A NEW SPECIES OF CALLIPYNDAX WATERHOUSE FROM FRENCH GUIANA WITH COMMENTS ON THE GENERIC RELATIONSHIPS (COLEOPTERA: BUPRESTIDAE: AGRILINAE)

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ABSTRACT

A New Species of Callipyndax Waterhouse from French Guiana with comments on the generic relationships (Coleoptera: Buprestidae: Agrilinae).

A second species is described for the Neotropical buprestid genus Callipyndax Waterhouse, C. enconcontrario. This new species is compared to the holotype of C. cupreiventris Waterhouse and separated in a single couplet. Both species are illustrated. A brief discussion is presented on the perceived relationships of the agriline genera of the Neotropical region.

Key words: Coleoptera, Buprestidae, Agrilinae, Callipyndax, Neotropical, French Guiana.

INTRODUCTION

The interesting agrilene genus Callipyndax was described by WATERHOUSE (1887) for his new species cupreiventris from Brazil. Only few brief comments or suggestions regarding the generic relationships have been made since then. A single specimen of an obviously distinct second species from French Guiana was sent to me by Patrick Bleuzen. Its description herein allows me the opportunity to make a few more comments about the generic relationships of the Neotropical Agrilinae as I perceive them.

Label data are presented verbatim with abbreviations for handwritten and printed label data given as (h) and (p) respectively. The holotype of the new species will be deposited in The Natural History Museum, London (BMNH) as a gift of Patrick Bleuzen and as a fitting repository along with the Waterhouse type of its congener.
GENUS CALLIPYNDAX Waterhouse.

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_Type-species: Callipyndax cupreiventris_ Waterhouse, 1887: 295 (original monotypy).

WATERHOUSE (1887) related _Callipyndax_ to _Amyia_ Thompson (1878). DEYROLLE (1864) erected _Pareumerus_ and contrasted it to _Euamyia_ Kerremans (= _Eumerus_ Gory & Laporte). I have not been able to examine any material of _Pareumerus imperator_ (Gory & Laporte), but conclude from the descriptions that it comes much nearer to _Amyia_ and _Euamyia_ than to _Callipyndax_. Clearly, _Callipyndax_ is a rather derived member of the Agrilinae with no previous indication of relationships available.

Following the description of the new species, I will briefly discuss the Neotropical Agrilinae as a beginning for future studies. The species of _Callipyndax_ are separated in the following couplet:

Body more robust, length subequal to width; underside cupreous (Brazil) ...........................................

........................................................................................................... _cupreiventris_ Waterhouse

Body slender, more elongate, length more than 1.5x width; underside dark aeneous (French Guiana) ................................................................. _encotrario, sp. n._

_Callipyndax encontrario_, sp. n. (Figs. 1, 2, 5, 6)

Holotype Male. 11.5 x 4.5 mm; flattened above, laterally convex below; head, pronotum and underside black with a green aeneous reflection; elytra black with deep blue reflection; head very finely, sparsely punctate, pronotum concentrically strigate on disc, more coarsely punctate on lateral 1/3, elytra rugose, especially laterally, underside generally more coarsely punctate except on basal abdominal sternites which are arcuately strigate; pronotum with slight concentration of adpressed setae in basal half of median longitudinal groove and with a narrow latitudinal area of the explanate lateral 1/3, elytra with moderate covering of adpressed silver gray setae as in figure 1; underside with small patch of elongate testaceous setae on prosternum at base just beyond mentonniere; prosternal process, metepisternum and metacoxal plate with moderately dense cover of short adpressed dark setae; lateral 1/3 of abdominal sternites 3 and 4 with dense covering of short, recumbent, white setae.

Head with frontovertex broadly, shallowly, longitudinally depressed; frontoclypeus depressed between large eyes, one small arcuate groove dorsal to each antennal insertion; frontoclypeal plate trapezoidal, distal margin with large semicircular emargination; antennal insertions small, not as wide as distance between, area lateral of insertion depressed for reception of basal antennomeres in repose; eyes large, inner margins sinuate, diverging dorsally, each with circumocular groove starting at preantennal groove along inner margin to before dorsal apex. Antennae short, reaching only to about apical 1/3 of pronotum when laid alongside; antennomere 2 shorter, slightly narrower than 1, longer and wider than 3; 4 shorter than 2, sub serrate, longer than wide; 5-10 serrate, 5 length and width approximately equal, 6-10 wider than long; 11 obtong, arcuate.

Pronotum nearly 2.4x as wide as long, widest at midpoint; anterior margin arcuate medially, sinuate laterally; posterior margin bisinuate on either side;
NEW SPECIES OF *CALLIPYNDAX*

Figs. 1-2: *Callipyndax encontrario* sp. n.: Dorsal habitus (1); lateral aspect (2) (scale bar = 1 mm.).

posterolateral angles obtuse; lateral margin strongly arcuate to widest point then narrowing to anterior margin; disc with anteromedian swelling and longitudinal groove anterior to posterior margin; lateral areas strongly explanate, depressed on either side; lateral carina entire, sublateral carina extending from anterior margin to slightly beyond midpoint, then abruptly ending. Scutellum large, cordiform, posterior angle acuminate, disc with two small, separate arcuate carinae.

Elytra slightly narrower than pronotum, widest beyond slightly swollen humeri; basal margins bisinuate; one moderate-sized depression on each elytron between humerus and scutellum; lateral margin slightly converging beyond round basal angle, widening past basal 1/3 and broadly arcuate anterior to apical 1/3, before narrowing attenuately to conjointly-rounded apices; disc
flattened, declivous laterally beyond humerus and apicolateral areas slightly convex. Pygidium not visible from above.

Underside. Prosternum with mentonniere feebly bilobed, disc of process feebly convex, apex trilobed; metacoxal plate with posterior margin nearly transverse, feebly dilated; abdominal sternites 1 and 2 with suture nearly invisible except for extreme lateral portion; 1 + 2 longer together than 3 + 4 + 5; apical sternites moderately attenuate; 5 with explanate submarginal area concentric with margin, apex emarginate.

Legs. Femora flattened anteroposteriorly, ventral margin slightly convex medially, ventral face with two parallel rows of small teeth; pro- and mesotibiae somewhat arcuate, each with one small apical tooth; metatibiae only feebly arcuate, posterior margin with setal comb on apical 1/2, no apical tooth but

Figs. 3-4: Callipyndax cupreiventris Waterhouse: Dorsal habitus (3); lateral aspect (4) (scale bar = 1 mm.).
Figs. 5-7: Callipyndax encontrario sp. n.: Metathoracic wing (5); male genitalia, dorsal aspect (6). C. cupreiventris watherhouse: ovipositor, dorsal aspect (7) (scale bars = 1 mm., equal for 6, 7).
with one short spine; pro- and mesotarsi with tarsomeres 1-4 more or less equal in length, each slightly decreasing; metatarsi with tarsomere 1 as long as \(3 + 4\) together; 1-4 each with ventral pulvillus, pulvillus on 1 only at apex; 5 as long as \(2 + 3 + 4\) together, claws widely separated, bifid.

Metathoracic Wing (Fig. 5). Radial cell present, open basally; radiomedial crossvein present; 1stA, 2dA1 and 4thA veins «free», with no basal attachments apparent.

Genitalia as in figure 6.

Specimens examined.
Holotype (BMNH) male: Route de Kaw pk. 45, 3 Juin 1987 Guyane, Piègeage limineux, P. Machet & Bonora leg. (p).

Etymology
The name comes from the Spanish «en contrario» (to the contrary), a comment on the fact that the generic name (meaning beautiful underside) doesn't apply to this new species.

Remarks
This beautiful new species can be distinguished from \(C.\) cupreiventris as indicated in the couplet above and diagnostically by the comments under that species below. The right antenna is missing except for the basal three antenomeres.

**Callipyndax cupreiventris** Waterhouse (Figs. 3, 4, 7)


Specimens examined
Holotype, female (BMNH): Braz.(h)/SAUNDERS 74*18!(p)/Type (p, inside red circle)/Callipyndax cupreiventris (Type) Waterh. (h).

Remarks
This species differs from \(C.\) encontrario by being shorter, broader in proportion; entire underside (except for prosternum and hypomera) and legs bright reddish cupreous; explanate lateral 1/3 of pronotum and slightly more than apical 1/3 of elytra densely clothed with short, silver, recumbent setae. The ovipositor (Fig. 7) is mounted on a card beneath the specimen.

**DISCUSSION OF THE NEOTROPICAL AGRILINAE**

At present the Agrilini of the Neotropical region are placed in the following genera: *Callipyndax, Amyia, Euanyia, Pareumerus, Eumerophilus Deyrolle, Autarcontes Waterhouse, Agriloides Kerremans, Geralius Harold (= Acanthogypus Deyrolle), Agrilodia Obenberger, Omochyseus Waterhouse, Agrilus Curtis (including Paradomorphus Waterhouse), Agrilochieus Théry, Rhaeboscelis* Chevrolat, *Velutia* Kerremans, and *Paragrilus* Saunders. The latter three
NEW SPECIES OF CALLIPYNDAX

genera were placed in the subtribe Rhaeboscelina (as Rhaeboscelidi) by COBOS (1976). Geralius was placed in the monotypic Geraliina by COBOS (1987). The genera placed within the Neotropical Coroebini Bedel were listed by BELLAMY (1991).

Although Paradomorphus was synonymized under Agrilus by HESPENHIDE (1974), the carissimus Waterhouse species-group seems to warrant generic distinction.

THÉRY (1935) stated that Agrilochyseus was intermediate between the Agrilus pyrosurus Gory & Laporte species-group and Omochyseus. The Omochyseus genus group is currently being revised (BELLAMY & WESTCOTT, in prep.)

The relationships between and among these taxa are not clear, despite the efforts by COBOS (e.g. 1976, 1987) to elucidate several subtribes. It is clear that a consistent set of definitions is needed to investigate these genera as well as the Neotropical genera of the other agriline tribe, Coroebini, which appears to be a paraphyletic assemblage in need of a holistic approach. A clear example of the existing confusion is that COBOS (1990) placed Trypantius Waterhouse, Dismorpha Gistel (= Stenogaster Solier) and four other Neotropical and Australian genera in a new subtribe, Dismorphina, of the Coroebini, in contrast to his earlier described Amorphosternina (as Amorphosternae, COBOS, 1974). This was done without apparent consideration to the phylogeny of the Australian Coroebini presented earlier (BELLAMY, 1988) and with the only apparently recognized «shared character» (although not a synapomorphy) being the deeply grooved frontovertex, a character of specious value at best in the classification of these taxa. Both Trypantius and Dismorpha are arguably more agriline than coroebine in general facies; however, in terms of the best single character difference I have found between these two tribes [i.e. the presence (Coroebini) or absence (Agrilini) of the radial cell of the metathoracic wing], these genera are coroebines.

Amyia, Euamyia, Pareumerus, and Eumerophilus are all closely related and arose systematically from Eumerus of GORY & LAPORTE (1939). Their overall morphology is much different from Callipyndax and possibly much closer to the members of Rhaeboscelina. A study of these genera/species is long overdue to confirm or refute speculations about relationships within the Neotropical fauna and various hypotheses about agriline/coroebine parameters.

Callipyndax has a partially atrophied radial wing cell and that makes it a coroebine by my definition. One possible relationship that has not been explored is with the genus Deyrollius Obenberger. Although obviously quite different, this is probably a more likely lineage to explore than the artificial groupings which have stood until now. It is thus premature to present any speculative discussion on phylogenetic relationships or cladistic viewpoints.

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