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A FOSSIL LEAF-CUTTING BEE.

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In the course of our excavations at Florissant, we had found more than once fossil leaves cut as though by *Megachile*. Yet we did not feel positive that the injury might not have been produced in some other manner, and it was certainly not permissible to assume the former presence of *Megachile* on such slender evidence. However, in going over the collections of 1907, I now find a veritable leaf-cutting bee, herewith described:

*Megachile prædicta*, n. sp.

♀.—Length (with the head thrust forward) 11 mm.; width of head 3, of thorax 4, of abdomen  $3\frac{3}{5}$  mm.; abdomen oval, its length about 5 mm.; the dense ventral scopa can be clearly seen with the compound microscope, and the apical depressions of the segments are visible and quite normal. Head and thorax black, abdomen red. As preserved, the wings are also red, but this is due to a ferruginous infiltration. The abdomen is no doubt stained in the same way, but since it was evidently not black, it was presumably red, as in the Australian *M. abdominalis*, Smith. Head and thorax strongly and extremely closely punctured; punctures on front considerably larger than those on mesothorax; clypeus densely punctured; inner orbits straight, somewhat converging below; ocelli large, in a curve; a groove runs downward from the middle ocellus. Anterior wing about 7 mm. long (the tip not visible); venation quite normal; stigma large for a *Megachile*; marginal cell rather obtusely pointed, away from costa; basal nervure ending a little behind (apicad of) transverso-medial; second transverso-cubital with a double curve; second recurrent nervure gently and evenly curved outwards, and ending a little before tip of second submarginal cell, the cell being rounded, not angulate, at its lower outer corner; lower part of basal nervure quite strongly curved.

The following measurements are in micromillimeters:

Depth of stigma, 238; length of marginal cell, 2006; width of marginal, 510; length of first submarginal, 1343; of second submarginal, 1122; of first discoidal, 1921; basal nervure on first s. m. about 340; b. n. on first discoidal, 935 (or rather more, allowing for curve); b. n. short of t. m. about 68; length of first t. c., 340; origin of first t. c. to insertion of first r. n., 102; insertion of first r. n. to insertion of second, 986; insertion of second r. n. to corner of second s. m. about 68; insertion

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of second t. c. on marginal to apex of latter, 935 ; length of first r. n , 969 ; diameter of second discoidal cell at apex, 663 ; diameter of ocelli about 255 ; distance between middle and lateral ocelli about 170. The t. m. nervure is straight, scarcely oblique, 306 long.

Miocene shales of Florissant, Colorado, Station 14 (*W. P. Cockerell*, 1907).

This is the first fossil *Megachile*. A nameless *Chalicodoma* was said by *Brischke* (1886) to occur in Prussian amber.