

LI.—*Synopsis of the Melolonthid Genus Ancistrosoma, with Descriptions of new Species and an allied new Genus.* By G. J. ARROW.

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THE species of *Ancistrosoma* were reviewed by Sallé in 1886 (Ann. Soc. Ent. France, p. 465), and corrections of his classification were published by himself in the following year (Bull. Soc. Ent. France, 1887, p. 127) and by Brenske in 1890 (Wien. ent. Zeit. ix. p. 133). Sallé regarded *A. vittigerum*, Er., as identical with *A. flavovittatum*, Bl., while Brenske declared it to be a distinct species; but neither has distinguished it from *A. klugi*, Curtis, from which Erichson separated it only by the occurrence of a pair of setose spots on the pronotum. As this is a variable feature in *A. klugi*, I see no reason to doubt that Erichson's two forms are conspecific and both belong to *A. klugi*. The study of the genitalia shows this insect, which ranges from Ecuador to Bolivia, to be a very variable one; but in the British Museum collection I have found specimens from the Fry Collection, not separated from it and occurring like it in Peru, which certainly belong to another yet undescribed species. Other specimens in the collection are also undescribed, and as two of them are of economic importance, I have thought it opportune to prepare a synoptical revision of the genus. The most remarkable feature of the genus is the ventral spine at the base of the abdomen of the males; and it is a curious fact that in many females a definite corresponding patch is found denuded of setæ near the end of the suture, whilst in fresh specimens it is absent.

Sallé gives as a specific character of *A. melolonthoides* (of which the type has been kindly lent me by M. Oberthür) the bifurcation of the claws of the middle and hind feet; but it seems probable that this applies to the male alone, and that, as occurs in all the other species, all the claws are bifid in the female.

The species can be distinguished as follows:—

Elytra with setose sulci; front and middle claws of ♂ simple.	
Elytral setæ dark coloured.....	<i>rufipes</i> , Latr.
Elytral setæ dark and light coloured.....	<i>intermedium</i> , sp. n.
Second elytral stripe produced forward.	
Pronotum without median line; femora and tibiæ black.....	
	<i>buckleyi</i> , Sallé.
<i>Ann. & Mag. N. Hist. Ser. 8. Vol. xii.</i>	

Pronotum with median line; legs red.	
Elytra with sutural line of setæ abbreviated	<i>klugi</i> , Curtis.
Elytra with sutural line of setæ entire..	<i>flavovittatum</i> , Bl.
Second elytral stripe abbreviated	<i>hilare</i> , sp. n.
Second elytral stripe absent	<i>blanchardi</i> , Sallé.
Elytra without sulci; front claws of ♂ simple (except in <i>A. farinosum</i>).	
Pronotum setose, with shining bare patches.	
Dorsal setæ deep yellow; costæ not well marked.....	<i>tobagoensis</i> , sp. n.
Dorsal setæ grey; costæ well marked.	
Scutellum clothed with short setæ	<i>melolonthoides</i> , Sallé.
Scutellum clothed with long setæ (all claws bifid)	<i>farinosum</i> , Sallé.
Pronotum covered with pale setæ, with minute opaque bare spots in ♀ only	<i>trinitatis</i> , sp. n.

Ancistrostoma intermedium, sp. n. (Figs. 1, 1 a.)

Nigrum, pedibus rufis, flavo-hirtis, capite flavo-setoso, pronoto anguste flavo-cincto, linea mediana vittisque duabus fusco-setosis; scutello flavo-setoso; elytris trisulcatis, sulcis setosis, setis minutis, partis anticæ fuscis, partis posticæ flavis:

♂, clypeo bilobato, lobis brevibus, latis; processu abdominali valido, postice fortiter angulato.

Long. 27·5–30 mm.; lat. max. 11·5–12·5 mm.

Hab. Peru.

This has a very close resemblance to *A. klugi*, but the setæ with which the upper surface is decorated are longer and

Fig. 1.



Fig. 1 a.



Fig. 1 b.



less scale-like and not uniform in colour, those occupying the central part of the pronotum and the anterior part of the elytral sulci being almost black, while those of the marginal

line of the pronotum and the posterior part of the sulci are yellow. There is a gradation in the latter, the dark and light scales being intermixed in the middle. The species is thus intermediate between *A. klugi* and *A. rufipes*, the setæ or scales upon the upper surface of the latter being of the same narrow shape but entirely dark coloured, while in *A. klugi* they are entirely light. The lobes of the clypeus are shorter and broader in the male of *A. intermedium* than in either of the other forms, and the body generally is a little stouter and less elongate. The ventral process is rather broad and strongly angulated behind near the base. The ædeagus is shown in fig. 1 *a* and that of *A. klugi* in fig. 1 *b*.

I do not know the female.

Ancistrostoma hilare, sp. n.

Fusco-brunneum, nitidum, pronoto nigro, pedibus (abdominisque plerunque extremitate) flavibus, capite toto, pronoti margine et linea minuta mediana antica, elytrorum vitta lata subsuturali, secunda multo abbreviata margineque externa postica setis vel squamis læte aurantiacis ornatis, pectore dense, pedibus segmentorumque ventralium marginibus haud dense flavo-hirsutis:

♂, clypeo acute bidentato, pygidio inflexo, setis flavis late marginato, medio lævissimo, abdomine apice excavato, processu basali valido, fere recto, haud acuto:

♀, clypei margine antico subtilissime biarcuato, fere recto, pygidio leviter convexo, æqualiter setoso, linea angusta mediana denudata. Long. 26–30 mm.; lat. max. 11–12 mm.

Hab. Peru (ex coll. Mniszech), Colombia.

A male and two females were included in an interesting series of *Ancistrostoma* kindly submitted to me by M. René Oberthür, who, possessing the types of Sallé's descriptions, has enabled me to examine all the species of the genus hitherto known. One of the two females is the type now in the British Museum.

The setæ with which this species is decorated are of a rich orange colour, and those of the pronotum and elytra assume the form of fairly large oval scales. The pronotum has only a narrow border and a trace of a median line in the anterior part. The scutellum is almost devoid of setæ. The elytra have each a broad stripe near the suture, a very short one adjacent to it, sometimes a few scales representing a third stripe, and a short marginal border at the posterior part of the outer edge. It is closely related to *A. blanchardi*, Sallé, but more massively built, with larger, broader, and more

brightly coloured scales, forming a wider sutural stripe and a second one much abbreviated at each end. The third is almost or entirely lost.

Ancistrosoma tobagoensis, sp. n. (Figs. 2, 2 a.)

Nigrum, elytris pedibusque flavidis, setis minutis flavis fere ubique tectum, capitis, pronoti scutellique setis rufescentioribus, pronoto utrinque late denudato, areis denudatis setis sparsutis antice divisus, scutelli setis longioribus et erectis; utrisque elytris tricotatis, costis angustis, antice denudatis; pygidio linea angusta mediana denudata notato:

♂, clypeo reflexo margine antico fere recto, pygidio convexo, inflexo; segmento ventrali primo processu recto valde obliquo armato; pedum 4 posticorum unguibus fassis:

♀, clypeo lato, lævissime bilobato; pygidio brevi, planato; unguibus omnibus fassis.

Long. 18-20 mm.; lat. max. 8-9 mm.

Hab. Tobago.

This is very easily recognizable by the deep yellow (orange-yellow in the anterior part) colour of the setæ with which almost the whole surface is covered, except the large, smooth, lateral patches of the pronotum. The setæ are

Fig. 2.

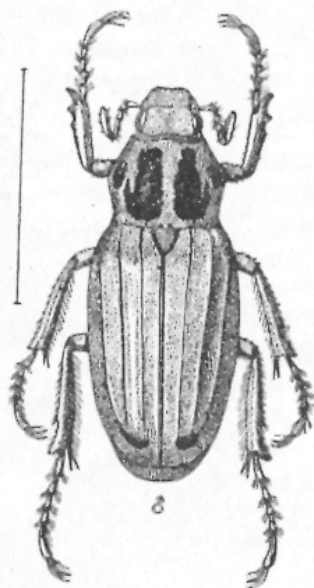
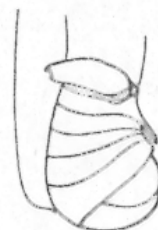


Fig. 2 a.



smaller and less elongate than in *A. trinitatis*. The head, scutellum, elytra, and lower surface are closely clothed with them, the three costæ of each elytra forming denuded lines, which are so narrow as to be quite inconspicuous to the naked eye except at the anterior end. The humeral and

apical callosities are also denuded. The pronotum has a border and a longitudinal median band of orange setæ, and the large, smooth, lateral patches remaining are divided anteriorly by an irregular patch of setæ projecting backwards from the front margin on each side. The pronotum is rather transverse, with all four angles acute and the sides strongly bent in the middle. The clypeus is only very minutely notched in the middle in the female, straight and reflexed in the male. The basal ventral segment of the latter is armed with a nearly straight process directed obliquely backwards.

Specimens were taken in numbers by Mr. W. E. Broadway, who found them destroying the young foliage of the mountain Immortelle (*Erythrina*) in June of this year.

Ancistrosoma trinitatis, sp. n. (Figs. 3, 3 a.)

Testaceum, corpore supra setis pallide flavis, subtus setis griseis ubique sat crebre vestito, pedibus minus dense flavo-pilosis, clypeo antice fere recto; pronoto transverso, antice modice angustato, lateribus medio leviter angulatis, angulis anticis fere rectis, posticis acute productis; scutello setis ut in dorsi reliquo vestito, elytris costis angustis vix nudis instructis:

♂, clypeo leviter reflexo, utrinque obtuse angulato; pygidio inflexo, convexo, linea brevi longitudinali mediana lævi ornato, segmento ventrali primo medio minute producto vel spinoso, pedum 4 posticorum unguibus fassis:

♀, pronoto postice plagis minutis duabus denudatis subopacis instructo; pygidio brevi planato; unguibus omnibus fassis.

Long. 17-20 mm.; lat. max. 8-9 mm.

Hab. Trinidad.

This insect has the generic features at their lowest development. Almost the whole surface is covered with narrow scales or setæ, the elytral costæ, although denuded on the summit, being very narrow and not conspicuous. The clypeus is not bilobed, but nearly straight at the front margin. The general form and size are those of *A. farinosum*, but a little less elongate, and the pronotum is rather broader, less narrowed in front, and less angulated at the sides. The scutellum is clothed, except at its edge, with setæ only a little longer than those of the pronotum and elytra.

♂. The abdomen is strongly arched and the legs are slender. The front margin of the clypeus is gently excised and the angles rather sharply marked. The first abdominal segment is produced in the middle as a minute spine, but in

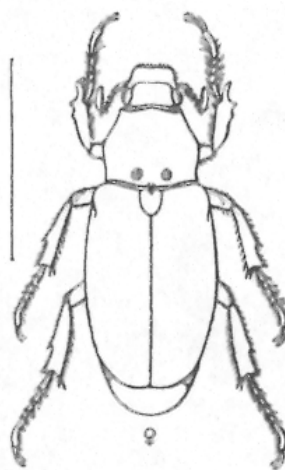
small individuals this is almost or entirely obsolete. The pygidium is long and incurved, and bears a narrow, longitudinal, smooth line. The front claws are simple and the rest cleft.

♀. The abdomen is short and stout and the legs are much shorter than those of the male. The clothing of the

Fig. 3.



Fig. 3 a.



upper surface is a little less dense, the setæ being rather less numerous. There is a small, round, denuded patch on each side of the base of the pronotum; the pygidium is short and rather flat, and the claws are all cleft at the tip.

It appears to be common in Trinidad, and was found by Mr. F. W. Urich eating leaves of the cacao-tree in May.

PECTINOSOMA, gen. nov.

Corpus angustum, attenuatum. Caput parvum. Oculi haud prominentes. Clypeus brevis, margine antico recto. Antennæ 9-articulatæ. Pronotum hexagonum, elongatum. Prosternum postice oblique productum, utrinque planatum, apice bifidum. Pedes graciles; coxæ intermediæ et posticæ late distantes; tibiæ anticæ haud fortiter bidentatæ; tarsi omnes sat longi et crassi, singulo apice pilis 4 longis divergentibus instructo; ungues longi, integri. Metasternum et abdomen subtus late excavati, hujus segmentum penultimum lamina horizontali postice minute dentata munitum.

Pectinosoma elongatum, sp. n. (Figs. 4, 4 a.)

Nigrum, clypeo, elytrorum marginibus anguste pedibusque castaneis; corpore supra opaco, minute nigro-setoso, marginibus extremis omnibus, scutello, suturaque, setis albis multo majoribus

ornatis; capite parvo, rude et confluent punctato, oculis haud prominentibus, clypeo brevi, antice fere recto; pronoto convexo, angulis anticis acutis, posticis obtusis, lateribus medio valde angulatis; elytris dense punctatis et setosis, vix costatis; propygidio longo, eodem modo sculpturato, pygidio longo, antice nitido, parce punctato, postice crebre punctato et flavo-setoso.

Long. 17 mm.; lat. max. 6 mm.

Hab. BRITISH GUIANA: Mt. Roraima.

Although I know only the male of the insect for which this genus is formulated, its characteristics are so peculiar and striking that no other course is possible than to so deal with it, while its close relationship to *Ancistrosoma* is equally evident.

Fig. 4.



Fig. 4 a.



The body is exceedingly elongate and the last two abdominal segments are entirely uncovered by the elytra. The middle and hind coxæ are widely separated and the thorax and abdomen alike are hollowed out to the full width of their ventral surface. The prosternum forms a conspicuous bifid process behind the front coxæ. The whole of the lower surface, with the exception of the last segment of the abdomen, is clothed with short yellowish hair, which becomes long and thick round the edges of the hollowed surface. The penultimate segment bears a rectangular process directed horizontally backwards. The straight posterior edge of this process bears a row of very short broad bristles, twelve in number, placed in close contact and truncated at the end, presenting the appearance of a set of incisor teeth. This curious comb-like appendage arises beyond the middle of the segment, which is excavated beneath it and projects only a little way beyond its hind margin. The terminal segment

is smooth, broad, and truncated at the end. The clypeus is short, with its front edge straight and slightly reflexed. The antennæ are 9-jointed. The pronotum is distinctly longer than wide and greatly contracted in front and behind, without the tooth in the middle of the hind margin and corresponding notch in the scutellum so characteristic of *Ancistrostoma*. The legs are long, slender, and thinly clothed with long hair, the front tibiæ bearing two rather feeble teeth. The claws are simple, long, and slender, and each claw-joint bears at the end four very long fine hairs, placed at equal distances round the base of the claws and pointing outwards.

Many of these features are no doubt peculiar to the male sex.
