aug. 10, 1924, H. C. Severin).

Megachile vidua Sm.

8 ♂ ♂, 2 ♀ ♀ : Hot Springs, Custer, Whitewood, Lead and Harney Peak (July).

Megachile pruina Sm.

3 ♂ ♂, 4 ♀ ♀ : Interior, Ft. Pierre, Martin, and Nowlin Co. (Aug. and Sept.)

Megachile melanophæa Sm.

7 ♂ ♂ : Harney Peak, Lead and Custer (July).

Megachile relativa Cress.

2 ♂ ♂, 4 ♀ ♀ : Harney Peak (July), Custer and Hot Springs.

Megachile infragilis Cress.

5 ♀ ♀ : Brookings (June and Aug.) and Newell (June).

This is very close to the preceding species, the two being separable as follows:

Segment 6 of ♀ with appressed golden pubescence and erect light hair, sometimes with a few dark basal hairs, margin of clypeus indistinctly emarginate medially; clypeal margin in ♂ with a distinct and quite strong median tubercle. *relativa*

Segment 6 of ♀ with pubescence all dark and with numerous erect black hairs, clypeal margin not at all emarginate but slightly and broadly produced medially; clypeal margin in ♂ somewhat angulate medially, but not tuberculate. *infragilis*

Chelostomoides ruftmanus Rob.

1 ♂ : Spearfish (July 28, 1924).

Megachile dakotensis n. sp.

♂. Face up to level of anterior ocellus densely clothed with whitish pubescence, directed downward on the clypeus, upward on the supraclypeal plate, and outward on the inner orbits, thinner but entirely pale on the vertex and upper cheeks, longer and pure white on the cheeks below; clypeus closely and distinctly punctate apex entire; mandibles reddish apically, 3-dentate, middle tooth the smallest, the inferior tooth submedian, slightly nearer the base, punctures sparse apically, fine and close basally; cheeks shining, rather closely punctate, inferior angle simple (not grooved or toothed); vertex rather closely and deeply punctate, but shining between the punctures; lateral ocelli nearer to adjacent eyes than to edge of the vertex; antennæ black, obscurely reddish below.

Thorax with pubescence entirely pale, pure white below, rather loose and thin above; mesonotum closely punctate, tessellated between the punctures which are crowded anteriorly and laterally; scutellum more shining, with punctures somewhat finer; pleura with punctures contiguous; propodeum shining, very finely punctate, the punctures indistinct posteriorly, basal triangle impunctate, very finely tessellated; tegulæ ferruginous, shining, with minute punctures; wings subhyaline, dusky apically, nervures piceous, second submarginal cell receiving the recurrent nervures at about equal distances from base and apex, transverse median slightly before basal nervure.

Front coxæ bare in front, black, shining, sparsely punctate, with short, flattened, triangularly pointed spines which are strongly divergent with respect to each other, no patch of red bristles, spines and coxæ with long white pubescence posteriorly; front femora and tibiæ black, inclined to reddish, white pubescent, the femora keeled beneath, red on the face anterior to this keel, finely punctate on the opposite face, smooth and shining above; outer face of tibiæ rather coarsely punctate, black except apex, the two inner faces shining and reddish, apex of tibiæ yellowish; spur similarly colored; tarsi simple, not to any degree hollowed out, but yellowish and with a prominent hair fringe behind, first joint slightly shorter than joints 2-4; four posterior legs black, but all the tibiæ ferruginous apically, and the tarsi piceous, middle

tarsi with a conspicuous white hair-fringe; hair on inner side of tarsi pale yellow; spurs pale yellow; claws ferruginous basally, piceous apically, deeply cleft.

Abdomen, except for a few short inconspicuous dark hairs on segments 3 and 4, white pubescent, shining, the punctures quite close but distinct; upper face of first segment very closely punctate, the concavity smooth and shining; apical margin of segments 2-5 very strongly depressed, especially on segments 4 and 5 where the apical portion of the disc overhangs somewhat the depressed margin, the segments rather strongly depressed basally also, giving the discs a rolled appearance; the depressed apical margins are white faciate on segments 2-5, white tufts of hair being present on the sides of segment 1; segment 5 is white pubescent on basal half of disc; segment 6 also with white pubescence basally, rugoso-punctate above the carina, the punctures larger and more nearly separate below; carina entire, rounded, with irregular crenulations, morphological apex of segment conspicuously carinate on either side and with a small spine at each extreme side; seventh segment quite evident, with a triangular pointed spine; ventral segments 2 and 3 depressed apically similarly as the dorsal segments, all the ventral segments shining, distinctly punctate, and with apical fringes of rather long white hairs. Length 10 mm.

♀. Head broad, eyes not appreciably converging below; supraclypeal plate closely punctate, punctures crowded laterally; clypeus closely punctate, surface finely tessellated between the punctures, apical margin smooth and shining, entire, slightly produced laterally; mandibles broad, 4-dentate, a bevelled cutting edge between the two inner teeth, shining, the punctures sparse above, especially apically, faintly reddish near the apex, fringed with yellowish hairs below; cheeks shining, but rather closely punctured, quite broad; vertex with punctures close medially except for an indistinct impunctate median line, the punctures more widely separated laterally, deep; ocelli nearer to nearest eye than to edge of vertex; antennæ black, piceous below; pubescence thin, white except for a few short inconspicuous dark hairs on the vertex laterally.

Thorax with pubescence white except for dark hairs on disc

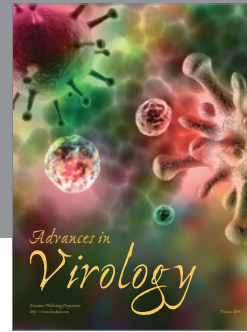
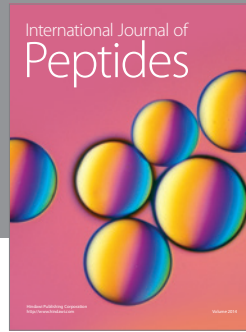
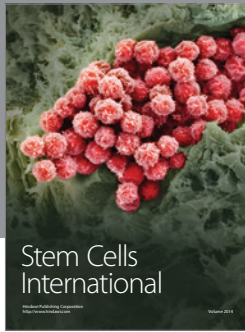
of mesonotum, with conspicuous white tufts of pubescence around tubercles and behind wings; mesonotum with scattered punctures medially, closely punctured anteriorly and laterally, tessellate between the punctures; scutellum more finely and closely punctate; pleura closely punctate, shining, with long thin white hair; propodeum tessellate, with scattered fine punctures, closer laterally, basal triangle tessellate but impunctate; tegulae dark ferruginous, minutely punctate, with a small tuft of white hair anteriorly; wings hyaline basally, dusky apically, the second recurrent nervure entering the second submarginal cell somewhat nearer the apex than the first does to the base; basal nervure beyond transverse median; nervures piceous to ferruginous; legs black, white pubescent, femora shining, sparsely punctate, outer faces of tibiae strongly punctate, all the tibiae ferruginous at apex; tarsi black, the middle and hind tarsi as broad as their tibiae, the middle ones densely pubescent, all the tarsi yellowish pubescent beneath; spurs yellowish-ferruginous; claws ferruginous basally, darker apically, without a distinct basal tooth.

Abdomen rather broad, ovoid, segments 3-5 strongly depressed on the apical margin, but not so strongly as in the male, with very deep transverse basal grooves, the anterior borders of which are sharply carinate, these carinate margins overlapping the grooves; discs of segments shining, punctures strong but well separated, finer and closer on basal segments, the portions of the discs basad of the grooves finely tessellated and very finely punctured; segment 6 obtusely triangular viewed from above, straight in profile, with a median longitudinal ridge, rather coarsely rugoso-punctate with appressed white pubescence, tinged with brown apically, and a few black hairs at the sides basally; the other dorsal segments are apparently white fasciate (specimen somewhat rubbed), the fasciae entire on apical segments, very fine on basal segment, but tufted at sides; all the segments except the first with rather coarse black hairs on the discs laterally, which disappear dorsally; scopa white, black on segment 6, and with a few black hairs apically on sides of segment 5. Length 13 mm.

Type: Male; Hot Springs, S. D., July 10, 1924. Allotype; Ft. Pierre, S. D., Aug. 11, 1924 (Coll. S. D. State College).

Paratypes: 1 male, topotypical; 1 female, McHenry, Ill. (C. T. Brues, Coll.); 1 female, Dallas Tex. (Coll. Mus. Comp. Zool.).

This belongs to the group of *M. deflexa*, *indianorum* and *mucorosa*, those having the simple anterior tarsi and the entire carina, from all of which it may be readily separated by the abdominal characters.



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