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FOSSIL COLEOPTERA FROM THE WILSON RANCH NEAR FLORISSANT, COLORADO

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The present report gives the results of a study of the collections made by myself at Florissant, during the summer of 1912. It is a part of a series of papers intended to make known the Coleopterous life of that region during the Miocene times and, including those characterized in a memoir now printing by the United States National Museum, brings up the number of beetles described from these shales to 377 species. Even now, the subject is by no means exhausted since the material on hand, consisting largely of the unworked portions of the Scudder collections, includes about a thousand unidentified specimens, which will certainly furnish at least 200 novelties, possibly even more.

The old lake at Florissant covered a good deal of ground. It is known to have been over nine miles long and about two miles across, with irregular outlines. The shales occur in layers of varying depth, interspersed with deposits of other character, the whole, in places, reaching a thickness of about forty or fifty feet. Presumably this deposition must have extended over a considerable period of time and it is reasonable to suppose that dust showers and mud flows took place at different seasons so we are not surprised to find that collections made at the various points where exposures occur show some tendency to be unlike in detail. The early explorations were made with no attempt to indicate the exact points from which specimens were taken and it was largely for the sake of remedying this neglect that Professor Cockerell undertook to number each station at which his parties worked—the idea being that if the beds were laid down at periods widely differing in geological time the faunæ of the various stations would yield some evidence to that effect. The beetles that he has sent me for study seem to show that the differences are not greater than we might expect in collections made at varying seasons or under diverse shore environments. As indicating what may be found in a single limited area, I sub-

join a list of the Coleoptera from my collection. These, with the exception of perhaps half a dozen specimens which came from a point a few feet higher up, were all taken out of a single excavation not more than six feet in depth and perhaps twenty feet in length upon the side of a hill on Mr. George W. Wilson's ranch.

CARABIDÆ.

Calosoma emmonsi *Scudd.*
Bembidium florissantensis n. sp.
Tachys haywardi n. sp.
Amara powellii *Scudd.*
Platynus florissantensis n. sp.

DYTISCIDÆ.

Agabus florissantensis *Wickh.*
Cœlambus miocenus *Wickh.*

HYDROPHILIDÆ.

Hydrobius titan n. sp.
Creniphilites miocenus n. sp.

SILPHIDÆ.

Hydnobius tibialis n. sp.

STAPHYLINIDÆ.

Atheta florissantensis n. sp.
Heterothops conticens (?) *Scudd.*
Quedius chamberlini *Scudd.*
Leptacinus leidyi *Scudd.*
maclurei *Scudd.*
Stenus morsei *Scudd.*
Lathrobium antediluvianum n. sp.
Pæderus adumbratus n. sp.
Tachyporus nigripennis *Scudd.*
Boletobius stygis *Scudd.*
funditus *Scudd.*
Mycetoporus demersus *Scudd.*
Bledius soli *Scudd.*
Platystethus archetypus *Scudd.*
Oxytelus subapterus n. sp.
Homalium antiquorum n. sp.

COLYDIIDÆ.

Cicones oblongopunctata n. sp.

MYCETOPHAGIDÆ.

Mycetophagus willistoni n. sp.
exterminatus n. sp.

NITIDULIDÆ.

Colastus pygidialis n. sp.
Cychramites hirtus n. sp.

LATHRIDIIDÆ.

Corticaria petrefacta n. sp.

BYRRHIDÆ.

Nosotetocus vespertinus *Scudd.*

DASCYLLIDÆ.

Ectopria laticollis n. sp.

MALACHIDÆ.

Eudasytites listriformis *Wickh.*

CLERIDÆ.

Hydnocera wolcotti n. sp.

PTINIDÆ.

Vrilletta tenuistriata n. sp.

BOSTRYCHIDÆ.

Xylobiops lacustre *Wickh.*
Dinoderus cuneicollis n. sp.

SCARABÆIDÆ.

Aphodius granarioides *Wickh.*
aboriginalis *Wickh.*
præemptor n. sp.
laminicola *Wickh.*
Atænius patescens *Scudd.*

CERAMBYCIDÆ.

Protoncideres primus n. sp.

CHRYSOMELIDÆ.

Lema evanescens *Wickh.*
Crioceridea dubia *Wickh.*
Crytocephalus miocenus n. sp.

BRUCHIDÆ.

Bruchus scudderi *Wickh.*
haywardi *Wickh.*
exhumatus *Wickh.*

Bruchus florissantensis (?) *Wickh.*
wilsoni n. sp.
succintus n. sp.

PYTHIDÆ.

Pythoceropsis singularis n. sp.

MORDELLIDÆ.

Mordella lapidicola *Wickh.*
Mordellistena smithiana n. sp.

RHYNCHITIDÆ.

Auletes florissantensis n. sp.
Isothea alleni *Scudd.*
Trypanorhynchus exilis n. sp.
minutissimus n. sp.
obliquus n. sp.
Docirhynchus eulex *Scudd.*
terebrans *Scudd.*
Toxorhynchus minusculus *Scudd.*

OTIORHYNCHIDÆ.

Evopes veneratus *Scudd.*

CURCULIONIDÆ.

Sitones exitiorum *Scudd.*
Geralophus antiquarius *Scudd.*
lassatus *Scudd.*
pumiceus (?) *Scudd.*
Anthonomus corruptus *Scudd.*
Anthonomus evigilatus *Scudd.*
debilitatus *Scudd.*
primordius *Scudd.*
Orchestes languidulus *Scudd.*
Rhysosternum longirostre *Scudd.*
Acalles exhumatus n. sp.
Cryptorhynchus kerri *Scudd.*
falli (?) *Wickh.*
Ceuthorhynchus clausus *Scudd.*
duratus (?) *Scudd.*
Baris imperfecta *Scudd.*
florissantensis n. sp.
cremastorhynchoides n. sp.
Centrinus obnuptus *Scudd.*
vulcanicus *Wickh.*
Balaninus minusculus (?) *Scudd.*
florissantensis n. sp.

CALANDRIDÆ.

Scyphophorus lævis *Scudd.*
Cossonus gabbii *Scudd.*

SCOLYTIDÆ.

Xyleborites longipennis n. sp.
Hylesinus extractus *Scudd.*
Hylastes americanus n. sp.
Hylurgops piger n. sp.

ANTHRIBIDÆ.

Brachytarsus (?) dubius n. sp.

An examination of the list shows it to contain ninety-five species of which forty are here described as new. Most of these novelties are so distinct as to offer no question as to their validity, and as many of them belong to families not studied by Dr. Scudder they may yet be found among the material collected by him at his chief station on Fossil Stump Hill, distant something over four miles by road. The preponderance of Rhynchophora is exhibited here as in all the other collections, this group furnishing thirty-eight species. The occurrence of four new Rhynchitids is noteworthy as indicating in a striking manner the great development of this family at Florissant during the Miocene, while the discovery of three new Scolytids helps to remove a deficiency in what is today a numerous group. The Bruchidæ or seed-weevils have supplied two more novelties; it is evident that the family was numerically stronger than today. Another Chrys-

omelid has been added to the scanty representation hitherto known from Florissant. Three families, the Pythidæ, Cleridæ and Mycetophagidæ until now containing no named species from these shales, are added. Staphylinidæ maintain their normal abundance, with a good quota of new things, and the two Hydrophilidæ found are now described for the first time. The Elateridæ and Lampyridæ have not been studied and hence do not appear in the catalogue.

The rather high percentage of small insects contained in the present collection is due in part to the special effort expended in looking over the split shales with a hand lens. This was done on account of a suspicion on my part that general collectors might have missed a good share of the little beetles because of an interest in more conspicuous things. It may be worth mentioning that a stroll along the beach of Lake Superior after a favorable night wind would show a much more striking assemblage of beetles, as far as size and structure are concerned, than seems to have been present about the shores of the ancient Lake Florissant.

As in previous papers, the illustrations are from camera lucida drawings. The figure of *Protoncideres primus* is free hand, the insect being too large for the microscope. The types of the new species remain in my collection.

Bembidium *Latr.*

B. FLORISSANTENSIS n. sp. (Plate V, Fig. 1.) Form elongate, subparallel. Head moderate, eyes not strongly prominent, antennæ slender. Prothorax broadest near the apex, sides arcuate and sinuate posteriorly, hind angles right or slightly prominent. Elytral subparallel at sides for most of their length, apices conjointly rounded, each elytron about three and one-half times as long as wide, finely striate, the striæ scarcely or not punctate, the interspaces, at least towards the margins, finely punctate. Legs wanting. Length, 6.10 mm. Width, 2.20 mm.

By the elongate form and differently shaped prothorax, this insect is readily distinguished from either of the fossil species described from Florissant by Scudder. It is not possible to place it in its correct position in relation to the enormous number of recent species of *Bembidium*.

TACHYS *Schaum.*

T. HAYWARDI n. sp. (Plate I, Fig. 1.) Form scarcely elongate for this genus. Head of moderate size, eyes normal, antennæ wanting, front finely punctured. Prothorax broader than the head, about one and two-fifths times as broad as long, widest slightly in front of the middle, median line indicated but not deep, base a little narrower than the apex, sides nearly regularly arcuate, not sinuate, angles not prominent, thoracic disk punctulate, basal and marginal beads fine. Scutellum small. Elytra much wider than the prothorax, sides rather strongly rounded, apices pointed, surface scarcely perceptibly striate except that one elytron shows a trace of a stria near the outer tip which may represent the strong groove found in that position in many of the recent species. Legs wanting. Length, 2.85 mm.

This seems to answer very well to the characteristic appearance and small size of the genus *Tachys,* and is the first species described from the Florissant Tertiaries. I do not feel that it is safe to try to indicate its relationships with the numerous modern forms. The name is given in memory of my friend, Roland Hayward, whose paper on *Tachys* is a most helpful contribution.

PLATYNUS Bon.

P. FLORISSANTENSIS n. sp. (Plate I, Fig. 2.) Form similar to that of the recent *P. melanarius.* Head of moderate size, antennæ slender, extending back to the basal third of the elytra, eyes not well defined. Prothorax strongly and regularly rounded on the sides, the width equal to a little less than twice the length of the median line, base not well defined so that the hind angles cannot be made out, but they are apparently rounded into the sides and base, or at least extremely indistinct. Elytra about equal in length to one and one-half times their conjoint width, very finely striate and with no visible interstitial sculpture though the striæ themselves show indications of being finely punctate. Legs wanting, excepting a portion of one of the hind pair which shows nothing of importance. Length, from front of head to elytral apex, 8.85 mm.

Compared with recent species, this would remind one of *P. placidus* by the fine striæ and of *P. melanarius* by the size and form. It does not resemble the fossil *P. tartareus* of these shales.

HYDROBIUS *Leach.*

H. TITAN n. sp. (Plate II, Figs. 4, 5.) Form more narrowed anteriorly and posteriorly than in the recent *H. fuscipes.* Head of moderate size, finely and closely punctate over the entire upper surface. Palpi with the terminal joint larger than the one preceding. Prothorax narrowed anteriorly, the sides rather regularly arcuate to the base which is the widest

part, angles distinct, sculpture similar to that of the head but a little less pronounced. Elytra broadest about the middle, very finely punctate over the whole surface and showing signs of striæ which appear to have been indistinctly punctured. Legs moderately slender, the tibiæ with markings indicating rows of spines as in *H. fuscipes*. Abdominal segments subequal in length, finely punctate. Length, 10.00 mm.; of elytra, 5.75 mm.

At first sight, I had supposed this insect would turn out to be a *Tropisternus*, but an examination of the sterna and feet indicate its position as a member of the tribe *Hydrobiini*, where it seems to go well with *Hydrobius*, a genus showing considerable diversity in form and size. The tarsi are not flattened nor distinctly ciliate, and the metasternum is not prolonged into a spine. As far as they can be made out, the plates of the under surface of the body are strikingly like those of *H. fuscipes*. The only Florissant species with which it can be compared in facies is *Tropisternus vanus*, which differs not only in being smaller, but by the elytra being two and a half times the length of the median prothoracic line, while in *H. titan* they are about three and a half times the length. The specific name refers to the exceptional size of the fossil species.

H. PRISCONATATOR *Wickh.* (Plate II, Figs. 1, 2, 3.) The original description of this species was unaccompanied by a figure. I take the present opportunity to offer sketches showing both under and upper surfaces, the drawings being made from the type. A renewed study of the specimen shows that the elytral striæ are indistinctly punctate.

CRENIPHILITES n. gen.

Form similar to that of the modern species of *Creniphilus*, but perhaps a little more oblong. Metasternum considerably more elongate. Antennæ not in very good condition, but the basal club-joint is larger and the terminal one smaller than in the recent members of that genus. The type is *C. orpheus*, described below.

C. ORPHEUS n. sp. (Plate IV, Figs. 1, 2, 3.) Form elongate oval. Head rather small, outline subcontinuous with the curve of the prothoracic sides, eye moderate. Antennæ with basal joints not defined, club four-jointed, the first and last of these smaller than the intermediate ones. Prothorax much broader posteriorly, width equal to about twice the length, widest across the base, sides feebly arcuate, sculpture not visible. Elytra subcontinuous in outline with the prothorax (in the dorsal view, which is the better preserved), broadest at about their middle, sculpture apparently a fine, alutaceous roughening, no visible punctuation nor striation. Legs short and small. Front coxæ rounded, contiguous, middle coxæ oblique and nearly or

quite contiguous, metasternum carinate along the median line. Length, 3.00 mm.

The size and form are those of some of our common species of *Creniphilus*, but the characters specified above seem to warrant the formation of a new genus for the reception of the fossil.

HYDNOBIUS *Schmidt.*

H. TIBIALIS n. sp. (Plate II, Figs. 6, 7.) Form moderately elongate. Head large, probably exaggerated in apparent size on account of abnormal extrusion. Antennæ with most of the basal portion concealed but showing the distal seven joints, the last five of which form a club. The basal club-joint (probably the seventh antennal joint) is longer than the one succeeding but smaller than the presumed ninth. The terminal three joints form by far the largest part of the club. The prothorax is shown from beneath, partly in side view, the coxæ large, globular or nearly so, angulate externally. Middle coxæ oblique. Elytra showing only one outer edge, with a small portion of the disk, sculpture scarcely evident except some slight traces of striation. Legs rather short and stout, the tibiæ all carinate externally, the number of carinæ apparently three. Middle and hind tarsi five-jointed. Length, 3.60 mm.

This seems to go into the genus *Hydnobius* without violating any of the essential characters and agrees especially in the structure of the antennæ and tarsi. The tibiæ of the recent *H. matthewsi* and *H. latidens* show the same carinate effect as those of the fossil. Modern forms of *Hydnobius* are known from Europe and from both the Atlantic and Pacific slopes of North America.

ATHETA *Thoms.*

A. (?) FLORISSANTENSIS n. sp. (Plate III, Fig. 1.) Form rather broad for the genus, probably exaggerated by flattening. Head, in outline, rounded, eye small, oval. Antenna distinctly clavate, the apical joints much broader than the basal, but the articulations are not well defined. If directed backwards, the antenna would slightly pass the thoracic base. Prothorax broad, narrowed anteriorly. Elytra a little longer than the head and prothorax together, truncate at tip. Abdomen gently tapering, obtuse at apex. Legs wanting. Length, over all, 2.50 mm.

All of the Staphylinidæ described by Scudder are much larger than this one. I include it in *Atheta* merely for convenience. It is not strictly identifiable generically on account of the loss of the legs, but may be presumed to go into the same group of

Aleocharini as *Atheta,* which genus is well represented in North America today. The impressions on the pro- and mesothorax probably have to do with the coxæ, but I have not felt safe in describing them as such.

LATHROBIUM *Grav.*

L. ANTEDILUVIANUM n. sp. (Plate III, Figs. 2, 3.) Form rather stout for this genus. Head much larger than the prothorax, almost regularly elliptical in outline, sculpture not distinct, but there seems to be indications of coarse scattered punctures. Eyes small, elliptical, anterior in position. Antennæ only about as long as the head, first joint long, the others short, second and third longer than those following, eleventh (possibly through decomposition) subtruncate at the tip. Prothorax narrow, subelliptical, sculpture indistinct. Elytra short, only a little longer than the prothorax, sculpture not defined. Abdomen badly decomposed, but the form is evidently nearly parallel to the vicinity of the apex. Legs short and stout, the tibiæ broad. Length, 9.60 mm.

As far as appearance goes, except for the structure of the antennæ and legs, this might be a *Cryptobium.* It seems to go better in *Lathrobium,* in the wide sense, but is not especially like any of our recent forms. The short elytra recall those of *L. brevipenne,* which, however, has the hind angles of the head less rounded.

PÆDERUS *Grav.*

P. ADUMBRATUS n. sp. (Plate IV, Figs. 4, 5.) Form elongate. Head smaller than usual in this genus, antennæ proportionately longer than in most of the Florissant fossil Staphylinidæ, second joint not reduced. Prothorax pyriform in outline, strongly narrowed behind. Elytra one-third longer than the prothorax, truncate apically. Abdomen one-fourth longer than the remainder of the body. Legs rather slender, but short, the tibiæ not at all expanded. Length, from front of prothorax to abdominal apex, 4.65 mm.

This is about the size of the recent species which passes in collections as *P. littorarius* Grav., but the fossil seems to be more slender and to have a rather smaller head. As in the other Florissant Staphylinidæ, the legs are short compared with presumed generic representatives of recent times. The difference in the breadth of the right and left antennæ, as shown in the sketch, is probably due to their varying position in reference to the normal plane.

Oxytelus *Grav.*

O. subapterus n. sp. (Plate III, Figs. 4, 5.) Form more elongate than in most of the recent species. Head finely punctured, large, not wider than the prothorax but considerably longer, eyes small, moderately prominent, posterior in position, mandibles projecting and prominent. Antennæ, if directed backwards, reaching almost to the prothoracic hind angles, not geniculate, feebly incrassate to apex, first joint large, second small, third longer than the fourth. Prothorax strongly narrowed posteriorly, about one and two-fifths times broader than long, widest near the apex, sides regularly and feebly arcuate, apex a little advanced at middle, base approximately straight, surface sculpture similar to that of the head but a little coarser, apparently faintly grooved on each side of the middle. Elytra narrowed at base, wider behind, apices separately somewhat rounded, sculpture scarcely visible excepting a line at about the external fourth, which may represent the former line of flexure on the flanks. Abdomen a little longer than the remainder of the body, sides imperfect. Legs short and slender, the tibiæ simple, showing no spines nor processes. Length over all, 7.95 mm.

Except in the tibial structure, this seems a good *Oxytelus*. The spines, of course, may have been lost, but their absence and the want of any modification in the shape of the front pair leads me to think that eventually it may be necessary to separate the fossil as the type of a new genus. The size is greater than that of any of our recent North American species, but not excessively so when allowance has been made for probable abnormal elongation of the abdomen by maceration. The name refers to the assumed reduction of the hind wings, as indicated by the narrowed humeri.

Homalium *Grav.*

H. antiquorum n. sp. (Plate V, Fig. 2.) Form elongate. Head strongly exserted, probably unnaturally so, the surface finely sculptured, eye nearly circular. Prothorax wider than the head, apparently not much narrowed posteriorly, the surface minutely roughened like the head. Elytra showing only along one side, where two rows of small rounded punctures are visible, the interstitial areas alutaceous. Sclerites of the meso- and metathoracic underside irregularly and (for so small an insect) not very finely punctate, abdominal sculpture apparently only an alutaceous roughening. Hind leg, the only one showing, rather short. Length, from front of head to abdominal apex, very nearly 2.00 mm.

One specimen, lying partly upon the side, so as to expose most of the under surface. The generic assignment is made in the wide sense. The form, sculpture, and such structural characters

as can be made out lead to the above determination. The genus is a very large one and is well distributed.

CICONES *Curt.*

C. OBLONGOPUNCTATA n. sp. (Plate III. Figs. 6, 7.) Form a little more elongate than in the recent *C. marginalis.* Head moderately large, front with low, irregular granulations, more pronounced in the median area, antennæ, judging from that on the left, which is a little better preserved, with rather slender stem, of which the joints are hardly definable with certainty, and a rounded solid club. Prothorax a little less than one and a half times as broad as long, sides regularly arcuate, serrate, base and apex nearly equal, front angles prominent, surface granulate, more coarsely and closely on the disk, a distinct transverse sub-basal line. Elytra with regular rows of transverse punctures, these rows extending to the tip though not so shown on the figure since the imperfect preservation of the apical portion does not admit of their accurate delineation. Under surface coarsely sculptured. Legs short. Length, 3.60 mm.

This beetle, undoubtedly a Colydiid, agrees well with *Cicones* in the (apparently) open front coxal cavities, the antennal structure, the presence of a deep, well-defined antennal groove along the edge of the eye, the proportions of the abdominal segments and the sculpture of the upper surface. The only possible basis of separation would be on the apparent lack, in the fossil, of elytral setæ. However, I do not feel justified in erecting a new genus upon so uncertain a foundation. The two modern North American species of *Cicones* are found upon the Atlantic slope.

MYCETOPHAGUS *Hellw.*

M. WILLISTONI n. sp. (Plate IV, Figs. 6, 7, 8.) Form only moderately elongate, subparallel. Head, as preserved, sunken well into the prothorax, eyes not defined. Antennæ short, gradually clavate, the basal joints not distinguishable, median joints small, transverse, club, at its widest part, three times as broad as the sub-basal portion of the antenna, last joint pointed at apex. Prothorax nearly twice as broad as long, apex not much narrowed, sides arcuate, more strongly in front and with the appearance of a marginal bead. Entire thoracic disk finely, sparsely, but distinctly punctured. Scutellum small, transverse. Elytra, at base, about as broad as the prothorax, conjointly rounded at tip, each elytron about two and a half times as long as broad. Sculpture of fine punctures, arranged in striæ, with a few other punctures of similar size scattered in the interstices. Legs, as far as shown, moderate, roughened above, possibly from hair impressions. Metasternum punctured, abdominal segments finely alutaceous. Length, 3.40 mm. Width, across the middle of elytra, 2.00 mm.

By all the characters of the underside, this insect seems to go ery well into the Mycetophagidæ. The antennæ are of a type hown in some of the recent North American species of *Mycetohagus* (*Tritoma* of the recent European catalogues and of Casey), though relatively a little shorter. The general average f characters shown, the build, sculpture, and so on, would seem o ally it most closely to the recent *T. notatula* of Casey, from British Columbia and the Northwest Territories. I have named t after Dr. S. W. Williston, in recognition of the high services ie has rendered in entomology and palæontology.

M. EXTERMINATUS n. sp. (Plate IV, Figs. 9, 10.) Form elongate. Head moderately large, much broader than long, punctuation close, distinct, and moderately coarse. Eyes rounded, not large. Antennæ not showing the basal joints, but terminated by a large three-jointed club, the joint immediately preceding being a little more than half the width of the club. Prothorax broader than the head but very short, about one and two-thirds times as wide as long, sides rather feebly rounded, base arcuate, about equal to the apex, surface finely punctate. Elytra subparallel at sides, conjointly rather sharply rounded at apex, length equal to one and two-thirds times their combined width, surface with rather fine, scattered, irregular punctuation and traces of fine striæ. Length, as preserved, 5.40 mm., in life probably a little less since the head and abdomen are apparently unnaturally distended.

Probably not a true *Mycetophagus*, though belonging to the same family. In form it is similar to the recent *M. pluriguttatus* but is differently punctured, the sculpture of the pronotum and elytra being less pronounced in the fossil. The antennæ have a wider club than any of the modern forms that I know. There is no evidence of hairy vestiture.

COLASTUS *Erichs.*

C. PYGIDIALIS n. sp. (Plate I, Fig. 3.) Form elongate, entire upper surface roughened, apparently scabro-punctuate, most strongly on the elytra, less so on the pronotum, and still more finely on the head and the exposed abdominal segments. Head incomplete in outline. Prothorax about one and one-half times as wide as long, the apex subtruncate, sides not much rounded. Scutellum of moderate size. Elytra about twice as long as the prothorax, exposing two full segments of the abdomen, the last of which is much the longer and is marked by a strong longitudinal median groove. Length, 2.80 mm.

One specimen, showing both obverse and reverse. It is slightly more elongate than the modern species of *Colastus* with which

I am acquainted, but goes well into the genus by the general facies and by the structure of the underside. In North America, *Colastus* is represented today by a few species which, in the aggregate, range from the Atlantic to the Pacific.

CYCHRAMITES n. gen.

Form similar to *Cychramus* (*C. adustus*). The scutellum is smaller and the last dorsal segment of the abdomen is differently formed. The type is *C. hirtus*, described below.

C. HIRTUS n. sp. (Plate I, Fig. 4.) Form sub-elliptical. Head large, finely punctate. Prothoracic width equal to three times the length of the median line, pronotum broadest across the base, strongly narrowing anteriorly, sides regularly arcuate, apex emarginate, front angles acute, surface a little more distinctly punctate than the head and with a covering of fine hairs. Elytra at base as wide as the prothorax, their apices separately broadly rounded and finely margined. Surface not striate but with a fine punctuation and covered with hairs. Apex of abdomen exposed, the dorsum of the terminal segment closely, evenly, but not very coarsely nor deeply punctured. Legs wanting. Length, 3.25 mm. Greatest width, 2.10 mm.

This seems to be a Nitidulid, similar to the recent species of *Cychramus*, but I do not like definitely to refer it there, and have consequently followed the prevalent custom of founding a magazine genus for its reception. The form of the terminal dorsal abdominal segment may be seen by reference to the figure.

CORTICARIA *Marsh.*

C. PETREFACTA n. sp. (Plate V, Fig. 3.) Form only moderately elongate. Head narrower than the prothorax, distinctly, and relatively rather coarsely, moderately densely punctured. Prothorax punctured a little less coarsely and more sparsely than the head, about one and four-fifths times as broad as long, apex narrower than the base, the sides feebly arcuate. Elytra broadest a little behind the middle, apices pointed, the sculpture consisting of a fine, rather irregular punctuation without sign of strial arrangement. Antennæ and legs wanting. Length, from front of head to elytral tip, 3.30 mm.

This may not be a true *Corticaria*, though the form of the body and the type of sculpture point to that reference. It is above the average size of existing species of the genus, approaching most nearly to the common *C. pubescens* of Europe and America, which reaches a length of 3.00 mm.

ECTOPRIA *Lec.*

E. LATICOLLIS n. sp. (Plate III, Fig. 8.) Form, allowing for flattening, similar to that of the recent *E. nervosa*. The head is somewhat damaged, the front outline broken, but the eyes are of moderate size and the antennæ, only one of which is preserved, are filiform, though the poor state of preservation precludes any description of the individual joints. Prothorax short, deeply emarginate in front, anterior angles sharp, base bisinuate. Scutellum small. Elytra, at base, about the same width as the prothorax, approximately one-fourth longer than their conjoint basal width. Sculpture of the entire upper surface minute and with a covering of fine hairs. Length, 3.85 mm.

It seems that the Dascyllidæ offer the best family agreement with this fossil, and it is placed provisionally in *Ectopria* since the proportions of the body, the antenna and the coxal structures correspond fairly well. The Dascyllidæ would seldom make satisfactory fossils, their fragility renders perfect preservation unlikely, and the generic characters rest largely upon structures which would scarcely ever be in condition for study.

HYDNOCERA *Newm.*

H. WOLCOTTI n. sp. (Plate IV, Fig. 11.) Form rather stout. Head short and broad, and, including the eyes, probably a little wider than the prothorax, sculpture extremely minute, consisting only of a fine alutaceous roughening. Antennæ not well preserved, but the club seems fairly distinct. Prothorax very broad, about one and a half times as wide as long, the sides not entirely perfect but evidently narrowing to the base, a strong transverse anterior impressed line, surface similar to that of the head. Scutellum moderate, triangular. Elytra much shorter than the abdomen, not striate, but strongly sparsely punctate towards the apices which are somewhat narrowed and separately rounded as well as distinctly beaded. Abdomen exposing at least four segments behind the elytral tips, sutures strongly sinuate, projecting backwards at middle. The dorsal ventral segments are without any well defined sculpture. Legs stout. Length, 5.35 mm.

Not particularly closely related to any of the numerous living North and Central American species with which I am acquainted. The exposed portion of the abdomen seems excessively long, but this is doubtless due in part to maceration before fossilization. The prothorax is like that of *H. pubescens* in the deep anterior impression, but is relatively broader and of different shape. The margined or beaded elytra recall those of *H. longicollis* or *H. tabida*, but are differently sculptured. The restriction of the

punctures to the apical region is not so complete in any modern *Hydnocera* that I know, though in some of them this portion is much more strongly or densely punctured than the remainder of the elytra. In view of the wide range of abdominal exposure and of thoracic outline within this genus, I do not feel justified in separating the fossil generically on the basis of these characters. I take pleasure in dedicating this, the first fossil *Hydnocera,* to my friend A. B. Wolcott, of the Field Museum of Natural History.

VRILLETTA *Lec.*

V. TENUISTRIATA n. sp. (Plate IV, Fig. 12.) Form rather stout. Head, prothorax, elytra, and abdomen minutely punctulate or alutaceous. Eye of moderate size, elliptical in outline. Antennæ wanting. Prothorax, in side view, cuneiform, dorsal arch rather strong. Elytra overlapping in such a way as to somewhat obscure the outline, but they were evidently long enough to completely cover the abdomen, the surface with fine, deep, apparently impunctate striæ, which, so far as they can be traced, run together at the apex in the same manner as in the recent *V. laurentina,* epipleural lobe strong and with at least one stria. Abdomen with the second segment longer than the third or fourth, and but slightly shorter than the fifth. The sharp edge, which in life fits against the elytron, shows in the fossil as a longitudinal carina, on account of the accidental abdominal deflection. Legs rather short. Length, 5.55 mm.

The entire structure of this insect indicates a close relationship to *Vrilletta.* The form is the same, the general sculpture is very similar, the abdominal segmental proportions agree and so does the length of the legs, as far as shown. In size, the present species is almost identical with *V. laurentina,* but in the fine elytral striation it comes closer to *V. plumbea.* In the fossil, the head is incomplete anteriorly and is so represented in the figure. Six species of the genus *Vrilletta* are found in North America today, all belonging to the Pacific coast fauna excepting *V. laurentina* which occurs near Toronto, Canada.

DINODERUS *Steph.*

D. CUNEICOLLIS n. sp. (Plate II, Fig. 8.) Form stout. Head much smaller than the prothorax, rather roughly granulate. Prothorax, in side view, cuneate, the back strongly arched, surface granulate and with rather ill-defined transverse rows of asperities across the anterior half. Elytra with the dorsum moderately arched, the disk with three or four somewhat

indistinct costæ, between which the surface is roughened. Legs and antennæ lacking. Length, 2.75 mm.

Resembles in size and general appearance the insect described by Scudder under the name *Hylesinus extractus*. The present species has a different prothoracic outline and the elytra are relatively shorter in comparison with the length of the pronotum. It is much smaller than *Xylobiops lacustre* from the Florissant shales. The genus *Dinoderus* is widely distributed, and is well represented in North America. The insect in hand would go near to the recent *D. punctatus* by its sculpture, but it is differently proportioned.

Aphodius *Ill.*

A. PRÆEMPTOR n. sp. (Plate VI, Figs. 1, 2.) Form moderately elongate, subparallel. Head incomplete, the anterior margin being injured on that slab which shows the dorsal view, but judging from the ventral aspect the sides of the clypeus are nearly straight and convergent to the apex which is truncate and without teeth or prominent angles. Prothorax with moderately arcuate sides, disk scarcely punctured, a few shallow punctures laterally. Scutellum short. Elytra injured at base but apparently about as wide as the prothorax, finely striate, the striæ not very deep and only finely punctate, the punctures longitudinal. Legs stout, tibiæ too much injured to show the teeth distinctly. Mesosternum not carinate. Length, 5.65 mm.

Easily distinguished from any of the other Florissant species of *Aphodius* of similar size by the type of elytral striation and punctuation. It would come near the fossil *A. aboriginalis*. The subjoined table will serve as a guide to the identification of the species thus far known from these shales.

Size very small (under 3.00 mm.). Form stout, elytral striæ deep, fine, and apparently impunctate; (2.95 mm.). *shoshonis.*

Size greater (3.50 mm. or more).

Size moderate (3.50 to 6.50 mm.).

Elytral striæ duplicate, impunctured; (5.25 mm.). *florissantensis.*

Elytral striæ simple, punctate or not.

Much smaller (3.50 mm.); striæ impunctate. *restructus.*

Larger (over 5.00 mm.); striæ punctate.

Thoracic disk distinctly punctate. Elytral striæ sharp, well impressed, with rounded punctures; (6.25 mm.). *granarioides.*

Thoracic disk nearly impunctate. Elytral striæ wide, fairly distinctly punctate; (6.50 mm.). *aboriginalis.*

Thoracic disk with rather indistinct scattered punctures. Elytral striæ sharp, narrow, with fine elongate punctures; (5.65 mm.). *praeemptor.*

Size very large. Elytral striæ fine, not closely punctured; (9.25 to 10.00 mm.). *laminicola.*

PROTONCIDERES n. gen.

Form of *Oncideres,* to which it seems related. Prothorax unarmed at sides. Antennæ very long, (in what is presumed to be the male), about two and one-half times the body length. Front legs not elongate. Type, *P. primus,* described below.

P. PRIMUS n. sp. (Plate V, Fig. 4.) Preserved in ventral view. Form rather short and broad, subparallel. Head large, antennal tubercles pronounced, antennæ exhibiting only eight of the joints but these reach nearly twice the length of the entire body; first joint large, obconical, second very small, third a little more than twice as long as the first and equal to the fifth, fourth a trifle shorter, sixth and seventh each about as long as the fifth, eighth probably incomplete, the remainder wanting. The first and second joints are strongly punctate, the punctures distinctly transverse and tending to form series in that direction, third joint more finely punctured, the remainder apparently only finely roughened like the greater part of the body surface. Prothorax without spines, under surface finely transversely rugose, about as in the recent *Monohammus scutellatus.* Elytra not quite reaching the tip of the abdomen, (which was probably distended a little by maceration), apices rounded, the surface punctate towards the base but not strongly nor closely. Both inner and outer edges are apparently finely margined, the former being in the shape of a sutural bead, the latter probably the epipleura. Legs moderate or rather short, the pairs subequal in length, femora about as long as the tibiæ, the former not strongly clavate, the latter about straight and with no expansions nor teeth. Tarsi obscure. Length, 19.25 mm.

Comparisons with a large number of Cerambycidæ from North America, Europe and other parts of the world, give no clue to any very close relationships with this fossil. It seems, by the large head and immarginate prothorax, to be a Lamiide. The elongate antennæ suggest the Acanthoderini or Monohammini, but the lack of spine or tubercle upon the thoracic sides is uncommon in these groups. If it were not for the fact that the anterior legs are not elongate in my specimen (which, judging by the antennæ, is a male) it might be considered near *Ptychodes,* but so far as the visible characters permit the formation of an opinion, I think it best to place the insect between *Saperda* and *Oncideres.*

CRYPTOCEPHALUS *Geoff.*

C. MIOCENUS n. sp. (Plate V, Fig. 5.) Form fairly stout. Head bent up, but as it is shown from the under side it displays no features of interest. Antennæ visible only at the base, slender. Elytra conjointly a little more than four-fifths as wide as long, strongly and deeply punctatostriate. Length, 4.65 mm.

The Chrysomelidæ seem to have been rather rare at Florissant and this is the first *Cryptocephalus* to be recorded from these shales. Of course the generic reference is to be understood in the broad sense of the term, since there is no way of separating most fossils by the characters used in defining modern genera split off from *Cryptocephalus* as understood by its author. The prominence of the head, judging from the appearance of the under surface, is due to flattening and pressure. Cryptocephalid characters are seen in the form, texture, and sculpture of the body, the small rounded anterior coxæ well separated by the prosternum, the widely distant hind coxæ, the short intermediate abdominal segments with arcuate sutures, and the filiform antenna.

BRUCHUS *Linn.*

B. SUCCINTUS n. sp. (Plate V, Fig. 6.) Preserved in side view. Form rather stout. Head finely but distinctly and closely punctate, more finely on the occiput, antennæ wanting, except three or four of the median joints which are hardly serrate. Prothorax with close, deep, rounded punctures of moderate size, becoming subconfluent in places, these punctures very much larger than those of the head. Elytra badly broken at apex, epipleural lobe strong, disk punctured and striate, the striæ narrow, moderately deep, much stronger at base, marked at their bottoms with single rows of close, slightly elongate punctures, interspaces distinctly punctate. Hind coxal region strongly and closely but not coarsely punctured, the sternal plates very sparsely, the abdomen scarcely visibly punctulate. Hind femur only moderately swollen and not showing teeth, the tibia nearly straight. Length, from front of head to tip of abdomen, 3.50 mm.

Easily distinguished from any of the other described Florissant species by the small size, strong punctuation, and comparatively slender hind femora. The above measurement is that of the type, other specimens run as small as 2.25 mm.

B. WILSONI n. sp. (Plate V, Figs. 7, 8, 9.) Form rather short and stout. Head small, eye large, front moderately strongly, closely punctured, antennæ slender, about as long as the elytra, not serrate. Prothorax injured, but what remains shows it to have been broad, the sides apparently nearly straight to near the apex, thence very suddenly narrowed. Disk with moderately deep, rounded punctures, not very closely nor regularly placed, the median area being less punctured than the lateral, base hardly lobed, nearly straight or only a little curved. Elytra rather more than three times the prothoracic length, nearly smooth excepting that each is marked with fine, narrow, regular, impunctate striæ. Abdomen, as pre-

served, considerably exceeding the elytral apices. Hind femora strongly swollen, each apparently with a good-sized tooth, though this structure is indistinct, hind tibiæ much arcuate. Length, 3.25 mm.; of elytron, 2.00 mm.

A considerably smaller species than most of those hitherto recorded from Florissant. It seems nearest *B. osborni* in antennal, thoracic, and sculptural characters, but that species is much larger. The measurements given for *B. wilsoni* are those of the type, others are as small as 2.65 mm. It is named for George W. Wilson of Florissant, to whom I am indebted for many favors which materially assisted me in the investigation of the fossil insect fauna.

For the purpose of more readily distinguishing the Florissant species of *Bruchus,* I subjoin the following table.

Antennæ strongly serrate; (3.75 mm.). *dormescens.*
Antennæ weakly or moderately serrate.
Larger (4.35 mm.). Thoracic punctures shallow. *exhumatus.*
Smaller (3.90 mm.). Thoracic punctures strong. *scudderi.*
Antennæ not serrate.
Elytral striæ with strong rounded punctures; (4.15 mm.). *henshawi.*
Elytral strial punctures weaker, elongate.
Large species (6.00 mm.). *bowditchi.*
Smaller species.
Prothoracic punctuation moderately close; (4.00 mm.). *florissantensis.*
Prothoracic punctuation strong, deep, becoming subconfluent in places; (2.25 to 3.50 mm.). *succintus.*
Prothoracic punctuation very fine and sparse.
Thoracic apex truncate. Punctuation stronger; (4.65 mm.). *haywardi.*
Thoracic apex rounded. Punctuation finer; (4.45 mm.). *osborni.*
Elytral striæ impunctate; (2.65 to 3.25 mm.). *wilsoni.*

PYTHOCEROPSIS n. gen.

Form similar to that of the recent genus *Lecontia.* Anterior coxæ round, separated by the prosternum, middle coxæ slightly transverse and apparently only a little separated, their inner edges obscured by the anterior femora which have been folded back. Posterior coxæ transverse, extending to the sides of the body, contiguous on the median line, intercoxal process short. Antennæ not clubbed, but slender at the apex, first joint large, second much smaller, third elongate, fourth fifth, sixth, and seventh subequal among themselves and each shorter than the third; the eighth, ninth, tenth and eleventh are much shorter than those preceding, the eleventh probably damaged at the apex. The type is *P. singularis,* described below.

P. SINGULARIS n. sp. (Plate I, Figs. 5, 6.) Body elongate, form subparallel. Head of moderate size, anterior margin not defined, eyes, seen from below, small and coarsely granulated. Antennæ equal in length to about one and one-third times the width of the head, slender, if directed backward they would reach slightly beyond the elytral base, apex not incrassate. Gular region transversely corrugated. Prothorax not sufficiently perfect to show the outline distinctly, the underside is plainly but not coarsely punctured, more sparsely upon the middle than on the flanks. Mesosternum strongly and closely punctured, its side-pieces more finely and sparsely. Metasternum long, apparently finely grooved along the middle line, the punctuation extremely fine, that of the side-pieces more distinct. Elytron a little less than three times as long as wide, narrowing behind the middle, apex bluntly pointed, sculpture consisting of close, regular, distinct, rounded punctures of moderate size, not arranged in striæ although there is some tendency to linear series, a faint indication of two discal flat costæ as shown in the sketch. Abdomen with five free segments, the one before the last a little shorter than the others, the entire abdominal ventral surface with fine but distinct scattered punctures. Legs, as far as shown, of moderate length. Length, 12.65 mm.; of elytron, 9.00 mm. Greatest width of elytron, 3.20 mm.

This insect is of great interest, as it introduces into the Florissant Miocene fauna a family not hitherto recognized as one of its constituents. In my mind, there is no doubt of the Pythid affinities. The antenna is of a type found in different genera of the heteromerous series, the reduction in length of the distal joints being the most striking feature. It is remarkable how closely the sculpture of the underside follows that of *Pytho americanus* and *Boros unicolor,* while the elytral sculpture is similar to that of the latter species. No one of our three common genera of North American Pythini is followed consistently in all characters. To me, the insect has the underside of *Lecontia* or *Boros* with the antennæ of *Pytho* and may be regarded as a synthetic type.

The type specimen is an underside, but the elytron (shown separately on the plate, to save space, though in reality it projects out at a wide angle as indicated by the stub in the drawing) is twisted so as to exhibit the upper surface.

MORDELLISTENA *Costa.*

M. SMITHIANA n. sp. (Plate IV, Fig. 13.) Preserved in side view. Form a little broad, well tapering, anal style moderate in length. Elytra narrowing to apex, not sharply pointed, the length a little more than four times the breadth. Sculpture of entire body extremely fine, scarcely visible.

Legs wanting, except a small portion of one of the hind pair which shows no characters of importance. Length, exclusive of style, 3.40 mm.; of anal style, about .80 mm. Height, 1.55 mm.

On account of its small size, this is referred to *Mordellistena*. Compared with the fossil *M. florissantensis*, the present species has a distinctly differentiated moderately long anal style and relatively longer elytra. The name is given in memory of the late John B. Smith, whose Synopsis of the Mordellidæ is well and favorably known.

AULETES *Schönh.*

A. FLORISSANTENSIS n. sp. (Plate VI, Fig. 3.) Form rather slender and elongate for this genus. Head narrower than the prothorax, eyes not distinctly definable but evidently small, antennæ showing only a few of the median joints which are rather slender. The cephalic punctuation is strong and close, except on the occiput. Prothorax distorted by pressure, the sides damaged so that their outline cannot be determined, punctuation perceptibly less strong than that of the head but very close. The front coxæ are overlapped a little in the specimen, in life they were evidently contiguous. Meso- and metasterna, with their side-pieces, strongly and closely punctured, middle coxæ contiguous. Elytra rather coarsely and closely punctured, the discal punctures not in striæ, but showing some indication of leaving a smooth longitudinal discal line and a stria is evident along the outer margin. Abdominal segments subequal, punctured at sides, nearly smooth along the middle. Legs slender and rather short for this family. Length, from the base of the beak to the elytral apex, 4.75 mm.

Unfortunately the beak is destroyed in my only specimen. The insect is an undoubted Rhynchitid and is a much better exponent of *Auletes* than the fossil *A. wymani* referred here by Scudder. Recent species of this genus are found from Massachusetts to British Columbia.

TRYPANORHYNCHUS *Scudd.*

T. MINUTISSIMUS n. sp. (Plate VI, Fig. 4.) Form moderately elongate. Head full, very minutely sculptured in front, eye small and nearly circular, behind it a fan-shaped figure of about thirteen fine rugæ. Rostrum straight, about equal in length to the dorsal line of the prothorax, striate and carinate. Prothorax very little arched along the back, anterior side margin about straight, surface closely and, for such a small insect, moderately coarsely punctate. Elytra more finely sculptured than the prothorax, punctures rounded, subseriate in arrangement at base but completely confused apically. Underside of body much smoother than the upper, particu-

larly upon the abdomen, which is barely visibly punctate. Legs lacking, except one fore femur which is of moderate length and stoutness. Length, from front margin of prothorax to elytral tip, 2.65 mm.; of rostrum, about .80 mm.

This is referred to *Trypanorhynchus* since it seems to go better in that genus than in any of the others described by Dr. Scudder. It is smaller than any of the species placed there by him, but would come nearest *T. sedatus*, though easily distinguished by the corrugate head of the specimen in hand. It looks like the figure of *Apion exanimale* from these shales, but from the description I judge the elytra of that species to be impunctate.

T. EXILIS n. sp. (Plate VII, Fig. 2.) Form rather slender, back not strongly arched. Head without noticeable striations, eye subelliptical, beak a little longer than the prothorax, nearly straight, antennæ not visible. Prothorax short and, as preserved, higher than long, the surface with strong, large, irregular punctures, much more evident on the sides than on the disk and becoming confluent laterally so as to form rugæ. Elytra not striate but with rows of moderately deep, well separated, rounded punctures, smaller than those of the prothorax. Legs rather short. Length, 2.60 mm.

Resembles *T. minutissimus* quite closely but that species has the prothorax more regularly, closely and finely punctured, the elytral punctuation is also closer and better defined. The fan-shaped striate area, so well shown in *T. minutissimus*, is absent from the head of the present species.

T. OBLIQUUS n. sp. (Plate VII, Fig. 1.) Form, in profile, rather elongate, back regularly but not strongly arched. Head small, higher than long, the sides, behind the eyes, strongly and regularly transversely striate, eye elliptical, oblique, the long axis nearly parallel to the forehead which is very finely punctulate, occiput more strongly punctured and with some trace of rugosity. Beak well defined at base, arising suddenly from the head, long, almost straight, strongly striate, carinate and punctured. Antennæ inserted at about basal third, straight, proximal and medial joints slender, elongate, club three-jointed, moderately broad, the joints slightly obscured but apparently subequal in length. Prothorax distinctly punctured, the punctures mostly well separated but tending to form transverse rugæ, the fore part of the disk a little smoother. Elytra distinctly punctate at base, the remainder of the surface sculpture obscure or obliterated except that faint striæ are indicated as shown in the figure. Legs moderately long, tarsi obscure. Abdominal segments subequal. Length, excluding rostrum, 6.10 mm.; of beak, 3.30 mm.; of antennæ, 1.90 mm.

This fine beetle, about the size of *Rhynchites subterraneus*, differs from that species and from the recent members of the

genus (as far as they are known to me) in having elliptical oblique eyes. Chiefly on account of this character, I have placed it in *Trypanorhynchus*, near *T. depratus* from which it is at once distinguishable by the relatively longer beak in *T. obliquus*.

ACALLES *Schönh.*

A. EXHUMATUS n. sp. (Plate VII, Fig. 3.) The specimen is preserved in such a position as to present chiefly a dorsal view. Form moderately elongate and not very robust, recalling the recent *A. porosus* but with a differently shaped prothorax. Head not distinguishable. Prothorax broadest at base, strongly narrowed anteriorly, the sides little if at all arcuate, surface rather coarsely and very closely granulate, the granules rounded and with a slight tendency to form longitudinal or radiating series, a distinct median line present. Elytra with series of elevated rounded granules, effaced over a great part of the surface but where present they are fairly regularly spaced, separated by distances somewhat greater than their own diameters. The courses of these series can be traced sufficiently well to indicate that they were extensively confluent near the tip, the discal rows enclosed, as usual in the Rhynchophora. Length, 6.25 mm.

Some doubt must attach to this generic identification, which is made chiefly upon facies. Nothing similar seems to have been described by Dr. Scudder, the nearest approach to it being his *Rhysosternum æternabile*, in which the thoracic punctures form distinct rugæ. I assume that in my specimen the sculpture is in reverse, and that the granules represent punctures.

BARIS *Germ.*

B. FLORISSANTENSIS n. sp. (Plate VI, Figs. 6, 7, 8.) Form rather stout. Head mostly concealed, except the rostrum which is short, only slightly curved, and punctate near the base, eye elliptical and transverse. Prothorax with close, deep, rounded punctuation, about uniform over the entire disk. Elytra striate, the striæ with distinctly elongate, well-impressed but not very regularly spaced punctures, the interstitial areas broad, nearly flat, with transverse alternating grooves and ridges, representing a further development of the type of punctuation seen in the recent *B. transversa*. The elytra overlap along the suture, confusing the arrangement of the striæ, but those of the disk are seen to be disposed very much as in *B. transversa*. Legs, as far as shown, rather finely and somewhat rugosely punctured, only the femora visible. Length, 4.75 mm.

One specimen, showing obverse and reverse. This species is readily distinguished from most of the other Florissant fossil representatives of the genus by its size, in which respect it is

approached only by *B. schucherti* and *B. cremastorhynchoides.* From both of these, it may be distinguished by the distinct transverse sculpture of the interstrial spaces. It approaches the recent *B. transversa* in several features, and like that species has a distinct humeral callus, but this is more strongly punctured in the fossil.

B. CREMASTORHYNCHOIDES n. sp. (Plate VI, Fig. 5.) Form rather elongate and but slightly arched above. Head finely and distinctly but not very deeply punctured, the punctures separated by less than their own diameters. Eye, not shown in the figure, moderately large, transverse. Beak not defined. Prothorax more coarsely and deeply punctured than the head. Elytra punctured in rows, the puncta circular and deep, ordinarily separated by a little less than their own diameters, interspaces nearly flat and not hairy nor punctate. Under surface of meso- and metathorax sculptured similarly to the prothoracic disk, but somewhat less closely, ventral segments much smoother, scarcely visibly punctate, the first and second segments long, the next two short, first suture strongly sinuate at sides, second and third bent at tips. Legs short but not distinct enough for description. Length, 4.60 mm.

This insect is strikingly like *Cremastorhynchus stabilis,* described from the Florissant shales, which has been placed in the Anthonomini by Dr. Scudder. The present species differs essentially in having the abdominal segments very unequal in length. It seems best placed in the Barini, but is most likely not a true *Baris* in the restricted sense, the form being more nearly that of *Limnobaris.*