46/1

727-794

Aleocharinae from Sabah (Borneo) collected by Guillaume de Rougemont (Coleoptera, Staphylinidae)

R. PACE

A b s t r a c t : The present study treats 100 species belonging to 14 tribes (Myllaenini, Gyrophaenini, Homalotini, Diestotini, Falagriini, Deremini, Athetini, Pygostenini, Sahlbergini, Termitopaediini, Lomechusini, Thamiaraeini, Oxypodini, Aleocharini) and 41 genera (Myllaena, Gyrophaena, Brachida, Aisthentusa, Psephothetemusa, Neomalota, Pseudatheta, Diestota, Borneopora, Cordalia, Falagria, Demerinda, Outachyusa, Atheta, Pelioptera, Dikraspedella, Doryloxenus, Mesomegaskela, Malayloeblius, Rougemontius, Amaurodera, Chaetosogonocephus, Myrmedonota, Tetrabothrus, Strabocephalium, Keratodegnathus, Myrmecopella, Orphnebius, Lambanus, Drusilla, Zyras, Porus, Wroughtonilla, Mimacrotona,, Platorischna, Apimela, Pseudoplandria, Paraleochara, Aleochara, Borneochara), 4 of which are new to science (Rougemontius nov.gen., Keratodegnathus nov.gen., Lambanus nov.gen., Borneochara nov.gen.) and 6 new to Borneo (Demerinda, Outachyusa, Mesomegaskela, Malayloeblius, Myrmecopella, Porus). Of these species, 63 are described as new to science (Gyrophaena manus nov.sp., G. gigaedeagica nov.sp., G. osferox nov.sp., Brachida danumensis nov.sp., Aisthentusa flagellifera nov.sp., Psephothetemusa rougemonti nov.sp., Pseudatheta rougemonti nov.sp., Demerinda sabahensis nov.sp., Outachyusa borneensis nov.sp., Atheta (Acrotona) nitidaespinae nov.sp., A. (Poromicrodota) borneotibialis nov.sp., Pelioptera danumensis nov.sp., P. plenitudinis nov.sp., P. irregularis nov.sp., Dikraspedella borneensis nov.sp., Doryloxenus borneensis nov.sp., Mesomegaskela rougemonti nov.sp., Chaetosogonocephus nobilis nov.sp., C. minor nov.sp., C. ruficollis nov.sp., C. danumensis nov.sp., C. luteicollis nov.sp., Malayloeblius borneensis nov.sp., Rougemontius borneensis nov.sp., Tetrabothrus femoralis nov.sp., Strabocephalium borneorum nov.sp., Keratodegnathus rougemonti nov.sp., K. mirabilis nov.sp., Myrmecopella borneensis nov.sp., Orphnebius acutus nov.sp., O. ocularis nov.sp., O. acutissimus nov.sp., O. concavus nov.sp., O. parabigladiosus nov.sp., Lambanus borneensis nov.sp., L. rougemonti nov.sp., Drusilla divergens nov.sp., D. bulbosa nov.sp., D. serrulae nov.sp., D. borneoacuta nov.sp., D. caputserpentis nov.sp., D. bilobata nov.sp., D. sabahensis nov.sp., D. profunda nov.sp., D. borneoclara nov.sp., D. rougemontiana nov.sp., D. danumensis nov.sp., D. borneoapicalis nov.sp., D. borneostricta nov.sp., D. sabahorum nov.sp., D. trina nov.sp., D. borneoruficollis nov.sp., Zyras (Glossacantha) plenus nov.sp., Porus laminarum nov.sp., P. borneensis nov.sp., Wroughtonilla sabahensis nov.sp., Mimacrotona borneensis nov.sp., Apimela perarmata nov.sp., Pseudoplandria fortis nov.sp., P. confundibilis nov.sp., P. collaris nov.sp., Aleochara (Aleochara) sabahensis nov.sp., Borneochara rougemonti nov.sp.). The hitherto unknown aedeagus or spermatheca of Strabocephalium mirabile BERNHAUER, Drusilla sculpticollis PACE, Zyras (Zyras) montanus BERNHAUER and Zyras (Zyras) quadriterminalis PACE are illustrated. Orphnebius cameroni PACE is proposed as the new name for Orphnebius papuanus CAMERON, 1939, (nec Orphnebius papuanus CAMERON, 1937).

K e y w o r d s : Insecta, Coleoptera, Staphylinidae, Aleocharinae, Taxonomy, New Genera, New Species, Borneo.

Introduction

It is already clear that the beetle subfamily Aleocharinae from Borneo is extremely rich in species yet is still poorly known. Papers dealing with Aleocharinae published in the last twelve years (KLIMASZEWSKI & SMETANA 1990, PACE 1989, 2001, 2002, 2003, 2004, 2005, 2007, 2008, PÁSNIK 1999) have added 437 new species and 31 genera to the 136 species listed in the checklist of Bornean Staphylinidae provided by P. M. HAMMOND (1984).

The very large family Aleocharinae has, more than any other family of Staphylinidae, produced the evolution of many highly specialised species, in particular termitophiles and myrmecophiles. Flight interception traps have the disadvantage that they provide no information on the bionomics of the species collected, but it may be assumed from what we know of their closest relatives that among the material collected at B.R.L. studied in this paper, members of the tribes Pygostenini, Sahlbergini and Termitopaediini are obligate inquilines in the nests of termites or ants. Such species are never found outside the nests of their hosts, except, as in the case of this material, in flight, when they are presumably migrating from one nest to another. Other species associated with ants, such as Lomechusini, may not be confined to their hosts' nests; species of *Drusilla* in particular have been observed preying on ants foraging outside their nests, and are therefore also frequently obtained by sifting forest floor litter, under stones etc. Species of termitophiles and myrmecophiles are, like their hosts, much more numerous in the tropics than in temperate regions.

Material and methods

The specimens studied in the present paper were collected in Sabah (Borneo) by Guillaume de Rougemont in London who submitted them to me for study. The large proportion of new species, especially in the tribe Lomechusini, in the material studied in this paper, compared for instance with the large body of material gathered in Sabah by Smetana and Löbl which I studied (PACE 2001, 2002, 2003, 2004, 2005, 2007, 2008), may be accounted for by Rougemont's use of flight interception traps, which collect many cryptic species such as inquilines that are rarely or never found using standard sampling techniques. The two traps used by Rougemont for three days at Borneo Rainforest Lodge (B.R.L. on the labels) captured about 1150 Coleoptera including almost 700 Staphylinidae.

For the non-specialist identification of Bornean species of Aleocharinae presents an almost impossible task. The taxonomic study of the species from Borneo, compared with those of other zoogeographic regions, presents major problems that are best resolved by examination of the characters of aedeagus, of the spermatheca and of the shape of the ligula and the maxillae. Both male and female adult specimens were dissected and the genital and oral structures mounted in Canada balsam (on small transparent plastic plates pinned beneath the specimen). The genital and oral structures were studied using a com-

pound microscope and drawn by means of an eyepiece reticule. The drawings of complex spermathecae, such as those of *Apimela* and *Zyras*, were copied from macro-photographic tracings of microscope slides. The habitus illustrations of the new species were photographed using a digital Canon Power Shot A610, 5.0 megapixel camera.

All the figures I made are finished drawings modified and arranged in plates using Adobe Photoshop software.

The species described here are clearly recognizable by means of the illustrations of habitus, aedeagus and spermatheca. For this reason the descriptions are brief and limited; characters that are not readily recognizable in the illustrations, such as the reticulation and the granulation of body surfaces, are described. In the case of the subfamily Aleocharinae, a very long and detailed description does not always enable an accurate identification of species. It is the illustrations of the aedeagus and/or of spermatheca, and of the habitus, that provide relevant diagnostic information not made clear by the description alone and that best enables identification, as has been confirmed to me by experienced colleagues. For this reason the descriptions in this paper omit, for instance, to state that the pronotum is distinctly transverse and wider than the head when this is obvious from the photograph of the habitus.

Acronyms

CROU	Collection Guillaume de Rougemont, London
MSNV	Museo Civico di Storia Naturale di Verona
MNHL	Museum of Natural History, London
DEI	Deutsches Entomologisches Institut, Münchenberg (Berlin)
FMHNC	Field Museum of Natural History, Chicago
B.R.L	Borneo Rainforest Lodge
F.R	Forest Reserve
f.i.t	Flight interception trap

List of the species, grouped in tribes, with descriptions

Myllaenini

Myllaena vepres PACE, 2005

Myllaena vepres PACE, 2005: 30

M a terial examined: 2♂♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : This species was known from a single locality in Sabah: Pulau Gaya.

Gyrophaenini

Gyrophaena magnilobata PACE, 2001

Gyrophaena magnilobata PACE, 2001: 708

Material examined: 13, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Hitherto known only from the Crocker Range, Sabah.

Gyrophaena borneensis CAMERON, 1943

Gyrophaena (Phanerota) borneensis CAMERON, 1943: 39

M a terial examined: $2\delta\delta$ and 1ϕ , Sabah, Sepilok, F.R., leaf litter, 13.II.2007, G. de Rougemont leg. (CROU).

Distribution: This species was known from a single locality in Sabah: Sandakan.

Gyrophaena manus nov.sp. (Figs 1 and 65-68)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 8 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2-2.2 mm. Body shiny, brown, antennae yellow with the three basal antennomeres pale yellow, legs yellow. Second antennomere shorter than the first, third shorter than the second, fourth transverse, antennomeres five to ten transverse. Eyes longer than the postocular region in dorsal view. Reticulation of the fore-body very superficial, on pronotum and elytra very transverse, that of the abdomen irregular, polygonal and evanescent. Puncturation of the head irregularly distributed and absent on the longitudinal median band, that of the pronotum evident and distributed as in figure 67. Granulation of the elytra sparse and salient, that of the abdomen evident, the granules longitudinally elongate. Aedeagus: Fig. 65; male sixth free abdominal tergite: Fig. 68; pronotum: Fig. 67.

C o m p a r a t i v e n o t e s : Based on the simple linear form of the aedeagus, this new species is included within the group of *G. appendiculata* MOTSCHOULSKI, 1859 from India, which also includes *G. borneensis* CAMERON, 1943, of which I have examined 1 male and 2 females of the type series labelled "Sandakan, N. Borneo, *G. borneensis* CAMERON, fungus" (MSNL). In the shape of the male sixth free abdominal tergite the new species is near to *G. microcicatricosa* PACE, 2001 from Mt Kinabalu. The new species differs from *G. microcicatricosa* in the yellowish-red antennae (brown in *G. microcicatricosa*) and in the bi-sinuate aedeagus (curved aedeagus in *G. microcicatricosa*).

E t y m o l o g y : The distal portion of the aedeagus of the new species in the shape of a hand with forearm suggested the name of the new species.

Gyrophaena gigaedeagica nov.sp. (Figs 2 and 69-72)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.6 mm. Body shiny, brown, antennae brown with the two basal antennomeres and base of the third pale yellows, legs dirty yellow. Second antennomere shorter than the first, third shorter than the second, fourth transverse, antennomeres five to ten as long as wide. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation, that of the abdomen very transverse. Puncturation of the head evident, sparse and broadly absent on the longitudinal median band, that of the pronotum sparse and strong, distributed as in figure 71. Granulation of the elytra superfi-

cial and sparse, that of the abdomen evanescent but salient near the posterior margin of all free tergites, male fifth free tergote without secondary sexual characters. Aedeagus: Figs 69-70; pronotum; Fig. 71; male sixth free tergite: Fig. 72.

C o m p a r a t i v e n o t e s : In the shape of the aedeagus and of the male sixth free abdominal tergite the new species is similar to *G. immatura* KRAATZ, 1859 from Sri Lanka, of which I have examined 1 male and 1 female of the type series labelled "Ceylon, J. Nietner, *Gyrophaena immatura* Kr." (DEI). In the new species the dorsal and preapical portion of the aedeagus, in lateral view, are devoid a great curved lobe, and the internal sclerotised pieces of the aedeagus are devoid of a curved flagellum. The posterior angles of the male sixth free abdominal tergites are short in the new species, Fig. 72, but of average length in *G. immatura*.

E t y m o l o g y : The enormous size of the aedeagus, which occupies more than half the length of the abdomen, suggested the name of the new species; it means "holder of gigantic aedeagus".

Gyrophaena osferox nov.sp. (Figs 3 and 73-76)

T y p e m a t e r i a l : <u>Holotype</u> \eth , Sabah, Sepilok, F.R., leaf litter, 13.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: $2\eth \eth$ and $2\varphi \varphi$ same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 1.12-1.2 mm. Body shiny, yellowish-brown, elytra brown, antennae dirty yellow, legs yellow. Second antennomere shorter than the first, third shorter than the second, antennomeres four to ten transverse. Eyes longer than the postocular region in dorsal view. Head and pronotum devoid of reticulation. Reticulation of the elytra evident and slightly transverse, that of the abdomen also evident and irregular polygonal. Puncturation of the head very superficial, except for two strong median posterior punctures located on a transverse line. Puncturation of the pronotum very superficial and evident, distributed as in figure 75. Granulation of the elytra fine, very superficial and close, that of the abdomen salient only near the posterior margin of each tergite. Male fifth free tergite with a posterior median flattened U-shaped fold. Aedeagus: Fig. 73; spermatheca: Fig. 74; pronotum: Fig. 75; sixth free male abdominal tergite: Fig. 76.

C o m p a r a t i v e n o t e s : The shapes of the aedeagus and of the male sixth free abdominal tergite of the new species show some similarities to those of *G. benevola* PACE, 2001 also from Borneo. The new species is clearly distinguished by having the apex of the aedeagus, in lateral view, wide (narrow in *G. benevola*). The median lobe of the male sixth free abdominal tergite is ampler in the new species than in *G. benevola*.

E t y m o l o g y : The profile of the aedeagus, in lateral view, is shaped like the head of dragon with a fierce mouth. The name of the new species means "fierce mouth" from the Latin os = mouth and *ferox* = fierce.

Brachida danumensis nov.sp. (Figs 4 and 77)

T y p e m a t e r i a l : <u>Holotype</u> φ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.8 mm. Body shiny, yellowish-red, posterior half of the elytra brown, pygidium yellow, antennae brown with the two basal antennomeres and base of the third yellow. Second antennomere as long as the first, third shorter than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view.

Body devoid of reticulation. Puncturation of the head very superficial and evident, absent on the mid-longitudinal median band. Puncturation of the pronotum obsolescent. Granulation of the elytra very superficial. Spermatheca: Fig. 77.

C o m p a r a t i v e n o t e s : In the shape of the spermatheca the new species is similar to *B. crassiuscula* (KRAATZ, 1859) from Sri Lanka, of which I have examined 7 specimens of the type series labelled "Ceylon, J. Nietner, *Homalota crassiuscula* KRAATZ" (DEI). The new species can be distinguished from *B. crassiuscula* by the intermediary portion of the spermatheca, between the distal bulb and appendix of the proximal bulb, which is about as long as the maximum width of the distal bulb, whereas this intermediary portion of the spermatheca is absent in *B. crassiuscula*. *B. subadunca* PACE, 2002 from Borneo has the intermediary portion of the spermatheca.

E t y m o l o g y : The new species takes its name from the Danum Valley.

Homalotini

Aisthentusa flagellifera nov.sp. (Figs 5 and 78)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.06 mm. Body shiny, yellow, posterior half of the elytra brown, antennae brown with the three basal antennomeres of pale yellow colour, legs yellow. Second antennomere as long as the first, third shorter than the second, fourth to tenth strongly transverse. Eyes longer than the postocular region in dorsal view. Head, pronotum and abdomen devoid of reticulation, that of the elytra polygonal irregular evident. First to fourth free abdominal tergites with squamous sculpture. Aedeagus: Fig. 78.

C o m p a r a t i v e n o t e s : This new species is distinguished from A. borneensis PACE, 2002 from Borneo by the apex of the aedeagus, which is narrower, and by the long flagellum among the internal sclerotised pieces of the aedeagus, which is absent in A. borneensis.

E t y m o l o g y : The name of the new species means "flagellum bearer". The flagellum is among the internal sclerotised pieces of the aedeagus.

Psephothetemusa rougemonti nov.sp. (Figs 6 and 79)

Type material: <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.66 mm. Body shiny, yellowish-red, antennae brown with the three basal antennomeres pale yellow, legs yellow. Second antennomere as long as the first, third shorter than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of the head indistinct, that of the pronotum scarcely visible, except for four strong punctures, two on either side of the midlongitudinal band. Granulation of the elytra fine, evident and very superficial. Basal half of the first free abdominal tergites with imbricate sculpture, second to fourth free tergites covered with salient longitudinal striae, on the fifth free tergite these striae are superficial. Spermatheca: Fig. 79.

C o m p a r a t i v e n o t e s : The form of the spermatheca of the new species presents an affinity with *P. introflexa* PACE, 2002 from Borneo, but while the apical umbilicus of the distal bulb of the spermatheca of *P. introflexa* is narrow and long, in the new species the same is wide and short. The distal bulb of the spermatheca of the new species is oval transverse, while in *P. introflexa* is sub-spherical.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Neomalota cingulata CAMERON, 1920

Neomalota cingulata CAMERON, 1920: 245

- M a t e r i a l e x a m i n e d : 1 ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).
- D i s t r i b u t i o n : Malaysia, Singapore and Borneo.

Pseudatheta rougemonti nov.sp. (Figs 7 and 80-81)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.66 mm. body shiny, brown, elytra blackish-brown with base yellow, abdomen blackish-brown with the two basal free tergites, base of the third and pygidium yellow; antennae brown with the two basal antennomeres yellow, apex of the eleventh dirty yellow, legs yellow. Second antennomere as long as the first, third shorter than the second, fourth as long as wide, fifth to tenth antennomeres transverse. Eyes a little longer than the postocular region in dorsal view. Reticulation of the head superficial, that of the pronotum absent, that of the elytra slightly evident, that of the abdomen evident and irregularly polygonal. Puncturation of the head very superficial, also fine, that of the abdomen superficial, except near the posterior margin of all free tergites on which the granules are salient. Male fifth free abdominal tergite elongate with dense granules. Aedeagus: Figs 80-81.

C o m p a r a t i v e n o t e s : In the presence of an acute ventral lamina of the aedeagus, the new species is similar to both *P. borneensis* PACE, 2007 and to *P. kinabaluensis* PACE, 2007, both from Borneo. The new species is distinct from *P. borneensis* in the strongly transverse intermediary antennomeres, which are only slightly transverse in *P. borneensis*, in the aedeagus, which is smaller and devoid of an apical flagellum (apical flagellum present in *P. borneensis*) and in the rectilinear ventral appendix of the aedeagus, which is sinuate in *P. borneensis*. The new species is distinguished from *P. kinabaluensis* by its brown abdomen with yellowish-red pygidium, (abdomen uniformly dirty yellow in *P. kinabaluensis*), and by the rectilinear ventral appendix of the aedeagus, which is curved in *P. kinabaluensis*.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Diestotini

Diestota testacea (KRAATZ, 1859)

Bolitochara testacea KRAATZ, 1859: 17

Diestota testacea; FAUVEL, 1905: 86; CAMERON, 1939:164; PACE, 1984: 15.

M a t e r i a l e x a m i n e d : 1♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Mascarene islands, Seychelles, China, India, Java, Philippines, New Guinea.

Falagriini

Borneopora fontis PACE, 2002

Borneopora fontis PACE, 2002: 217

M a t e r i a l e x a m i n e d : 1♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : This species was only known from a single locality: Mt. Kinabalu, Sabah.

Cordalia perdistincta PACE, 2004

Cordalia perdistincta PACE, 2004: 798

M a t e r i a l e x a m i n e d : 1 ç, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : This species was already known from several localities in the Mt. Kinabalu area, Sabah.

Cordalia kinabaluensis PACE, 2004

Cordalia kinabaluensis PACE, 2004: 798

M a t e r i a l e x a m i n e d : 1 ex, (pigydium lost), Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Known from several localities in the Mt. Kinabalu area, Sabah.

Falagria (Leptagria) amabilis CAMERON, 1933

Falagria amabilis CAMERON, 1933: 355

M a terial examined: 13 and 19, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Previously known only from the type locality in Sabah: Kenokok.

Falagria (Myrmecocephalus) bruneiensis PACE, 2004

Falagria (Myrmecocephalus) bruneiensis PACE, 2004: 801

M a t e r i a l e x a m i n e d : 1♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Described and hitherto only known from the type locality in Brunei: Kuala Belalong.

Deremini

Demerinda sabahensis nov.sp. (Figs 8 and 82-84)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 2♂♂ and 1♀ same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2.57-2.65 mm. Body shiny, yellowish-brown, elytra brown, antennae brown with the three basal antennomeres dirty yellow, eleventh blackish-brown with apex yellowish-brown; legs yellow. Second antennomere shorter than the first, third as long as the second, fourth, eighth, ninth and tenth strongly transverse, fifth and sixth as long as wide, seventh transverse. Eyes shorter than the postocular region in dorsal view. Reticulation present only on frons, reticulation of the pronotum superficial, that of the elytra evident, absent on the abdomen. Puncturation of the head fine, evident and very superficial. Granulation of the pronotum fine and very superficial, that of the elytra salient and dense, that of the abdomen very salient, also dense. Lateral impression on the pronotum. Aedeagus: Figs 83-84, spermatheca: Fig. 82.

C o m p a r a t i v e n o t e s : The habitus of the new species is similar to that of D. *borneensis* PACE, 2004, also from Borneo, but in the new species the temples are divergent posteriorly. The aedeagus of the new species is clearly different, both in its shape and in the internal sclerotised pieces. There are two long lamina at the base of the flagellum in the aedeagus of the new species, which are absent in the aedeagus of D. *borneensis*.

E t y m o l o g y : The new species takes its name from Sabah.

Athetini

Outachyusa borneensis nov.sp. (Figs 9 and 85)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 2 ♀ ♀, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2.4-2.9 mm. Body opaque, brown, pronotum yellowishbrown, posterior margin of the elytra dirty yellow, antennae brown, legs pale yellow. Second antennomere as long as the first, third shorter than the second, fourth and fifth longer than wide, sixth and seventh as long as wide, eighth to tenth transverse. Eyes longer than the postocular region in dorsal view. The whole body covered with dense and fine granules and silky pubescence. Spermatheca: Fig. 85.

C o m p a r a t i v e n o t e s : The habitus of the new species is similar to that of *O*. *velox* (CAMERON, 1939) from India, of which I have examined the type series of 17 specimens labelled "Dehra Dun, Dr. Cameron, 14.X.1922, *Brachyusa velox* Cam." (MNHL). The fourth to tenth antennomeres of the new species are shorter than those of *O*. *velox*, and the proximal portion of the spermatheca is almost rectilinear in the new species, strongly curved in *O*. *velox*.

E t y m o l o g y : The new species takes its name from Borneo.

Atheta (Acrotona) nitidaespinae nov.sp. (Figs 10 and 86-88)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 26 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2-2.18 mm. Body shiny and black, elytra and pygidium brown, antennae black with the two basal antennomeres brown, legs yellow. Second antennomere shorter than the first, third as long as the second, fourth to tenth transverse. Eyes as long as the postocular region in dorsal view. Reticulation of the fore-body very superficial, that of the abdomen transverse and evanescent on the first to fourth free tergites, evident and transverse on the fifth. Puncturation of the head very close and very superficial. Granulation of the pronotum, elytra and abdomen fine and very superficial. Aedeagus: Figs 86-87; spermatheca: Fig. 88.

C o m p a r a t i v e n o t e s : In the form of the spermatheca and of the internal sclerotized pieces of the aedeagus the new species is comparable to the widespread A. *vicaria* KRAATZ, 1859, which occurs from the Mascarenes to the Philippines. The new species differs from A. *vicaria* in the apical umbilicus of the distal bulb of the spermatheca, which is short and very wide, whereas it is narrow and long in A. *vicaria*, in the basal lamina of the internal sclerotized pieces of the aedeagus being narrow and short (very large and long in A. *vicaria*) and in the bi-sinuate outline of the aedeagus, whereas it is curved in A. *vicaria*.

E t y m o l o g y : The name of the new species means "shiny thorns", alluding to the internal sclerotised pieces of the aedeagus.

Atheta (Poromicrodota) borneotibialis nov.sp. (Figs 11 and 89)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 2.42 mm. Body shiny, reddish-brown with fourth free abdominal tergite brown, antennae brown with the two basal antennomeres reddishbrown, yellow legs. Second antennomere shorter than the first, third as long as the second, fourth to seventh longer that wide, eighth and ninth as long as wide, tenth transverse. Eyes longer than the postocular region in dorsal view. Head and pronotum devoid of reticulation, that of the elytra superficial, that of the abdomen very transverse. Granulation of head and pronotum fine, very superficial, that of the elytra very superficial and evident, that of the abdomen fine and very superficial. Spermatheca: Fig. 89.

C o m p a r a t i v e n o t e s : For the form of the spermatheca the new species is similar to *A. subaegra* CAMERON, 1939 from India of which I have examined the female holotype labelled "Haldwani Dist., Kumaon, D.G. Champion, *Atheta suabegra* CAM., Type" (MHNL). The new species differs from it by the median and posterior tibiae which each bear two long bristles, which are absent in *A. subaegra*, in the short apical umbilicus of the distal bulb of the spermatheca, which is deep in *A. subaegra*, and in its smaller size: length, 0.25 mm; in *A. subaegra* 0.39 mm.

E t y m o l o g y : The name of the new species means "Borneo tibial" alluding to the middle and posterior tibiae with long bristles.

Atheta (Datomicra) bibulbosa PACE, 2004

Atheta (Datomicra) bibulbosa PACE, 2004: 824

M a t e r i a l e x a m i n e d : 1 ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Hitherto known only from the type locality in Sabah: Poring Hot Springs.

Pelioptera bonensis PACE, 2004

Pelioptera bonensis PACE, 2004: 330

M a t e r i a l e x a m i n e d : 10 exx., Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).

D i s t r i b u t i o n : Previously known only from several localities in Sulawesi; new to Borneo.

Pelioptera sagadensis PACE, 1990

Pelioptera (s. str.) sagadensis PACE, 1990: 94

M a t e r i a l e x a m i n e d : 10 exx., Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).

D i s t r i b u t i o n : Recorded from the Philippines and Vietnam; new to Borneo.

Pelioptera bituberculata PACE, 2003

Pelioptera bituberculata PACE, 2003: 59

M a terial examined: 2♂♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Hitherto only known from the type locality in West Malaysia: Cameron Highlands; new to Borneo.

Pelioptera stenopaca PACE, 2004

Pelioptera stenopaca PACE, 2004: 830

M a t e r i a l e x a m i n e d : 1 ç, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Already known from various localities in the Mt. Kinabalu area, Sabah.

Pelioptera borneopaca PACE, 2004

Pelioptera borneopaca PACE, 2004: 833

M a terial examined: 2♂♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Known from several localities in the Mt. Kinabalu area, Sabah.

Pelioptera danumensis nov.sp. (Figs 12 and 90-92)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 2.57 mm. Body shiny, black, posterior margin of the three basal free abdominal tergites and pygidium reddish-brown, antennae black with the three basal antennomeres brown, legs yellow. Second antennomere shorter than the first, third longer than the second, fourth and fifth as long as wide, eighth to tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation except on the fifth free abdominal tergite where it is very transverse and superficial. Puncturation of the head slightly evident. Granulation of pronotum and elytra very close and superficial, that of the abdomen fine and very superficial. Male fifth abdominal tergite with a postero-median tubercle. Aedeagus: Figs 90-91; male sixth free tergite: Fig. 92.

C o m p a r a t i v e n o t e s : The aedeagus of the new species is similar to that of P. *bituberculata* PACE, 2003 from West Malaysia, but it is clearly more curved to the ventral side and its apical part, in ventral view, is very wide, while it is very narrow in P. *bituberculata*.

E t y m o l o g y : The new species takes its name from the Danum Valley.

Pelioptera plenitudinis nov.sp. (Figs 13 and 93)

T y p e m a t e r i a l : <u>Holotype</u> ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 2.12 mm. Body shiny, yellowish-brown, head and elytra brown, antennae brown with the two basal antennomeres yellowish-brown, legs yellow. Second antennomere shorter than the first, third shorter than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view. Fore-body devoid of reticulation, that of the abdomen irregular, polygonal, evident. Puncturation of the head very superficial and absent on frons. Granulation of pronotum and elytra very superficial and evanescent, that of the abdomen fine and evident. The pronotum bears four punctures disposed in a square, but the puncture of the right anterior angle is missing. No secondary sexual characters on the female fifth free abdominal tergite. Spermatheca: Fig. 93.

C o m p a r a t i v e n o t e s : The spermatheca of the new species is similar in shape to that of *P. bituberculata* PACE, 2003 from West Malaysia but the apical umbilicus of the distal bulb of the spermatheca is enormous in the new species, and absent in of *P. bituberculata*. Moreover the length of the spermatheca of the new species is 0.2 mm, while in *P. bituberculata* it is 0.27 mm.

E t y m o l o g y : The name of the new species means "of the fullness" in reference to the distal bulb of the spermatheca with its enormous apical umbilicus that fills the entire internal space.

Pelioptera irregularis nov.sp. (Figs 14 and 94)

T y p e m a t e r i a l : <u>Holotype</u> ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.03 mm. Body shiny, yellowish-brown, head and free abdominal tergites four and five brown, antennae brown with the two basal antennomeres yellowish-brown, legs yellow. Second antennomere shorter than the first, third as long as the second, fourth as long as wide, fifth to tenth transverse. Eyes a little longer than the postocular region in dorsal view. Reticulation of the head very superficial, absent on rest

of body. Puncturation of the head very superficial and evanescent, that of the pronotum very close and superficial, that of the abdomen fine and evanescent, sparse on the fifth free tergite. Granulation of the elytra very close and evident. Disc of pronotum with four punctures disposed in a square. Fifth free female tergite devoid of urotergum of secondary sexual characters. Spermatheca: Fig. 94.

C o m p a r a t i v e n o t e s : The new species is the first of the genus to present a spermatheca with a minuscule distal bulb followed by a ductus coiled like a skein.

E t y m o l o g y : The new species is named "irregular" in reference to the unique form of the spermatheca, which was hitherto unknown in this genus.

Dikraspedella borneensis nov.sp. (Figs 15 and 95-97)

T y p e m a t e r i a l : <u>Holotype</u> \eth , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: $4\eth$ \eth and $3 \circlearrowright \diamondsuit$, same provenance as the holotype (CROU, MSNV).

N o t e: The ligula of the new species is furnished with two bristles at the base of apical lobes. This was not observed when I described the genus *Dikraspedella* PACE, 2002; the two bristles were perhaps detached and lost in the process of preparation and attaching the label to the specimen.

D e s c r i p t i o n : Length 1.96-3.48 mm. Body shiny and blackish-brown, free abdominal tergites one and two yellowish-brown, antennae brown with the two basal antennomeres yellowish-brown, legs yellowish-red. Second antennomere shorter than the first, third as long as the second, fourth to tenth strongly transverse. Eyes as long as the postocular region in dorsal view. Reticulation of head and pronotum very superficial, that of the elytra strong, that of the abdomen irregular, polygonal, evident. Puncturation of the head fairly deep and absent on the mid-longitudinal band, that of the pronotum of the male dense and evident on either side of the ample discal concavity, the fundus of which is impunctate, that of the elytra very close and superficial. Granulation of the abdomen salient only near the posterior margin of each free tergite. Pronotum of the male with ample discal concavity, absent in the female. The disc of the pronotum bears f disposed in a square in both sexes. Each elytron with four strong punctures, two in a longitudinal line near the suture and two in a longitudinal line near the sides. Tibiae externally spinose. Aedeagus: Figs 95-96; spermatheca: Fig. 97.

C o m p a r a t i v e n o t e s : In the form of the spermatheca, the new species is similar to *D. kinabaluensis* PACE, 2002, also from Borneo but the apical umbilicus of the distal bulb of the spermatheca is narrow in the new species, wide in *D. kinabaluensis*. The spermatheca of the new species is 0.23 mm long, whereas that of *D. kinabaluensis* measures 0.57 mm. The aedeagus of the new species is 0.32 mm long, that of *D. kinabaluensis* 0.27 mm.

E t y m o l o g y : The new species takes its name from Borneo.

Pygostenini

Doryloxenus borneensis nov.sp. (Figs 16 and 98-100)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 2♂ ♂ and 2 ♀ ♀, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 1.51-2 mm. body shiny, reddish-brown, pubescence of the abdomen golden yellow, legs yellow. Antennae very short Fig. 16. Body without reticulation. Puncturation of the head sparse, fine, very superficial and lacking on the longitudinal median band, puncturation of the pronotum sparse, fine and evanescent, absent on the longitudinal median band, that of the elytra fine, sparse and evident. Aedeagus: Figs 98-99; spermatheca: Fig. 100.

C o m p a r a t i v e n o t e s : On the basis of the 4-segmented fused tarsi, the build of the antennae, the presence of eyes and the shape of the spermatheca the new species is attributed to the genus *Doryloxenus* WASMANN, 1898 from tropical Africa and Asia. The new species is clearly distinct from its geographically nearest congener, *D. groveri* Kistner & Jacobson, 1975 from Selangor (West Malaysia) in the absence of a deep apical umbilicus of the distal bulb of the spermatheca and by the proximal portion of the same being not folded up and narrowed as in *D. groveri*.

E t y m o l o g y : The new species takes its name from Borneo.

Mesomegaskela rougemonti nov.sp. (Figs 17 and 101-103)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 5 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5-5.2 mm. Body shiny, reddish, head and elytra brown, antennae reddish-brown, legs reddish. The whole body covered in very superficial short and adherent, silky pubescence. Posterior margin of the elytra with eleven long bristles. Abdomen without reticulation and with fine and very superficial Puncturation. Posterior margin of each of the four basal free tergites with ten long bristles. Aedeagus: Figs 101-102; spermatheca: Fig. 103.

C o m p a r a t i v e n o t e s : In its habitus and the form of the spermatheca, the new species is similar to *M. adesi* PACE, 1999 from Hong Kong. It differs in the pronotum which has a length/width ratio of 0.85, in *M. adesi* 0.87, and above all in the form of the spermatheca. Whereas in *M. adesi* the proximal portion of the spermatheca is wound in four coils, in the new species the coils are more numerous (Fig. 103), and more convoluted.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Sahlbergini

Malayloeblius borneensis nov.sp. (Figs 23 and 114-116)

T y p e m a t e r i a l : <u>Holotype</u> \mathcal{F} , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: $3 \neq \varphi$, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2.3-2.54 mm. Body shiny, brown, base of the free abdominal tergites yellowish-brown, antennae brown, legs yellow with yellowish-brown femora. Antennae clubbed (Fig. 23), eyes reduced. Fore-body devoid of reticulation, that of the abdomen very superficial. Puncturation of the head very superficial, evident and widely spaced between the antennae and with some sparse more evident punctures. Puncturation of the pronotum like that of the head, with strong punctures aligned on each side of the longitudinal median band. Puncturation of the elytra deep with some strong punctures,

that of the abdomen very close and very superficial and with strong punctures aligned transversely on all free tergites. Aedeagus: Figs 114-115; spermatheca: Fig. 116.

C o m p a r a t i v e n o t e s : In its habitus and the form of the spermatheca, the new species is similar to *M. sausai* HLAVÁČ & MARUYAMA, 2004 from Malaysia. The aedeagus is clearly different, slender, with parallel sides in ventral view, and with a long flagellum of the internal sclerotised pieces of the aedeagus in the new species, whereas the aedeagus is stumpy and without a flagellum of the internal sclerotised pieces in *M. sausai*. The distal bulb of the spermatheca is short in the new species, while is very long in *M. sausai*.

E t y m o l o g y : The new species takes its name from Borneo.

Termitopaediini

Rougemontius nov.gen. (Figs 24 and 117-119)

D i a g n o s i s: On the basis of its tarsal formula 4-5-5, of the moderately long galea and lacinia and of the widely separate mesocoxae the new species is attributable to the tribe Termitopaedini Seevers, 1957. In the form of the ligula and the labial and maxillary palpi, the new genus is placed next to the genus *Neotermitotecna* KISTNER 1990 from Sierra Leone, but the tarsal formula in this genus is 4-4-4. In the antennae and the sculpture of the pronotum it is clearly different from the remaining genera of the tribe.

D e s c r i p t i o n : Head transverse; temples divergent posteriorly. Eyes very developed. Gula broad and long; mentum free. Labial palpi 3-segmented, ligula entire, paraglossae not protruding in front (Fig. 118). Second segment of maxillary palpi relatively slender (Fig. 119), the third segment fusiform, two-thirds longer than second. Antennae geniculate; scape long, second antennomere shorter than the first, third longer than the second, fourth as long as wide, fifth and sixth transverse, antennomeres seven to ten much longer than wide. Pronotum with inflated anterior angles very salient anteriorly, with wide and deep median depression that divides it into two posterior sulci, lateral margins sinuate. Elytra inflated, with angles protruding posteriorly and with disc deeply depressed. Wings present. Abdomen moderately inflated, broadest at level of fourth segment, twice as broad as pronotum. Abdomen with membranous integument exposed; the sclerites of each segment contiguous, but the sclerites of segments 3, 4, 5, and 6 well separated from those of adjacent segments. Basal paratergites moderately broad, those of fifth segment one-seventh as broad as tergite; distal paratergites relatively broad, those of fifth segment one-third as broad as tergite (Fig. 24).

Typus generis: Rougemontius borneensis nov.sp.

E t y m o l o g y : The masculine new genus is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Rougemontius borneensis nov.sp. (Figs 24 and 117-119)

T y p e m a t e r i a l : <u>Holotype</u> \mathcal{F} , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: l φ , same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 3 mm. Fore-body a little shiny, abdomen shiny. Body yellowish-brown, head brown, abdomen yellowish-red, antennae yellowish-brown with

antennomeres seven to ten pale yellow, legs dirty yellow. Antennae geniculate, scape long, second antennomere shorter than the first, third longer than the second, fourth as long as wide, fifth and sixth transverse, seventh to tenth much longer than wide. Eyes strongly developed. Reticulation of head and pronotum evident only in the bottom of the sulci, that of the elytra evident only in the bottom of the longitudinal depressions of each elytron, that of the abdomen fine. Body devoid of puncturation or granulation. Head with two swellings on each side of the ample median sulcus, and behind the eyes, a posterior transverse sulcus. Pronotum with two protuberant swellings in front to the anterior angles, a wide and deep longitudinal median depression posteriorly divided in two sulci. Posterior angles of the elytra. bulging and very protuberant, disk of each elytron with an ample, clear and deep longitudinal depression and another smaller one between this depression and the scutellum. Spermatheca sclerites absent, replaced by a semicircular structure (Fig. 117).

E t y m o l o g y : The new species takes its name from Borneo.

Lomechusini

Amaurodera bulbosa PACE, 2008

Amaurodera bulbosa PACE, 2008: 119

M a t e r i a l e x a m i n e d : 2 ♀ ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

Distribution: Hitherto known from a single locality in Sabah: Poring Hot Springs.

Chaetosogonocephus nobilis nov.sp. (Figs 18 and 104-105)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3 mm. Body shiny, brown, pygidium reddish, antennae and legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth strongly transverse. Eyes very large in dorsal view. Body devoid of reticulation. Head impunctate. Granulation of the pronotum and elytra fine, that of the abdomen superficial and present only near the posterior margin of each free tergite. Male fifth free tergite with strong elongate punctures, male sixth free tergite covered with strong puncturation. Aedeagus: Figs 104-105.

C o m p a r a t i v e n o t e s : The habitus of the new species is very similar to that of *C. borneensis* PACE, 2008 also from Borneo. It differs in the eleventh antennomere being as long as the seven preceding antennomeres taken together, while in *C. borneensis* the eleventh antennomere is as long as the three preceding antennomeres. The form of the aedeagus is also different. That of the new species has two ventral lamina in ventral view, which are absent in the aedeagus of *C. borneensis*, and the internal sclerotised piece of the aedeagus of the new species is not hooked as that of *C. borneensis*.

E t y m o l o g y : The new species is called "noble" for its greater body size, suggesting superiority or nobility in comparison with the other species described in this paper.

Chaetosogonocephus minor nov.sp. (Figs 19 and 106-107)

T y p e m a t e r i a l : <u>Holotype</u> δ, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: 1δ, same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 1.84-1.96 mm. Body shiny, brown, sides of the pronotum, humeral angles of elytra, posterior margins of the free abdominal tergites and pygidium reddish, antennae and legs yellowish-red. Second antennomere shorter than the first, third as long as the second, fourth to tenth strongly transverse, eleventh as long as the seven preceding antennomeres taken together. Eyes very large in dorsal view. Body devoid of reticulation. Puncturation of the head little evident, very superficial and absent on the longitudinal median band. Granulation of pronotum and elytra fine and very superficial, absent on the longitudinal median band and near the posterior margin of the pronotum. Free abdominal tergites impunctate and devoid of granulation. Male fifth free tergite with posterior median striae, male sixth free tergite densely punctate. Aedeagus: Figs 106-107.

C o m p a r a t i v e n o t e s : In the length of the eleventh antennomere, the new species is similar to *C. notaticornis* PACE, 2008 also from Borneo, but the aedeagus is 0.2 mm long, while that of *C. notaticornis* measures 0.25 mm. The ventral profile of the aedeagus of the new species is slightly curved, while is clearly curved in *C. notaticornis*. The internal sclerotised piece of the aedeagus of the new species is short, whereas it is very long in *C. notaticornis*.

E t y m o l o g y : The new species is called "smaller" for its small body size in comparison with the species described above.

Chaetosogonocephus ruficollis nov.sp. (Figs 20 and 108)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.63 mm. Body shiny, reddish, head and pronotum yellowish-red, antennae brown with the two basal antennomeres and the base of third yellowish-red, legs reddish. Second antennomere shorter than the first, third longer than the second, fourth to tenth transverse, eleventh as long as the three preceding antennomeres taken together. Eyes very large in dorsal view. Body devoid of reticulation. Head devoid of puncturation or granulation, except a large puncture near the posterior margin of each eye. Puncturation of the pronotum evident. Granulation of elytra fine and salient. Free abdominal tergites impunctate and devoid of granulation. Female fifth free tergite with striae along the whole posterior margin, female sixth free tergite strongly punctate.

C o m p a r a t i v e n o t e s : The antennae and the spermatheca of the new species are similar to those of *C. borneensis* PACE, 2008 also from Borneo. The new species differs in the greater length of the spermatheca, (0.24 mm; in C. borneensis 0.15 mm), and in the proximal portion of the spermatheca forming a complete coil, whereas in *C. borneensis* the corresponding coil is incomplete.

E t y m o l o g y : The new species is named "red neck" in reference to its reddish pronotum.

Chaetosogonocephus danumensis nov.sp. (Figs 21 and 109-111)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: l φ , same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 2.34-2.36 mm. Body Shiny, yellowish-red, antennae brown with the two basal antennomeres and base of the third pale yellow, legs yellowish-red. Second antennomere as long the first, third shorter than the second, fourth to ninth antennomeres strongly transverse, tenth weakly transverse, eleventh as long as the two and a half preceding antennomeres together. Eyes very large in dorsal view. Body devoid of reticulation or granulation. Puncturation of the head very superficial, denser between the antennae and the eye, largely absent on the longitudinal median band and occipital area. Granulation of pronotum and elytra salient, fine and sparse. Free abdominal tergites impunctate and devoid of granulation. Male fifth free tergite with strong and dense puncturation, male sixth free tergite with strong puncturation and very superficial only on the basal half, sparse posteriorly. Aedeagus: Figs 109-110; spermatheca: Fig. 111.

C o m p a r a t i v e n o t e s : The new species is similar to *C. kinabaluensis* PACE, 2008, also from Borneo, in the ventral profile of the aedeagus, but in ventral view the aedeagus of the new species is narrowed to the apex, while it is wide in *C. kinabaluensis*, and the antennae are brown with yellow base in the new species, while in *C. kinabaluensis* they are entirely yellow. The proximal portion of the spermatheca of the new species is folded in tight U shape, whereas in *C. kinabaluensis* the proximal portion of its spermatheca is merely slightly curved.

E t y m o l o g y : The new species takes its name from the Danum Valley.

Chaetosogonocephus luteicollis nov.sp. (Figs 22 and 112-113)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: 1♂, same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 1.93-2 mm. Body shiny, yellowish-red, head reddish, posterior half of the elytra brown, antennae reddish-brown with the two basal antennomeres yellow, legs reddish. Second antennomere shorter than the first, third longer than the second, fourth as long as wide, fifth to tenth transverse, eleventh as long as the two preceding antennomeres together. Eyes very large in dorsal view. Body devoid of reticulation or granulation. Puncturation of the head indistinct. Granulation of the pronotum superficial and sparse, that of the elytra salient and sparse. Free abdominal tergites impunctate and devoid of granulation. Male and female fourth free tergite with postero-lateral striae, fifth free tergite with longitudinal striae on the entire surface, sixth free tergite with strong and very superficial Puncturation, and with four striae posteriorly. Aedeagus: Figs 112-113; spermatheca: Fig. 111.

C o m p a r a t i v e n o t e s : The aedeagus of this new species is broadly curved to the ventral side as in *C. notaticornis* PACE, 2008 also from Borneo, but the eleventh antennomere is as long as the three preceding antennomeres together, and not as long as the six preceding antennomeres as in *C. notaticornis*. The internal sclerotised piece of the aedeagus of the new species is short (0.1 mm), whereas in *C. notaticornis* it measures 0.15 mm. The colour of the body of *C. notaticornis* is uniformly yellowish-red, while in the new species it is reddish-brown with yellow pronotum.

E t y m o l o g y : The new species is named "yellow neck" in reference to its reddishyellow pronotum.

Myrmedonota borneensis PACE, 2008

Myrmedonota borneensis PACE, 2008: 153

M a t e r i a l e x a m i n e d : 1 ç, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

Distribution: Hitherto known from a single locality in Sabah: Poring Hot Springs.

Tetrabothrus borneensis CAMERON, 1943

Tetrabothrus borneensis CAMERON, 1943: 140; HAMMOND, 1984: 212

M a t e r i a l e x a m i n e d : 3 ♀ ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).

Distribution: This species is recorded from Mt. Poi in Sarawak and Mt. Kinabalu and surrounding area in Sabah.

Tetrabothrus femoralis nov.sp. (Figs 25 and 120-122)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 5 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5.5-5.9 mm. Body shiny, reddish, antennae reddish, legs yellowish-red with reddish-brown knees with basal ³/₄ of the femora pale yellow. Second antennomere shorter than the first, third longer than the second, fourth to tenth strongly transverse. Eyes shorter than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of head and pronotum fine, absent on the longitudinal median band of both. Granulation of the elytra fine, very superficial and little evident. Four basal sulci of the free abdominal tergites deep. Aedeagus: Figs, 120-121; spermatheca: 122.

C o m p a r a t i v e n o t e s : The aedeagus of this new species is more similar to that of *T. indicus* CAMERON, 1939 from Bengal, than to that *T. borneensis* CAMERON, 1943 from Borneo, of which I have seen specimens of the type series. The new species differs from *T. indicus* in the apex of the aedeagus, which is very narrow in ventral view (less narrow in *T. indicus*), in the distance between the "crista apicalis" and bottom of the curved preapical portion which measures 0.1 mm, (0.05 mm in *T. indicus*). The internal sclerotised piece of the aedeagus of the new species is less strong than that of *T. indicus*. The male holotype of *T. indicus* is labelled "Samsing, 1800, Kalimpong, Bengal, XII.1933, Balwant Singh, in soil under elephant dung, *Tetrabothrus indicus* Cam., Type."(MHNL).

E t y m o l o g y : The pale yellow colour of the basal $\frac{3}{4}$ of the femora suggested the name of the new species.

Strabocephalium mirabile BERNHAUER, 1911

Strabocephalium mirabile BERNHAUER, 1911: 92; HAMMOND, 1984: 212

M a t e r i a l e x a m i n e d : 1 ç, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Described from Quop, Sarawak.

N o t e: The spermatheca of this species was hitherto unknown. It, and the female sixth free abdominal tergite, are illustrated for the first time in Fig. 123.

Strabocephalium borneorum nov.sp. (Figs 26 and 125-127)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 8 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5.4-5.9 mm. Body shiny, reddish; head, antennae and legs brown. Second antennomere shorter than the first, third longer than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view. Head, pronotum and abdomen devoid of reticulation, that of the elytra evident, forming an irregular polygonal mesh. Puncturation of the head very superficial and very close, absent on the longitudinal median band. Puncturation of the pronotum invisible except for a few punctures on each side of the median line. Granulation of the elytra evident and not very close. Free abdominal tergites bare, posterior ³/₄ of the male fifth free tergite strongly punctate, the posterior margin of the male fifth tergite with six tubercles. Aedeagus: Fig. 126; spermatheca: Fig. 125; female sixth free tergite: Fig. 127.

C o m p a r a t i v e n o t e s : The new species is very similar to *S. mirabile* BERNHAUER, 1911 from Borneo. It differs in the eyes being as long as the postocular region, whereas in *S. mirabile* the eyes are shorter than the postocular region. The posterior margin of the female sixth free abdominal tergite is plurilobate in the new species, whereas is serrate in *S. mirabile* (Fig. 124). The distal bulb of the spermatheca is transverse in the new species (Fig. 125), and spherical in *S. mirabile* (Fig. 123). The proximal bulb of the spermatheca of the new species is sub-spherical, whereas it is pear-shaped in *S. mirabile*.

E t y m o l o g y : The new species is dedicated to the inhabitants of Borneo.

Keratodegnathus nov.gen. (Figs 27-28 and 128-134)

D i a g n o s i s: The new genus resembles to *Orphnebius* MOTSCHULSKY, 1857 in the form of the pronotum, but the antennae are inserted behind the level of the front of the eyes and the mandibles of the male and the female bear horns at the base (Fig. 131). The spermatheca (Fig. 130) is clearly different from those of known species of *Orphnebius*.

Description: In facies very similar to Orphnebius MOTSCHULSKY, 1857 and Strabocephalium BERNHAUER, 1911. Temples not bordered below. Head broad. Neck about a third as broad as the head. Gular sutures parallel. Antennae inserted behind the level of the front of the eyes. Mandibles short, stout, curved and pointed, with more or less strongly developed horns inserted near their base in both sexes but less developed in the female. Maxillary palpi with the 1^{st} joint small, 2^{nd} slightly curved and slightly thick-ened towards apex, 3^{rd} as long as the 2^{nd} but a good deal thicker at the apex, 4^{th} subulate, nearly half as long as the 3rd. Outer lobe of maxilla rather narrow, extending beyond the apex of the inner lobe, ciliate at apex; inner lobe narrow, pointed, with several fine curved spines below the apex, ciliate elsewhere (Fig. 133). Mentum transverse, the sides dilated behind, narrowed towards the front, the anterior margin truncate (Fig.134). Labial palpi short, 3-jointed, the 1st joint short, 2nd shorter and narrower, 3rd narrower than the 2^{nd} and a little longer than the 1^{st} . Tongue short and broad, subtriangular, scarcely as long as the 1st joint of the labial palpi, with a narrow triangular excision reaching nearly to the base and dividing it into two triangular lobes rounded at the apices, with apical setae, (Fig.132). Paraglossae feeble, extending to the base of the 1st joint of the labial palpi. The pronotal epipleurae visible from the side, pronotum without a median sulcus.

Mesosternal process broad, truncate behind, extending about half the length of the coxae, the coxae widely separated. Elytra not emarginate postero-laterally. Abdomen more or less navicular, only the 1st visible segment transversely impressed at the base. Legs long. Tibiae ciliate. Tarsal formula: 4, 5, 5; posterior tarsi with the 1st joint long, a little longer than the 2^{nd} and 3^{rd} together.

T y p u s g e n e r i s : Keratodegnathus rougemonti nov.sp.

E t y m o l o g y : The masculine name of the new genus means "horned mandible" from the ancient Greek $\kappa\epsilon\rho\alpha\tau\omega\delta\eta\varsigma$ = horned and $\gamma\nu\alpha\theta\varsigma\varsigma$ = jaw.

Keratodegnathus rougemonti nov.sp. (Figs 27-28 and 128-134)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: $2\delta \delta$ and 1ϕ , same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5.2-5.9 mm. Body shiny, reddish, elytra reddish-brown, abdomen yellowish-red, antennae brown with scape reddish-brown and antennomeres ten and eleven white, legs yellowish-red. Antennae inserted behind the level of the front of the eyes, mandibles of the male and female bearing horns near the base. Scape very long, second antennomere shorter than the scape, third longer than the second, fourth to tenth much longer than wide. Eyes a little longer than the postocular region in dorsal view. Body devoid of reticulation. Head and pronotum impunctate and devoid of granulation, except for two large discal punctures on the pronotum. Granulation of the elytra fine, very sparse and evident. Aedeagus: Figs 128-129; spermatheca: Fig. 130.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Keratodegnathus mirabilis nov.sp. (Figs 29 and 135-137)

T y p e m a t e r i a l : <u>Holotype</u> δ? (Pigydium lost), Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.33 mm. Body shiny, brown, mouthparts and abdomen reddish, antennae brown with the four basal antennomeres reddish, legs reddish with brown femora. Scape very long, second antennomere shorter than the scape, third longer than the second, fourth to tenth strongly transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Head impunctate. Pronotum with two discal dimples with separate external lateral punctures. Granulation of the elytra sparse, fine and very superficial. Free abdominal tergites concave and bare, posterior ³/₄ of the fifth free tergite with confluent longitudinal striae in the punctate anterior ¹/₄. Vertex of the head with strong forwardly projecting protuberance which overhangs a deep and wide median concavity. A salient lamina directed towards the base of the mandible is borne at the base of each antenna. The pigydium was detached and lost in the trap collection tray.

C o m p a r a t i v e n o t e s : The new species is attributed to *Keratodegnathus* nov.gen. on the basis the insertion of the antennae behind the level of the front of the eyes (Fig. 135), and the horned mandibles. The new species differs from *Keratodegnathus rougemonti* nov.sp. in its very transverse intermediary antennomeres and in the pronotum with two discal foveae edged by some punctures. Moreover the

horns of the mandibles are borne in a vertical position (Fig. 136), whereas in *Keratodegnathus rougemonti* nov.sp. the horns are borne laterally (Fig. 131).

E t y m o l o g y : The new species is named "marvelous" in reference to its mandibular horns.

Myrmecopella borneensis nov.sp. (Figs 30 and 138-139)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: 1♂, same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 3.45-3.48 mm. Body shiny, yellowish-red, each elytron with a brown macula extending from the humeral angle to the postero-lateral angle, on the posterior margin of the third free abdominal and a median macula on the fourth tergite; antennae reddish-brown with the basal antennomere yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth longer than wide, fifth as long as wide, sixth to tenth strongly transverse. Eyes shorter than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of the head fine and very superficial. Pronotum finely longitudinally furrowed like the grooves of an old phonographic record. Granulation of the elytra very fine and superficial, that of the abdomen sparse and evident. Aedeagus: Figs 138-139.

Comparative notes:

The genus *Myrmecopella* KISTNER & MCNAIRN, 1991 described from Sulawesi, is new to Borneo. The new species differs from hitherto known species in the absence of a median sulcus on the pronotum. The aedeagus of the new species is short and compact, whereas it is long and narrow in the other species.

E t y m o l o g y : The name of the new species is derived from Borneo.

New name for Orphnebius papuanus CAMERON, 1939

I have long been aware of the homonymy of a species of *Orphnebius* described by CAMERON, and now propose a new name for the junior homonym, as follows:

Orphnebius cameroni nom. nov.

Orphnebius papuanus CAMERON, 1939: 150 nec *Orphnebius papuanus* CAMERON, 1937: 10

Orphnebius anguliceps CAMERON, 1943

Orphnebius anguliceps CAMERON, 1943: 140; HAMMOND, 1984: 211; PACE, 2007: 748

M a t e r i a l e x a m i n e d : 1 Å, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Previously known from Brunei.

Orphnebius ideogramma PACE, 2007

Orphnebius ideogramma PACE, 2007: 764

M a terial examined: 2♂♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Already known from various localities in Sabah: Mt Kinabalu and surrounding area.

Orphnebius acutus nov.sp. (Figs 31 and 140-141)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 2-2.2 mm. Body shiny, yellowish-red, including antennae and legs. Second antennomere shorter than the first, third as long as the second, fourth to tenth strongly transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of the head indistinct, that of the pronotum reduced to four punctures, two discal and two lateral; puncturation of the elytra fine and very superficial. Free abdominal tergites concave and bare. Male fifth free tergite with strong elongate punctures. Aedeagus: Figs 140-141.

C o m p a r a t i v e n o t e s: The apex of the aedeagus of the new species bears a ventral preapical tooth. The only species known with a similar tooth on the aedeagus is O. *vorax* PACE, 2000 from Thailand, but in that species the tooth is on the dorsal preapical region and not the ventral side as in the new species. The length of the aedeagus of the new species is of 0.78 mm, that of O. *vorax* 0.67 mm.

E t y m o l o g y : The name of this new species is derived from the acute apex of the aedeagus, as seen in both lateral and ventral views.

Orphnebius ocularis nov.sp. (Figs 32 and 142-143)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 2.7 mm. Body shiny, yellowish-red, head reddish-black, antennae with the three basal antennomeres yellowish-red. Second antennomere shorter than the first, third as long as the second, fourth to tenth weakly transverse. Eyes very large. Body devoid of reticulation. Puncturation of the head fine, sparse and absent on the longitudinal median band. Puncturation of the pronotum fine except for two large discal punctures. Free abdominal tergites concave and bare. Male fifth free tergite with strong puncturation that does not extend to reach the posterior margin, which is striate. Aedeagus: Figs 142-143.

C o m p a r a t i v e n o t e s : The aedeagus of the new species is similar to that of O. *directus* PACE, 2007 also from Borneo, but the eyes of the new species are enormous, so the postocular region is obsolete, whereas in O. *directus* the eyes are as long as the postocular region. The aedeagus of the new species is broadly curved to the ventral side, while that of O. *directus* is only siglthly curved. The internal sclerotised piece of the aedeagus of the new species is strong and long 0.13 mm long, that of O. *directus* is less strong and 0.1 mm long.

E t y m o l o g y : The name of the new species refers to its enormous eyes.

Orphnebius acutissimus nov.sp. (Figs 33 and 144-145)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.6 mm. Body shiny, reddish, antennae reddish with the three basal antennomeres and apical half of the eleventh yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth strongly transverse. Eyes enormous. Body devoid of reticulation. Pronotum impunctate and devoid of granulation. Pronotum with only two strong discal punctures. Granulation of the elytra fine and sparse. Free abdominal tergites concave and bare. Male fifth free tergite with evident longitudinal striae. Aedeagus: Figs 144-145.

C o m p a r a t i v e n o t e s : The apex of the aedeagus is acute in ventral view, unlike in any of the other species known from Borneo.

E t y m o l o g y : The name of the new species refers to the apex of the aedeagus which is very acute in ventral view.

Orphnebius concavus nov.sp. (Figs 34 and 146-147)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.48 mm. Body shiny, reddish, posterior ¹/₄ of the elytra brown, antennae brown with the three basal antennomeres and apex of the eleventh yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth and fifth as long as wide, seventh to tenth transverse. Eyes very large. Body devoid of reticulation. Head impunctate, devoid of granulation. Puncturation of the pronotum evident and sparse, with two large anterior punctures. Granulation of the elytra clearly visible, fairly dense. Free abdominal tergites convex and bare. Male sixth free tergite with a semicircular median fold. Aedeagus: Figs 146-147.

 $C \circ m p \circ r \circ t \circ v \circ n \circ t \circ s$: The aedeagus of this new species bears two lateral lamina between which the surface is concave. A similar aedeagus has never been observed before.

E t y m o l o g y : The name of the new species refers to the ventral concavity of the aedeagus.

Orphnebius parabigladiosus nov.sp. (Figs 35 and 148-149)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.9 mm. Body shiny, head black, pronotum brown, elytra yellowish-brown, abdomen yellowish-red, antennae blackish-brown with the three basal antennomeres reddish-brown, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer than wide. Eyes as long as the postocular region in dorsal view. Body devoid of reticulation. Puncturation of the head reduced to some fine and very superficial punctures near the eyes. Pronotum with only six very evanescent punctures. Granulation of the abdomen salient and fairly dense. Free abdominal tergites concave and bare, male first free tergite with a long thorn on either side, male fifth free tergite strongly punctate. Anterior margin of the pronotum very sinuate posteriorly to its half. Aedeagus: Figs 148-149.

C o m p a r a t i v e n o t e s : The habitus of the new species is similar to that of O. *bigladiosus* (BERNHAUER, 1915) from Sarawak, of which I have examined the male

holotype labelled "Madang, 1000 ft. 2.11.19, Sarawak, ded. Moulton 41, *Deroleptus bigladiosus* Brnh., Typus" (FMHNC). The new species differs from it in the short lateral thorns on the abdomen of the male (long in *O. bigladiosus*), in the shorter intermediary antennomeres and in the aedeagus curved to the dorsal side, while it is rectilinear in *O. bigladiosus*. The internal sclerotised part of the aedeagus is composed of two strongly sclerotised pieces in lateral view, whereas in *O. bigladiosus* only one is strongly sclerotised. The posterior margin of the male sixth free abdominal tergite of *O. bigladiosus* is tri-lobed with two thorns between the lobes. The posterior margin of the male sixth free tergite of the new species is linear.

E t y m o l o g y : The name of the new species mean "close to *O. bigladiosus*" from the ancient Greek $\pi \alpha \rho \dot{\alpha} =$ near.

Lambanus nov.gen. (Figs 36 and 150-158)

D i a g n o s i s: The antennae inserted behind the anterior level of the eyes separates this new genus from the similar genera *Diplopleurus* BERNHAUER, 1915 and *Drusilla* LEACH, 1819 which both have similar pronota and mouthparts. The new genus is also distinguished by the characteristic form of the seventh abdominal segment (Fig. 154), with strongly curved lateral portions which may have a prehensile function during the copulation. The new genus also differs from *Diplopleurus* and *Drusilla* in the dilated third article of the maxillary palpi and in the form of the spermatheca.

D e s c r i p t i o n : In facies very similar to *Deroleptus* BERNHAUER, 1915 (Fig. 36). Temples bordered below. Head narrow, neck broad. Gular sutures parallel. Antennae inserted behind the anterior level of the eyes. Mandibles short. Maxillary palpi (Fig. 150), with the 1st joint small, 2nd slightly curved and slightly thickened towards apex, 3rd thicker than the 2nd, 4th subulate, half as long as the 3rd. Outer lobe of maxilla rather narrow, extending beyond the apex of the inner lobe, ciliate at apex; inner lobe narrow, pointed, with several fine curved spines below the apex, ciliate elsewhere. Mentum transverse, the sides rounded and dilated behind, narrowed towards the front, the anterior margin almost truncate. Labial palpi short, 3-jointed (Fig. 155), the 1st joint short, 2nd longer and narrower. Tongue short and broad, subtriangular, scarcely as long as the 1st joint of the labial palpi, with a narrow triangular excision reaching nearly to the base and dividing it into two triangular lobes with apical spines. Paraglossae feeble, extending to the base of the 1st joint of the labial palpi. Mentum: Fig. 156. Mesosternal process broad, truncate behind, extending about half the length of the coxae, metasternal process broad and truncate, meeting the mesosternal process, the coxae widely separated. Elytra not emarginate posterolaterally. Abdomen more or less navicular, only the 1st visible segment transversely impressed at the base. Legs moderate. Tibiae ciliate. Tarsal formula: 4, 5, 5, the metatarsus with the 1st joint moderately long, a little longer than the 2nd, 3rd and 4th together. Seventh abdominal segment (Fig. 154), with strongly curved lateral portions, which may have a prehensile function during the copulation.

Typus generis: Lambanus borneensis nov.sp.

E t y m o l o g y : The masculine name of the new genus derives from the ancient Greek $\lambda \alpha \mu \beta \acute{\alpha} v \omega =$ to take.

Lambanus borneensis nov.sp. (Figs 36 and 150-156)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 3♂♂, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5.8-6.1 mm. Body shiny, black, antennae reddish-brown with the eleventh antennomere yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to seventh longer than wide, eighth and ninth as long as wide, tenth transverse. Eyes longer than the postocular region in dorsal view. Reticulation of head and elytra superficial, that of the pronotum very evanescent, absent on abdomen. Puncturation of the head very superficial and close, absent on the longitudinal median band, that of the pronotum strong and close, sparse in the bottom of the deep median concavity, that of the elytra evident, that of the abdomen sparse and clearly visible. On either side of the deep median concavity of the pronotum there is a salient conical protuberance and lateral depressions. Aedeagus: Figs 151-152; male sixth free abdominal tergite: Fig. 153.

E t y m o l o g y : The new species takes its name from Borneo.

Lambanus rougemonti nov.sp. (Figs 37 and 157-158)

T y p e m a t e r i a l : <u>Holotype</u> ♀, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 7.12 mm. Body shiny, black, antennae brown with the basal antennomeres blackish-brown and eleventh yellowish-red, legs brown with femora yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to ninth longer than wide, tenth as long as wide. Eyes shorter than the postocular region in dorsal view. Reticulation of head and pronotum superficial, that of the elytra evident, that of the abdomen very transverse and very superficial, except on the fifth free tergite on which the reticulation is weakly transverse and more evident. Puncturation of the head dense and superficial, that of pronotum and elytra also dense, but evident. Spermatheca: Fig. 157; female sixth free tergite: Fig. 158.

C o m p a r a t i v e n o t e s : This specimen is clearly not the female of *Lambanus borneensis* nov.sp. described above, and must be attributed to a new species, because antennomeres eight and nine are longer that wide, the puncturation of the head is also present on the longitudinal median band, there are two large punctures near the anterior margins of the eyes, and the abdominal tergites are transversely reticulate.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Drusilla sculpticollis PACE, 2008

Drusilla sculpticollis PACE, 2008: 131

Material examined: 13, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

Distribution: Hitherto known from a single locality in Sabah: Poring Hot Springs.

Drusilla foeda PACE, 2008

Drusilla foeda PACE, 2008: 140

M a terial examined: 1333 and $25\circ \varphi$, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).

Distribution: Hitherto known from a single locality in Sabah: Poring Hot Springs.

Drusilla bruneiensis PACE, 2008

Drusilla bruneiensis PACE, 2008: 132

M a terial examined: 2 ざ ざ, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Known from numerous localities in Sabah and Brunei.

Drusilla spissatheca PACE, 2008

Drusilla spissatheca PACE, 2008: 137

M a t e r i a l e x a m i n e d : 27 exx., Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).

Distribution: Previously known from a single locality Sabah: Poring Hot Springs.

Drusilla bruneiorum PACE, 2008

Drusilla bruneiorum PACE, 2008: 128

- M a terial examined : 13° and 2q q, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).
- D i s t r i b u t i o n : Described and only otherwise known from Temburong in Brunei.

N o t e: The female of this species was hitherto unknown; the spermatheca (Fig. 161) is illustrated here for the first time.

Drusilla divergens nov.sp. (Figs 38 and 162-163)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 2♂♂, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 7-7.12 mm. Body shiny, blackish-brown, abdomen reddish, posterior half of the male fourth free abdominal tergite and the whole fourth brown, antennae reddish, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer than wide. Eyes longer than the postocular region in dorsal view. Reticulation of the fore-body evident and fine. Reticulation of the abdomen absent. Puncturation of the head visible, but absent on a narrow longitudinal median band and on frons. Puncturation of the elytra evident and close, that of the abdomen fine. Aedeagus: Figs 162-163.

C o m p a r a t i v e n o t e s : The new species is similar to *D. foeda* PACE, 2008 also from Borneo. It differs in the lenghth/width ratio of the pronotum which is 0.93, whereas in *D. foeda* it is 1.11, in the antennomeres four to eight which are longer than wide, whereas in *D. foeda* they are transverse, and in the broad, truncate apex of the aedeagus, which in *D. foeda* is acute.

E t y m o l o g y : The specific epithet of the new species refers from the divergence of the characters of the aedeagus from those of *D. foeda* PACE.

Drusilla bulbosa nov.sp. (Figs 39 and 164-168)

T y p e m a t e r i a l : <u>Holotype</u> φ, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: 1δ, same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 4.4-4.69 mm. Body and pronotum slightly shiny, rest of the body shiny. Body black, elytra and abdomen blackish-brown, pygidium reddish, antennae reddish with basal antennomere reddish-brown, the second, third and three apical antennomeres and legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer that wide. Eyes as long as the postocular region in dorsal view. Reticulation of head and pronotum strong, that of the elytra evident, that of the abdomen very transverse and evident. Puncturation of the head fairly dense and superficial, that of the pronotum evident and fairly close, with four large discal punctures disposed in a rectangle rectangle; puncturation of the elytra strong and very superficial, that of the abdomen very fine, superficial and sparse. The deep median sulcus of the pronotum does not reach the anterior margin and posterioriorly it ends in a shallow dimple. Male and female sixth free abdominal tergites with a wide median lobe on the posterior margin (Fig. 167). Male first free tergite with two long narrow appendices directed posteriorly (Fig. 168). Male fifth free tergite with a salient posterior median carina (Fig. 168). Aedeagus: Figs 164-165; spermatheca: Fig. 166.

C o m p a r a t i v e n o t e s : In its habitus and the form of the spermatheca, the new species is similar to *D. foeda* PACE, 2008 also from Borneo. It differs in the fourth antennomere being longer than wide (as long as wide in *D. foeda*), and in the distal bulb of the spermatheca which is narrower (0.04 mm), than the proximal bulb (0.1 mm is wide), whereas in *D. foeda* the distal bulb of the spermatheca is 0.1 mm wide and a little narrower than the proximal bulb (0.11 mm wide).

E t y m o l o g y : The name of this new species refers to the large proximal bulb of the spermatheca.

Drusilla serrulae nov.sp. (Figs 40 and 169-173)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 11 $\varphi \varphi$, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 4.5-4.69 mm. Fore-body slightly shiny, abdomen shiny. Body brown, abdomen reddish with the third to fifth free abdominal tergites brown, antennae blackish-brown with the two basal antennomeres and the base of third yellow-ish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view. Reticulation of the fore-body evident, that of the abdomen transverse and clearly visible. Puncturation of head and abdomen very superficial and close, absent on frons. Strong granulation denser in the median occipital area. Granulation of pronotum and elytra dense and evident, more salient near the suture of the elytra. There is a salient umbonate elevation between the antennae. The pronotum bears a fine median sulcus. Male fifth free abdominal tergites with two large posterior median punctures, arranged in a transverse line. Aedeagus: Figs 169-170; spermatheca: Fig. 173, male sixth free tergite: Fig. 171; female sixth free tergite: Fig. 172.

C o m p a r a t i v e n o t e s : The habitus and shape of the spermatheca of this new species point to an affinity with *D. operosa* PACE, 1986 also from Borneo. However the fourth antennomere of the new species is transverse, whereas that of *D. operosa* is longer than wide. The intermediary portion of the spermatheca between the distal and proximal bulbs is short (0.07 mm) in the new species, whereas it is 0.12 mm long in *D. operosa*.

E t y m o l o g y : The name of the new species means "serrate" (from the Latin serrula = a saw) in reference to one of the internal sclerotised pieces of the aedeagus which is shaped like the teeth of a saw.

Drusilla borneoacuta nov.sp. (Figs 41 and 174-177)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 6.96 mm. Body shiny, blackish-brown, antennae blackishbrown with eleventh antennomere reddish, legs reddish with femora yellow. Second antennomere shorter than the first, third longer than the second, fourth to sixth as long as wide, seventh to tenth transverse. Eyes shorter than the postocular area in dorsal view. Reticulation of head and pronotum evident, absent on elytra, that of the abdomen irregular, polygonal, slightly transverse on two basal free tergites, with a longitudinal mesh on the male fifth free tergite. Puncturation of the head dense, that of pronotum, elytra and abdomen also very dense, but strong. Pronotum without a median sulcus, but with a broad median depression with a circular depression distant from the posterior margin. Male first free tergite with two lateral appendices and a sinuous posterior margin (Fig. 177). Male fifth free tergite with a posterior median carina (Fig. 177). Aedeagus: Fig. 174. (?)

C o m p a r a t i v e n o t e s : In its habitus and in the form of the aedeagus, this new species is similar to *D. bruneiorum* PACE, 2008 also from Borneo. It differs in the colour of the body: pronotum brown in the new species, reddish in *D. bruneiorum*. The aedeagus of the new species is flexed to the ventral side in the preapical area, in *D. bruneiorum* it is almost rectilinear. The apex of the aedeagus of the new species is acute in ventral view, and broadly curved in *D. bruneiorum*.

E t y m o l o g y : The name of the new species means "Borneo acute" in reference to the acute apex of the aedeagus in ventral view.

Drusilla caputserpentis nov.sp. (Figs 42 and 178)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 7.12 mm. Pronotum and elytra opaque, rest of the body shiny. Head blackish-brown, pronotum and elytra brown, abdomen yellowish-red, posterior margin of the first to fourth free abdominal tergites brown, fifth free tergite reddish-brown, antennae blackish-brown with the two basal antennomeres reddish-brown and apex of the eleventh yellow, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer than wide. Eyes shorter than the postocular region in dorsal view. Reticulation of the fore-body evident, that of the abdomen very transverse and superficial. Puncturation of the head evident, fairly close and absent on a narrow longitudinal median band and on the frons, that of pronotum and

elytra very dense and deep, that of the abdomen fine and fairly close. Pronotum with median sulcus at the bottom of an ample longitudinal concavity and with feeble lateral impressions. Spermatheca: Fig. 178.

C o m p a r a t i v e n o t e s : The spermatheca of the new species shares some of the characters of the spermatheca of *D. perdensa* PACE, 2004 from Thailand. Both have a triangular appendix on the distal bulb of the spermatheca, and the proximal portion of the spermatheca is folded. However the intermediary portion of the spermatheca of the new species is much dilated near the proximal bulb, which is not the case in *D. perdensa*. The apical umbilicus of the distal bulb of the spermatheca of the new species is narrow: 0.024 mm wide, whereas in *D. perdensa* it measures 0.036 mm.

E t y m o l o g y : The name of the new species, meaning "snake head" refers to the shape of the distal bulb of the spermatheca.

Drusilla bilobata nov.sp. (Figs 43 and 179-180)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 5 mm. Body shiny, brown, pronotum reddish, abdomen yellowish-red with the fourth and fifth free abdominal tergites reddish, antennae brown with the two basal antennomeres and the base of third yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth as long as wide, fifth to tenth transverse. Eyes longer than the postocular region in dorsal view. Reticulation of head and pronotum evident, that of the elytra superficial, that of the abdomen very transverse and clearly visible. Puncturation of the fore-body fine, very superficial and evident, that of the abdomen fine and superficial. The median sulcus of the pronotum does not reach the anterior margin and posteriorly it ends in a deep median dimple. Spermatheca: Fig. 179; female sixth free tergite: Fig. 180.

C o m p a r a t i v e n o t e s : The habitus of the new species is similar to that of D. *spissatheca* PACE, 2008 also from Borneo, but the maximum width of the distal bulb of the spermatheca of the new species is greater (0.06 mm), than in spissatheca (0.048 mm).

E t y m o l o g y : The name of the new species "two lobed" refers to the two large lobes of the sixth free abdominal tergite of the female.

Drusilla sabahensis nov.sp. (Figs 44 and 181-182)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.93 mm. Body shiny, blackish-brown, antennae brown with the two basal antennomeres and the base of third yellowish-red, legs yellowish-red, the femora yellow with distal extremity brown. Second antennomere shorter than the first, third longer than the second, fourth to seventh longer than wide, eighth as long as wide, ninth and tenth transverse. Eyes very large, in dorsal view. Fore-body devoid of reticulation, that of the abdomen very transverse and superficial, but the male sixth free tergite with slightly transverse and evident reticulation. Puncturation of the head superficial and absent on the longitudinal median band. Puncturation of pronotum and elytra strong and very superficial. There is a transverse sulcus between the antennae. Pronotum with a deep median sulcus ending posteriorly in a deep dimple. Aedeagus: Figs 181-182.

C o m p a r a t i v e n o t e s : In the form of the aedeagus and in the habitus the new species is similar to *D. foeda* PACE, 2008 also from Borneo, but the middle and posterior femora are clearly bicoloured, the intermediary antennomeres are longer than wide (transverse in *D. foeda*), and the apex of the aedeagus in ventral view is abruptly dilated, (not dilated in *D. foeda*).

E t y m o l o g y : The new species takes its name from Sabah.

Drusilla profunda nov.sp. (Figs 45 and 183)

T y p e m a t e r i a l : <u>Holotype</u> φ, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.93 mm. Body shiny, reddish, elytra reddish-brown, abdomen yellowish-red, antennae reddish-brown with the two basal antennomeres, the base of third and the eleventh yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth as long as wide, fifth to tenth transverse. Eyes very large in dorsal view. Fore-body devoid of reticulation, that of the abdomen very transverse and evident. Puncturation of the head fine and very superficial, that of the abdomen absent. Granulation of the pronotum and elytra fine, very superficial and not very salient. There is a salient tubercle between the antennae. Median sulcus of the pronotum shallow and ending in a deep posterior dimple.

C o m p a r a t i v e n o t e s : In the form of the spermatheca, the new species is similar to *D. semimonticola* PACE, 2008 also from Borneo. It differs in the bicoloured abdomen, whereas in *D. semimonticola* the abdomen is uniformly yellowish-red, in the deep apical umbilicus of the distal bulb of the spermatheca, which is short in *D. semimonticola*, and in the proximal bulb of the spermatheca which is narrower (0.013 mm), than the maximum width (0.052 mm) of the distal bulb, whereas in *D. semimonticola* the spermatheca is as wide (0.066) as the maximum width of the distal bulb.

E t y m o l o g y : The new species is named "deep" in reference to the deep apical umbilicus of the distal bulb of the spermatheca.

Drusilla borneoclara nov.sp. (Figs 46 and 184)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 5.84 mm. Body shiny, yellowish-red, sides and posterior margin of the elytra brown, antennae brown with the three basal antennomeres yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth as long as wide, fifth to tenth transverse. Eyes longer than the postocular region in dorsal view. Fore-body devoid of reticulation, that of the abdomen very transverse and very superficial, but on the sixth free tergite very transverse and evident. Puncturation of the head evident and not very dense, absent on a narrow longitudinal median band. Puncturation of the surface, that of the abdomen fine and sparse. There is a salient tubercle between the antennae. Spermatheca: Fig. 184.

C o m p a r a t i v e n o t e s : The habitus of the new species is similar to that of D. *aerea* (CAMERON, 1933) also from Borneo, but the spermatheca is different. The proxi-

mal portion of the spermatheca of the new species is bisinuate, whereas in *D. aerea* the same portion is rectilinear.

E t y m o l o g y : The name of the new species "Borneo pale" refers to the mostly yellowish-red colour of the body.

Drusilla rougemontiana nov.sp. (Figs 47 and 185-188)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 14 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 4.3-4.54 mm. Body shiny, blackish-brown, abdomen yellowish-red with the free third to sixth free abdominal tergites brown, antennae blackish-brown with the two basal antennomeres and the base of third reddish-brown, legs yellow with knees yellowish-brown. Second antennomere shorter than the first, third longer than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation except on the sixth free tergite on which it is very transverse and superficial. Puncturation of the head sparse and superficial, absent on a narrow longitudinal median band, that of the pronotum strong anteriorly, to the sides thin, that of the elytra very superficial and clear. Median sulcus of the pronotum superficial, ample median concavity of the pronotum limited posteriorly by a transverse edge and a triangular posterior median impression. Male fifth free abdominal tergites with six tubercles on the posterior margin and two anterior median tubercles. Aedeagus: Figs 186-187; spermatheca: Fig. 185; male sixth free tergite: Fig. 188.

C o m p a r a t i v e n o t e s : The habitus of this new species is similar to *D*. *sculpticollis* PACE, 2008, but the aedeagus and the spermatheca are different. The apex of the aedeagus, in ventral view, is more constricted and longer than that of *D*. *sculpticollis*, and the proximal portion of the spermatheca of the new species is not wound in a coil as in *D*. *sculpticollis*.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Drusilla danumensis nov.sp. (Figs 48 and 189-191)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 6 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 3.35-3.48 mm. Body shiny, head and pronotum blackishbrown, elytra black with the base dirty yellow, abdomen yellowish-red with posterior portion of the paratergites blackish-brown and first to third free tergites reddish-brown on their mid-longitudinal area, fourth free tergite yellowish-red in basal half and blackish-brown in distal half, fifth free tergite brown, antennae reddish-brown with the three basal antennomeres and the eleventh yellowish-red, legs yellowish-red with femora yellow, except to the distal extremities which are yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to ninth as long as wide, tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of the head fine and absent on the longitudinal median band, that of the elytra evident and deep. Granulation of the pronotum fine, very superficial and salient. Two large median punctures on each free tergite that are otherwise bare. There is a deep depression between the antennae. Pronotum with a deep median sulcus,

an ample anterior median impression, a deep impression on either side and two strong punctures near the median sulcus. Aedeagus: Figs 190-191; spermatheca: Fig. 189.

C o m p a r a t i v e n o t e s : In the form of the spermatheca and partly that of the aedeagus, and in the colour of the abdomen this new species is similar *D. fontis* PACE, 2008 also from Borneo. It differs in the transverse pronotum with length/width ratio of 0.88, whereas in *D. fontis* the pronotum is longer than wide with a length/width ratio of 1.10. The ventral profile of the aedeagus of the new species has an acute angle near the "crista apicalis", which is absent in *D. fontis*. The apex of the aedeagus of the new species, in ventral view, is not angled as the apex of the aedeagus of *D. fontis*.

E t y m o l o g y : The name of the new species is derived from the Danum Valley.

Drusilla borneoapicalis nov.sp. (Figs 49 and 192-194)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 1δ and 1φ , same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 4.54-4.69 mm. Body shiny, head brown, pronotum reddish, elytra blackish-brown with base reddish, abdomen yellowish-red with posterior margin of the first four free tergites largely brown, the fifth and sixth free tergites brown, antennae reddish-brown with the two basal antennomeres, the base of third and eleventh yellowish-red, legs yellowish-red with basal ³/₄ of the femora yellow. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer than wide. Eyes very large in dorsal view. Body devoid of reticulation. Granulation of the head salient but absent on the longitudinal median band. Puncturation of the pronotum strong but absent on the anterior portion of the lateral depressions. Granulation of the elytra very superficial and salient. Free tergites bare, only the fifth free tergite with two strong median punctures. The head bears a salient tubercle between the antennae, and the pronotum a deep median sulcus. Aedeagus: Figs 192-193; spermatheca: Fig. 194.

C o m p a r a t i v e n o t e s : The habitus and the spermatheca of the new species are similar to those of *D. bruneiensis* PACE, 2008, but the eyes of the new species are larger, longer than the postocular region, whereas in *D. bruneiensis* the eyes are as long or almost as the postocular region. The spermatheca of the new species is shorter (0.14 mm) than that of *D. bruneiensis* (0.19 mm). The aedeagus of the new species is different in several respects, including the apex, which is narrow in ventral view, whereas it is broad in *D. bruneiensis*, and the internal sclerotised pieces of the aedeagus are devoid of the numerous thorns present in *D. bruneiensis*.

E t y m o l o g y : The name of the new species "Borneo apical" refers to the apex of the aedeagus which is broad in lateral view and narrow in ventral view.

Drusilla borneostricta nov.sp. (Figs 50 and 195-198)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 7-7.57 mm. Body shiny, blackish-brown, abdomen reddish with the fourth to sixth free abdominal tergites brown, antennae brown with the two basal antennomeres yellowish-red, tarsi and anterior tibiae reddish, posterior and middle tibiae pale yellow, anterior and middle femora yellowish-brown, posterior femora brown

with basal half pale yellow. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer that wide. Eyes longer than the postocular region in dorsal view. Reticulation of the fore-body strong, that of the abdomen absent except on the fifth free tergite on which an irregular polygonal reticulation is evident. Granulation of the fore-body very close and superficial, absent on the longitudinal median band of the head. The head bears two small deep fovea near the anterior margin of each eye. Median sulcus of the pronotum deep, the surface very salient near the posterior angles of the pronotum, declivous toward the broad posterior median fovea. There is a feeble lateral keel on the elytra that is salient on the disk. The elytra of the male bear large granules along the posterior 2/3rds of the suture. Free abdominal tergites bare with two median tubercles in transverse line on the second to fourth free tergites. Male first free tergite with a median appendix on the posterior margin (Fig. 198), and beneath this, on the base of the following tergite, a triangular area is flattened and strigose. Male fifth free tergite broadly concave on the median line and impressed on the sides and with two convergent posterior median keels (Fig. 198). Aedeagus: Figs 195-186; male sixth free tergite: Fig. 197; male abdomen: Fig. 198.

C o m p a r a t i v e n o t e s : In its habitus and the form of the aedeagus the new species is similar to *D. kinabaluensis* PACE, 1986 also from Borneo, but the colour of the abdomen is different, the "crista apicalis" is little developed, whereas it is strongly developed in *D. kinabaluensis*, and the preapical region of the aedeagus is broad in ventral view, whereas it is narrow in *D. kinabaluensis*.

E t y m o l o g y : The name of the new species, meaning "Borneo narrow", refers to the narrow pronotum.

Drusilla sabahorum nov.sp. (Figs 51 and 199-202)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f. it., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 1δ and 1φ , same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5-5.3 mm. Body shiny, reddish, pronotum and abdomen yellowish-red, antennae blackish-brown with the two basal antennomeres and the base of third yellowish-red, legs yellow. Second antennomere shorter than the first, third longer than the second, fourth longer than wide, fifth to seventh as long as wide, eighth to tenth transverse. Eyes longer than the postocular region in dorsal view. Reticulation of the head strong, absent on frons and on the pronotum and elytra, that of the abdomen very transverse and very superficial. Puncturation of the head fine and scarcely visible, absent on a broad longitudinal median band. Puncturation of the pronotum irregularly distributed and evident, that of the elytra strong and very superficial. There is a salient tuber-cle between the antennae and two on the disk between which the surface is deeply concave. Pronotum with deep median concavity confluent posteriorly with a fovea, on either side deeply engraved. Male second free tergite with postero-median appendix strongly carinate and truncate (Fig. 202). Posterior margin of the male fourth free tergite with large tubercles, fifth with strong tubercles on the whole surface. Aedeagus: Figs 199-200; spermatheca: Fig. 201; abdomen of the male: Fig. 202.

C o m p a r a t i v e n o t e s : In its habitus and the form of the spermatheca, the new species is similar to D. *aerea* (CAMERON, 1933) also from Borneo, of which I have examined 1 male and 1 female labelled as follows: "Borneo, Dr. Cameron *Myrmedonia*

aerea Cam." (MNHL). The new species differs from *D. aerea* in that the spermatheca is scarcely sinuous from the distal end to the proximal bulb, whereas it is very sinuous in *D. aerea*, in the presence of a truncate thorn on the posterior margin of the male first free abdominal tergite, and in the long narrow aedeagus without protruding flagellum, whereas in *D. aerea* the aedeagus is broad with long flagellum.

E t y m o l o g y : The new species is dedicated to the inhabitants of Sabah.

Drusilla trina nov.sp. (Figs 52 and 203-208)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: $6\delta\delta$ and $3\varphi\varphi$, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 8-8.2 mm. Fore-body weakly shiny, abdomen shiny. Body black, antennae black with the two basal antennomeres and the base of third reddish, legs black with basal half of the femora yellow. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer than wide. Eyes longer than the postocular region in dorsal view. Reticulation of the body strong, that of pronotum and elytra evident and that of the abdomen weakly transverse and clearly visible. Granulation of head and pronotum salient and very close, that of the elytra very dense. Puncturation of the abdomen very superficial, evident on the three basal free tergites, sparse on the following tergites. Head with a Y-shaped median sulcus, a carina between the antennae and devoid of granulation. Pronotum with an ample median concavity, deep median sulcus and lateral impressions. First free tergite of the male with three lobes on the posterior margin (Fig. 203), the second with a triangular baso-median area with transverse striae, third with a basal median area, fourth with six posterior marginal tubercles, fifth with fine salient tubercles (Fig. 203). Aedeagus: Figs 204-205; spermatheca: Fig. 206; male sixth free tergite: Fig. 207; female sixth free tergite: Fig. 208; abdomen: Fig. 203.

C o m p a r a t i v e n o t e s : The habitus and the form of the aedeagus of this new species are comparable to D. *bruneiorum* PACE, 2008 also from Borneo, but the fifth to eighth antennomeres are longer than wide, whereas they are transverse in D. *bruneiorum*, the anterior and middle legs are yellowish-red in bruneiorum, and the aedeagus of the new secies is broadly curved to the ventral side, while it more sharply angled in D. *bruneiorum*.

E t y m o l o g y : The name of the new species, meaning "triple" refers to the posterior margin of the first free tergites which are tri-lobed in the male.

Drusilla borneoruficollis nov.sp. (Figs 53 and 209-213)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 9 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 6.3-6.81 mm. Body shiny, pronotum and elytra weakly shiny. Body blackish-brown, pronotum reddish, elytra black, antennae blackish-brown with the two basal antennomeres and the base of third yellowish-red, tibiae and distal half of the femora brown, basal half of the femora yellowish-red, tarsi reddish. Second antennomere shorter than the first, third longer than the second, fourth to tenth longer than wide. Eyes very large in dorsal view. Head devoid of reticulation, that of the pronotum evident, that of the elytra strong, that of the abdomen very transverse and

evident, but on the fifth free tergite the reticulation is irregular, polygonal and evident. Granulation of the pronotum and elytra dense and salient, that of the abdomen superficial. There is a longitudinally sulcate tubercle between the antennae (Fig. 213), disk of the head with a Y-shaped furrow. Pronotum with median sulcus and a depression on either side of it. Male fifth free tergite with four salient granules. Aedeagus: Figs 209-210; spermatheca: Fig. 211; male sixth free tergite: Fig. 212.

C o m p a r a t i v e n o t e s : The habitus of the new species is similar to that of D. *bruneiorum* PACE, 2008 also from Borneo, except for the colour of the elytra and abdomen. The large ventral gibbosity of the aedeagus of the new species, and the very long spermatheca, the proximal portion of which is wound in numerous tight coils, also distinguish the new species from D. *bruneiorum*.

E t y m o l o g y : The name of the new species, meaning "Borneo red neck" refers to its reddish pronotum.

Zyras (Zyras) montanus (BERNHAUER, 1915)

Astilbus montanus BERNHAUER, 1915: 152 Zyras (Zyras) montanus; PACE, 2008: 110

Material examined: 13, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Known from Sarawak: Mt Matang.

N o t e: I have examined the φ holotype labelled as follows: "Matang, 20.XII.19, Borneo, Matang, Sarawak Mus., *montanus* BERNH., Typus unic." (FMHNC). I publish here for the first time the drawing of the aedeagus: Figs 214-215.

Zyras (Rhynchodonia) praedabunda KISTNER et al., 2003

Zyras (Rhynchodonia) praedabunda Kistner et al, 2003: 230

5 exx.: Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Described from Poring Hot Springs, Sabah, (check!) where it is associated with the ant *Dorylus laevigatus*.

Zyras (Zyras) quadriterminalis PACE, 2008a

Zyras (Zyras) quadriterminalis PACE, 2008a: 115

M a t e r i a l e x a m i n e d : 1♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Already known from Sabah: Poring Hot Springs.

N o t e: The female was hitherto unknown. I publish here for the first time a drawing of the spermatheca: Fig. 216.

Zyras (Diaulaconia) ibanorum PACE, 1993

Zyras (Diaulaconia) ibanorum PACE, 1993: 168

M a terial examined: 13° and 4q q, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).

D i s t r i b u t i o n : Described from Borneo: Tameang Lajang in Kalimantan.

N o t e: The male of this species was previously unknown; a figure of the aedeagus is given here for the first time (Fig. 217); it confirms the validity of the species. The apex of the aedeagus is clearly shorter than that of *Z. compressicornis* FAUVEL, 1905, a species erroneously considered to be widespread SE Asia (HAMMOND, 1984).

Zyras (Glossacantha) plenus nov.sp. (Figs 54 and 218)

T y p e m a t e r i a l : <u>Holotype</u> φ, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 9 mm. Body shiny, head black, pronotum blackish-brown, elytra and abdomen yellowish-red, fourth to sixth free abdominal tergites brown, antennae brown with the two basal antennomeres and the base of third yellowish-red, legs yellowish-red. Antennae compressed from the fourth antennomere. Second antennomere shorter than the first, third longer than the second, fourth to tenth as long as wide. Eyes a little longer than the postocular region in dorsal view. Body devoid of reticulation, which is present only on the fourth free tergite on which is very superficial, and on the fifth free tergite on which it is distinct and irregularly polygonal. Puncturation of head moderately dense and superficial, absent on the longitudinal median band, that of the pronotum evident, close on either side of the impunctate longitudinal median band; on the rest of the pronotum the Puncturation is sparse. Puncturation of the elytra a moderately dense and strong, that of the abdomen sparse. Spermatheca: Fig. 218.

C o m p a r a t i v e n o t e s : The distal bulb of the spermatheca has a lateral prolongation as in the spermatheca of Z. *inversus* PACE, 2001 from India. However the sixth free abdominal tergite of the female is not split to half as in Z. *inversus*, and the spermatheca is less developed than that of Z. *inversus*, with the apical umbilicus of the distal bulb shallow, whereas in Z. *inversus* it is very deep.

E t y m o l o g y : The name of the new species, meaning "full", refers to the distal bulb of the spermatheca, which is normally empty, but in this case appears nearly filled by the thickness of the cuticle.

Porus laminarum nov.sp. (Figs 55 and 219-222)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 2♂♂, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 11-11.3 mm. Body shiny, yellowish-red, head and fourth and fifth free abdominal tergites reddish, posterior third of the elytra brown, antennae and legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to eighth longer than wide, ninth and tenth as long as wide. Eyes shorter than the postocular region in dorsal view. Reticulation of the head very superficial, absent on the rest of the body. Head devoid of puncturation or granulation; pronotum with only four large discal punctures disposed in a square; puncturation of the elytra fine, interspersed with a few larger punctures and superficial granulation on the posterior part of elytra. Male first free abdominal tergite with two long lateral appendices (Fig. 222), the second with a basal triangular convexity furrowed on the median line, the third with a median basal swelling, fifth with a salient posterior median carina. Aedeagus: Figs 219-220; male sixth free tergite: Fig. 221; abdomen of the male: Fig. 222.

Comparative notes: The genus Porus WESTWOOD, 1839 known from India

and Sudan, is new to Borneo. The new species differs from *P. ochraceus* WESTWOOD, 1839 from India in that the pronotum is as wide as long, whereas in *P. ochraceus* it is transverse, and in the antennomeres four to six being longer than wide, whereas in *P. ochraceus* they are strongly transverse.

E t y m o l o g y : The name of the new species, "of the lamina", refers to the two blades of the internal sclerotised pieces of the aedeagus.

Porus borneensis nov.sp. (Figs 56 and 223-226)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 3 exx., same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 5-5.3 mm. Body shiny, brown, abdomen yellowish-red, antennae yellowish-brown with the two basal antennomeres and the base of third yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third as long as the second, fourth to seventh longer than wide, eighth as long as wide, ninth and tenth transverse. Eyes as long as the postocular region in dorsal view. Reticulation of the head evident, that of the pronotum strong, that of the elytra very superficial, that of the abdomen evanescent. Puncturation of the head evident and moderately close, absent on the longitudinal median band, that of the pronotum evanescent, that of the abdomen scarcely visible. Granulation of the elytra close and superficial. Male first free abdominal tergite with two long parallel lateral appendices. Aedeagus: Figs 223-224; male sixth free tergite: Fig. 226.

C o m p a r a t i v e n o t e s: This new species differs from *P. ochraceus* WESTWOOD, 1839 from India, in the shape of the pronotum, which is as wide as long, whereas it is transverse in *P. ochraceus*, in the antennomeres four to six, which are longer than wide, whereas in *P. ochraceus* they are transverse.

E t y m o l o g y : The new species takes its name from Borneo.

Wroughtonilla sabahensis nov.sp. (Figs 57 and 227)

T y p e m a t e r i a l : <u>Holotype</u> φ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratype</u>: 1φ , same provenance as the holotype (CROU).

D e s c r i p t i o n : Length 4.4-4.69 mm. Fore-body opaque, abdomen weakly shiny. Body brown, the area of elytra surrounding the abdomen reddish, antennae reddishbrown with the two basal antennomeres and the base of third reddish, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to sixth longer than wide, seventh as long as wide, eighth to tenth transverse. Eyes longer than the postocular region in dorsal view. Reticulation of head, pronotum and abdomen evident, that of the elytra very superficial. Puncturation of the fore-body close and superficial. Pronotum with a fine median sulcus at the bottom of a depression, and ample lateral concavities. Female sixth free abdominal tergite with a triangular emargination on the posterior margin. Spermatheca: Fig. 227.

C o m p a r a t i v e n o t e s : The new species differs from *W. borneensis* PACE, 1986 also from Sabah, in the evidently transverse pronotum, whereas it is as long as wide in *W. borneensis*, and in the three penultimate antennomeres being transverse (elongate in *W. borneensis*). The spermatheca of the new species is longer (0.22 mm), than that of

W. borneensis (0.18 mm), with the apical umbilicus of the distal bulb of the spermatheca deep and with a wide base, whereas in *W. borneensis* it is very short.

E t y m o l o g y : The new species takes its name from Sabah.

Thamiaraeini

Mimacrotona borneensis nov.sp. (Figs 58 and 228)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t, 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.54 mm. Body shiny, yellowish-red, elytra reddish-brown, antennae yellowish-red with the two basal antennomeres yellow, legs yellow. Second antennomere longer than the first, third shorter than the second, fourth to tenth strongly transverse. Eyes longer than the postocular region in dorsal view. Reticulation of the head very superficial, that of pronotum and abdomen abseent, that of the elytra evident. Puncturation of the head indistinct. Granulation of pronotum and elytra fine and very superficial. First to third free abdominal tergites covered with squamous sculpture, the fourth and fifth with sparse Puncturation. Spermatheca: Fig. 228.

C o m p a r a t i v e n o t e s : In its habitus and structure of the spermatheca this new species is similar to *M. kinabaluensis* PACE, 2008 also from Borneo, but the head and elytra of the new species are brown (yellowish-red in *M. kinabaluensis*), the spermatheca has an oval distal bulb (spherical in *M. kinabaluensis*), and the proximal portion of the spermatheca is curved and not rectilinear as in *M. kinabaluensis*.

E t y m o l o g y : The new species takes its name from Borneo.

Platorischna borneensis PACE, 2004

Platorischna borneensis PACE, 2004: 839

- M a terial examined: 333 and 19, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).
- D i s t r i b u t i o n : Described from Mt Kinabalu and surrounding area.

Oxypodini

Apimela perarmata nov.sp. (Figs 59 and 229-230)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 1δ and $2\varphi \varphi$, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2-2.12 mm. Body shiny, brown, head third and fourth free abdominal tergites blackish-brown, antennae black with the two basal antennomeres reddish-brown, legs dirty yellow. Second antennomere shorter than the first, third shorter than the second, fourth and fifth as long as wide, sixth to tenth transverse. Eyes shorter than the postocular region in dorsal view. Fore-body devoid of reticulation, that of the abdomen transverse and strong. Head very finely and densely punctate. Granulation of pronotum and elytra very dense and superficial, that of the first three free tergites fine and close, that of the two following less close. Longitudinal median impression of the pronotum feeble. Aedeagus: Fig. 229; spermatheca: Fig. 230.

C o m p a r a t i v e n o t e s : The aedeagus of the new species is similar to that of A. *kinabaluensis* PACE, 2008 also from Borneo, but the length of the aedeagus of the new species is 0.17 mm, while the length of the aedeagus of A. *kinabaluensis* is 0.22 mm. The internal sclerotized pieces of the aedeagus of the new species is includes a curved lamina extending to the apex, that of A. *kinabaluensis* a thin tubule.

E t y m o l o g y : The name of the new species "highly armed" refers to the strongly sclerotised pieces of the aedeagus.

Aleocharini

Pseudoplandria laminaris PACE, 2008

Pseudoplandria laminaris PACE, 2008: 410

M a terial examined: 2♂♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Known from Mt Kinabalu and surroundings area.

Pseudoplandria belalongica PACE, 2008

Pseudoplandria belalongica PACE, 2008: 408

M a terial examined: 13, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D i s t r i b u t i o n : Known from Brunei and the Mt Kinabalu area.

Pseudoplandria pseudobellicosa PACE, 2008

Pseudoplandria pseudobellicosa PACE, 2008: 410

- Material examined: 13, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).
- D i s t r i b u t i o n : Described from Mt Kinabalu and surrounding area.

Pseudoplandria globulitheca PACE, 2008

Pseudoplandria globulitheca PACE, 2008: 406

- M a t e r i a l e x a m i n e d : 7 exx., Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU, MSNV).
- D i s t r i b u t i o n : Known from Mt Kinabalu and surrounding area.

Pseudoplandria fortis nov.sp. (Figs 60 and 231-232)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 5.9 mm. Body shiny, reddish, head brown, antennae brown with the two basal antennomeres and the base of the third yellowish-red, legs yellowish-red. Second antennomere shorter than the first, third longer than the second, fourth to tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of the fore-body evident and very superficial, on the pronotum denser anteriorly and on either side of the median line. Frons carinate. Disc of pronotum

with four large punctures disposed in a square. Elytra of the male with a salient oblique carina extending half way to the posterior margin and an oblique less salient carina near the humeral angle. Male fifth free abdominal tergite with a salient posterior median carina progressively deeply furrowed posteriorly. Aedeagus: Figs 231-232.

C o m p a r a t i v e n o t e s : No known species of this genus has secondary sexual characters on the elytra and on the abdomen resembling those of the new species. The strongly sclerotised internal piece of the aedeagus is also unique to this species.

E t y m o l o g y : The new species is named "strong" after the strongly sclerotized internal piece of the aedeagus.

Pseudoplandria confundibilis nov.sp. (Figs 61 and 233-235)

T y p e m a t e r i a l : <u>Holotype</u> δ , Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 1δ and 1ϕ , same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 2.3-2.87 mm. Body shiny, reddish, posterior ¾ of the elytra brown, pygidium yellowish-red, antennae brown with the three basal antennomeres and the eleventh yellowish-red, legs yellowish-red. Second antennomere as long as the first, third shorter than the second, fourth as long as wide, fifth to tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of head and pronotum dense and very fine. Granulation of the elytra dense and salient, that of the first and second free abdominal tergites very superficial, elongate and forming striae. Aedeagus: Figs 233-234; spermatheca: Fig. 235.

C o m p a r a t i v e n o t e s : The aedeagus and spermatheca of this new species are similar to those of *P. bellicosa* PACE, 2008 also from Borneo. The new species differs in the absence in the male of a curved relief on each elytron, present in *P. bellicosa*. The internal sclerotised piece of the aedeagus of the new species is short (0.21 mm), whereas that of *P. bellicosa* is long (0.48 mm), and much wider in ventral view. The proximal portion of the spermatheca is shorter than in *P. bellicosa*.

E t y m o l o g y : The name of this new species, meaning "mistakable", refers to the possibility of mistaking it for other Bornean species with similar external characters, and that it can only be determined with certitude by examination of the aedeagus and spermatheca.

Pseudoplandria collaris nov.sp. (Figs 62 and 236)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 3.33 mm. Body shiny, yellowish-red, antennae yellowishred with the two basal antennomeres and apical half of the eleventh yellow, legs yellowish-red. Second antennomere as long as the first, third shorter than the second, fourth and fifth longer than wide, sixth as long as wide, seventh to tenth transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of head and pronotum fine and very superficial. Granulation of elytra and abdomen fine, very superficial and evident. The disc of the pronotum bears four large punctures disposed in a square. Base of the third and fourth free abdominal tergites with strong elongate punctures. Spermatheca: Fig. 236.

C o m p a r a t i v e n o t e s : The only other known species with a spermatheca similar to that of this new species is *P. kinabaluicola* PACE, 2008 also from Borneo, but the antennomeres four to seven are transverse in the new species, whereas they are elongate in *P. kinabaluicola*. The distal bulb of the spermatheca of the new species is more developed than that of *P. kinabaluicola* and the proximal portion of the spermatheca is shorter in the new species, longer in *P. kinabaluicola*.

E t y m o l o g y : The name of the new species, meaning "relating to the neck" refers to the very transverse pronotum.

Paraleochara translata (WALKER, 1859)

Aleochara translata WALKER, 1859: 52 Paraleochara translata; CAMERON, 1939: 663; Sawada, 1982: 184

- M a terial examined: 13, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).
- D i s t r i b u t i o n : Sri Lanka, Singapore, Borneo, Sulawesi, New Guinea.

Aleochara (Aleochara) sabahensis nov.sp. (Figs 63 and 237-238)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU). <u>Paratypes</u>: 2♂♂, same provenance as the holotype (CROU, MSNV).

D e s c r i p t i o n : Length 8.5-9 mm. Body shiny, the abdomen slightly iridescent. Body black, sides of the elytra brown, antennae and legs black, tarsi brown. Second antennomere shorter than the first, third longer than the second, fourth to tenth strongly transverse. Eyes longer than the postocular region in dorsal view. Body devoid of reticulation. Puncturation of head and pronotum umbilicate, evident and close, that of the elytra dense and finer than that of the pronotum, that of the abdomen composed of dense and evident elongate punctures. The disc of pronotum bears four punctures disposed in a square and a lateral puncture. Aedeagus: Figs 237-238.

C o m p e r a t i v e n o t e s : The aedeagus of the new species is similar to that of *A*. *paleonigra* PACE, 1999 (olim *A*. *nigra* KRAATZ, 1859), but the internal sclerotised piece of the aedeagus is different in the two species. In lateral profile a plate in the distal portion of the internal sclerotised piece of the aedeagus is shaped like a bid's head, whereas in *A*. *paleonigra* this plate is sickle-shaped. The internal sclerotised piece of the aedeagus of the new species is less developed in length than that of *A*. *paleonigra*. These comparisons are based on my examination of specimens of the type series of *A*. *nigra* Kraatz labelled as follows: "Ceylon, J. Nietner, *Aleochara nigra* Kr" (DEI).

E t y m o l o g y : The new species takes its name from Sabah.

Borneochara nov.gen. (Figs 64 and 239-243)

D i a g n o s i s : This new genus is near the genus *Ystrixoxygymna* PACE, 1999 from China, in its navicular body devoid of reticulation, the tarsal formula, the 4-segmented labial palpi and 5-segmented maxillary palpi. It differs from *Ystrixoxygymna* in that the antennae are not clavate, in the non prominent paraglossae, the wide mentum which is not regularly curved to the anterior margin, and the sparse long bristles on the sides of the body.

Description: This genus at first sight appears to belong to the genus Ystrixoxygymna PACE, 1999 from China, but the antennae are not clavate (Fig. 64), and the mentum is long (Fig. 243). Head transversely sub-orbicular, narrower than the thorax, the neck stout and concealed by the pronotum, the eves large, much longer than the postocular region but not prominent; temples not bordered below. Antennae with the 1st joint rather long, clavate, the distal half excavated for the reception of the 2nd joint. Mandibles rather stout, pointed, edentate. Outer lobe of maxilla broader than the inner, densely ciliate on the truncate apical margin (Fig. 242); inner lobe narrow, pointed, very closely furnished with long slender spines along the distal half of the inner margin. Maxillary palpi rather long, the 1st joint very small, 2nd elongate, lightly curved, and slightly thickened towards the apex, 3rd a little longer but thicker at the apex than the preceding, 4^{th} narrower and nearly half as long, 5^{th} narrower, much shorter and conical. Labial palpi rather long, 1st joint cylindrical, 2nd narrower and a little shorter, 3rd narrower and shorter than the preceding, 4th short and conical (Fig. 241). Tongue rectangular, as long as the 1st joint of the labial palpi, its apex split to the middle. Paraglossae not strongly developed, extending to the level of the base of the tongue. Thorax transverse, not narrowed behind. Elytra with long lateral bristles. Abdomen narrowed posteriorly, the first three visible tergites not transversely impressed at their bases. Mesosternum simple, its process broad, extending but little between the coxae, truncate; metasternal process long, broad, and parallel, extending between the coxae, truncate, coxae widely separated. Legs moderate, the entire tibia with short setae. Tarsal formula: 5-5-5; the metatarsi with the 1st joint almost as long as the following two together.

T y p u s g e n e r i s : Borneochara rougemonti nov.sp.

E t y m o l o g y : The feminine name of the new genus mean "she that is set in Borneo" from the ancient Greek $\chi \alpha i \rho \epsilon i v = he$ is set.

Borneochara rougemonti nov.sp. (Figs 64 and 239-243)

T y p e m a t e r i a l : <u>Holotype</u> ♂, Sabah, Danum Valley, B.R.L., f.i.t., 14-16.II.2007, G. de Rougemont leg. (CROU).

D e s c r i p t i o n : Length 1.81 mm. Body shiny, yellowish-red, head and elytra reddish-brown, antennae reddish with the three basal antennomeres yellow, legs yellow. Second antennomere shorter than the first, third shorter than the second, fourth as long as wide, fifth to tenth transverse. Eyes very large in dorsal view. Body devoid of reticulation. Puncturation of the head invisible, that of the pronotum very sparse. Granulation of the elytra superficial and sparse. Free abdominal tergites bare and convex with long bristles on the posterior margins. The pronotum bears ample lateral impressions. Aedeagus: Figs 239-240.

E t y m o l o g y : The new species is dedicated to its collector, our colleague, the staphylinid specialist Guillaume de Rougemont.

Acknowledgements

I thank Guillaume de Rougemont in London who collected and provided the material studied in this paper and, as professional translator as well as entomologist, for correcting my translation into English of the present paper. For the loan of type material I thank P.M. Hammond and M. Brendell

of the Natural History Museum in London, Dr L. Zerche of the D.E.I in Münchenberg, (Berlin) and Dr A.F. Newton of the Field Museum of Natural History in Chicago.

Rougemont is grateful to Donny Christian, head nature warden at Borneo Rainforest Lodge, who took three days off his administrative duties to act as guide for him and his wife, the travel writer Sarah Shuckburgh, and gave them permission to collect insects and erect traps at B.R.L. He also thanks his wife for organizing and paying for their last trip to Borneo.

Zusammenfassung

Hundert Arten werden in der anwesenden Arbeit ausgestellt, gehören zu 14 Tribus (Myllaenini, Gyrophaenini, Homalotini, Diestotini, Falagriini, Deremini, Athetini, Pygostenini, Sahlbergini, Termitopaediini, Lomechusini, Thamiaraeini, Oxypodini, Aleocharini) und 41 Gattungen (Myllaena, Gyrophaena, Brachida, Aisthentusa, Psephothetemusa, Neomalota, Pseudatheta, Diestota, Borneopora, Cordalia, Falagria, Demerinda, Outachyusa, Atheta, Pelioptera, Dikraspedella, Doryloxenus, Mesomegaskela, Malayloeblius, Rougemontius, Amaurodera, Chaetosogonocephus, Myrmedonota, Tetrabothrus, Strabocephalium, Keratodegnathus, Myrmecopella, Orphnebius, Lambanus, Drusilla, Zyras, Porus, Wroughtonilla, Mimacrotona, Platorischna, Apimela, Pseudoplandria, Paraleochara, Aleochara, Borneochara) von dem 4 für die Wissenschaft neu sind (Rougemontius nov.gen., Keratodegnathus nov.gen., Lambanus nov.gen., Borneochara nov.gen.) und 6 neu für den Borneo (Demerinda, Outachyusa, Mesomegaskela, Malayloeblius, Myrmecopella, Porus). Von diesen Arten werden 63 beschrieben wie neu für die Wissenschaft (Gyrophaena manus nov.sp., G. gigaedeagica nov.sp., G. osferox nov.sp., Brachida danumensis nov.sp., Aisthentusa flagellifera nov.sp., Psephothetemusa rougemonti nov.sp., Pseudatheta rougemonti nov.sp., Demerinda sabahensis nov.sp., Outachyusa borneensis nov.sp., Atheta (Acrotona) nitidaespinae nov.sp., A. (Poromicrodota) borneotibialis nov.sp., Pelioptera danumensis nov.sp., P. plenitudinis nov.sp., P. irregularis nov.sp., Dikraspedella borneensis nov.sp., Doryloxenus borneensis nov.sp., Mesomegaskela rougemonti nov.sp., Chaetosogonocephus nobilis nov.sp., C. minor nov.sp., C. ruficollis nov.sp., C. danumensis nov.sp., C. luteicollis nov.sp., Malayloeblius borneensis nov.sp., Rougemontius borneensis nov.sp., Tetrabothrus femoralis nov.sp., Strabocephalium borneorum nov.sp., Keratodegnathus rougemonti nov.sp., K. mirabilis nov.sp., Myrmecopella borneensis nov.sp., Orphnebius acutus nov.sp., O. ocularis nov.sp., O. acutissimus nov.sp., O. concavus nov.sp., O. parabigladiosus nov.sp., Lambanus borneensis nov.sp., L. rougemonti nov.sp., Drusilla divergens nov.sp., D. bulbosa nov.sp., D. serrulae nov.sp., D. borneoacuta nov.sp., D. caputserpentis nov.sp., D. bilobata nov.sp., D. sabahensis nov.sp., D. profunda nov.sp., D. borneoclara nov.sp., D. rougemontiana nov.sp., D. danumensis nov.sp., D. borneoapicalis nov.sp., D. borneostricta nov.sp., D. sabahorum nov.sp., D. trina nov.sp., D. borneoruficollis nov.sp., Zyras (Glossacantha) plenus nov.sp., Porus laminarum nov.sp., P. borneensis nov.sp., Wroughtonilla sabahensis nov.sp., Mimacrotona borneensis nov.sp., Apimela perarmata nov.sp., Pseudoplandria fortis nov.sp., P. confundibilis nov.sp., P. collaris nov.sp., Aleochara (Aleochara) sabahensis nov.sp., Borneochara rougemonti nov.sp.). Die Vernunft von der großen Nummer von neuer Art beschrieben in der anwesenden Arbeit, vor allem Lomechusini, es ist, daß der Sammler Guillaume de Rougemont adoptierte zum Flug die Technik von Sammlung von der Falle von Abfangen. Der aedeagus oder der spermateca werden, erstes Unbekannte, illustriert von Strabocephalium mirabile BERNHAUER, Drusilla sculpticollis PACE, Zyras (Zyras) montanus BERNHAUER e Zyras (Zyras) quadriterminalis PACE. Orphnebius cameroni PACE es ist der neue Name für Orphnebius papuanus CAMERON, 1939, (nicht Orphnebius papuanus CAMERON, 1937).

References

- BERNHAUER M. (1911): Zur Staphylinidenfauna Ostindiens und der Sundainseln (3. Beitrag. Schluss). — Entomologische Blätter für Biologie und Systematik der Käfer 7: 86-93.
- BERNHAUER M. (1915): Neue Staphyliniden der indo-malaiischen Fauna, insbesondere der Sunda-Insel Borneo. — Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien 65: 134-158.
- CAMERON M. (1920): New species of Staphylinidae from Singapore, Part III. Transaction of the Entomological Society of London **1920**: 212-284.
- CAMERON M. (1933): Staphylinidae (Col.) from Mount Kinabalu. Journal of the Federated Malay States Museums 17: 338-360.
- CAMERON M. (1937): Fauna Javanica. The Staphylinidae Collected by Mr. F.C. Drescher. Tijdschrift voor Entomologie **80**: 1-37.
- CAMERON M. (1939a): New Staphylinidae (Col.) from New Guinea. Annals and Magazine of natural History of London **3**: 139-152.
- CAMERON M. (1939b): The fauna of British India, including Ceylon and Burma. Coleoptera, Staphylinidae, **4** (Part 1). pp. 1-410. London.
- CAMERON M. (1943a): New species of Staphylinidae (Col.) from Borneo. Entomologist's Monthly Magazine **79**: 39-42.
- CAMERON M. (1943b): New species of Staphylinidae (Col.) from Borneo. Entomologist's Monthly Magazine **79**: 139-143.
- FAUVEL A. (1905): Staphylinides de Java recueillies par M. le Dr. K. Kraepelin et M. le Dr. Koningsberger en 1904. — Mitteilungen aus dem Naturhistorischen Museum in Hamburg 22: 75-86.
- HAMMOND P.M. (1984): An annotated Check-List of Staphylinidae (Insecta: Coleoptera) recorded from Borneo. Sarawak Museum Journal 33: 187-218.
- KISTNER D.H. (1990): Termitophilous and myrmecophilous Staphylinidae collected in Sierra Leone by W. Rossi (Coleoptera). — Accademia Nazionale dei Lincei 387, Quaderno 265: 155-164.
- KISTNER D.H. & R. JACOBSON (1975): The Natural History of the Myrmecophilous Tribe Pygostenini (Coleoptera: Staphylinidae). — Sociobiology 1: 155-384.
- KISTNER D.H. & M.J. MCNAIRM (1991): A new Genus and Two New species of Predacious Staphylinidae Associated with *Pheidolegeton* in Sulawesi (Coleoptera: Aleocharinae) with Notes on theis Behavior. Sociobiology 18: 305-322.
- KISTNER D.H., BERGHOFF S.M. & U. MASCHWITZ (2003): Myrmecophilous Staphylinidae (Coleoptera) associated with *Dorylus (Dichthadius) laevigatus* (Hymenoptera: Formicidae) in Malaysia with studies of their behavior. — Sociobiology **41**: 203-264.
- KLIMASZEWSKI J. & A. SMETANA (1990): The species of *Aleochara* GRAVENHORST from the Mount Kinabalu National Park, Sabah, northern Borneo (Coleoptera: Staphylinidae: Aleocharinae). — Annals of the Transvaal Museum **35**: 157-169.
- KRAATZ G. (1859): Die Staphyliniden-Fauna von Ostindien, insbesondere der Insel Ceylan. — Archiv für Naturgeschichte 25: 1-45.
- LEACH W.E. (1819): New genera. In: Samuelle. The Entomologist's useful Compendium, London **1819**: 496 pp.
- MOTSCHULSKY V.I. (1857. Énumeration des nouvelles Espèces de Coléoptères rapportés de ses voyages. — Bulletin de la Société Impériale des Naturalistes de Moscou 31: 204-264.
- PACE R. (1984): Aleocharinae delle Mascarene, parte I: tribù Myllaenini, Pronomaeini, Oligotini e Bolitocharini (Coleoptera Staphylinidae) (XLV Contributo alla conoscenza delle Aleocharinae). — Revue suisse de Zoologie **91**: 3-36.

- PACE R. (1986): Aleocharinae dell'Asia sudorientale raccolte da G. de Rougemont (Coleoptera, Staphylinidae). — Bollettino del Museo civico di Storia naturale di Verona 23: 139-237.
- PACE R. (1988): *Sphuridaethes loebli*, nuovo genere e nuova specie di Aleocharinae termitofila del Borneo (Coleoptera Staphylinidae) (XCIX Contributo alla conoscenza delle Aleocharinae). Revue suisse de Zoologie **95**: 979-985.
- PACE R. (1989a): Aleocharinae attere del Monte Kinabalu (Borneo) (Coleoptera Staphylinidae) (XCVIII Contributo alla conoscenza delle Aleocharinae). — Revue suisse de Zoologie 96: 3-8.
- PACE R. (1989b): Monografia del genere *Leptusa* KRAATZ (Coleoptera Staphylinidae) (LXXV Contributo alla conoscenza delle Aleocharinae). — Memorie del Museo civico di Storia naturale di Verona (II S.) A: 1-307.
- PACE R. (1993): Nuove Aleocharinae Orientali (Coleoptera, Staphylinidae). Bollettino del Museo civico di Storia naturale di Verona 16: 127-180.
- PACE R. (1999a): Aleocharinae di Hong Kong (Coleoptera, Staphylinidae). Revue suisse de Zoologie **106**: 663-689.
- PACE R. (1999b): Aleocharinae della Cina: Parte V (conclusione) (Coleoptera, Staphylinidae). — Revue suisse de Zoologie 106: 107-164.
- PACE R. (2000): Aleocharinae della Thailandia (Coleoptera, Staphylinidae) (144° Contributo alla conoscenza delle Aleocharinae). Bollettino del Museo regionale di Scienze naturali di Torino **17**: 39-86.
- PACE R. (2001): Nuove specie del genere *Gyrophaena* MANNERHEIM del Monte Kinabalu (Borneo) (Coleoptera, Staphylinidae). Revue suisse de Zoologie **108**: 699-737.
- PACE R. (2002a): Nuovi generi di Aleocharinae del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie 109: 189-240.
- PACE R. (2002b): Specie dei generi *Eusteniamorpha* CAMERON e *Autalia* LEACH del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **109**: 295-323.
- PACE R. (2002c): Le specie del genere *Brachida* MULSANT & REY del Monte Kinabalu (Borneo) (Coleoptera, Staphylinidae). Revue suisse de Zoologie **109**: 491-509.
- PACE R. (2003a): Homalotini del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **110**: 255-313.
- PACE R. (2003b): Gyrophaenini dei generi Sternotropa, Pseudoligota e Adelarthra del Monte Kinabalu (Borneo, Sabah) (Coleoptera, Staphylinidae). — Revue suisse de Zoologie 110: 761-781.
- PACE R. (2004): Falagriini, Deremini, Athetini e Thamiaraeini del Borneo. Revue suisse de Zoologie **111**: 791-850.
- PACE R. (2005): Pronomaeini del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **112**: 21-45.
- PACE R. (2007a): Le specie del genere *Orphnebius* MOTSCHULSCKY, 1858, nel Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **114**: 743-769.
- PACE R. (2007b): Le specie di Oligotini, Leucocraspedini, Hygrinomini, Placusini, Bolitocharini e Diestotini nel Borneo (Coleoptera, Staphylinidae). — Revue suisse de Zoologie 114: 771-815.
- PACE R. (2008a): Generi e specie della tribù Lomechusini del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **115** (1): 107-156.
- PACE R. (2008b): Le specie di Thamiaraeini, Oxypodini, Hoplandriini e Aleocharini del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **115** (1): 157-183.
- PACE R. (2008c): Specie del genere *Pseudoplandria* FENYES,1921 nel Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **115** (2): 397-431.
- PACE R. (2008c): Le specie di Thamiaraeini, Oxypodini, Hoplandriini e Aleocharini del Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **115** (1): 157-183.

- PACE R. (2008d): Specie del genere *Pseudoplandria* FENYES, 1921 nel Borneo (Coleoptera, Staphylinidae). Revue suisse de Zoologie **115** (2): 397-431.
- PÁSNIK G. (1999): A new species of the genus *Taxicera* MULSANT et REY, 1873 from Borneo (Coleoptera, Staphylinidae: Aleocharinae). Acta zoological cracoviensis **42**: 369-371.
- SAWADA K. (1982): *Atheta* and its allies of Southeast Asia. Oriental species described by V. von Motschulsky and G. Kraatz. Contributions from the Biological Laboratory, Kyoto University **26**: 141-187.
- SEEVERS C.H. (1957): A monograph on the termitophilous Staaphylinidae (Coleoptera). Fieldiana: Zoology **40**: 344 pp.
- WALKER F. (1859): Characters of some apparently undescribed Ceylon insects. Annals and Magazine of Natural History 3: 52.
- WASMANN E. (1898): Eine neue dorylophile Tachyporinen-Gattung aus Sudafrika. Wiener Entomologische Zeitung 17: 101-103.

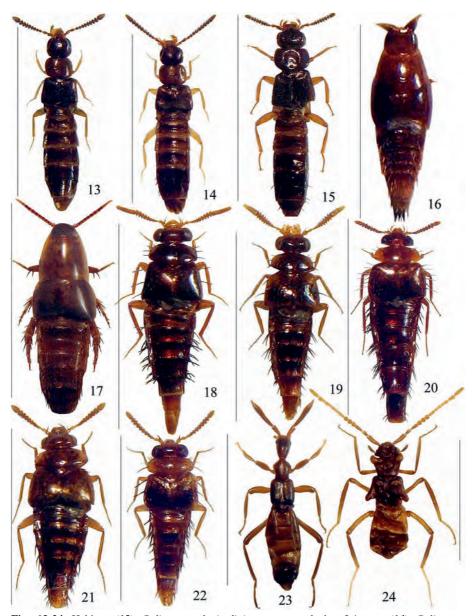
r's address:	Roberto PACE
	Via Vittorio Veneto, 13
	I-37032 Monteforte d'Alpone, Verona, Italy
	E-mail: pace.ent@tiscali.it

Author



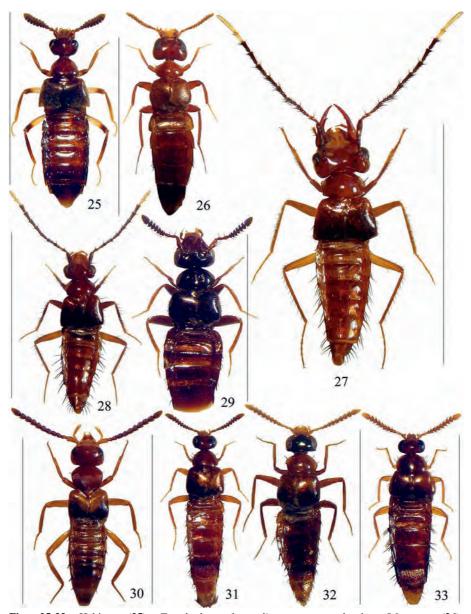


Figs 1-12: Habitus. (1): Gyrophaena manus nov.sp., scale bar 2 mm; (2): Gyrophaena gigaedeagica nov.sp., scale bar 1.6 mm; (3): Gyrophaena osferox nov.sp., scale bar 1.1 mm; (4): Brachida danumensis nov.sp., scale bar 1.8 mm; (5): Aisthentusa flagellifera nov.sp., scale bar 1 mm; (6): Psephothetemusa rougemonti nov.sp., scale bar 1.6 mm; (7): Pseudatheta rougemonti nov.sp., scale bar 1.6 mm; (7): Pseudatheta rougemonti nov.sp., scale bar 2.5 mm; (9): Outachyusa borneensis nov.sp., scale bar 2.4 mm; (10): Atheta (Acrotona) nitidaespinae nov.sp., scale bar 2.2 mm; (11): Atheta (Poromicrodota) borneotibialis nov.sp., scale bar 2.4 mm; (12): Pelioptera danumensis nov.sp., scale bar 2.5 mm.



Figs 13-24: Habitus. (13): Pelioptera plenitudinis nov.sp., scale bar 2.1 mm; (14): Pelioptera irregularis nov.sp., scale bar 3 mm; (15): Dikraspedella borneensis nov.sp., scale bar 2.5 mm; (16): Doryloxenus borneensis nov.sp., scale bar 1.5 mm; (17): Mesomegaskela rougemonti nov.sp., scale bar 5.3 mm; (18): Chaetosogonocephus nobilis nov.sp., scale bar 3 mm; (19): Chaetosogonocephus minor nov.sp., scale bar 1.9 mm; (20): Chaetosogonocephus ruficollis nov.sp., scale bar 3.6 mm; (21): Chaetosogonocephus danumensis nov.sp., scale bar 2.3 mm; (22): Chaetosogonocephus luteicollis nov.sp., scale bar 1.9 mm; (23): Malayloeblius borneensis nov.sp., scale bar 2.5 mm; (24): Rougemontius borneensis nov.sp., scale bar 3 mm.





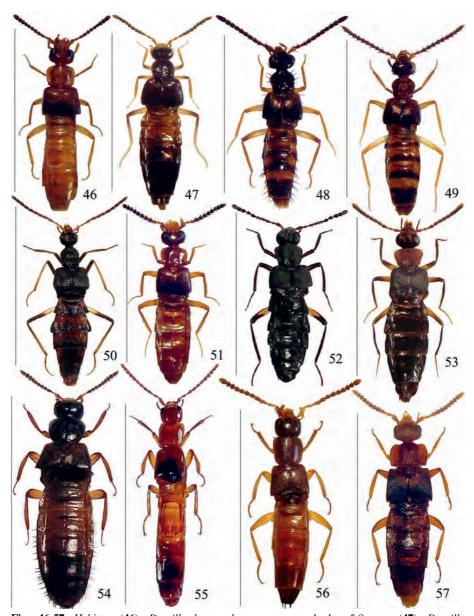
Figs 25-33: Habitus. (25): Tetrabothrus femoralis nov.sp., scale bar 5.9 mm; (26): Strabocephalium borneorum nov.sp., scale bar 5.9 mm; (27): Keratodegnathus rougemonti nov.sp. male, scale bar 5.9 mm; (28): Keratodegnathus rougemonti nov.sp. female, scale bar 5.5 mm; (29): Keratodegnathus mirabilis nov.sp., scale bar 3.3 mm; (30): Myrmecopella borneensis nov.sp., scale bar 3.4 mm; (31): Orphnebius acutus nov.sp., scale bar 3.6 mm; (32): Orphnebius ocularis nov.sp., scale bar 3.6 mm.



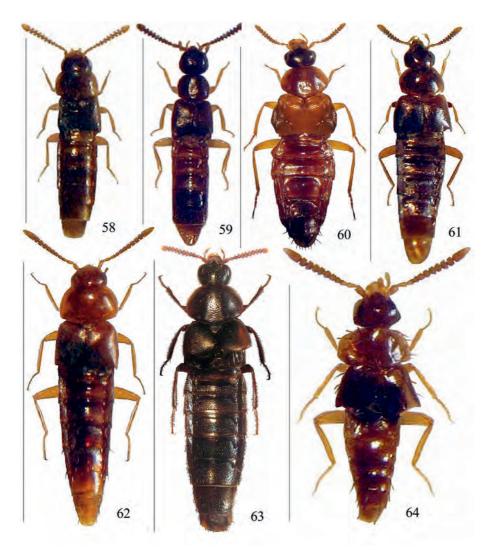


Figs 34-45: Habitus. (34): Orphnebius concavus nov.sp., scale bar 3.4 mm; (35): Orphnebius parabigladiosus nov.sp., scale bar 3.9 mm; (36): Lambanus borneensis nov.sp., scale bar 6 mm; (37): Lambanus rougemonti nov.sp., scale bar 7.1 mm; (38): Drusilla divergens nov.sp., scale bar 7.1 mm; (39): Drusilla bulbosa nov.sp., scale bar 4.6 mm; (40): Drusilla serrulae nov.sp., scale bar 4.6 mm; (41): Drusilla borneoactua nov.sp., scale bar 6.9 mm; (42): Drusilla caputserpentis nov.sp., scale bar 7.1 mm; (43): Drusilla bilobata nov.sp., scale bar 5 mm; (44): Drusilla sabahensis nov.sp., scale bar 3.9 mm; (45): Drusilla profunda nov.sp., scale bar 3.9 mm; (45): Drusilla profunda nov.sp., scale bar 3.9 mm; (45): Drusilla profunda nov.sp., scale bar 3.9 mm.

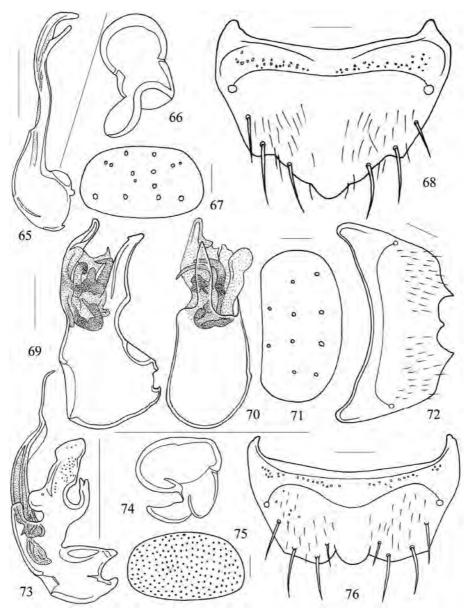




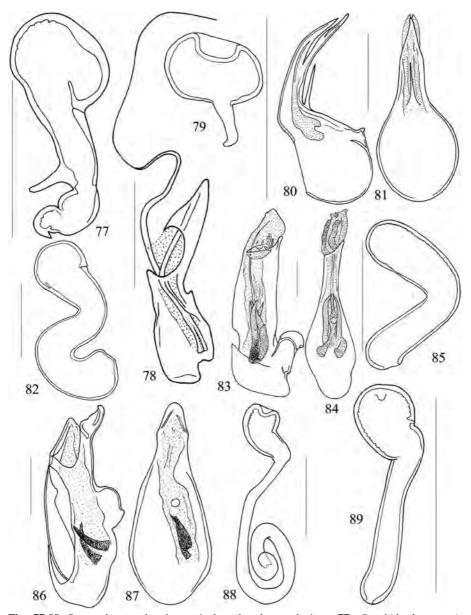
Figs 46-57: Habitus. (46): Drusilla borneoclara nov.sp., scale bar 5.8 mm; (47): Drusilla rougemontiana nov.sp., scale bar 5.5 mm; (48): Drusilla danumensis nov.sp., scale bar 3.4 mm; (49): Drusilla borneoapicalis nov.sp., scale bar 4.6 mm; (50): Drusilla borneoapicati nov.sp., scale bar 5.5 mm; (51): Drusilla sabahorum nov.sp., scale bar 5.3 mm; (52): Drusilla trina nov.sp., scale bar 8 mm; (53): Drusilla borneoruficollis nov.sp., scale bar 6.8 mm; (54): Zyras (Glossacantha) plenus nov.sp., scale bar 9 mm; (55): Porus laminarum nov.sp., scale bar 11.3 mm; (56): Porus borneensis nov.sp., scale bar 4.6 mm.



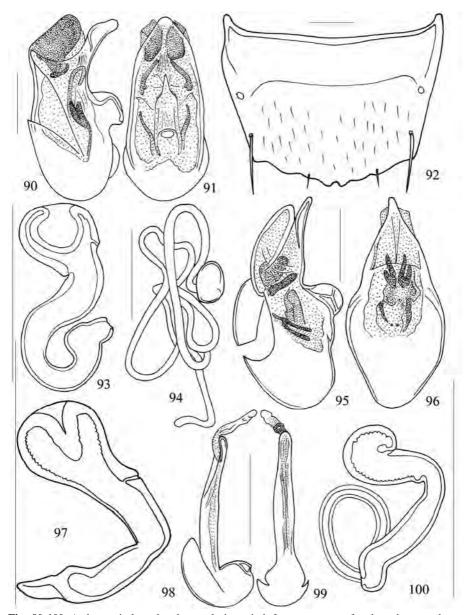
Figs 58-64: Habitus. (58): Mimacrotona borneensis nov.sp., scale bar 1.5 mm; (59): Apimela perarmata nov.sp., scale bar 2.1 mm; (60): Pseudoplandria fortis nov.sp., scale bar 5.9 mm; (61): Pseudoplandria confundibilis nov.sp., scale bar 2.8 mm; (62): Pseudoplandria collaris nov.sp., scale bar 3.3 mm; (63): Aleochara (Aleochara) sabahensis nov.sp., scale bar 9 mm; (64): Borneochara rougemonti nov.sp., scale bar 1.8 mm.



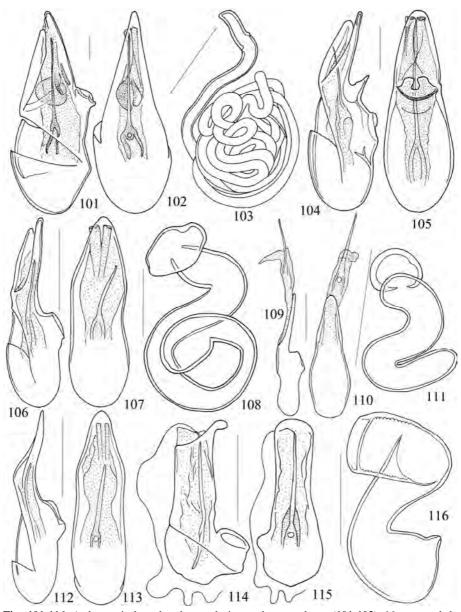
Figs 65-76: Aedeagus in lateral and ventral view, spermatheca, sixth free urotergum of male, and pronotum. (65-68): *Gyrophaena manus* nov.sp.; (69-72): *Gyrophaena gigaedeagica* nov.sp.; (73-76): *Gyrophaena osferox* nov.sp. Scale bars: 0.1 mm.



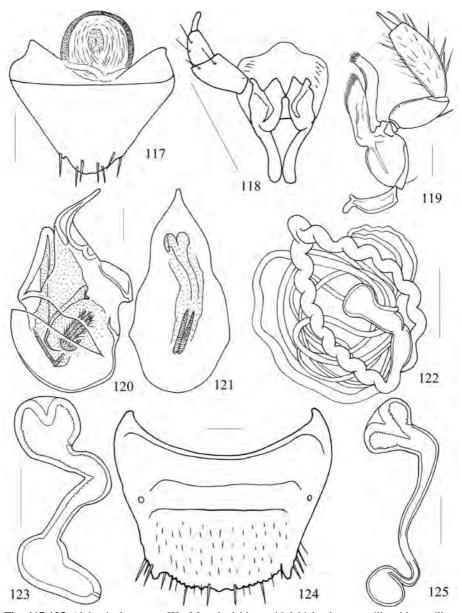
Figs 77-89: Spermatheca and aedeagus in lateral and ventral view. (77): Brachida danumensis nov.sp.; (78): Aisthentusa flagellifera nov.sp.; (79): Psephothetemusa rougemonti nov.sp.; (80-81): Pseudatheta rougemonti nov.sp.; (82-84); Demerinda sabahensis nov.sp.; (85): Outachyusa borneensis nov.sp.; (86-88): Atheta (Acrotona) nitidaespinae nov.sp.; (89): Atheta (Poromicrodota) borneotibialis nov.sp. Scale bars: 0.1 mm.



Figs 90-100: Aedeagus in lateral and ventral view, sixth free urotergum of male and spermatheca. (90-92): Pelioptera danumensis nov.sp.; (93): Pelioptera plenitudinis nov.sp.; (94): Pelioptera irregularis nov.sp.; (95-97: Dikraspedella borneensis nov.sp.; (98-100): Doryloxenus borneensis nov.sp. Scale bars: 0.1 mm.

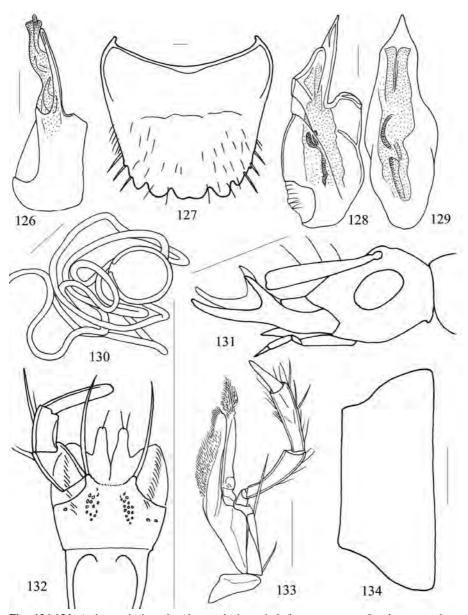


Figs 101-116: Aedeagus in lateral and ventral view and spermatheca. (101-103): Mesomegaskela rougemonti nov.sp.; (104-105): Chaetosogonocephus nobilis nov.sp.; (106-107): Chaetosogonocephus minor nov.sp.; (108): Chaetosogonocephus ruficollis nov.sp.; (109-111): Chaetosogonocephus danumensis nov.sp.; (112-113): Chaetosogonocephus luteicollis nov.sp.; (114-116): Malayloeblius borneensis nov.sp. Scale bars: 0.1 mm.

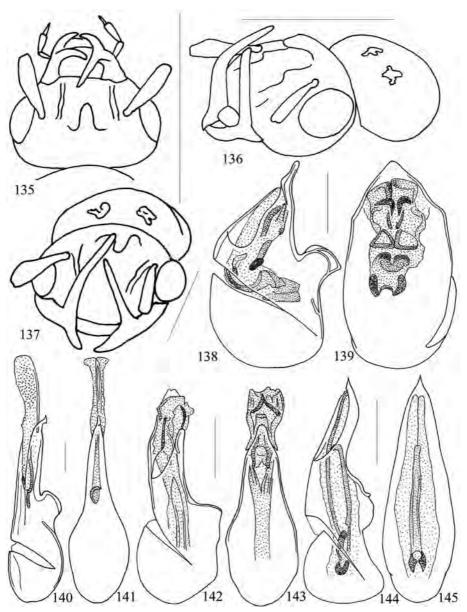


Figs 117-125: Abdominal segment IX of female, labium with labial palpus, maxilla with maxillary palpus, aedeagus in lateral and ventral view, spermatheca and sixth free urotergum of female. (117-119): Rougemontius borneensis nov.sp.; (120-122): Tetrabothrus femoralis nov.sp.; (123-124): Strabocephalium mirabile BERNHAUER; (125): Strabocephalium borneorum nov.sp. Scale bars: 0.1 mm. Scale bars: 0.1 mm.

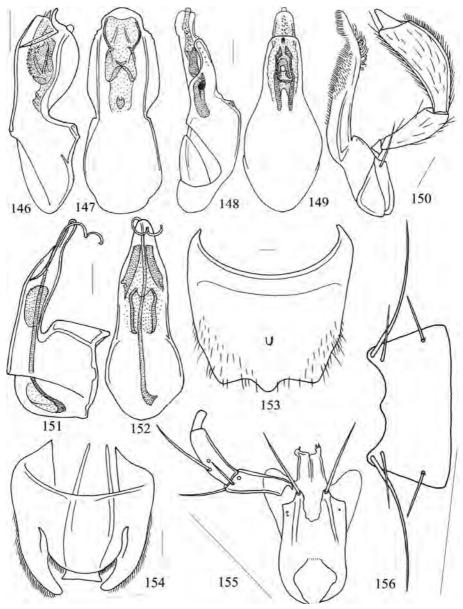




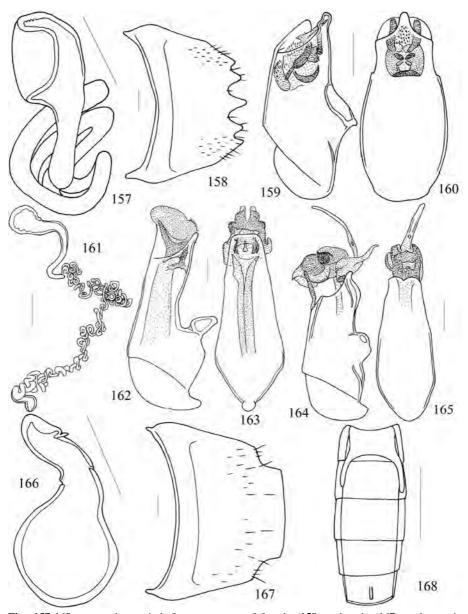
Figs 126-134: Aedeagus in lateral and ventral view, sixth free urotergum of male, spermatheca, head in lateral view, labium with labial palpus, maxilla with maxillary palpus, mentum. (126-127): *Strabocephalium borneorum* nov.sp.; (128-134): *Keratodegnathus rougemonti* nov.gen., nov.sp. Scale bars: 0.1 mm.



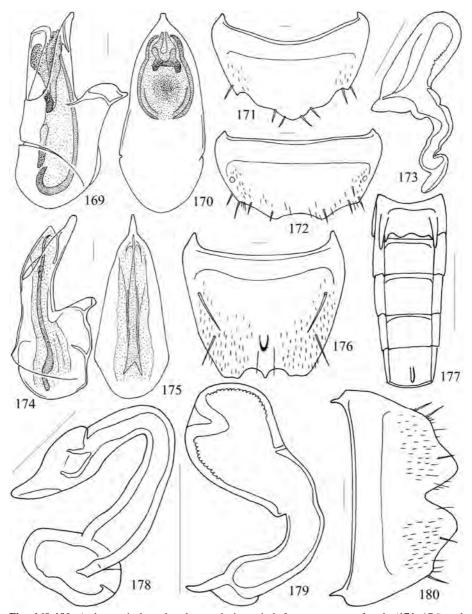
Figs 135-145: Head in dorsal, lateral and frontal view, aedeagus in lateral and ventral view. (135-137): *Keratodegnathus mirabilis* nov.gen., nov.sp.; (138-139): *Myrmecopella borneensis* nov.sp.; (140-141): *Orphnebius acutus* nov.sp.; (142-143): *Orphnebius ocularis* nov.sp.; (144-145): *Orphnebius acutissimus* nov.sp. Scale bars: 0.1 mm.



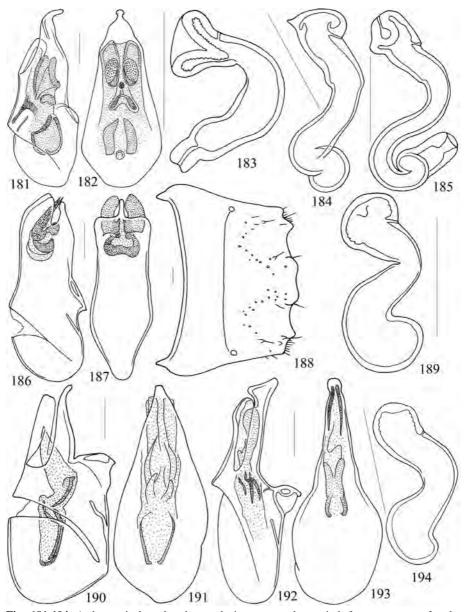
Figs 146-156: Aedeagus in lateral and ventral view, maxilla with maxillary palpus, sixth free urotergum of male, abdominal segment IX of male or female, labium with labial palpus, mentum. (146-147): Orphnebius concavus nov.sp.; (148-149): Orphnebius parabigladiosus nov.sp.; (150-156): Lambanus borneensis nov.gen., nov.sp. Scale bars: 0.1 mm.



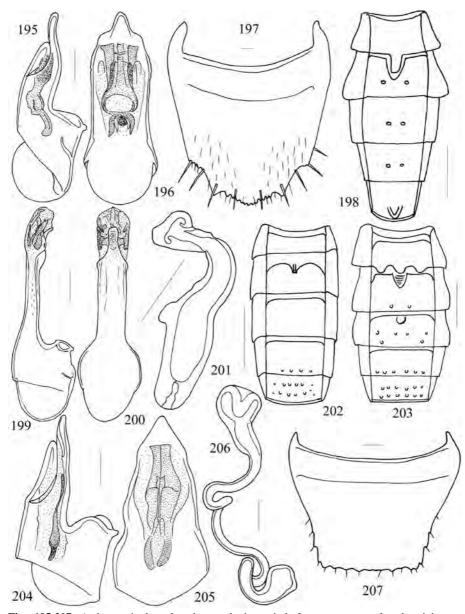
Figs 157-168: spermatheca, sixth free urotergum of female (158) and male (167), aedeagus in lateral and ventral view. (157-158): *Lambanus rougemonti* nov.gen., nov.sp.; (159-160): *Drusilla sculpticollis* PACE; (161): *Drusilla bruneiorum* PACE; (162-163): *Drusilla divergens* nov.sp.; (164-168): *Drusilla bulbosa* nov.sp. Scale bars: 0.1 mm.



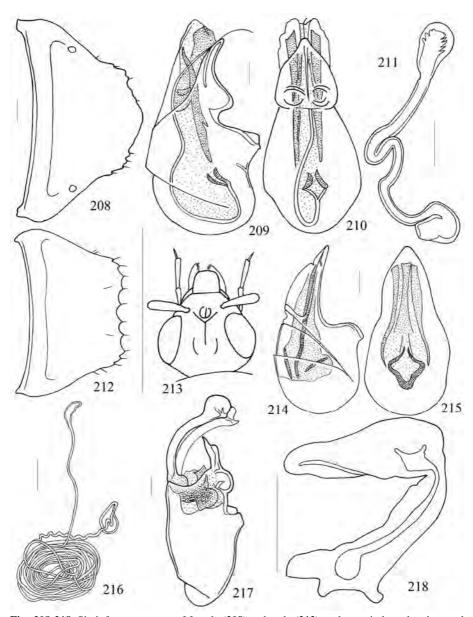
Figs 169-180: Aedeagus in lateral and ventral view, sixth free urotergum of male (171, 176) and female (172, 180), spermatheca and abdomen. (169-173): *Drusilla serrulae* nov.sp.; (174-177): *Drusilla borneoacuta* nov.sp.; (178): *Drusilla caputserpentis* nov.sp.; (179-180): *Drusilla bilobata* nov.sp. Scale bars: 0.1 mm.



Figs 181-194: Aedeagus in lateral and ventral view, spermatheca, sixth free urotergum of male. (181-182): Drusilla sabahensis nov.sp.; (183): Drusilla profunda nov.sp.; (184): Drusilla borneoclara nov.sp.; (185-188): Drusilla rougemontiana nov.sp.; (189-191): Drusilla danumensis nov.sp.; (192-194): Drusilla borneoapicalis nov.sp. Scale bars: 0.1 mm.

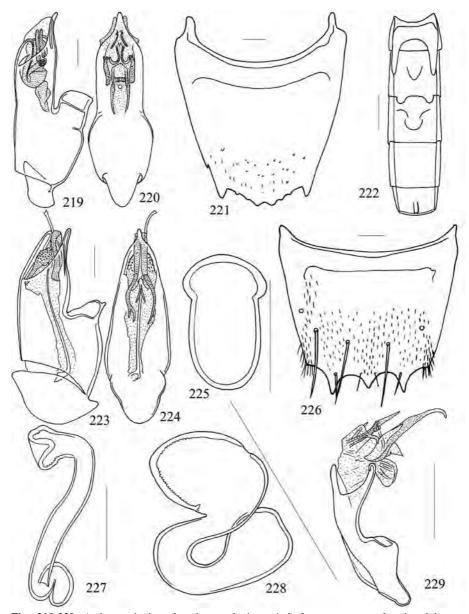


Figs 195-207: Aedeagus in lateral and ventral view, sixth free urotergum of male, abdomen, spermatheca. (195-198): Drusilla borneostricta nov.sp.; (199-202): Drusilla sabahorum nov.sp.; (203-207): Drusilla trina nov.sp. Scale bars: 0.1 mm.



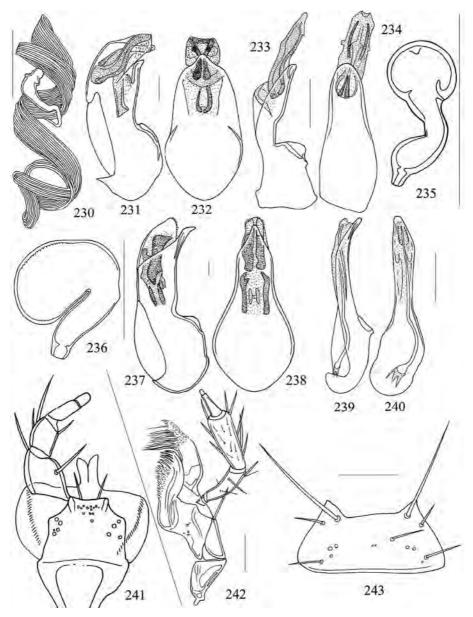
Figs 208-218: Sixth free urotergum of female (208) and male (212), aedeagus in lateral and ventral view, spermatheca, head in dorsal view. (208): Drusilla trina nov.sp.; (209-213): Drusilla borneoruficollis nov.sp.; (214-215): Zyras (Zyras) montanus BERNHAUER; (216): Zyras (Zyras) quadriterminalis PACE; (217): Zyras (Diaulaconia) ibanorum PACE; (218): Zyras (Glossacantha) plenus nov.sp. Scale bars: 0.1 mm.





Figs 219-229: Aedeagus in lateral and ventral view, sixth free urotergum of male, abdomen, spermatheca. (219-222): Porus laminarum nov.sp.; (223-226): Porus borneensis nov.sp.; (227): Wroughtonilla sabahensis nov.sp.; (228): Mimacrotona borneensis nov.sp.; (229): Apimela perarmata nov.sp. Scale bars: 0.1 mm.





Figs 230-243: Spermatheca, aedeagus in lateral and ventral view, labium with labial palpus, maxilla with maxillary palpus, mentum. (230): *Apimela perarmata* nov.sp.; (231-232): *Pseudoplandria fortis* nov.sp.; (233-235): *Pseudoplandria confundibilis* nov.sp.; (236): *Pseudoplandria collaris* nov.sp.; (237-238): *Aleochara (Aleochara) sabahensis* nov.sp.; (239-243): *Borneochara rougemonti* nov.gen., nov.sp. Scale bars: 0.1 mm.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Linzer biologische Beiträge

Jahr/Year: 2014

Band/Volume: 0046_1

Autor(en)/Author(s): Pace Roberto

Artikel/Article: <u>Aleocharinae from Sabah (Borneo) collected by Guillaume de</u> <u>Rougemont (Coleoptera, Staphylinidae) 727-794</u>