

**Notes on some genera of CERAMBYCIDÆ of the United States.**

BY GEORGE H. HORN, M. D.

The following notes have been prepared to assist those students in the determination of their species who have not access to large collections for comparison.

A number of the more difficult and large genera have already been tabulated by Dr. Leconte. In those here selected although the species are not numerous in any one there has been almost as much difficulty in determining the species as in *Leptura*, from the fact that the descriptions are scattered and too many species have been described from the insufficient material in cabinets at the time.

The number of new species described is necessarily very small from the fact that the field has but recently been so thoroughly gone over by Dr. Leconte.

In the preparation of the following remarks I have had the same types before me that were used by Haldeman and Leconte while my own cabinet has served to increase the number of specimens and enable specific limits to be better defined.

**BATYLE** Thoms.

Having lately had occasion to examine a large number of specimens of our smaller red species I became convinced that they were all variations of one form. It is proposed to unite them under Say's name.

**B. suturalis** Say. (*Callidium*).

The form described is that most commonly found in the Western States and Texas.

"Rufosanguineous, hairy; antennæ, suture, postpectus and feet black." (Elytra with coarse, distant punctures.)

The extent of the sutural black mark varies greatly, sometimes forming a narrow line or again, narrow at base and gradually becoming wider and even covering the apical third of the elytra. (*Pearsalli*, Bld.)

I have lately received from Mr. H. K. Morrison a specimen collected in the southwestern part of Colorado, in which the thorax is entirely black, so that only the abdomen and elytra are red and the suture in the latter is narrowly black.

The legs may be entirely red or even entirely black with all variations between.

The synonymy therefore is :

**B. suturalis** (Say).

*miniatus* (Germ.), *rutilans* (Lec.), *ruber* (Lec.), *Pearsalli* (Bld.)

**B. ignicollis** (Say); *sanguinicollis*, Germ.; *coccineicollis*, Hald.

This is, of course, a very distinct species, its characters in brief are: Black, sparsely pubescent; thorax red, elytra densely punctured.

#### **POGONOCHERUS** Serv.

A study of the typical specimens in the cabinet of Dr. Leconte leads me to the following results, with which I think he fully agrees.

*P. sordidus* Lec., has already been removed to the genus *Estola* Fairm., (see Trans. Am. Ent. Soc. 1875, p. 150).

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|--|--------------------------|
| Elytra truncate at tip and more or less dentate.....   | 1.                       |
| Elytra rounded at tip.....   | 2.                       |
| 1.—Legs and sides of elytra with long flying hairs; elytra with moderately large umbone at middle of base..... | <b>crinitus</b> Lec.     |
| Legs and elytra without flying hairs.  |                          |
| Elytra with lateral costæ well marked and with a row of five or six tufts of erect black setæ.....             | <b>penicillatus</b> Lec. |
| Elytra without lateral costæ and tufts.....  | <b>mixtus</b> Hald.      |
| 2.—Elytra with moderately long hairs on the upper surface, and punctured very sparsely at basal half only..... | <b>oregonus</b> Lec.     |

*P. crinitus* Lec., may not belong to the genus, its appearance is certainly unlike the other species, at first glance it strikingly resembles *Acanthoderes decipiens* excepting the elytral umbone.

*P. penicillatus* Lec., is very distinct by the lateral ridges and tufts of erect setæ.

*P. mixtus* Hald. To this I have added as synonyms *simplex* and *parvulus* Lec. The former does not differ at all, the second is merely a very small form. I find among the specimens some difference in the tips of the elytra which is merely individual, consisting in the greater or less distinctness of the tooth limiting the emargination of the tip externally. In some specimens a tooth is well marked and may even be called a spine; from this all degrees of variation are seen until the angle is completely rounded.

*P. oregonus* Lec., is very distinct by the rounded tips of the elytra and the rather long black hairs of the upper surface, and moderately long pale hairs on the legs and sides of the elytra. These hairs are

short in *penicillatus* and *mixtus*. The elytral sculpture in the present species is also peculiar, the punctures are all in and anterior to the white band, while in all the other species the elytra are punctured from base to tip.

Here also is the proper occasion to call attention to a discrepancy existing between the descriptions of Leconte and Lacordaire.

The former says (Classification p. 330), middle coxæ open; on p. 340, middle coxæ angulate but not open; also middle tibiæ with an external sinus.

Lacordaire (Genera ix, pp. 416 and 650), middle coxæ closed; on pp. 417 and 650, middle tibiæ without sinus. This latter error? is noticed by Leconte. In all our species the middle coxal cavities are as open as in *Eupogonius* and the middle tibiæ are in no way different from those of species pronounced *Hoplosia* and *Estola* but sufficiently different from *Eupogonius*.

#### ESTOLA Fairm.

**E. ? sordida** (*Pogonocherus* ?) Lec., New Species, p. 237.

The middle tibiæ have a distinct sinus on the outer side. The eyes are very coarsely granulated and the lower lobe broader than long, and the emargination is so deep that the isthmus between the two lobes is not wider than one or two facets.

The determination of this species as *Estola* is due to the suggestion of Mr. H. W. Bates, but I have considerable doubt of its correctness from the following characters: Scape of antennæ rather stout, eyes very coarsely granulated, the lower lobe broader than long, mesosternum declivous.

Those of *Estola* are: Scape of antennæ obconical, eyes subfinely granulated, the lower lobe elongated, mesosternum truncate in front, horizontal posteriorly, (Lacordaire).

These characters seem to require a provisional modification of the table of the *Pogonocherini* (Classification p. 340), as follows:

Middle tibiæ with an external sinus; thighs clavate; vertex concave, antennal tubercles prominent.

Eyes moderately granulated. Scape of antennæ equally punctured.

Lower lobe of eyes elongate.....HOPLOSIÆ.

Lower lobe of eyes as wide as long.....POGONOCHERI.

Eyes very coarsely granulated. Scape with large punctures intermixed.

Lower lobe of eyes broader than long.....? ESTOLÆ.

Middle tibiæ without external sinus; thighs not clavate; vertex flat or convex, antennal tubercles not prominent.

Eyes coarsely granulated; lower lobe as broad as long. Scape of antennæ equally punctured.....EUPOGONII.

**MECAS** Lec.

Our species are few in number and may be known by the following characters:

Body above concolorous.

Legs black. Thorax usually with two feeble callosities. Body above uniformly clothed with cinereous pubescence.....**inornata.**

Legs black. Thorax without callosities. Body above sparsely clothed with cinereous pubescence, thorax at sides and middle, elytra at suture and sides more densely clothed with yellowish white pubescence.....**marginella.**

Legs or at least the femora red.

Thorax with four or five callosities. Surface sparsely cinereo-pubescent, suture and margin more densely.....**pergrata.**

Thorax without callosities. Surface very sparsely pubescent. Femora red, tibiæ usually dark.....**femoralis.**

Body above bicolored. Head and thorax reddish yellow.

Elytra very sparsely cinereo-pubescent, suture more distinctly...**ruficollis.**

**M. inornata** (Say); *saturnina* Lec.

The form of the thorax varies considerably in this species, and may be almost truly cylindrical or arcuate at the sides; the width often equals the length, many times exceeding it. The callosities of the thorax which are feeble at best may be wanting.

Occurs from Dakota to Texas.

**M. marginella** Lec.

This species shows no variation except in size in the dozen or more specimens I have seen.

Occurs in Texas and Illinois.

**M. pergrata** (Say); *gentilis* Lec.

There are always four sometimes five callosities on the thorax. The upper surface varies in color from piceous to rufous and is sparsely clothed with cinereous hair. A narrow sutural and marginal line is more densely pubescent. The legs are rufous, the tibiæ at tips sometimes darker.

Occurs in the same regions with *inornata*.

**M. femoralis** (Hald.)

This is the smallest species. I have seen but four specimens not varying from the characters in the table.

Occurs in Georgia.

**M. ruficollis** n. sp.—Piceous, head, thorax and epipleuræ pale rufous, elytra black. Antennæ black. Head pale rufous, darker behind the eyes and at antennal tubercle, surface sparsely punctured and sparsely clothed with very fine pale pubescence. Thorax slightly wider than long, sides slightly



**O. oculaticollis** Say.—A slender species entirely black, clothed with cinereous pubescence. Thorax with two callosities. Elytra obliquely truncate at tip.

Colorado and Northern Texas, rare.

**O. bimaculata** Oliv.—Slender, black, thorax and often the cervix yellow, the former usually with two callosities.

Several varieties occur.

*var. tripunctata* || Fab.—Thorax with two discal and an ante-scutellar black spot.

*var. basalis* Lec.—Thorax with two discal spots and entire basal margin black. *perspicillata* Hald., is merely a smaller form.

*var.* ———.—Thorax, often the cervix, yellow without spots.

Our most abundant species. Occurs everywhere east of the Rocky Mountains.

**O. quadricollis** Lec.—A large species with four distinct callosities on the thorax. The elytra are black, with cinereous pubescence, tips subtruncate, the epipleuræ always pale at base. The abdomen varies in color, rarely entirely rufous, usually with the last two or three segments rufous.

California and Nevada.

**O. Schaumii** Lec.—Flavo-testaceous. Occiput usually fuscous. Elytra variable in color, tips rounded or feebly subtruncate. The legs may be entirely yellow, or the tibiæ and tarsi fuscous.

*var. Schaumii* Lec.—Elytra brownish, epipleuræ and a short lateral vitta testaceous.

*var.* ———.—Elytra in great part yellowish, an elongated triangular fuscous scutellar spot, and a narrow vitta from tip toward base.

*var.* ———.—Elytra black, epipleuræ pale.

*var.* ———.—As in the preceding with the disc of the thorax entirely black. (May this be *Saperda marginata*, Fab.?).

The first two varieties occur in the Gulf States, the last two in Illinois and Missouri.

**O. tibialis** Hald.—Black above and beneath, sparsely cinereo-pubescent, anterior tibiæ and femora at tips rufous. Thorax densely and rather coarsely punctured and without callosities.

I have seen but one specimen. Pennsylvania.

**O. flavipes** Hald.—Linear, black above and beneath, legs yellow.

Middle States and Illinois, rather rare.

**O. ocellata** Hald.—Moderately robust. Beneath entirely red. Thorax with two callosities. Elytra black, cinereo-pubescent, epipleuræ black. Legs usually pale, tibiæ and tarsi fuscous.

*var. ocellata* Hald.—Head and thorax rufous.

*var. discoidea* † Lec.—Occiput and disc of thorax black. Legs entirely fuscous.

*var. ———*.—Head entirely black. Thorax rufous. Legs rufous, tibiæ and tarsi fuscous.

The first *var.* occurs from the Middle States to Texas, the second in Florida, the third Texas.

The last variety approaches the next species but the elytra are merely truncate, the epipleuræ black and the abdomen entirely rufous.

**O. texana** n. sp.—Form slender, yellowish testaceous. Head, antennæ and elytra black, sparsely cinereo-pubescent. Thorax with two callosities and an ante-scutellar black spot. Elytra truncate and subbispinose at tip. Epipleuræ pale at base. Legs yellow, tips of tibiæ and tarsi fuscous. Abdomen yellow, last segment, sometimes the sides of the second and third fuscous. Length .54 inch; 13.5 mm.

This species resembles some of the varieties of the preceding, and even *bimaculata* but in the latter case the body beneath and legs are entirely black.

Occurs in Texas.

**O. tripunctata** Swed.—Elytra flavo-testaceous with a sutural and lateral fuscous stripe. Thorax with two callosities. Legs always pale. The body beneath may be entirely fuscous or pale yellowish with merely a lateral metasternal space and spots on the sides of the second and third ventral fuscous.

*var. myops* Hald.—Body beneath pale, fuscous spots on the sides of metasternum and second and third ventral segments. Head yellow. Elytra pale yellowish with a lateral stripe fuscous. Thorax with two discal spots only.

*var. mandarina* Fab.—Abdomen variable, sometimes entirely fuscous, elytra with sutural and lateral stripe fuscous. Antennæ usually annulated. Thorax with ante-scutellar spot.

*var. ———*.—As in the preceding, head fuscous, antennæ not annulated.

Occurs from the northeastern States to Colorado and Georgia.

**O. gracilis** Fab.—Pale yellowish testaceous. Antennæ fuscous. Thorax densely punctured, without callosities. Elytra with lateral stripe fuscous. Legs pale, tips of tibiæ and tarsi darker.

Occurs in Georgia.

**O. ruficollis** Fab.—Pale rufous. Antennæ and elytra nearly black, the latter cinereo-pubescent, epipleuræ pale at base. Thorax without callosities. Tibiæ and tarsi fuscous.

I have seen but one instance of variation. This has a very indistinct pale vitta extending from base to tip of elytra, at middle.

Occurs from Connecticut to Georgia.

It must not be supposed that every specimen is amenable to classification by the foregoing table and remarks. The species are

so variable, even with the suppressions I have made, as almost to resist generalization.

In order that the changes in synonymy may be more clearly defined the following bibliography is added.

- O. oculaticollis** Say, Journ. Acad. 1824, p. 406.  
**O. bimaculata** Oliv. Ent. iv, 68, p. 21, pl. 4, fig. 43.  
*tripunctata* || Fab. Ent. Syst. i, 2, p. 310; Hald. Trans. Am. Philos. Soc. x, p. 57; Lec. Journ. Acad. 1852, p. 152.  
*affinis* Harris, Ins. Mass. p. 91.  
*perspicillata* Hald. loc. cit.  
*basalis* Lec. loc. cit. p. 153.  
**O. quadricalloso** Lec. Trans. Am. Ent. Soc. 1874, p. 68.  
**O. Schaumii** Lec. Journ. Acad. 1852, p. 153.  
**O. tibialis** Hald. loc. cit. p. 57.  
*femorialis* Lec. (err. typ.) loc. cit. p. 153.  
**O. flavipes** Hald. loc. cit. p. 57; Lec. loc. cit. p. 152.  
**O. ocellata** Hald. loc. cit. p. 56; Lec. loc. cit. p. 152.  
**O. texana** n. sp.  
**O. tripunctata** Swederus, Vet. Ac. nya Handl. 1787, p. 197.  
*mandarina* Fab. Syst. El. ii, p. 321; Lec. loc. cit. p. 152.  
*amabilis* Hald. loc. cit. p. 157.  
*myops* Hald. loc. cit. p. 57; Lec. loc. cit. p. 152.  
**O. gracilis** Fab. Syst. El. ii, p. 324; Hald. loc. cit. p. 57; Lec. loc. cit. p. 152.  
**O. ruficollis** Fab. Ent. Syst. i, 2, p. 311; Hald. loc. cit. p. 56; Lec. loc. cit. p. 152.  
*plumbea* Oliv. Ent. iv, 68, p. 21, pl. 4, fig. 42.

#### **TETRAOPES** Dalm.

Collections from all parts of our territory show conclusively that the number of our species must be reduced.

They may be distinguished in the following manner:

Elytra with median and apical cordiform black space.

Disc of thorax black. Thoracic umbone suddenly elevated.

**discoideus** Lec.

Disc of thorax red. Umbone gradually convex.....**canteriator** Drap.

Elytra with black spots.

Antennæ black, not annulate.

Abdomen very sparsely, scarcely visibly punctulate. Mandible of ♂ with deep sinuation at base.....**tetraophthalmus** Forst.

Antennæ more or less distinctly annulate. Abdomen densely but very finely punctulate. Mandible of males with moderate sinuation.

Claws rather deeply bifid. Surface rather sparsely clothed with recumbent pubescence, and with semi-erect hairs visible on the disc.

Thoracic umbone suddenly elevated, distinctly limited at sides.

Surface of umbone opaque. Abdomen scarcely punctulate.

**collaris** n. sp.

Surface of umbone shining. Abdomen densely punctulate.

**femoratus** Lec.



- Scape of antennæ black, femora red.....var. **femoratus**.  
 Scape reddish, femora dark.....var. **mancus**.  
 Scape red, femora red.....var. **basalis**.  
 Scape, femora and anterior tibiæ red.....var. **oregonensis**.  
 Thoracic umbone gradually convex. Antennæ feebly annulated.  
 Antennæ and legs dark.....**quinquemaculatus** Hald.  
 Scape and femora red.....var. **texana**.  
 Claws feebly cleft at tip. Surface more densely clothed with recumbent  
 pubescence, erect hairs very short and visible only at the sides  
 and tip.  
 Thoracic umbone gradually convex, lateral tubercle not very promi-  
 nent.....**canescens** Lec.

**T. discoideus** Lec. and **canteriator** (Drap.)

These two species have black antennæ and legs, the former not annulate. The anterior cordiform spot may be reduced to a mere spot on each elytron.

The first occurs in New Mexico, the second in the Atlantic States.

**T. tetraophthalmus** (Forst.)

The antennæ and legs are always black. The elytral spots (four on each) constantly remain but vary in size.

Occurs from the Middle States to Kansas.

**T. collaris** n. sp.—Body black, head, thorax and elytra red. Antennæ annulate, scape brownish. Thorax with the usual four spots, sometimes the basal margin black, umbone suddenly elevated, surface opaque. Elytra sub-opaque with the usual four black spots. Legs black, anterior and middle femora brownish. Length .50 inch; 12.5 mm.

The mandibles of the males have a feeble sinuation on the upper edge at base. One specimen ♂ lacks the lateral spot.

Five specimens collected by Mr. Belt in New Mexico.

**T. femoratus** Lec.

Under this head I have added as varieties, the species already noted. The markings often exactly resemble *tetraophthalmus* and the antennæ sometimes lose their annulation, in which case the more distinct punctuation of the abdomen is the only means of distinguishing the two.

This species and its varieties are found over the entire region west of the Mississippi River to the Pacific coast, and varies in color of limbs and in the number and size of elytral spots in every conceivable manner. The form known as *oregonensis* has very small elytral spots.

**T. quinquemaculatus** Hald.

The thoracic umbone is merely slightly more convex than the rest

of the disc. The antennæ are very feebly annulated. In the typical form the legs and antennæ are black.

The form noted in the table as var. *texana*, is larger than the others and has the femora and scape red.

Occurs from Michigan to Texas.

**T. canescens** Lec. = *annulatus* Lec.

The surface is usually paler in color than the other species and rather densely clothed with fine cinereous pubescence, the erect hairs are very short and are visible only at the sides and near the tip. The thoracic umbone is abruptly elevated but less distinctly defined than in *femoratus*. In all the specimens I have seen the lateral elytral spot is absent.

The situation of the upper margin of the mandible near the base is sexual and is the only character by which the male may be determined.

Kansas, New Mexico and Texas.

**TETROPS** Kirby.

Three species occur in our fauna.

Elytra with greyish recumbent pubescence and erect pale hairs intermixed.

Legs black.....**canescens** Lec.

Elytra with black recumbent and erect hairs.

Legs black, thoracic umbone distinctly elevated.....**jucunda** Lec.

Legs red, umbone scarcely elevated.....**monostigma** Hald.

*T. canescens* Lec., occurs in Kansas; *jucunda* widely distributed but not common. Of *monostigma* I have seen but one specimen from the Middle States, which may be merely an accidental variation of *jucunda*.

**AMPHIONYCHA** Lec.

I have already shown the confusion existing regarding this generic name (Trans. Am. Ent. Soc. 1875, p. 150), and might add that the Catalogus, Gemm. and Harold, does not make matters any better.

Our two species are merely varieties of one and differ only in the thorax of *flammata* being narrowly yellow at the sides and the same color forming a very narrow margin at the sides of the elytra near the base while in *ardens* the thoracic yellow space is broad and the humeri and sides to middle of the elytra are also yellow. There is every degree of variation.

The synonymy therefore is :

**A. flammata** Newm. = *marginata* † (Fab.) Hald. = *ardens* Lec.