NEW GENERA AND SPECIES OF EUMOLPINAE FROM NEW CALEDONIA [COLEOPTERA, CHRYSOMELIDAE]

BY

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RÉSUMÉ

Ces petits eumolpines, à la couleur terne, jaunâtre ou brunâtre, proviennent de toute la Nouvelle-Calédonie et des îles Loyauté et se récoltent principalement par fauchage ou battage des arbres. Ce sont des espèces, le plus souvent polyphages, des formes d'eumolpines évoluées, diurnes, à larves radicicoles, et qui furent parfois prises, pour certaines, pour des alticines. Quatre espèces furent notamment confondues avec des Sphaeroderma, *des* Altica *et des* Crepidodera *par Montrouzier (1861) et Perroud (1864, 1867) (Samuelson, 1973). Il est très probable que de semblables espèces existent dans la région en dehors de la Nouvelle-Calédonie. Nous avons essayé ici de débrouiller au mieux ces oubliés des Eumolpinae.*

Key-words: Eumolpinae, *Dumbea, Stethotes, Samuelsonia, Montrouzierella*.

It was Alan Samuelson (1973) who, on examining the ISNB collections, placed *Altica dimidiata* Perroud & Montrouzier 1864, from Canala, among the eumolpines. Fauvel (1867) synonymized it as *Sphaeroderma? dimidiata* (Perroud & Montrouzier, 1864). Then he created an unpublished genus *Dumbea,* with the species *D. dimidiata* (Perroud & Montrouzier, 1864), which is a nomen nudum. There are several *Dumbea* in the French Museum collections (MNHN Paris), coming from Fauvel, very probably or from the Perroud collections. According to Samuelson also (loc. cit.), *Sphaeroderma histrio* Perroud & Montrouzier, 1864 and *S. rubiacearum* Perroud & Montrouzier, 1864, both in the Paris Museum, also belong to Eumolpinae as well as *Crepidodera brullei* Montrouzier, 1861. The last ones have been also tentatively identified as *Dumbea brullei* (Montrouzier, 1861) by Fauvel. It seems that Fauvel took the genus *Dumbea* as a new genus under Eumolpinae. So far it remains a nomen nudum. It is extremely difficult to sort out the problems in this taxonomic area. New genera have to be established.

All those genera and species listed here are yellow or brownish, sometimes blackish, in the fresh and also in the preserved state in collections. There is no loss of colour after death. Being small and dull coloured, those species are not attractive and have been somewhat neglected in the past. All genera and species are winged, living on trees and not walking on the ground. Eumolpinae are the most common and differentiated leaf-beetles in New Caledonia. Dozen of new species from central mountains are awaiting discovery. Attribution of certain species of those small eumolpines to specific genera is sometimes difficult and questionable, since they are all more or less related and probably evolved from common ancestors. Molecular taxonomic studies seem necessary here to help in separating the genera and species.

MATERIAL AND METHOD

All the Eumolpinae studied here were collected during the recent years, mostly beating the trees by Christian Mille and his entomological team, and by various visitors, including one of the authors (P.J.). Those small eumolpines, rather small and inconspicuous, were mostly neglected by the specialists who described mostly big or brillantly colored beetles from New Caledonia. In the laboratory, in Pocquereux, are still remaining many specimens of those three new genera, plus *Stethotes*, and very probably some more species are awaiting a description. As mentioned above, some species were captured from certain trees or plants, but generally speaking those beetles seem polyphagous and root feeding as larvae. There are probably relatively recent, geologically speaking, importations from Indonesia or the neighbouring areas and differentiated later on. Male insects, available for dissection, have been studied for their aedeagal anatomy. A description of which is included in this communication.

TAXONOMY

So far the following eumolpine genera have been found in New-Caledonia. We give below for them a dichotomic key:

1. Big and middle sized species (9 to 5 mm), convex, elongated, rounded 2
– Smaller species 4

2. Middle-sized species, elongated, dull in colour, brownish or dark, not metallic ..... ***Dematochroma*** **Baly**
– Big species 3

3. Big, brownish-metallic species (8-9 mm), typically evolved eumolpine, convex, pronotum rather flattened, elytral punctuation finer ..... ***Colaspoides*** **Laporte**
– More elongated and narrow species, rather mat in colour, pronotum more bulging, elytral punctuation big and irregular ..... ***Cazeresia*** **Jolivet, Verma & Mille**

4. Species very characteristic, brown to black, with a small, elongated, flat pronotum and a much larger abdomen ..... ***Taophila*** **Heller**
– Species smaller and with the pronotum as wide as the elytra at the base 5

5. Body black, except legs and antennae, short and convex; abdomen with elytra narrowing towards the apex ..... ***Stethotes*** **Baly**
– Body of various colours, but generally brownish; abdomen with elytra rounded behind 6

6. Pronotum large, flat, not really bulging; colour generally dull brown ... ***Montrouzierella*** **n. gen.**
– Pronotum bulging, brown or dark brown, black sometimes, relatively shiny 7

7. Rather elongated species, densely punctuate above ..... ***Dumbea*** **n. gen.**
– Rounded species, often looking like an Alticinae, mostly punctuate over the elytra ..... ***Samuelsonia*** **n. gen.**

Dematochroma Baly, 1864

Dematochroma panieensis sp. n.

Type material. — **Holotype female**: New Caledonia. Northern Province, Mont Panié; 26-08-1934, *P.D. Montague leg., in* NHM, London. Mt Panié is the highest point (1628 m) in New Caledonia. It has been explored by botanists, but less by the entomologists.

Total length of the male holotype: 10 mm. Elytra width: 5 mm. General body colour: brownish. With a similar brownish species (*D. piceum*) and a black one, even bigger, from Lord Howe Island, *D. panieensis* represent the largest specimens known of *Dematochroma*.

Head brown, with a wide median vertical line black, wider on the vertex. Vertex hairy, sparsely and not deeply punctuate. Antennal calli darker. Clypeus brownish, emarginate, sparsely punctuate. Labrum brownish, slightly emarginate, ciliated, smooth. Mandibles black; maxillary and labial palpi yellow. Antennae brown with long antennomeres, starting with antennomere 3. Eyes slightly emarginate, rounded, black.

Prothorax brown, hairy, irregularly and finely punctuate, with irregular big punctures near the base and on the sides, marginate, strongly on the sides with a line of punctures; some darker spots on the base and on the sides. The prothorax is rounded anteriorly and has a protruding spine at the rear angles. Scutellum smooth, rounded at the base. Legs yellowish-brown, hairy on femora and tibiae. Claws single.

Elytra brownish, with dark spots on the sides, grossly and irregularly punctuate, verruquous on the sides, with suture and epipleura not much differentiated. A line of punctures along the epipleura. Underside brown, with the legs much lighter in colour. Prosternum rather smooth, but densely hairy. Intercoxal plate enlarged at the base, slightly emarginate. Mesosternum rugose, not really punctuate. Metasternum smooth, hairy. Abdomen below, brown, hairy, darker in segments 1 and 2.

Spermatheca very small. Sometimes, among the Chrysomelidae, absence of spermatheca seems more or less linked with viviparity, but one cannot make a rule of it.

Derivatio nominis. Mont Panié is the place where the spcies has been discovered.

Species very close to *Dematochroma picea* Baly from Lord Howe Island (not New Caledonia, from where it was reported sometimes). Originally this species was described as *D. piceum* Baly. Being of same size, *D. panieensis* differs from *D. picea* in having a pronotum shorter and wider, more transverse, by being very finely punctuate and hairy on the pronotum with only few big punctures at the base. Both beetles have the pronotum similarly marginate. *D. picea* is finely punctuate, practically bare on the pronotum. Scutellum of both insects are similar and impunctuate. Eyes are dark and similar. Elytra are also very similar, but in *D. panieensis* the lines of punctures are not regular, as in *D. picea,* and there are also some dark spots. The elytra are more brownish in *D. piceum,* while they are yellowish in *D. panieensis*.

D. panieensis is also smaller than *D. howensis* Lea in litt., from Lord Howe Island. It differs also from this undescribed species by the shape of the antennae and many other characters.

Dumbea n. gen.

Type species: *Dumbea paulaudi* sp. n.

Small sized beetles. Body oblong, length: 3.5 mm, male; 5 mm female. Head, pronotum, elytra, antennae, underside and legs brown. Pronotum and head darker brown. Head with labrum apically rather straight with row of setae. Frons and clypeus practically smooth. Eyes rounded, prominent, very weakly emarginate at antennal insertion. Antennae with scape oval, big; pedicel subglobose, much smaller than scape, bigger than the antennal segment 3; segment 3 until 11 densely pubescent and hairy, segments (antennomeres) slightly wider at apex. Mouthparts: mandibles dark brown, maxillary and labial palps yellow with apical segments spindle-shaped.

Prothorax wider than long, bulged; disc of pronotum finely punctuate with some irregular and fine punctures on each side; apical margin narrow, basal and lateral margins deep, more distinctly pronounced. Anterior and posterior angles distinct, not outwardly directed. Proepisternum anteriorly at right angle, surface smooth, black. Intercoxal process broad, incurved laterally.

Mesosternum broad, smooth, subequal in width to the prosternum, not really convex between coxae, surface smooth, with very few white setae, light brown, bordered around and there darker. Metasternum smooth, practically umpunctuate, with sparse white setae. Legs light yellow, rather densely covered with short yellow setae. Femora strongly swollen in middle; tibiae gradually widening towards apex, multicarinate, with setae dense, linearly arranged along sulci. Tarsi densely and uniformly pilose, typically eumolpine.

Elytra regularly and finely punctuate, by double lines of punctures. On the anterior (humeral) side, two lines of big tubercles, followed on the side of the disc by 2 lines of moderate size punctures. Epipleura moderately hairy, deep with a line of punctures, scantily visible. Scutellum smooth, rounded on the back.

This type species was very near *Dumbea notaticollis* Fauvel, in litt.

Derivatio nominis. Dumbea is a town nearby Nouméa in New Caledonia. This name was chosen as generic name by Fauvel for a group of small brownish eumolpines, but remained *in litt*. *Dumbeana* already exists for a Crustacea, but not *Dumbea*.

Dumbea paulaudi sp. n.

Dumbea notaticollis Fauvel *in litt*.

Type material. — **Holotype male**: New Caledonia, Southern Province, Farino, 455 m, 16-11-2004, on *Schefflera gabriellae* Baill. (Araliaceae); *leg. Christian Mille, Sylvie Cazères and Jean-Pierre Kataui*; *in* MNHN, Paris. — **Paratypes**: 5 specimens: Farino, Sarramea, Col d'Amieu, 550 m; October 2004 and November 2005.

External body features as described above for *Dumbea*.

Holotype male: 4 mm, width: 2.5 mm

Oblong, convex, head dark brown, with two light brown spots on the vertex; pronotum dark brown, nearly black, elytra light brown. Clypeus, labrum, buccal parts light brown. Palpi and antennae, legs yellow. Winged. Abdomen brownish, lighter at the end.

Head small, eyes black, nearly rounded, strongly convex. Head practically smooth; prothorax bulged, sparsely and finely punctuate, marginate, posterior angles obtuse, much wider than long, with the posterior margin wider than the anterior one. Side margins rounded and well marked. Elytra regularly punctuate in double rows, with relatively big calli on the anterior humeral sides, very characteristic. Elytral suture black. Epipleura well marked. Female slightly bigger than the male.

Derivatio nominis. Species dedicated to David Paulaud, entomologist, who collected many beetles with the Pocquereux team.

Dumbea striata sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Farino, alt. 393 m; on *Ficus* sp. (Moraceae) 04-11-2004; *in* MNHN, Paris; *leg. Sylvie Cazères*. — **Paratypes**: 4 specimens, Sarramea, 3 m, on *Syzygium jambos* L. (Alston) (Myrtaceae) 22/27-10-2006; *leg. Jose Brinon-Sylvie Cazères*.

External body features as described above. Winged. Holotype male: length 5 mm, width 2.5 mm.

Oblong, elytra narrowed at the end. Entirely fulvous (reddish-yellow), with the eyes and mandibles black, the palpi yellow and the legs and antennae lighter. Labrum lighter than the clypeus. Abdomen fulvous below, the first segment darker.

Head small. Eyes convex, black. Vertex with a vertical depression in the middle. Vertex and frons almost smooth, but with a small granulation visible under high enlargement. Clypeus emarginate and labrum yellowish emarginate in front and sparsely ciliate. Pronotum deeply and irregularly punctuate, nearly smooth anteriorly, marginate, anterior and posterior angles obtuse, nearly twice as much wide as long. Side margins rounded, posterior angles a little protruding forward with a bristle inserted above it.

Elytra grossly punctuate in double lines, with grooves on the rear side, narrower at the end, a little bit darker at the suture. Epipleura with a line of punctures. Female slightly larger than the male. Abdomen below, mostly the first segment, very pilose. Coxa, trochanter and base of femora darker than the rest of the legs.

Aedeagus: the basal hood part of the aedeagus is more than half the length of the aedeagus proper. The aedeagus proper presents a ventral curvature or bend a little behind the middle of its

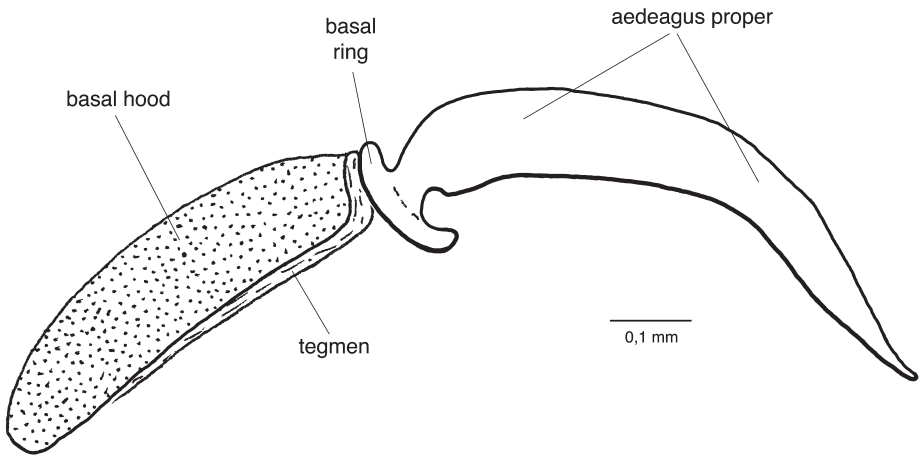


Fig. 1, male genitalia of ***Dumbea striata*** **sp. n.**

length. Its apical portion presents a slight upward tilt. The paired arms of the tegmen do not cross the outer face of the basal hooks of the aedeagus proper (Fig. 1).

Derivation nominis: from *striatus, a, um*: striate.

Dumbea gigas sp. n.

Type material. — **Holotype female**: New Caledonia, Southern Province. Sarramea, Col d'Amieu; 25-01-2000. *in* MNHN Paris; *leg. Sylvie Cazères, Christian Mille and Jean-Pierre Kataoui.*

Holotype female: length: 5.5 mm; width (elytra): 3 mm.

Oblong, moderately convex, winged. Head fulvous. Eyes black. Mandibles black, palpi yellow. Antennae yellowish for the four first antennomeres, the others slightly darker. Pronotum dark brown, lighter at the apex and at the base. Elytra fulvous. Legs fulvous, a bit yellowish; claws simple, brown. Abdomen below brown. Pro-, meso- and metasternum brown.

Head of moderate size. Vertex and frons without a median depression, fulvous with moderate sized punctures. Clypeus smooth, with many short and white setae, deeply marginate at the apex. Labrum fulvous, emarginate, impunctuate. Eyes big, oval, black, bulged, slightly depressed near the base of the antennae. Antennae yellow, relatively slender, pilose. Prothorax with nearly right angles anteriorly, obtuse rounded at the posterior angles, marginate, the anterior (apical) margin with a small line of punctures, the side and the posterior margins with a line of big punctures. The prothorax is densely and deeply punctuate. The anterior and posterior angles are a little protruding. Prothorax regularly rounded at the apex and at the base. Legs ciliated with tibiae multicarinate, with big setae. Elytra elongated, light fulvous with regular lines of punctures rather deep. Humeral callus smooth, not much differentiated. Suture darker, brownish. Scutellum impunctuate in a perfect triangle. Epipleura a bit darker, with a line of punctures hardly visible. Below darker, brownish. Abdomen hairy and finely punctuate.

Derivation nominis: from *gigas, gigantis*: giant.

Stethotes Baly 1867
Stethotes bertiae n. sp.

Type material. — **Holotype male**: New Caledonia, Southern Province, Sarramea, Col d'Amieu, 25-11-2005; *in* MNHN, Paris; *leg. Sylvie Cazères, Christian Mille and Jean-Pierre Kataoui.* — **Paratypes**: 2 specimens; same locality and same date.

Body length: 3 mm ; width (elytra): 2 mm . Body compact, wider at the humeral part of the elytra, black; palpi yellow; antennae and legs fulvous.

Head smooth, the antennal insertion delimited inside by a protruding arcuated carina. Vertex and frons smooth, black. Clypeus brown. Labium black. Mandibles dark brown, palps yellow. Maxillary palps with the last segment spindle-shaped, very big. Labial palpi small, lighter yellow than the maxillary. Eyes black, convex, inner side of the eyes slightly impressed by the area of antennal insertion; distance between the eyes two times the width of a single eye. Antennae rather long, reaching the base of the elytra in length; antennomeres fulvous, hairy.

Pronotum bulky, covered with deep holes and a quadrangular structure, smooth, just above the scutellum, finely bordered around with a line of points anteriorly and laterally. Proepisternum wrinkled. Prosternum subquadrate, black, hairy, bordered anteriorly, finely punctuate, mostly in the intercoxal process. Posterior edge of mesosternum nearly straight, of the metasternum concave. Meso- and Metasternum hairy and smooth. Abdomen below wrinkled and brownish.

Legs relatively short, brown; femora widened in the middle; tibiae widened apically; tarsi and claws typically eumolpine.

Scutellum finely punctuate, subtriangular, slightly rounded on hind margin, black.

Elytra wide at the base, then reduced in width towards the apex. Large irregular punctures at the base, then in regular lines after the third of the elytra. Suture simple. Epipleura simply bordered by a line of punctures.

The species is close to *Stethotes minuta* Jacoby from New Guinea, which is bigger. The pronotum of *S. minuta* is more densely and deeply punctuate, but the elytra are similar. *S. bertiae* differs in shape and punctuation from *S. similis* Gressitt, from New Guinea, which is also bigger. *S. bertiae* is similar in size to *S. mimica* Gressitt. However, *S. mimica* is bluish, more shiny, with a finer punctuation on pronotum. The genus *Stethotes* is well represented in New Guinea, Java, Ceram, Amboine, Borneo, Fiji, Samoa, and probably in Solomon Islands and Vanuatu.

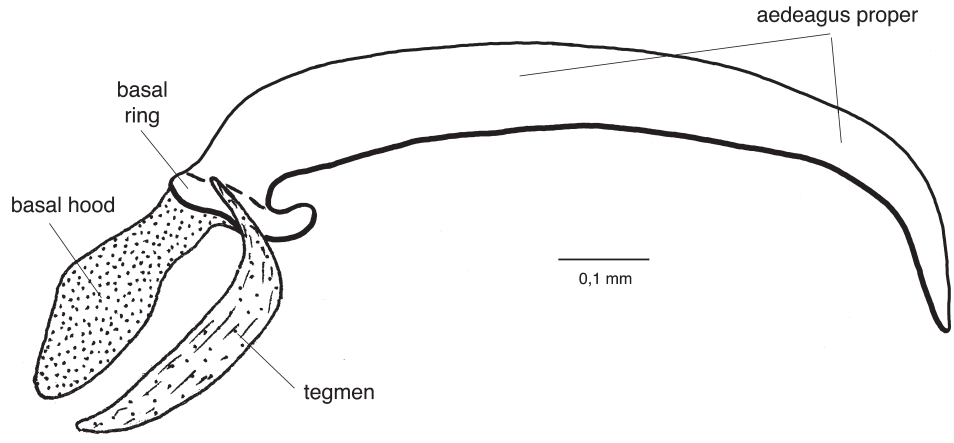


Fig. 2, male genitalia of ***Sthethotes bertiae* n. sp.**

Aedeagus: the basal hood is about 1/4 th of the length of the aedeagus proper. The tegminal arms cross the outer face of the basal ring. The aedeagus proper presents an abrupt ventral bend at about 1/4 th of its total length from its apex (Fig. 2).

Derivatio nominis: dedicated to Dr. Nicole Berti, from the MNHN, Paris.

Samuelsonia n. gen.

Type species: *Samuelsonia melas* sp. n.

Small size beetles. Body rounded, convex. Length: 4 mm male; 5 mm female. Winged.

Head, pronotum, elytra black; antennae and legs lighter, a bit fulvous. Underside black, including femora. Head with a median depression, on the vertex, with very small fine punctures and some big ones, a punctuate triangle on the frons; vertex fulvous, punctuate, deeply incurved in front; labrum big, fulvous, slightly incurved in front. Eyes big, black, convex, emarginate slightly

near the antennal insertion. Antennae with scape oval, pedicel subglobose, rather small, 3 and 4 antennomeres elongated with few setae and 5 to 11 densely pubescent and hairy; antennomeres slightly wider at apex. Mandibles dark brown; palpi yellow.

Prothorax one and a half wider than long, bulged; disc of pronotum sparsely punctuate, with more punctures on the side; marginated all around; anterior angles rounded, posterior angles obtuse; Proepisternum black, smooth; prosternal process smotth, hairy. Mesosternum subtriangular, black and hairy around. Metasternum black, hairy, shiny, convex on both sides, marginate anteriorly. Femora black, strongly swollen in middle; tibiae largely widening at apex, densely hairy, carinate. Tarsi densely and uniformly pilose; claws simple.

Elytra regularly punctuate in lines, quite irregular, with big punctures; humeral callus big and smooth. Epipleura with a line of punctures. Suture simple. Scutellum practically smooth, with very tiny, almost invisible, punctuation; rounded on the sides, roughly the shape of a heart.

Derivation nominis. Dedicated to Dr. Alan Samuelson, the alticine specialist of the Bishop Museum, in Honolulu, HI.

Samuelsonia melas sp. n.

Type material. — **Holotype male**: New Caledonia, Northern Province, Poya; on *Acacia* sp. and *Croton* sp.; 17-02-2005; *in* MNHN, Paris; *leg. Christian Mille*. — **Paratypes**: 4 specimens, Poya, same date, same hosts, same collector.

External body features as described above for *Samuelsonia*. Holotype male: length 4 mm; width (elytra): 2.5 mm. Oblong, very convex, black, winged; head black with a linear vertical depression in the vertex; vertex strongly punctuate; clypeus finely punctuate, emarginate at the end, black; eyes black, rounded, slightly emarginate near the antennae. Labium slightly emarginate, fulvous. Antennae: scape and pedicel fulvous; other antennomeres blackish, pilose. Palpi yellow. Mandible strong, black. Abdomen brown below.

Head small, irregularly punctuate. Prothorax bulged, irregularly and finely punctuate, bordered around, mostly on the sides; anterior and posterior angles obtuse; twice as width than long. Elytra black, grossly and irregularly punctuate in lines; humeral calli big and smooth. Elytral suture simple. Scutellum in triangle, rounded on the end and with two small lines of fine punctures. Epipleura with a line of punctures.

Female slightly bigger than male.

Aedeagus: The basal hood is about 1/4 th of the length of the aedeagus proper. Paired tegminal arms cross the outer face of the basal ring of the aedeagus proper. At about 1/3rd of its apex the aedeagus proper presents an almost abrupt ventral bend (Fig. 3).

Derivatio nominis. From *melas, melanos*: black.

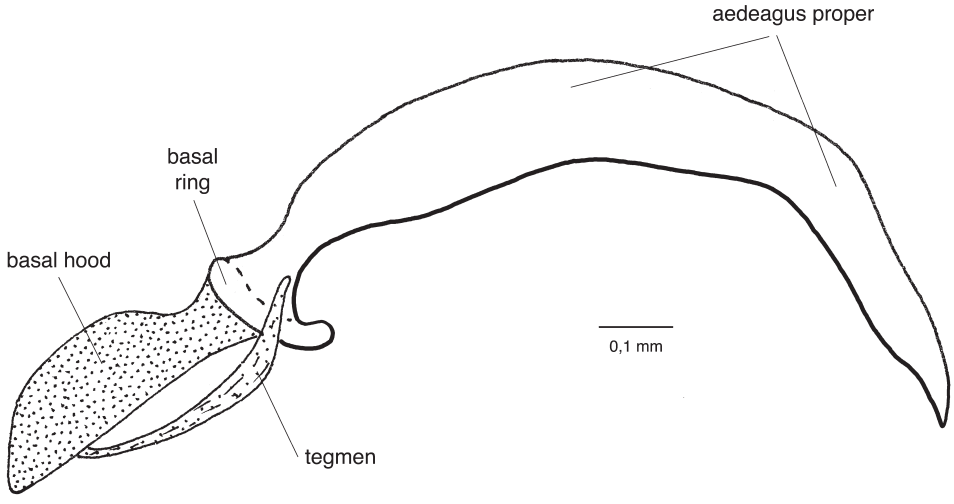


Fig. 3, male genitalia of ***Samuelsonia melas* sp. n.**

Samuelsonia fusca sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province. Pocquereux on *Ficus microcarpa* L.; 04-12-2004; *leg. Sylvie Cazères*; *in* MNHN Paris.

Holotype. Length: 4 mm; width (elytra): 2.5 mm;

Small size beetle, oval, convex, winged. Head fulvous, with a vertical brown line on the vertex and the frons, but not a depression. Clypeus brown, labium fulvous, mandibles black. Palpi, antennae, legs fulvous. Below dark brown, except for the first abdominal segment, a bit lighter.

Head rather large, with eyes greyish, oval, relatively flat. Vertex and frons smooth; clypeus impunctuate, slightly marginate and darker in front. Labrum also smooth, slightly emarginate in front. Pronotum brown, marginate, with a fulvous area near the base, practically impunctuate, anterior angles acute, posterior angles obtuse, margins small, anterior margin nearly straight, posterior margin rounded at the base, above the scutellum. Scutellum brown, impunctuate, in triangle. Elytra rather densely and irregularly punctuate with big punctures. Suture a bit darker above, with an obsolete line of punctures. Below dark brown with the metasternum lighter, fulvous. Underside practically impunctuate. Peoepisternum brown, impunctuate, looking striate at high magnification. Abdomen below finely striate with long white hairs. Legs yellowish- fulvous, with coxa, trochanter, beginning of femora darker. Femora widened in the middle; tibiae multicarinate, densely hairy, with long white setae. Claws simple. Epipleura below totally impunctuate.

Close to *Samuelsonia melas,* but elytra fulvous, not black, punctures more superficial, pronotum much lighter than for *S. melas,* antennae slenderer, legs fulvous, not black.

Derivation nominis. From *fuscus,* brownish.

Samuelsonia rubiacearum (Perroud & Montrouzier, 1864)

Sphaeroderma rubiacearum Perroud et Montrouzier, 1864.

Material. — New Caledonia, Southern Province, Farino, alt. 283 m; 18-11-2004; *leg. Sylvie Cazères*; 1 ♀; on *Syzygium cumini* (L.) Skeels (Myrtaceae). Montrouzier captured his specimen (type in MNHN, Paris) in Canala, Southern Province on a Rubiaceae: *Psychotria (Douarrea) speciosa* S. Moore. Probably polyphagous. Described as *Sphaeroderma rubiacearum* Perroud and Montrouzier, 1864 (Alticinae).

Body oblong. Length: 3 mm. Ferrugineous red, bright, winged, with antennae and legs of the same colour. Head small, practically smooth, very finely and sparsely punctuate on the front and on the sides of the vertex. Eyes black, oval. Clypeus finely punctuate, very slightly concave in front. Labium hairy, punctuate, nearly straight in front, at least very slightly emarginate. Mandibles strong, black. Palpi, light ferrugineous. Winged. Abdomen fulvous, very finely punctuate below. Legs fulvous, with the trochanter darker.

Prothorax transverse, twice wide as long, entirely marginate, strongly on the sides; anterior angles acute, posterior angles obtuse; sides regularly rounded; straight anteriorly; slightly rounded posteriorly; almost smooth on the disc; the rest scarcely and finely punctuate. Scutellum small, triangular, smooth, marginate on the sides. Proepisternum smooth.

Elytra slightly wider at their base than the pronotum, a little narrowed at the apex. Humeral calus well developed, smooth. Elytra covered with prominent lines of punctures, becoming irregular on the sides. Epipleura with a line of punctures. Suture simple, a bit dark red.

Derivation nominis. Was found on Rubiaceae.

Samuelsonia histrio (Perroud & Montrouzier, 1864)

Sphaeroderma histrio Perroud & Montrouzier, 1864.

Material. 2 specimens collected here come from Bourail, Southern Province. October 1998; *leg. Sylvie Cazères*. They seem similar to the specimens described by Perroud & Montrouzier in 1864, under *Sphaeroderma histrio* (Alticinae), comparing with specimens *in* MNHN collections, Paris. No specific locality was mentioned by the descriptors.

Length: 5 mm; width (elytra): 3 mm. Oval, convex, light coloured, mostly fulvous with blackish spots. Head fulvous; vertex and frons lighter, with a black margin. Antennae, legs, underside fulvous. Pronotum and elytra blackened on the sides. Scutellum black.

Head almost smooth on the vertex and the frons, with some punctures between the eyes; clypeus very sparingly punctuate, very superficially; a vertical sulcus between the eyes, going until the vertex, darker. Clypeus slightly emarginate. Labium emarginate, ciliated, ferrugineous, darker in its middle. Mandibles black. Palpi yellowish. Eyes big, rounded, convex, whitish. Antennae thin, pubescent.

Prothorax fulvous, blackish on the sides, transverse; slightly more than twice wider than long, marginate, with sides rounded, straight anteriorly, rounded at the base; anterior and posterior angles obtuse; sparsely punctuate. Scutellum small, rounded behind, smooth, black. Proepisternum smooth, anterior angle acute. Intercoxal process narrow. Mesosternum broad, smooth. Metasternum smooth, practically hairless. Legs fulvous but with base of femora darker; femora, tibiae and tarsi covered with dense yellow setae. Abdomen brown, densely pilose below.

Elytra a bit larger than the prothorax at the base, marginate, a line of punctures along the epilpeura. Humeral callus well developed. Elytra with three ribs along the sides, mostly developed towards the apex. Elytra with deep punctures more or less in lines. Suture darker.

Derivatio nominis. From *histrio,* comedian.

Samuelsonia pilosa sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Boulouparis, Mont Do; *in* MNHN, Paris; 09-12-2003, 1 020 m; *leg. Christian Mille*. — **Paratypes**: 4 specimens, same place, same date, same collector.

Holotype male: length: 3.5 mm; width (elytra): 2 mm. Oblong convex, winged. Entirely dark brown, densely pilose all over the body; antennae, legs and labium fulvous. Below fulvous, except coxae, trochanter, base of femora black. Some black spots also on sides of meso- and metafemora and beginning of tibiae.

Head small, dark, pilose, sparsely punctuate; clypeus smooth, hairy, nearly straight; labrum yellowish, slightly emarginate. Antennae slender, yellowish. Eyes black, oval. Palpi fulvous. Mandibles black.

Prothorax bulged, convex, finely and densely punctuate, hairy, marginate, anterior and posterior angles obtuse, sides rounded. Elytra finely and densely punctuate, even on the humeral callus, densely pilose; epipleura with a line of hairs; suture dark. Prosternum rugose and hairy. Mesosternum smooth, bordered in black on the sides. Metasternum darker on the sides, densely pilose, almost impunctuate.

Abdomen below smooth, brown, hairy.

Female slightly bigger.

Derivatio nominis. From *pilosa*: hairy, pilose.

Samuelsonia bicolor sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Farino; 27-06-2004; alt. 406 m; on *Schefflera gabriellae* Baill. (Araliaceae); *leg. Sylvie Cazères*; *in* MNHN, Paris. — **Paratypes**: 4 specimens, Farino on *Schefflera gabriellae*; Sarramea, 300 m, on *Syzygium jambos* (L.) (Myrtaceae); 22-10-2004; *leg. Sylvie Cazères*.

Holotype male: Length: 4.5 mm; width (elytra): 3 mm. Small size beetle. Body convex, stocky, bicolor: black and brown. Winged. Head at vertex first yellowish, then black in triangle, with clypeus fulvous, emarginate, brown in front. Labrum yellowish, short. Mandibles black. Palpi yellow. Antennae fulvous; scape and pedicel entirely fulvous; other antennomeres brown at the beginning of each segment. Legs fulvous. Below fulvous; abdomen nearly brown, darker than the rest of the body; beginning of the femora brown.

Head small, practically smooth, with few punctures on the frons. Eyes black, rounded, convex. Prothorax twice as large as long, practically smooth with few punctures at the base and laterally, marginate mostly on the sides, black with two symmetric fulvous spots at the base. Elytra black, with humeral callus fulvous and several fulvous spots and bands at the base, and also fulvous bands at the apex. Deep lines of punctures rather irregular.

Two paratypes seen here, from Farino and Sarramea, are much lighter in colour: fulvous with black spots on the pronotum and elytra. Two specimens have the elytra entirely fulvous.

Derivation nominis. From *bicolo*r, bicolour.

Samuelsonia pardalis sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Sarramea, 300 m, on *Syzygium jambos* (L.) (Myrtaceae); 22-10-2004; *leg. Jose Brinon and Jean-Marie Kataoui*; *in* MNHN, Paris. — **Paratype**:1 specimen. Col d'Amieu, 440 m, 19-01-2005; *leg. Jean-Pierre Kataoui and Jose Brinon*; from *Schefflera gabriellae* Baill. (Araliaceae).

Body oblong. Length 4 mm; width (elytra): 2 mm.

Head black, with the vertex fulvous at the beginning; antennae fulvous with antennomeres 4 to 11 black at their base; clypeus black, emarginae; labium fulvous; mandibles black; palpi yellow. Eyes black, rounded, globose. Legs yellowish.

Pronotum sparsely and finely punctuate, twice as large than long, marginate around, nearly straight anteriorly, sinuate at base; all angles obtuse. Scutellum smooth, fulvous.

Elytra fulvous, with many black spots, suture black; epipleura brown with a line of punctures. Elytra with irregular lines of big punctures; humeral callus black, not very much apparent. Below: prosternum, mesosternum and metasternum darker brown; metasternum smooth, punctuate on the sides. Abdomen fulvous and legs yellow, with coxa, trochanter brown; not densely pilose.

The aedeagus proper presents a ventral curvature, which is specially pronounced near its apex. Its apical portion is nearly straight. The membranous basal hood is long, nearly as long as the aedeagus proper, if the latter's ventral curvature is ignored and the distance between its apex and base is taken into account. Paired tegminal arms extend on the outer face of the basal ring of the aedeagus proper (Fig. 4).

Derivation nominis: From *pardalis,* panther; reference to the brown and black drawings of the elytra.

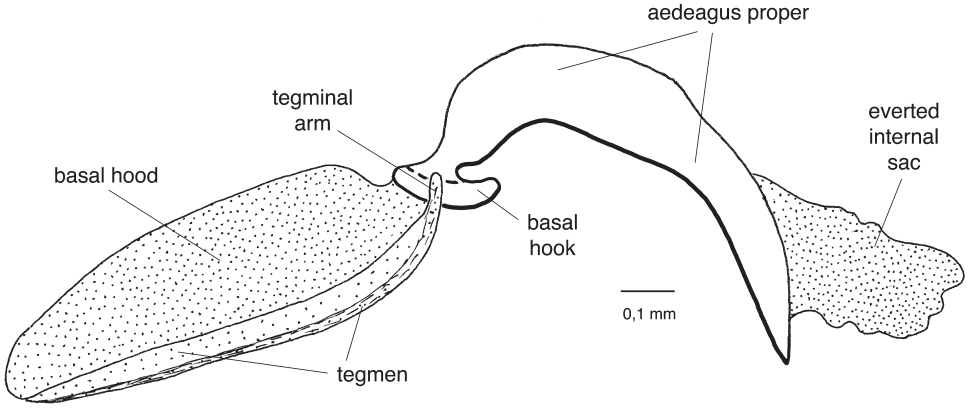


Fig. 4, male genitalia of ***Samuelsonia pardalis* sp. n.**

Samuelsonia turgida sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Mont Do, 1 029 m; on *Araucaria laubenfelsii* Corbasson (Araucariaceae); 06-10-2004; *leg. Sylvie Cazères*; in MNHN, Paris.

Body oblong. Length: 4 mm; width (elytra): 2 mm.

Head fulvous; clypeus with a black triangle going to frons and vertex. Labrum fulvous. Palpi, legs yellowish-fulvous. Mandibles brown. Pronotum black, marginate, rounded at anterior angle, obtuse at posterior angle. Scutellum fulvous. Elytra black with many yellowish-fulvous spots and strips. Humeral callus smooth and fulvous. Below abdomen fulvous.

Prothorax black, practically smooth, with some isolated punctures. Elytra warty, black with fulvous spots. Suture fulvous above.

Very similar to *Samuelsonia pardalis,* but differs chielfy by the elytra warty, the humeral callus well marked and yellowish, the most elongated general shape and the elytral drawings. Also, this species seems to be a mountainous species, isolated on a special biotope, probably linked with *Araucaria*.

Derivatio nominis. From *turgidus*: turgid, inflated.

Samuelsonia fauveli sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Farino, 406 m; on *Scheffleria gabriellae* Baill. (Araliaceae); 16-11-2006; *leg. Sylvie Cazères*; *in* MNHN, Paris. — **Paratypes**: 4 specimens, Farino. 04/18-11-2004; same host plant, same collector.

Holotype male: Length: 3.5 mm; width (elytra): 2 mm.

Small, body oblong, convex, winged. Head black with two fulvous spots on vertex. Clypeus almost straight in front. Labrum and mandibles brown. Antennae, legs, palpi fulvous. Pronotum black. Elytra fulvous, rather dark. Below entirely fulvous. Eyes black, rounded. Head: vertex with small regular punctures. Frons smooth with few big punctures.

Pronotum bulged, smooth on the disc; with some rare and big punctures on the side; marginate, angles obtuse, posterior angle with a small projection outside. Below: proepisternum darker, smooth, with an acute angle in front. Femora moderately inflated; tibia multicarinate, pilose; claws simple. Antennae fulvous, hairy, with the antennomere 11 darker. Abdomen practically smooth below, moderately hairy. Elytra fulvous, with irregular lines of big punctures, often dark brown. Suture black. Epipleura brown above.

Derivatio nominis: Dedicated to Albert Fauvel (1840-1921), who described many New Caledonian beetles.

Montrouzierella n. gen. (Eumolpinae).

Type species: *Montrouzierella nana* sp. n.

Small species, winged. Body oblong. Male. Length: 3 mm; width: 2,5 mm. Entirely yellowish-fulvous. Below fulvous. Legs lighter in colour.

Head with labrum smooth, impunctuate; labrum emarginate; end of mandibles simple, brownish. Vertex and frons practically impunctuate. Clypeus also smooth, but with few isolated punctures. Eyes black, rounded, with a slight depression near the antennae. Clypeus a bit darker than the rest of the head. Palpi yellow. Antennae relatively short, stocky, with scape oval; pedicel small, globose, antennal segments 3-6 elongated, 7-11 wider and larger, densely pubescent, with a whorl of long erect setae on the sides. Mouthparts a bit darker than the labrum.

Prothorax slightly less than twice as long, not bulging, densely punctuate, with relatively large punctures, marginate, relatively straight at apex, sinuate at base; anterior angles rounded, posterior angles obtuse. Proepisternum with lateral margin brown, surface smooth, impunctuate. Prosternum rugose. Abdomen with very superficial punctures.

Elytra densely punctuate, punctures rather irregular, not deep. Towards the apex, at the end of the second third of the elytra, four depressions with lines of punctures near the suture. Suture darker, brownish. Humeral callus, practically impunctuate. Scutellum triangular, smooth, fulvous.

Derivation nominis. Dedicated to Xavier Montrouzier, the pioneer entomologist of New Caledonia.

Montrouzierella nana sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Sarramea, Col d'Amieu, 450 m; 26-11-2006; *leg.: Christian Mille and Sylvie Cazères*; *in* MNHN, Paris. — **Paratypes**: 6 specimens; same date, same locality, same collectors; 1 specimen: Farino, 17-11-2004, 390 m, *leg. Sylvie Cazères*.

Small winged beetle. Body oblong. Length: 3 mm; width (elytra): 2,5 mm. Head, pronotum, elytra, antennae, underside fulvous. Labrum a bit darker, with the end of the mandibles, brown. Palpi yellow. Underside entirely fulvous, with legs a bit lighter. Antennae fulvous, but with the last segment darker.

Head small, eyes black, rounded. Head practically smooth. Prothorax almost twice as wide as long, densely, but not deeply punctuate, marginate, all angles obtuse, but the posterior ones rounded. Anterior margin not apparent. Elytra punctuate, but rather irregularly, with shallow punctures. Humeral angle prominent, smooth, yellowish. Elytral suture a bit brownish. Epipleura almost impunctuate above. Female slightly bigger than male.

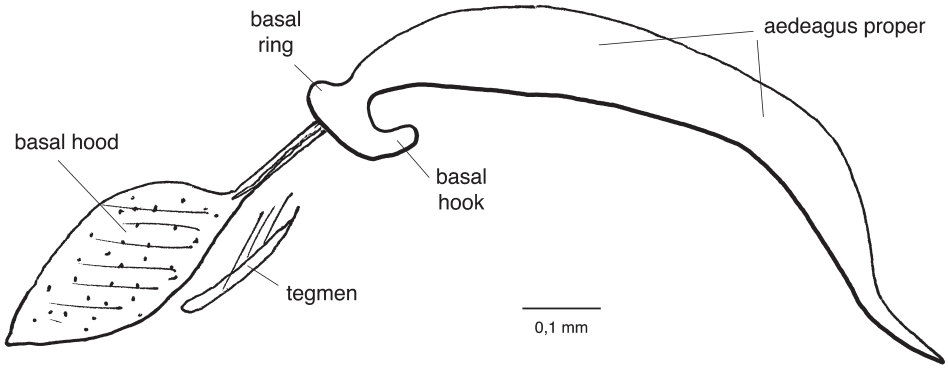


Fig. 5, male genitalia of ***Montrouzierella nana*** **sp. n.**

Aedeagus dissected out and examined. But the basal hood part is found considerably separated from the base of the aedeagus proper, perhaps due to a damage to the organ during dissection (Fig. 5).

Derivatio nominis: from *nanus, nana*: dwarf.

Montrouzierella tuberculata sp. n.

Type material. — **Holotype male**: New Caledonia, Southern province. Sarramea, Col d'Amieu. 450 m; 29-05-2006; *leg. Christian Mille*; *in* MNHN, Paris. — **Paratype**: 1 ♀, same locality, same date, same collector.

Length: 5 mm ; width (elytra): 3 mm. Oblong, winged. Head yellowish-fulvous, with clypeus and labrum a bit darker. Mandible black. Palpi yellow. Antennae fulvous. Eyes black, Pronotum fulvous. Elytra yellowish as well as the legs. Below entirely fulvous, a bit darker than above.

Head small, smooth. Prothorax twice as large as long, marginate, the margins small and darker. Anterior angles obtuse, posterior angles rounded. Punctures eparsely distributed. Elytra with yellow tubercles all over the surface, with a big yellow humeral callus. Punctures numerous near the scutellum. Suture a bit darker as well as the lateral margins of the scutellum. Scutellum impunctuate. Epipleura yellow above with a line of setae. Female slightly bigger.

Derivatio nominis. From *tuberculum,* small bump.

Montrouzierella costata sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province. Farino; 29-09-2004; *leg. Sylvie Cazères*; *in* MNHN, Paris. — **Paratype**: Farino, 07-10-2004, *leg. Sylvie Cazères*.

Holotype male: Length: 3 mm; width (elytra): 1.5 mm. Small, oblong, winged. Brown with legs fuscous. Below brown, except the proepisternum dark brown. Eyes black.

Head small, practically smooth with few punctures on the vertex and a vertical split from the frons to the vertex. Clypeus with many small depressions and punctures, nearly straight in front. Labrum brown, impunctuate, emarginate in front. Mandibles brown. Antennae and palpi fulvous, pilose. Eyes bulged, round, black. Prothorax one and a half wider than long; densely and heavily punctuate, with setae dense, mostly on the sides. Anterior and posterior angles obtuse. Scutellum triangular, rounded on the sides, practically impunctuate except three punctures near the apex. Elytra punctuate in lines in grooves; epipleura bordered by a line of punctures above. Humeral callus impunctuate, not well marked.

Legs fulvous, with coxa and trochanter darker. Claws simple. Below brown, with the abdomen covered with big yellow setae.

Derivation nominis: from *costata,* ribbed.

Montrouzierella flava sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province, Farino, 443 m; 27-10-2004; on *Scheffleria gabriellae* Baill. (Araliaceae); leg. *Sylvie Cazères*; *in* MNHN, Paris. — **Paratypes**: 3 specimens, Sarramea, Col d'Amieu, 500 m; 25-11-2006; Farino, 362 m; *leg. Sylvie Cazères, Christian Mille et Jean-Pierre Kataoui*.

Holotype male: Length: 4 mm; width (elytra): 3 mm. Oblong, winged, entirely fulvous, with some brownish spots. Head with a brown V on the frons. Mandibles brown; palpi yellow-fulvous. Pronotum with brown spots and an anteriorly placed brown band. Elytra fulvous with on the type three darker spots at the base and on the side, and one towards the apex. Those spots are missing on the paratypes. Those spots are not very visible. Legs and underside entirely yellow-fulvous. Coxa and trochanters brownish. Metasternum darker on the sides.

Head: Vertex with a vertical depression in the middle, superficially punctuate, with the frons. Clypeus impunctuate, marginate regularly. Labrum lighter, yellowish, slightly emarginate, ciliate. Eyes protruding, oval black. Pronotum marginate, anterior angles acute, posterior angles obtuse, regularly punctuate with superficial punctures, not very deep. Elytra fulvous, with deep punctures, more or less in lines. Suture and sides of the scutellum darker. Scutellum impunctuate. Epipleura with a line of punctures above. Abdomen below hairy as well as the metasternum. Spots on head, pronotum are very variable. Sometimes they are absent.

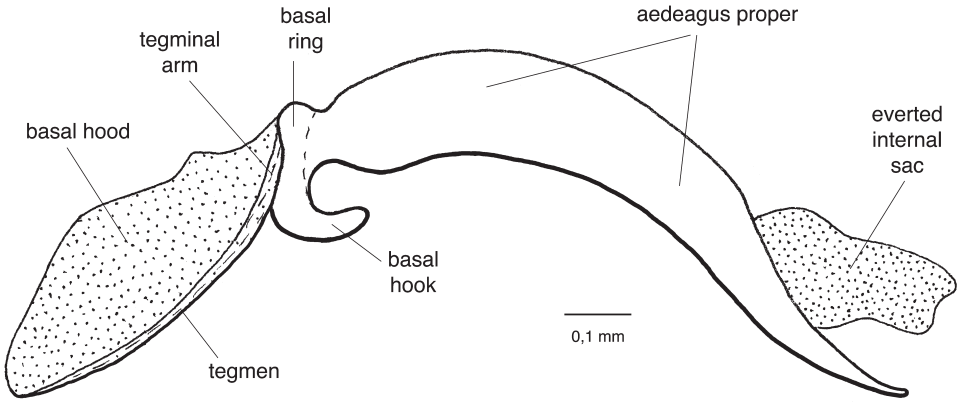


Fig. 6, male genitalia of ***Montrouzierella flava* sp. n.**

Aedeagus: The basal hood is about half the length of the aedeagus proper, if the ventral curvature of the latter is ignored, and the distance between its base and apex is considered. The tegminal arms are closely applied to the basal ring (Fig. 6).

Derivatio nominis. From *flavus, flava*: yellow.

Montrouzierella brinoni sp. n.

Type material. — **Holotype male**: New Caledonia, Southern Province. Farino, 455 m; on *Schefflera gabriellae* Baill. (Araliaceae); 16-01-2004; *leg. Sylvie Cazères*; *in* MNHN, Paris. — **Paratypes**: 2 specimens, Sarramea, Col d'Amieu, malaise trap, 18-10-2005; *leg. Sylvie Cazères and Jose Brinon*. Farino; 455 m, 16-01-2004; on *Schefflera gabriellae*; *leg. Sylvie Cazères*.

Holotype male.- Length: 3.5 mm; width (elytra): 2,5 mm. Oblong, winged. Dark brown above. Legs fulvous. Antennae light brown to yellowish. Head brownish with a black triangle over the frons. Clypeus dark at the base, a bit lighter in front. Labrum fulvous. Mandibles simple, brown with the extremity black. Eyes black, rounded. Pronotum dark brown to black fulvous at the base. Elytra brownish, a bit lighter than the pronotum. Scutellum darker. Below yellowish-fulvous.

Head with a dark vertical depression within the vertex, practically impunctuate, with the exception of few punctures over the frons. Clypeus finely punctuate, deeply emarginate. Labrum slightly emarginate, impunctuate. Antennae stocky, pilose. Pronotum finely punctuate on the sides,

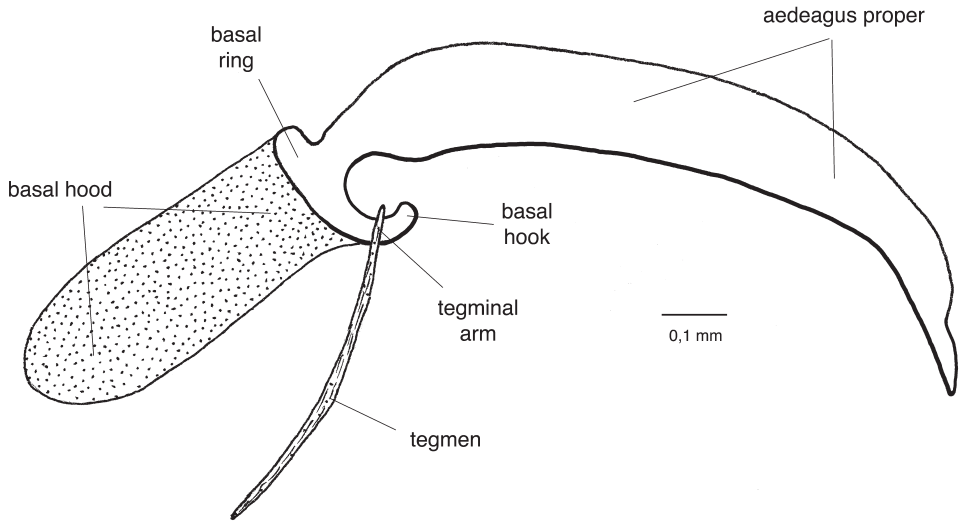


Fig. 7, male genitalia of ***Montrouzierella brinoni*** **sp. n.**

impunctuate on the disc, marginate, the sides with a line of punctures along the margin; Posterior angles acute, anterior angles obtuse. Posterior angles a bit protruding on the sides. Elytra punctuate in regular lines, not very deeply. A line of punctures along the epipleura, above. The margins darker. Legs with femora strongly swollen in middle. Tibiae multicarinate, darker brown at base. Claws simple. Prosternum with several shallow punctures. Abdomen light brown, with shallow dense punctures.

Among the paratypes, the pronotum can be entirely black, with superficial greenish reflets. Female length: 4 mm; width: 3 mm.

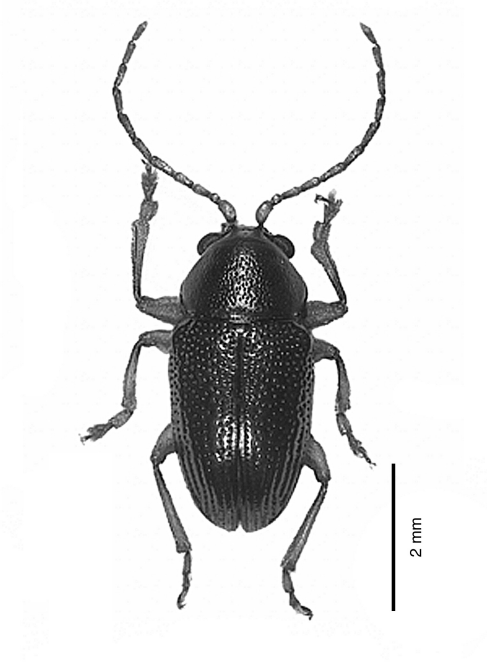
Aedeagus: the basal hood is about half the length of the aedeagus proper, the length of the latter being considered ignoring its ventral curvature. The ventral curvature of the aedeagus proper is specially pronounced in its apical and basal parts. Arms of the tegmen extend on the outer face of the basal hook (Fig. 7).

Derivatio nominis. Dedicated to Jose Brinon, technician-entomologist in the Entomology laboratory at the Pocquereux Fruit Research Station.

CONCLUSIONS

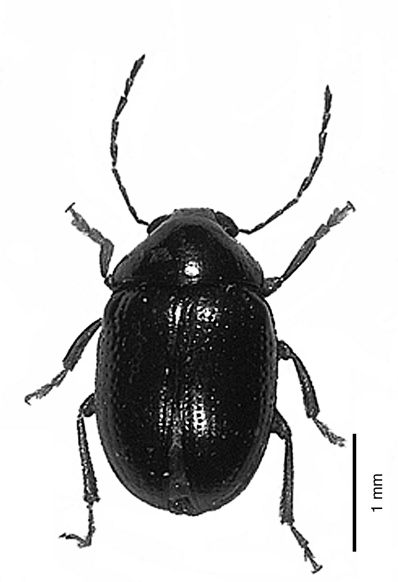
As mentioned previously, dozen of new species of Eumolpinae are probably awaiting description in the Northern Province and in the extreme south of the main island, on the "maquis minier", as well in the Loyauty Islands and in the Southern mountains. Most of those species seem related and probably originated from the neighbouring archipelagos. Their passive importation can date from the end of Tertiary or earlier probably through hypothetic land connections with the neighbouring lands. They probably originated from a few common ancestors and differentiated locally. All species are winged, tree frequenting and very probably polyphagous. As for all genera of higher Eumolpinae, their larvae are root feeding.

The genus *Dematochroma* is shared with Lord Howe and Norfolk areas, with different species, some narrowly related. New Caledonia and the islands were probably connected for a short period in the past. They were also in the past probably importations from Australia and even if less probable from New Zealand. They may be having vague relationships with the tiny genera of New Zealand, *Peniticus, Atricatus, Eucolaspis* and *Pilacolaspis*. Those Eumolpinae may have resulted there from local diversification, as it is the case for the small Chrysomelinae of the archipelago.



Dumbea striata sp. n.

Montrouzierella nana sp. n.



Samuelsonia fauveli sp. n.

Stethothes bertiae sp. n.

Habitus of four new Eumolpinae from New Caledonia.

The aedeagus of at least one species of each of the new genera, described in this paper, has been examined and has been found to have a well differentiated basal hood region. Hence it may be inferred that all these genera are among higher Eumolpinae. It may be recalled here that the primitive eumolpines, placed under the tribe Spilopyrini and included in the New Caledonia fauna, do not have a well marked basal hood in their aedeagi (Verma & Jolivet, 2004).

ACKNOWLEDGEMENTS

The authors are particularly grateful to Dr. Nicole Berti, from the MNHN, Paris, who helped us with the remains of Montrouzier and Perroud specimens now in the Museum collections. We thank also Dr. Max Barclay and Dr. Sharon Shute who helped us with the collections of the Natural History Museum, in London. Unfortunately, most of the Montrouzier collection was dispersed at his death, but some subsists in Pic or Perroud collections, now in Paris Museum and probably in Lyon, in the Linnean Society collections. Also our gratitude goes to the Department of Entomology collectors in Pocquereux, New Caledonia: David Paulaud, Sylvie Cazères, Jean-Pierre Kataoui and some others. Recent utilisation of Malaise traps brought many specimens not met before. Use of similar traps on the mountains can also have surprises in store for the entomologists.

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