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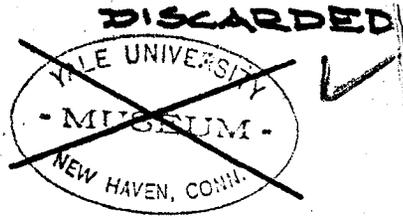
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NEW HAVEN, CONNECTICUT.

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Wickham, 1910



[FROM THE AMERICAN JOURNAL OF SCIENCE, VOL. XXIX, January, 1910.]

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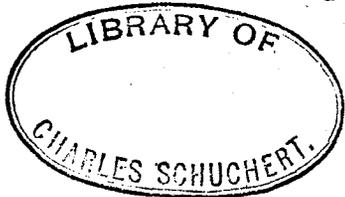
Wickham, 1910

NEW FOSSIL COLEOPTERA FROM FLORISSANT,  
WITH NOTES ON SOME ALREADY  
DESCRIBED.

By H. F. WICKHAM.

(Contributions from the Paleontological Laboratory, Peabody  
Museum, Yale University, New Haven, Conn., U. S. A.)

TYPE SPECIMEN REPRINT COLLECTION  
NON-CIRCULATING  
Invertebrate Paleontology  
Yale Peabody Museum



ART. IV.—New Fossil Coleoptera from Florissant, with  
Notes on some already described; by H. F. WICKHAM.

*Calosoma* Web.

✓ *C. cockerelli* n. sp. A piece of a wing cover lacking both base and apex is referred to this genus. It represents a species about the size of *C. calvini* m., from the same shales. The elytron is marked with sixteen well impressed punctured striæ, besides an indeterminate number (perhaps two) closer to the outer margin. The interspaces are nearly four times as wide as the diameter of the punctures in most parts of the area, but in the neighborhood of the apex of the tenth and eleventh striæ the punctures are much larger than elsewhere and are equal in diameter to the interstitial width. In general, the punctures are rounded or slightly elongate and they are separated longitudinally by spaces about equal to their own diameters. The elytral surface shows no indication of the coarse imbricate scabrosity of the interstitial spaces which is evident in our recent North American *C. calidum*, nor are any series of interstitial punctures visible. The interspaces are apparently slightly convex. Length of fragment about 9.25<sup>mm</sup>, greatest width 6.15<sup>mm</sup>.

YPM 10.

Station number not given. Collection number 232, Florissant Expedition 1906. Received from Prof. Cockerell. Holotype in Peabody Museum of Yale University. Cat. No. 10.

*Pterostichus* Bon.

— *P. pumpellyi* Scudder. An elytron showing obverse and reverse is referred here with fair certainty. The elytral striæ are nine in number and are more clearly exhibited on the reverse. They are fine, sharp, fairly deep, perfectly smooth, the interspaces moderately convex. The scutellar stria joins the first at about 1.75<sup>mm</sup> from the base. Length 9.75<sup>mm</sup>, width 3.40<sup>mm</sup>.

Station number 13. Collection number, obverse 87, reverse 65, Florissant Expedition 1906. Received from Prof. Cockerell.

✓ *Platynus* Bon.

A specimen in obverse and reverse, believed to belong to this genus, is among the material sent by Prof. Cockerell. The elytra are 6.20<sup>mm</sup> in length, and have a conjoint width of 4.10<sup>mm</sup> at middle. They are finely striate, about as in our recent *P. placidus*, and are apparently almost or quite impunc-

YPM 11  
not found.

tate. Compared with *P. tartareus* Scudder, from the Florissant shales, the specimen in hand has the humeral angles less rounded and the elytral apices decidedly less truncate. The remainder of the body is too poorly preserved for study, and it seems scarcely wise to impose a specific name.

Station number 13a. Collection numbers 114 and 155, Florissant Expedition 1906. Collected by Mrs. W. P. Cockerell, and received from Professor Cockerell. Specimen in the Peabody Museum of Yale University, Cat. No. 11.

*Peltis* Illiger.

*P. laminata* n. sp. Form oblong-elliptical, similar to that of the recent North American *P. pipingskaeldi*. Head larger than in that species, somewhat dilated by pressure. Prothorax, as preserved, broader shortly in front of the base, sides arcuately narrowed to apex which is broadly emarginate, front angles a little greater than right, hind angles obscure but apparently obtuse and rounding, a faint basal marginal line somewhat as in Colorado specimens of the recent *P. ferruginea*. Elytra slightly broadest at base, where they are a little wider than the prothorax, scarcely perceptibly narrower to a point behind the middle, thence rapidly arcuately narrowed to the apices, which are nearly pointed and (through distortion) dehiscent. The disk shows traces of having been finely striate but the sculpture of the entire surface is now scabrous and obscure. The sexual organs are protruded from the tip of the body but show no definite structure. Length, including extruded sex organ, 12.50<sup>mm</sup>; of prothorax along median line, 2.25<sup>mm</sup>; of elytra, 6.60<sup>mm</sup>; width of prothorax, 5<sup>mm</sup>; of elytra conjoined, 6.25<sup>mm</sup>.

In outline, this insect quite closely recalls several recent species of *Peltis*, though the form of the thorax is slightly nearer that of *Calitys scabra*. However, the thoracic and elytral margins are perfectly clear-cut and entire as in *Peltis*, while in our *Calitys* they are coarsely serrate. The antennae and legs are not shown.

Station number R. 4. Collection number 145, Florissant Expedition 1906. Received from Prof. Cockerell. Holotype in the Peabody Museum of Yale University, Cat. No. 12.

*Atænius* Harold.

—*A. patescens* Scudder. One specimen, in reverse, exceeding Scudder's measurements by about .50<sup>mm</sup>, is included in the collection. The state of preservation is only fair and no important characters can be added to the original description.

Station number 14. Collection number 207, Florissant Expedition 1906. Received from Prof. Cockerell.

*Aphodius* Illiger.

✓ *A. laminiicola* n. sp. Form stout, evidently a little more so than in the recent *A. fimetarius*, head narrowed anteriorly, clypeus almost squarely truncate at middle, the angles rounded. Prothorax broadest about the middle, sides apparently regularly arcuate but not alike in the specimen and therefore incapable of exact definition. The appearance is that the base was distinctly broader than the apex. Sculpture obliterated by the impressions of the underside, which show through. Scutellum (?) large, almost equilaterally triangular, the basal (anterior) angles obliquely truncate, basal region rugosely punctate, middle finely carinate. Elytra subparallel to an indeterminate distance behind the middle, regularly conjointly rounded at tip, striæ fine, single, finely and not closely punctured, interspaces broad and very nearly or quite flat with a few scattered fine punctures, sutural interval narrower than the next. Legs stout, middle tibia slightly bent at base, tip moderately expanded, median oblique ridge faintly indicated: Length 9.70<sup>mm</sup>, of elytra 5.75<sup>mm</sup>, of middle femur about 1.70<sup>mm</sup>, of middle tibia 1.35<sup>mm</sup>, of middle tarsus about 1.35<sup>mm</sup>, conjoint width of elytra about middle 4.80<sup>mm</sup>.

YPM 13

Station number 14. Collection number 231, Florissant Expedition 1906. Received from Prof. Cockerell. The type is in the Peabody Museum of Yale University (Cat. No. 13); a second, poorer specimen, a reverse, from the same station and with the catalogue number 140, is in the Museum of the University of Colorado.

✓ The type specimen is very puzzling, on account of the peculiar state of preservation; the parts of the under side are largely shown through and interfere with the view of the upper surface. Thus I am not sure whether the structure described as the scutellum may not be the mesosternum, and on account of similar confusion I have not tried to give measurements for the head and prothorax. Of the legs, the two middle femora show plainly, the front and hind ones indistinctly. One middle tibia and the tarsus of the opposite leg are distinct.

YPM 13

*Amphicoma* Latr.

✓ *A. defuncta* n. sp. The specimen shows only the tips of the elytra, with ill-defined exposed portions of the abdominal apex, some traces of hind wings, a well preserved hind tibia and tarsus and poorly indicated portions of the other leg of this pair. Elytra strongly dehiscent and tapering to the tip, which is rounded, surface clothed with hairs which are apparently longer and sparser than in the recent California *A. ursina*. The outer edge of each elytron shows a fine marginal bead, as in that species; the sutural bead is less strongly marked. No

YPM 14

indication of discal sculpture, aside from the fine piligerous punctures, can be seen. The exposed tibia of the hind leg is perhaps a trifle stouter than in *A. ursina*, about equally broadened to the tip, the lateral margins (perhaps accidentally) irregular; one terminal spur shows, which is more than half as long as the first tarsal joint, but the extreme apex is concealed so that the exact length cannot be determined. Tarsi rather stout for this genus, the first joint longest (about one third longer than the one following) third and fourth joints nearly equal to each other and slightly longer than the second, claw joint again longer but ill defined, claws not in condition for study. Apparently, the first, second and third tarsal joints were finely longitudinally carinate above, a feature that I cannot detect in any recent *Amphicoma* at my disposal. Neither do I find any certain evidence that the legs were hairy, though I believe that certain sculpturings on the tibia represent piligerous punctures. The tarsal joints surely bore short stiff hairs on their margins, as in the recent *A. vulpina* from the New England coast. Width of elytral fragment, at 5<sup>mm</sup> from tip, 3<sup>mm</sup>; length of tibia, 4.75<sup>mm</sup>; of tarsus, entire, 7.25<sup>mm</sup>; of first joint about 1.75<sup>mm</sup>.

Station number 14. Collection number 186, Florissant Expedition 1906. Received from Prof. Cockerell. The holotype is in the Peabody Museum of Yale University, Cat. No. 14.

*Lema* Fabr.

*L. evanescens* n. sp. Form similar to that of the recent *L. collaris* and equally stout. As the type is largely in profile, it is not possible to give comparative measurements of the length and breadth of different parts of the body, though the head, with greater portions of the eyes and antennæ, the prothorax, elytra, abdomen, and parts of the legs are more or less clearly shown. The antennæ are very nearly approximate at base and are stout, the intermediate joints but very little longer than broad; the eyes are large and prominent, legs stout. The specimen is a reverse, and lines of small elevations indicate that the elytra were punctured in rows similarly to most of our recent North American species. Total length, 5.60<sup>mm</sup>; of elytron, 3.60<sup>mm</sup>.

Station number not given. Collection number 86, Florissant Expedition 1906. Received from Prof. Cockerell. Type in Peabody Museum of Yale University, Cat. No. 15.

A second specimen, collected at Florissant in 1906 but with no station designated though bearing the collection number 107, is less in profile than the first and indicates that the prothoracic constriction was slightly antemedian and fairly deep. In this the broader elytron is 3.65<sup>mm</sup> in length and about 1.30<sup>mm</sup> in width.

YPM 14

YPM 15

*Ologlyptus* Lacordaire.

✓ *O. primus* n. sp. The rather poorly preserved specimen indicates a species of moderate size and probably flattened form, approximating that of our recent *O. anastomosis*. The prothorax is broadest near the middle, sides regularly rounding, apex considerably narrower than the base but owing to incompleteness of the specimen the exact proportions cannot be given. Head obscured, antennæ with the median joints about as broad as long. Elytral sculpture apparently rough, but no details can be made out. Legs wanting. Length of specimen, which lacks a small portion of the tip of the elytra, 7.25<sup>mm</sup>; of prothorax about 2.15<sup>mm</sup>; width of elytra, conjoint, 3.65<sup>mm</sup>; of prothorax (distorted?), 2.75<sup>mm</sup>.

Station number 13. Collection number 154, Florissant Expedition 1906. Received from Prof. Cockerell. Holotype in the Peabody Museum of Yale University, Cat. No. 16.

The generic reference is not made with any great certainty, but the facies is decidedly that of several recent species of *Ologlyptus*, with which it has been directly compared. The prothorax appears to have the basal margin extending farther backwards than the points of the hind angles, much as in the Mexican *O. sinuaticollis* but to an even greater degree.

*Macratrìa* Newm.

✓ *M. gigantea* n. sp. Form elongate, head small, short, prothorax very long and narrow, elytra conjointly much broader than the prothorax, sides subparallel, apices rounded, surface finely, distinctly and rather closely striate, the striæ finely, not closely punctured, interspaces flat. Middle leg not elongate and only moderately stout. Antennæ showing only a few intermediate joints which are sufficiently well preserved to indicate that they are longer than wide, but not greatly elongate. Length from front of head to tip of elytra, but exclusive of projecting abdominal organs, 8<sup>mm</sup>. Length of head, as preserved, 1<sup>mm</sup>; of prothorax, 2.10<sup>mm</sup>; of elytra, 5.10<sup>mm</sup>. Width of prothorax about 1.50<sup>mm</sup>, of elytra, conjointly, 2.50<sup>mm</sup>. The articulations of the leg joints are not well enough defined to permit of accurate measurements.

Station number 14. Collection number 9, Florissant Expedition 1906. Received from Prof. Cockerell. Holotype in the Peabody Museum of Yale University, Cat. No. 17.

The specimen has a decidedly Anthicide look, and in build as well as sculpture resembles our recent North American species of *Macratrìa* though far exceeding them in size. Possibly it may represent an extinct allied genus, but no characters are evident upon which to base a separation.

YPM 16

YPM 17