Revision of the species of some genera of BUPRESTIDÆ.

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The genera here reviewed belong to the group Anthaxiæ of the tribe Buprestini as defined in our fauna, they are three in number and may be separated in the following manner:

Mentum coriaceous in front; prothorax sinuate at base.....**Melanophila.**
Mentum entirely corneous.
Prothorax truncate at base; front not margined at sides; antennæ serrate in both sexes.....**Anthaxia.**
Prothorax sinuate at base; front slightly margined over the insertion of the antennæ which are flabellate ♂, serrate ♀.....**Xenorhipis.**

The first two genera are represented on both sides of the continent. *Xenorhipis* occurs in the Atlantic region and is extremely rare. Of its habits nothing is known.

MELANOPHILA Esch.

The species of this genus are not numerous in our fauna, but in times past their number was exaggerated by too great a regard for the variations of the elytral markings.

In our series we have three types indicated by external form and general aspect—first, the *Chrysobothris* type represented by *Drummondi* which seems to occur in the entire subarctic region of the northern hemisphere; second, the *Anthaxia* type represented by the first five species of the annexed table one of which from its wide distribution in our fauna is probably distributed in the same manner as *Drummondi*, as it is possible that *appendiculata* is not a distinct species; finally, a group of five species which does not resemble any other genus in our fauna.

The elytral markings of all the species seem to me to be derivatives of a type of which *miranda* is the most perfect exemplification. By a study of the sketches in the annexed plate one can realize how the very perfect markings of *miranda* become reduced to the maculate form by a gradual extension of the black, or contraction of the yellow markings.

In two species, *longipes* and *atropurpurea*, I have never observed any specimens with elytral spots. The same is also true of *gentilis*, *æneola*, *intrusa* and *obtusa*. Two species, *fulvoguttata* and *Drummondi*, vary from three or four spots on each elytron to none at all. In all the specimens of *miranda* that I have seen there is practically no variation.

The following table gives in brief the striking characters of our species:

Elytra acute, sometimes acuminate at tip; first joint of posterior tarsi equalling the next three in length.....2.
Elytra obtuse at tip or rounded; first joint of posterior tarsi not longer than the next two.....4.
2.—Head and thorax with smooth facets.....1. **miranda** Lec.
Head and thorax equally punctured without facets.....3.
3.—Front sparsely punctured.....2. **notata** Lap.
Front equally densely punctured.
Sides of thorax regularly arcuate, the disc widest at middle.
5. **atropurpurea** Say.
Sides of thorax oblique posteriorly, the disc widest in front of middle.
4. **longipes** Say.
4.—Thorax punctulate over its entire surface; elytra not costulate.....5.
Thorax transversely strigose at middle; elytra finely costulate.
6. **Drummondi** Kby.
5.—Form depressed as in *notata*; thorax also similarly sculptured.
3. **consputa** Lec.
Form convex; thorax coarsely punctured.
Margin of thorax entire or nearly so.....8. **gentilis** Lec.
Margin of thorax obliterated in front.
Tip of prosternum suddenly constricted.
Hind angles of thorax obtuse not flattened; clypeus not emarginate; elytra not pubescent.....7. **fulvoguttata** Harr.
Hind angles of thorax acute, flattened above and with a slight smooth space; clypeus narrowly semicircularly emarginate; elytra pubescent.....9. **intrusa** n. sp.
Tip of prosternum of triangular form.
Sides of thorax feebly arcuate, the disc and sides equally punctured.
10. **æneola** Mels.
Sides of thorax distinctly arcuate, the disc posteriorly, also the sutural region of the elytra less densely punctured .....11. **obtusa** n. sp.

M. miranda Lec.—Head coarsely punctured, with five smooth callosities arranged in a regular pentagon. Thorax with sides regularly arcuate, lateral margin acute posteriorly, disc coarsely punctured with seven smooth spaces, three on each side oval, one in the median line posteriorly; beneath coarsely punctured, a smooth space along the lateral margin, prosternum at middle very sparsely punctate, the tip rather suddenly narrowed. Elytra not very densely punctured, the punctures comparatively fine, the surface with very regular markings as shown in the figure, the margin posteriorly finely serrulate, the tip acuminate. Body beneath coarsely punctured. First joint of posterior tarsi as long as the next three. Length .54—.64 inch; 13.5—16 mm. (Pl. IV, fig. 1).

In both sexes the last ventral segment is truncate, the angles acute and prominent.

The elytral markings of this species are the most complete and perfect of any in the genus, it is the full development of which the markings of the other species are the derivatives in a more or less imperfect manner. In *notata* and *consputa* there is a very plain attempt at a reproduction

of similar markings, while in *fulvoguttata* and *Drummondi* the lines are replaced by spots.

This species occurs from Oregon to Texas in the mountain regions.

M. notata Lap. et Gory.—Head sparsely punctured, shining. Thorax with sides regularly arcuate, sometimes slightly oblique posteriorly, broadest a little in front of middle, surface subopaque, sparsely punctured at middle, at sides finely reticulate, median line finely impressed and slightly foveate posteriorly, lateral margin distinct posteriorly; thorax beneath coarsely punctured at the sides, more finely at middle, prosternum suddenly constricted at tip. Elytra depressed, granulate punctate, lateral margin finely serrulate posteriorly, the tip acute, color black with yellow markings as shown in the figure, sometimes entirely wanting. Body beneath coarsely punctate, more or less reticulate at the sides. Posterior tarsus as in *miranda*. Length .36—.48 inch; 9—12 mm. (Pl. IV, figs. 3, 6).

The last ventral segment is truncate, the angles acute but not prominent.

This species by its smoother front is easily known from either of the next two species, and from *consputa* by the more acute elytra and the form of the posterior tarsus.

Occurs in Georgia and Florida.

M. consputa Lec.—Head rather shining, coarsely and moderately densely punctate. Thorax with sides regularly arcuate, widest at middle, surface subopaque moderately densely reticulately punctate, lateral margin obsolete in front, acute posteriorly, sides of thorax beneath densely reticulately punctured, prosternum in front densely and finely punctured, at its sides very sparsely, tip suddenly narrowed. Elytra granulate punctate, depressed, color black with variable markings, lateral margin obsoletely serrulate posteriorly, tips very obtuse. Body beneath coarsely but not densely punctured. Posterior tarsi with the first joint equal to the next two. Length .36—.48 inch; 9—12 mm. (Pl. IV, figs. 2, 4).

The last ventral segment is as in *notata*.

The elytral markings are variable, their range will be shown in the accompanying figures. In its general appearance this species resembles *notata*, the differences have already been mentioned. It seems to occupy an exactly intermediate place between the preceding and following species, resembling the former in general appearance and color and the latter in the elytral and tarsal structure.

Occurs in California and Arizona.

M. longipes Say.—Black, feebly shining, rarely with faint metallic lustre. Head densely punctured. Thorax widest in front of middle, the sides in front arcuate, posteriorly nearly straight and slightly convergent, marginal line distinct posteriorly but inferior, disc with a vague oblique impression each side posteriorly, the surface coarsely punctured along the margin, finely reticulate within this, obsoletely punctured at middle, the median line distinct, hind angles rectangular. Elytra moderately finely granulate punctate, the surface irregular, lateral margin finely serrulate posteriorly, the apices acute but not acuminate. Thorax beneath reticulate at the sides, prosternum coarsely reticulate between the coxæ, anteriorly sparsely punctate, the tip suddenly constricted. Body beneath reticulate. Abdomen

sparsely punctate, reticulate at the sides. Legs slender, moderately long. Posterior tarsi as in *miranda*. Length .28—.52 inch; 7—13 mm.

Last ventral segment broadly emarginate, the angles acute but not prominent.

This species could only be mistaken for the next, in which however the sides of the thorax are different and the elytra more acuminate at tip.

Occurs from Maine to Alaska.

As this species has such a wide distribution in our country and in the northern regions, may it not be really identical with *appendiculata* which seems as widely distributed in the Eastern Hemisphere?

M. atropurpurea Say.

Resembles the preceding very closely and differs in the following characters:

Thorax with sides regularly arcuate, widest at middle. Elytra acute and usually slightly acuminate at tip. Length .30—.52 inch; 7.5—13 mm.

This species follows the line of distribution already indicated for *miranda*.

M. Drummondi Kby.—Color variable from greenish to dark bronze, more shining beneath, form subdepressed. Head coarsely, densely and deeply punctured, rarely with a smooth spot on each side, sometimes the occiput is slightly strigose. Thorax narrower at apex, widest near the middle, sides feebly arcuate, disc distinctly impressed each side, the surface coarsely and densely punctured at the sides, transversely strigose at middle, lateral margin obliterated in front, smooth beneath posteriorly; thorax beneath coarsely and densely punctured, tip of prosternum suddenly narrowed. Elytra densely granulate punctate, and with three fine, rather vague costæ, lateral margin scarcely serrulate, apices obtuse, surface with three spots on each elytron arranged as in *fulvoguttata* sometimes entirely wanting. Body beneath and abdomen sparsely punctate. Posterior tarsi as in *gentilis*. Length .32—.42 inch; 8–11 mm.

The last ventral segment is subtruncate in the male, obtusely rounded in the female.

In our fauna this species has a wide distribution, from Maine to Alaska, varying to a greater or less extent in its course without presenting any characters by means of which local varieties might be indicated. I have observed that very many of our species in other families which have a subarctic transcontinental distribution occur in Siberia extending even to Europe making the complete circle. In some cases the Asiatic form bears another name, and I am inclined to believe that *guttulata* Gebl., is not specifically distinct from the present species but merely a slight variety.

M. fulvoguttata Harris.—Oblong, moderately convex, dark bronze above, more brightly metallic beneath, elytra usually with three spots on each. Head densely punctured, somewhat strigose on the occiput, clypeus truncate. Thorax

gradually narrowed in front, sides nearly straight, disc densely punctured, somewhat reticulate at the sides, a slight ante-scutellar fovea, hind angles obtuse, lateral margin obsolete in front, thorax beneath densely and coarsely punctured, prosternum at tip suddenly narrowed. Elytra moderately convex, margin finely serrulate posteriorly, the apices separately rounded, disc without trace of costæ granulately punctured at base, more finely and densely posteriorly and with a tendency of the punctures to form transverse strigæ. Body beneath sparsely punctured. Posterior tarsi as in *gentilis*. Length .30—.40 inch; 7.5—10 mm. (Pl. IV, fig. 5).

The last ventral segment is oval at tip in both sexes, a little more obtuse in the female.

In this species there are no traces whatever of fine costæ on the elytra. Its form is a little more convex than in *gentilis*. The elytral spots are usually six, two in front of middle on each side of the suture, two posterior to these and more external and two smaller about one-fifth from the apex and closer to the suture than the first pair. These are, however, variable and may be entirely absent.

Occurs in the Middle and Northern States, extending westward to California and Nevada.

M. gentilis Lec.—Color variable between green and blue or darker, metallic. Head densely punctured. Thorax with feebly arcuate sides, gradually narrowed to front, the lateral margin entire or very nearly so, disc densely and rather coarsely punctured, a slight ante-scutellar fovea, under side densely cribrately punctured, prosternum at tip suddenly constricted. Elytra moderately convex, densely granulate punctate, lateral margin at apex finely serrulate, the tip obtuse. Body beneath moderately densely punctate. Posterior tarsi with first joint not longer than the next two. Length .38—.46 inch; 9.5—12 mm.

The last ventral segment of the male is slightly truncate, of the female rounded.

This species is one of those which has never any elytral spots or other ornamentation.

Occurs in Colorado, Arizona, and the entire Pacific region.

M. intrusa n. sp.—Oblong, moderately convex, dark bronze, beneath more shining, surface sparsely pubescent. Head convex, front densely punctured and longitudinally strigose, clypeus narrowly semicircularly emarginate. Thorax narrowed in front, sides feebly arcuate, margin obliterated in front, hind angles distinct, subacute, flattened above and smooth, disc coarsely, densely and deeply punctured, beneath coarsely and densely punctured, the prosternum distinctly reticulate, suddenly narrowed at tip. Elytra rather coarsely and densely granulate punctate, the apical margin finely serrulate, the tips separately rounded. Body beneath sparsely punctate, surface with a greenish or bluish metallic lustre. Posterior tarsi as in *gentilis*. Length .26—.30 inch; 6.5—7.5 mm.

The last ventral segment is slightly truncate in the male the margin reflexed, in the female the segment is a little longer and more oval at tip.

This species represents in the western regions *æneola* of the east. It is similar in form, sculpture and color, but the two differ in the form

of the clypeus and the tip of the prosternum. Both species are finely pubescent.

Occurs in California and Nevada.

M. æneola Mels.—Oblong, moderately elongate, not depressed, æneous, beneath more shining, surface sparsely pubescent. Front broad, clypeus broadly emarginate, surface densely punctured, occiput somewhat strigose. Thorax narrowed in front, sides feebly arcuate, margin obliterated in front, hind angles obtuse slightly flattened above, disc densely punctured becoming slightly reticulate at the sides, beneath very densely, not very coarsely punctured, prosternum broadly triangular at tip. Elytra moderately convex, densely granulate punctate, margin at apex finely serrulate, tips separately rounded. Body beneath sparsely and rather feebly punctate. Posterior tarsi as in *gentilis*. Length .18—.26 inch; 4.5—6.5 mm.

The last ventral segment is slightly truncate in the male, oval in the female.

As already intimated this species and *intrusa* are closely related and have but little resemblance to the other species of this genus.

Occurs in the Middle and Southern States.

M. obtusa n. sp.—Subcylindrical, moderately robust, metallic greenish-blue, elytra darker. Front broad, coarsely but not deeply punctured, clypeus feebly emarginate at middle. Thorax convex, narrowed in front, sides moderately arcuate, margin obliterated in front, surface coarsely, deeply and rather densely punctured, slightly reticulate at the sides, beneath coarsely, deeply and densely punctured, prosternum broadly triangular at tip. Elytra very coarsely punctured at base becoming granulate posteriorly, the posterior margin finely serrulate, the tips separately rounded. Body beneath coarsely but not densely punctured. Posterior tarsi as in *gentilis*. Length .22 inch; 5.5 mm.

The last ventral segment is slightly truncate and the margin reflexed.

I have seen but one specimen of this species which resembles in its form one of the smaller species of Acmæodera. It is more obtuse at either end and more cylindrical than any species in our fauna.

One specimen, Georgia.

ANTHAXIA Esch.

In the study of our species I have been unable to find any sexual characters like those which have been observed in the species of Europe. On the other hand, with an incomplete series however, I have not been able to find any of the latter with the tarsal claws toothed as in our *cyanella* and *quercata*.

It will be observed that these two species differ from each other in the same manner that *viridifrons* and *viridicornis* do, and the question has arisen in my mind whether they are not respectively sexes of each other, the male in each case having the rougher surface sculpture.

With an original tendency to a contrary course I have been compelled,

from the mass of material before me, to follow Mr. Crotch in the suppression of a number of species under the name *æneogaster* L. et G., he having chosen for the aggregate a name posterior to that by three years.

In the following list will be found one species hitherto unknown to our fauna, *salicis* Fab., which has probably been introduced. There can be no doubt of the capture of these specimens in Kansas. Had they been taken near the Atlantic coast in or near any of our commercial cities, their occurrence would have been mentioned, but the name not introduced in our lists.

The following synoptic table and the short descriptions will, it is hoped, enable our students to identify their species.

Body depressed, oblong-oval. Last ventral segment not differing in sculpture from the other segments.
Thorax transversely strigose at middle.
Color bright blue, elytra except at base cupreous..... .....**salicis** Fab.
Thorax uniformly sculptured, punctured or reticulate.
Claws simple or merely a little broader at base.
Elytra roughly granulate.....**æneogaster** L. et G.
Elytra feebly sculptured, at most scabrous.
Elytra finely granulate, subopaque. Body above and beneath bright green with a tendency in the elytra to become olivaceous.
deleta Lec.
Elytra scabrous, feebly shining. Body above and beneath uniform brownish-bronze.....**viridifrons** Gory.
Elytra scarcely wrinkled. Body nearly black with a slight purplish lustre, front and sides of thorax, broadly, cupreous or æneous.
viridicornis Say.
Claws broadly toothed at base.
Elytra moderately shining, surface not granular.....**cyanella** Gory.
Elytra subopaque, surface finely granular.....**quercata** Fab.
Body cuneiform, *Agriloid*. Last ventral segment conspicuously more coarsely punctured. Claws slender.....**flavimana** Gory.

A. salicis Fab.—Form rather broad, depressed, color bright blue, elytra bright coppery, blue at base. Head densely punctured. Thorax nearly twice as wide as long, sides irregularly arcuate, hind angles distinct, disc moderately convex, broadly concave each side of middle, median line moderately impressed, coarsely punctured at the sides and in front, finely strigose at middle and near the base, color bright blue with a darker somewhat velvety space on each side. Elytra granulate-punctate, color bright coppery with a triangular space extending across the base and nearly one-third along the suture. Prothorax and body beneath densely punctured, abdomen rather densely rugose at base, smoother near the tip. Claws slender, simple. Length .26—.28 inch; 6.5—7 mm.

This species differs from all those strictly native to our fauna by the brilliancy of its color. In form it resembles closely that variety of the next species known as *expansa*.

I have seen but two specimens, collected by Dr. H. A. Brous, at

Smoky Hill, Kansas, in the flowers of a Malvaceous plant. It is quite a common species in Europe and was probably introduced with some plant in which it lives.

A. æneogaster L. et G.—Form rather broad, depressed, piceous or black, surface with faint æneous lustre, very rarely green. Head densely punctate reticulate, with very short pubescence. Thorax transverse, sides feebly arcuate in front, nearly straight at middle, slightly sinuate posteriorly, the hind angles acutely rectangular, disc moderately convex, usually with four foveæ arranged in an arcuate transverse series, sometimes with two only, often without trace of any, surface normally coarsely reticulate, often however subgranular or even slightly longitudinally strigose on each side of the middle. Elytra gradually narrowed from the apical third, the tips obtuse, surface rather coarsely granulate punctate and with a faint oblique impression extending from the humeri toward the middle of the suture. Beneath more or less æneous and more shining than above, the prothorax variably reticulate, the body and abdomen coarsely punctate. Claws simple. Length .14—.28 inch; 3.5—7 mm.

At the time of the publication of the "Revision of the Buprestidæ" by Dr. LeConte, the number of specimens before him did not exceed ten, these formed the basis of the six names which appear in the Revision, five of them represented by uniques. Since that time the amount of material has considerably increased and the selected specimens representing all shades of variation in his cabinet and mine now number about eighty, which represent many hundreds of specimens from which selections were made. The result of this accumulation has been the demonstration of the identity of those forms which Crotch had already placed as varieties in the Check List.

The surface lustre of the vast majority of the specimens is brownish-bronze, specimens however occur in the Yosemite Valley of California as brilliantly green as *deleta* or *quercata*. The latter form, which for convenience may be called *prasina*, is rather rare, I have seen but eight, these however exhibit the same thoracic variations observed in the darker forms. The specimens with bronze surface vary in the form and sculpture of the thorax. Three forms *inornata*, *foveicollis* and *imperfecta*, are absolutely identical, these have the four thoracic foveæ well marked, in the manner of some European forms. These foveæ become gradually fainter in *retifera* and *expansa* and are finally lost in *strigata*. Specimens often occur with the middle foveæ well marked and the lateral obsolete or entirely wanting. The surface sculpture of the thorax also varies in a gradual manner. In *strigata* the sides are distinctly reticulate, the middle much more finely and the lines of the reticulation forming short longitudinal strigæ. From this we have every gradation to the granular form, through forms like *retifera* in which the entire surface is reticulate to those simply granulate without reticulation. The existence

of pubescence, or the reverse, on the front is merely a question of the state of preservation of the species.

From a slight examination which I have made of European species there appears to be the same tendency to vary as is exhibited in the preceding species. The amount of material at my disposal has been too meagre to indicate positively the equivalence of several species but what occurs in one fauna may be found in another. I am not by any means positive that our species will prove different from some previously described from Europe, as it will be observed that *umbellatarum* and some of its allies very suspiciously resemble the aggregate which is united under the name *æneogaster* L. et G.

This species is the most widely diffused in our fauna. It occurs in Maine, going west through Canada and the Northern States to the Hudson's Bay region, to Colorado and Utah, thence westward to Oregon and following the Pacific slope southward as far as Tejon in California.

A. deleta Lec.—Oblong, very little narrower posteriorly, color above and beneath bright green with a tendency to become brownish on the elytra. Front flat, densely punctured. Thorax broad, not narrower at base, sides feebly arcuate, sometimes straight at middle and slightly arcuate at apex and base, hind angles small, rectangular, disc even or with a feeble trace of impression on either side of middle, surface reticulate at the sides, scabrous at middle. Elytra subopaque, finely granulate, apices obtuse. Body beneath bright green, the surface reticulate, abdomen more shining. Claws slender, slightly dilated at base. Length .16—.20 inch; 4—5 mm.

In form this species resembles *inornata*. It is however much less depressed and with finer surface sculpture. The color of the surface is very uniform, the type in the cabinet of Dr. LeConte being discolored, hence the different description. Bright green forms of *inornata* occasionally occur, but these are always so rough in their sculpture that there will be no difficulty in separating them from the present species.

Occurs from Colorado to Nevada and California.

A. viridifrons Gory.—Oblong, feebly convex, dark coppery bronze, more shining beneath, head often green. Front slightly convex, a feeble frontal depression, surface reticulate. Thorax broad, sides irregularly arcuate, disc moderately convex, usually with two slight transverse depressions on each side which are often absent, surface regularly reticulate. Elytra narrowed at apical third, apices obtuse, surface distinctly rugulose and subopaque. Prothorax and body beneath indistinctly reticulate, abdomen very sparsely punctate. Claws slender, slightly broader at base. Length .16—.20 inch; 4—5 mm.

This species and *viridicornis* seem to bear the same relation to each other that *quercata* and *cyanella* do. It is desirable that all of these should be studied in their habits with the view of ascertaining if the differences are not merely sexual.

Occurs in the Middle, Southern and Western States.

A. viridicornis Gory.—Oblong, moderately depressed, black, beneath bluish, above slightly purple, sides of thorax broadly shining cupreous. Front slightly depressed at middle, surface reticulate and cupreous or brassy. Thorax broad, sides feebly and irregularly arcuate, disc slightly convex, on each side a transverse depression, surface very regularly reticulate. Elytra narrowed at apical third, the apices obtuse, surface opaque finely wrinkled. Body beneath more shining than above, the thorax reticulate, abdomen sparsely punctate. Claws slender, broader at base. Length .20—.26 inch; 5—6.5 mm.

This species resembles *cyanella* in form but is less shining and with the thorax differently colored. The form of the claws will enable the two to be easily separated.

Occurs in the Middle and Southern States.

A. cyanella Gory.—Oblong, parallel, elytra narrowing at apical third, color bluish or purple, shining. Front flat, impressed at middle, surface coarsely punctured somewhat reticulate at the sides. Thorax broad, sides nearly straight at middle, arcuate at either end, disc moderately convex with a deep triangular impression on each side behind the middle extending to the hind angle, surface distinctly reticulate at the sides, smoother at middle. Elytra obtuse at tip, disc with a vague oblique impression in front of middle, the surface moderately shining, obsoletely scabrous at base and indistinctly punctured and much smoother near the apex. Body beneath black with a purplish tinge, the prothorax indistinctly reticulate, the abdomen obsoletely punctate and nearly smooth. Tarsal claws with a broad tooth, acute at its free angle. Length .16—.22 inch; 4—5.5 mm.

It appears to have escaped notice that this species and *quercata* have the claws distinctly toothed. This distinguishes these two from any others at present known in our fauna, while the broader form, more shining and less sculptured surface distinguish the present from *quercata*.

Occurs in the Middle, Southern and Western States, extending as far as Texas, also one specimen from California, (Ulke).

A. quercata Fab.—Oblong, slightly narrowed posteriorly, color usually bright green with the middle of the thorax and a broad vitta on each elytron brown. Front flat without depression, densely punctured. Thorax broad, the sides usually straight at middle, arcuate at the front angle and slightly sinuate near the posterior, disc feebly convex, with a moderate depression each side behind the middle composed of two confluent transverse impressions, surface reticulate, but less distinctly at middle. Elytra gradually narrowed to the tips which are obtuse, surface feebly granulate at base, somewhat less rugous posteriorly. Body beneath green, the thorax distinctly reticulate, the abdomen nearly smooth. Claws toothed at base. Length .16—.24 inch; 4—6 mm.

There is a tendency in this species to vary in color, the bright green giving place to brownish. *A. bivittata* Gory, seems merely a form of this species with the brown elytral vitta well marked.

The attention of collectors should be directed to this species and *cyanella*. They are so often sent together, and even placed side by side that I am inclined to suspect a closer relationship than that of allied species, in other words may they not be sexes of one?

Occurs in the Middle and Southern States to Texas. I have seen one in Mr. Ulke's cabinet from California.

A. flavimana Gory.—Narrowly cuneiform. Front convex, finely reticulate. Thorax broader than long, narrower posteriorly, apex bisinuate, sides feebly arcuate, hind angles rectangular, disc moderately convex, very regularly reticulate, a vague impression each side of middle, another more distinct in front of scutellum. Elytra narrowed to apex, a fine transverse basilar impression, surface slightly rugous, vaguely striato-punctate, with one interval slightly more convex, apices obtuse. Thorax beneath reticulate, body and abdomen obsoletely reticulate or nearly smooth, the last ventral segment very coarsely punctured. Tarsal claws slender. Length .12—.20 inch; 3—5 mm.

The male is more slender and smaller than the female. In the latter the last ventral segment is coarsely punctured over its entire surface while in the male the tip is alone punctured.

The color of this species varies considerably. The head is usually metallic-green, varying to purplish. The thorax is broadly purple-black or dark brown at middle, the sides green or blue. The elytra are dark purple or bronze varying to greenish, with usually a basal triangle of green. The under side is green or bronze.

Occurs in the Middle and Southern States as far as Texas.

XENORHIPIS Lec.

This genus differs remarkably not only from the other two of the group but from all others in the family in the structure of the antennæ of the male. The joints of the male antennæ from the second to the tenth are provided with a branch of varying length, that of the second shortest. In the accompanying plate (IV, fig. 9), I have endeavored to reproduce as accurately as possible the form of each joint and its branch, and will refer the reader there rather than give a detailed description. The antennæ of the female do not differ remarkably from the usual Buprestide type, being slender and subserrate from the fifth joint.

X. Brendeli Lec. Proc. Acad. 1866, 384.

In the two outline figures on the plate (IV, figs. 7, 8), representing both sexes it will be observed that the thorax of the male is quadrate, and that of the female distinctly wider than long. In the latter sex the head is also more transverse and the eyes smaller than in the male and much less prominent.

The three specimens known do not vary perceptibly from each other in size .20 inch; 5 mm.

While very rare the species has a wide distribution. The specimen in Mr. Ulke's cabinet was collected in Peoria, Illinois; Dr. LeConte has one from Texas; that in my cabinet (a ♀), was found by Mr. A. Merkel in his garden at Brooklyn.

Bibliography and Synonymy.

MELANOPHILA Esch.

M. miranda Lec. (*Phœnops*), Proc. Acad. 1854, p. 83; Trans. Am. Philos. Soc. xi, p. 212; Col. Kans. 1859, p. 11, pl. ii, fig. 7.

M. notata Lap. et Gory, (*Apatura*), Mon. i, p. 4, pl. i, fig. 5; Lec. loc. cit. p. 212.
luteosignata Ziegl. Proc. Acad. 1846, p. 267.
opaca Lec. loc. cit. p. 213.

M. consputa Lec. Pacif. R. R. Rep. 47 par. p. 44; Tr. Am. Philos. Soc. xi, p. 212.

M. longipes Say, (*Bupr.*), Journ. Acad. iii, p. 164; Gory, Mon. Supp. p. 76, pl. xiii, fig. 74; Lec. loc. cit. p. 212.
immaculata Mann. Bull. Mosc. 1837, p. 70; Gory, loc. cit. p. 75, pl. xiii, fig. 72.
appendiculata ‡ L. et G. Mon. i, Apat. p. 8, pl. ii, fig. 14.

M. atropurpurea Say, (*Bupr.*), Journ. Acad. iii, p. 160; Lec. loc. cit. p. 213.

M. Drummondi Kby. (*Trachyp.*), Faun. Bor. Am. p. 159, pl. ii, fig. 8; L. et G. Mon. i, p. 5, pl. i, fig. 3; Lec. loc. cit. p. 213.
guttulata ‡ Mann. Bull. Mosc. 1853, p. 221.

M. fulvoguttata Harris, (*Bupr.*), N. E. Farmer, 1829, p. 2; Ins. Inj. Veg. 44; Lec. loc. cit. p. 213.
octospilota L. et G. Mon. i, p. 4, pl. i, fig. 4.
croceosignata L. et G. loc. cit. p. 5, pl. i, fig. 6.
decolorata L. et G. loc. cit. fig. 7.

M. gentilis Lec. List Col. p. 42.
prasina ‖ Lec. loc. cit. p. 254.

M. intrusa n. sp.

M. æneola Mels. Proc. Acad. ii, p. 146.
metallica Mels. loc. cit.

M. obtusa n. sp.

ANTHAXIA Esch.

A. salicis Fab. Gen. Ins. Mant. p. 237; Lap. et Gory, Mon. i, Anth. p. 12, pl. iii, fig. 14.

A. æneogaster L. et G. loc. cit. p. 32, pl. vii, fig. 44.
inornata Rand. Bost. Journ. ii, p. 4; Lec. Trans. Am. Philos. Soc. 1859, p. 216.
expansa Lec. Pacif. R. R. Expl. xi, Ins. 47 paral. p. 44.
strigata Lec. Trans. Am. Philos. Soc. 1859, p. 215.
foveicollis Lec., *imperfecta* Lec., *retifer* Lec. loc. cit. p. 215.

A deleta Lec.

A. viridifrons Gory, Mon. Suppl. p. 284, pl. xlvii, fig. 277; Lec. loc. cit. p. 217.
subænea Lec. loc. cit. p. 216.

A. viridicornis Say, Journ. Acad. iii, p. 162; Trans. Am. Philos. Soc. iv, p. 161; Lec. loc. cit. p. 216.

A. cyanella Gory, loc. cit. p. 285, pl. xlvii, fig. 278; Lec. loc. cit. p. 216.
scoriacea Mels. Proc. Acad. ii, p. 148.

A. quercata Fab. Syst. El. ii, p. 216; L. et G. loc. cit. p. 21, pl. v, fig. 28; Lec. loc. cit. p. 217.
cuneiformis Gory, Mon. Suppl. p. 290, pl. xlviii, fig. 284.
bivittata Gory, loc. cit. p. 292, pl. xlix, fig. 286.

A. flavimana Gory, loc. cit. p. 291, pl. xlix, fig. 285; Lec. loc. cit. p. 218.
gracilis Mels. Proc. Acad. ii, p. 148.

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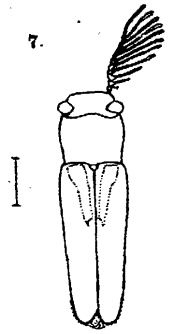

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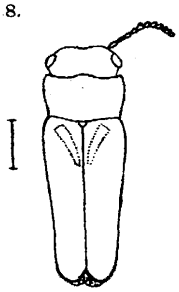

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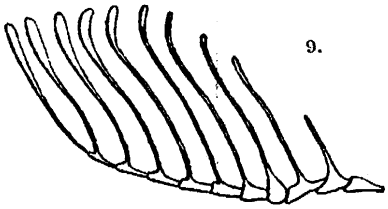

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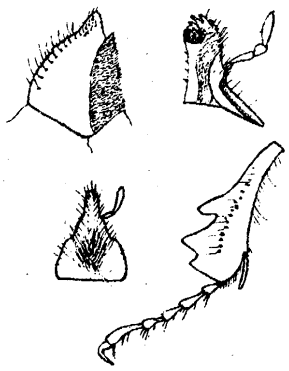

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