

**Comments on the higher systematics of the tribe Clivinini  
RAFINESQUE, 1815 (Coleoptera: Carabidae: Scaritinae)  
with definition of two new subtribes and description  
of *Baehrogenius*, a new genus from South America**

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Abstract

Two new subtribes of the tribe Clivinini RAFINESQUE, 1815 are established: Schizogeina subtrib.n. and Sparostesina subtrib.n. Species of Schizogeina are recognizable by a carinate frons in combination with a dentate clypeus. Species of Sparostesina possess setose flexor sides of meso- and metatibia. A new genus of Schizogeina, *Baehrogenius* gen.n., is described, containing two new species from the Amazonian lowland in Brazil: *Baehrogenius martini* sp.n. (type species) and *Baehrogenius tricarinatus* sp.n. The two species are differentiated in a key.

Key words: Coleoptera, Carabidae, Scaritinae, Clivinini, Schizogeina, Sparostesina, *Baehrogenius*, South America, new subtribe, new genus, new species, identification key.

Zusammenfassung

Es werden zwei neue Subtribus der Tribus Clivinini RAFINESQUE, 1815 definiert: Schizogeina subtrib.n. und Sparostesina subtrib.n. Die Arten der Schizogeina sind an der gekielten Stirn in Kombination mit einem gezähnten Clypeus erkennbar. Die Sparostesina haben die Beugeseiten von Meso- und Metatibia beborstet. Eine neue Gattung der Schizogeina, *Baehrogenius* gen.n., wird beschrieben. Sie besteht aus zwei neuen Arten aus dem Amazonas-Becken in Brasilien: *Baehrogenius martini* sp.n. (Typusart) und *Baehrogenius tricarinatus* sp.n. Die zwei Arten werden in einem Bestimmungsschlüssel differenziert.

Introduction

According to LORENZ (2005: 132 ff.) the Subfamily Scaritinae consists of only two tribes, Scaritini BONELLI, 1810, which is divided into eight subtribes, and Salcediini ALLUAUD, 1930, divided into three subtribes. The large number of genera which are closely related to the genus *Clivina* LATREILLE, 1802 are treated here as one subtribe (Clivinina), without further division into subgroups. In this way, he is followed in general by ERWIN (2011: 50–245) in his treatise of Western Hemisphere Carabidae, with the exception that Erwin treats all scaritinoid genera not as subfamily, but as a supertribe (Scarititae), a classification which was proposed by KRYZHANOVSKY (1976: 61) and followed by other authors (e.g., MOORE 1987: 65 ff.).

The most recent systematic arrangement of the subfamily Scaritinae is reflected in the online-blog of ANICHTCHENKO et al. (2007–2017). Here the subfamily is divided into four

tribes, one of these is the tribe Clivinini RAFINESQUE, 1815, in the same rank as Dyschiriini W. KOLBE, 1880, Salcediini ALLUAUD, 1930, and Scaritini BONELLI, 1810.

The tribe of Clivinini is by far the most species-rich and diversified one, currently containing 70 genera with about 1030 species-group taxa. There is no consensus in the division of the subfamily Scaritinae into related subgroups, especially regarding the ranking of groups into tribes or subtribes. This also affects the tribe Clivinini, which is treated differently as subtribe within a tribe Scaritini (ANDREWES 1929: 208–209, BÄNNINGER 1937: 83, LORENZ 2005: 132, ERWIN 2011: 18) or as tribe within a subfamily Scaritinae (BASILEWSKY 1973: 10, BALKENOHL 2001: 2 ff., 2003: 219 ff., BOUSQUET 2012: tab.3, ANICHTCHENKO et al. 2007–2017) or as subfamily Clivininae within the family Scaritidae (JEANNEL 1946: 214). In the present treatise, the author generally follows the systematic arrangement of the scaritines in one subfamily Scaritinae and the division into tribes and subtribes as proposed by ANICHTCHENKO et al. (2007–2017). For details see below.

Parsimony analysis based on the female reproductive tract suggests that clivinines could be more closely related to rhyssodids than to scaritines. There is also a remarkable difference in the defensive secretions of the pygidial glands, as clivinines use ketones or quinones while scaritines eject aliphatic acids (BOUSQUET 2012: 36).

In contrast, an analysis of the 18S rRNA gene sequence supports Clivinini as part of Scaritinae without any other close relationships to other non-scaritine groups (HOGAN 2012: 214).

Within the tribe Clivinini, there are some groups of genera, which are differentiable from all others by constant character combinations. The first one is a group related to the genus *Sparostes* PUTZEYS, 1866, characterized by a conspicuous group of setae on the inner side of the metatibia, and secondly a group of genera, which are in close relationship to the genus *Schizogenius* PUTZEYS, 1846 and easily recognizable by the frontal carina of the head and the multidentate clypeus. Both groups are described as new subtribes below.

Another group of genera which was previously defined as a separate subtribe or tribe, but in newer systematic arrangements is fused together with other genera of Clivinini, is the group of genera related to *Forcipator* MAINDRON, 1904, which is conspicuous at first glance by the long and slender mandibles. For these genera, the status of the tribe Forcipatorini is restored below.

### Comparison of systematics of scaritine ground beetles by the various authors:

BÄNNINGER 1937 (world fauna):

Tribe Scaritini BONELLI, 1810

Subtribe Salcediina ALLUAUD, 1930

Subtribe Ardistomina PUTZEYS, 1866

Subtribe Clivinina RAFINESQUE, 1815

Subtribe Forcipatorina BÄNNINGER, 1937

Subtribe Scapterina PUTZEYS, 1866

Subtribe Scaritina BONELLI, 1810

Subtribe Carenina W.J. MACLEAY, 1888

JEANNEL 1946 (Madagascan fauna):

Family Scaritidae BONELLI, 1810

Subfamily Dyschiriitae JEANNEL, 1941

Tribe Ardistomini PUTZEYS, 1866

Tribe Dyschiriini W. KOLBE, 1880

Subfamily Salcediitae ALLUAUD, 1930

Subfamily Clivininae C.G. THOMSON, 1859

Tribe Scapterini PUTZEYS, 1866

Tribe Forcipatorini BÄNNINGER, 1937

Tribe Clivinini RAFINESQUE, 1815

- Subfamily Scarititae BONELLI, 1810  
 Tribe Scaritini JEANNEL, 1946  
 Tribe Storthodontini JEANNEL, 1946
- BASILEWSKY 1973 (Madagascan fauna):**  
 Subfamily Scaritinae BONELLI, 1810  
 Tribe Ochryopini BASILEWSKY, 1973  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Acanthoscelina CSIKI, 1927  
 Subtribe Scaritina BONELLI, 1810  
 Subtribe Dyscherina BASILEWSKY, 1973  
 Subtribe Storthodontina JEANNEL, 1946  
 Tribe Scapterini PUTZEYS, 1866  
 Tribe Corintascarini BASILEWSKY, 1973  
 Tribe Forcipatorini JEANNEL, 1946  
 Tribe Clivinini C.G. THOMSON, 1859  
 Tribe Dyschiriini JEANNEL, 1941  
 Tribe Salcediini ALLUAUD, 1930
- BALKENOHL 2003 (Palaeartic fauna):**  
 Subfamily Scaritinae BONELLI, 1810  
 Tribe Clivinini RAFINESQUE, 1815  
 Subtribe Ardistomina PUTZEYS, 1866  
 Subtribe Clivinina RAFINESQUE, 1815  
 Subtribe Italodytina JEANNEL, 1957  
 Subtribe Reicheiina JEANNEL, 1957  
 Tribe Dyschiriini W. KOLBE, 1880  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Oxylobina ANDREWES, 1929  
 Subtribe Scapterina PUTZEYS, 1866  
 Subtribe Scaritina BONELLI, 1810
- LORENZ 2005 (world fauna):**  
 Subfamily Scaritinae BONELLI, 1810  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Pasimachina PUTZEYS, 1866  
 Subtribe Carenina W.J. MACLEAY, 1888  
 Subtribe Acanthoscelitina CSIKI, 1927  
 Subtribe Scaritina BONELLI, 1810  
 Subtribe Oxylobina ANDREWES, 1929  
 Subtribe Scapterina PUTZEYS, 1866  
 Subtribe Clivinina RAFINESQUE, 1815  
 Subtribe Dyschiriina W. KOLBE, 1880
- Tribe Salcediini ALLUAUD, 1930  
 Subtribe Salcediina ALLUAUD, 1930  
 Subtribe Solenogenyina R.T. BELL, 1998  
 Subtribe Androzelmia R.T. BELL, 1998
- ERWIN 2011 (Western Hemisphere):**  
 Supertribe Scarititae BONELLI, 1810  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Pasimachina PUTZEYS, 1866  
 Subtribe Scaritina BONELLI, 1810  
 Subtribe Dyschiriina KOLBE, 1880  
 Subtribe Clivinina RAFINESQUE, 1815  
 Tribe Salcediini ALLUAUD, 1930  
 Subtribe Solenogenyina BELL, 1998
- BOUSQUET 2012 (world, North American fauna):**  
 Subfamily Scaritinae BONELLI 1810  
 Tribe Pasimachini PUTZEYS, 1866  
 Tribe Carenini MACLEAY, 1888  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Acanthoscelitina CSIKI, 1927  
 Subtribe Oxylobina ANDREWES, 1929  
 Subtribe Scapterina PUTZEYS, 1866  
 Subtribe Scaritina BONELLI, 1810  
 Tribe Clivinini RAFINESQUE, 1815  
 Subtribe Clivinina RAFINESQUE, 1815  
 Subtribe Ardistomina PUTZEYS, 1867  
 Tribe Salcediini ALLUAUD, 1930  
 Tribe Dyschiriini W. KOLBE, 1880  
 Tribe Promecognathini LECONTE, 1853  
 Tribe Dalyatini MATEU, 2002
- ANICHTCHENKO et al. 2007–2017 (world fauna):**  
 Subfamily Scaritinae BONELLI 1810  
 Tribe Clivinini RAFINESQUE, 1815  
 Subtribe Ardistomina PUTZEYS, 1866  
 Subtribe Clivinina RAFINESQUE, 1815  
 Subtribe Reicheiina JEANNEL, 1957  
 Tribe Dyschiriini W. KOLBE, 1880  
 Tribe Salcediini ALLUAUD, 1930  
 Subtribe Androzelmia R.T. BELL, 1998  
 Subtribe Salcediina BONELLI, 1810  
 Subtribe Solenogenyina R.T. BELL, 1998

- Tribe Scaritini BONELLI, 1810  
 Subtribe Acanthoscelitina CSIKI, 1927  
 Subtribe Carenina MACLEAY, 1888  
 Subtribe Oxylobina ANDREWES, 1929  
 Subtribe Pasimachina PUTZEYS, 1866  
 Subtribe Scapterina PUTZEYS, 1866  
 Subtribe Scaritina BONELLI, 1810
- HOGAN 2012 (world fauna):  
 Supertribe Dyschiriitae W. KOLBE, 1880  
 Supertribe Clivinitae RAFINESQUE, 1815  
 Subtribe Forcipatorina BÄNNINGER, 1937  
 inc. sed.  
 Supertribe Scarititae BONELLI, 1810  
 Tribe Carenini MACLEAY, 1888  
 Subtribe Carenina MACLEAY, 1888  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Pasimachina PUTZEYS, 1866  
 Subtribe Oxylobina ANDREWES, 1929  
 Subtribe Scapterina PUTZEYS, 1866  
 Subtribe Dyscherina BASILEWSKY, 1973  
 Subtribe Storthodontina JEANNEL, 1946  
 Subtribe Scaritina BONELLI, 1810  
*Corintascaris* BASILEWSKY, 1952 inc. sed.
- DOSTAL 2017 (world fauna, this paper):  
 Subfamily Scaritinae BONELLI, 1810  
 Tribe Carenini MACLEAY, 1888  
 Tribe Clivinini RAFINESQUE, 1815  
 Subtribe Ardistomina PUTZEYS, 1866  
 Subtribe Clivinina RAFINESQUE, 1815  
 Subtribe Reicheiina JEANNEL, 1957  
 Subtribe Schizogeina n.  
 Subtribe Sparostesina n.  
 Tribe Dyschiriini W. KOLBE, 1880  
 Tribe Forcipatorini BÄNNINGER, 1937 stat. rest.  
 Tribe Salcediini ALLUAUD, 1930  
 Subtribe Androzelmia R.T. BELL, 1998  
 Subtribe Salcediina s. str.  
 Subtribe Solenogenyina R.T. BELL, 1998  
 Tribe Scaritini BONELLI, 1810  
 Subtribe Acanthoscelitina CSIKI, 1927  
 Subtribe Oxylobina ANDREWES, 1929  
 Subtribe Pasimachina PUTZEYS, 1866  
 Subtribe Scapterina PUTZEYS, 1866  
 Subtribe Scaritina BONELLI, 1810  
 Subtribe Dyscherina BASILEWSKY, 1973  
 Subtribe Storthodontina JEANNEL, 1946

### Material and methods

Preserved specimens from the Martin Baehr collection are used, which are mounted on commercially available, rectangular paper cards.

The species descriptions are based on the most distinguishing external characters as defined by BAEHR (2008: 9). Dorsal pores are counted including the preapical puncture. Label data for examined material are given in full length, with exact label wording, except for the date format, which is transcribed to the format “dd.mm.jjjj”.

All investigations were performed with a Leica MZ16 binocular microscope with a Planapo 1.0× objective. Measurements were taken with a calibrated Leica ocular scale at absolute magnifications of 98.1× for pronotal length and width, and 39.1× for all other measurements.

- L total body length in mm, from apex of mandible to apex of elytra.  
 W maximum body width in mm (situated at apical third or near mid-length of elytra).  
 PL maximum pronotum length in mm, measured along median line from base of anterior bristle fringe to base of posterior one.  
 PW maximum pronotum width in mm, measured normal to midline (situated in most cases close behind middle).

E-LW length-width-index of pronotum (PL : PW); if the value is smaller than 1, it means that the pronotum is wider than long, for values above 1, the pronotum is longer than wide.

E-LW length-width-index of both elytra, calculation same as previous.

Dl/Dr number of dorsal pores in third interval of elytra (l = left, r = right side).

( ) values with inaccuracy, because of poor condition of some individuals.

Digital photographs were taken with a Keyence digital microscope VHX-6000 combined with a VHX-S660E motorized stand and zoom-objectives VH-Z00R/Z00T (0.1–50×), VH-Z20R/Z20T (20–200×), and VH-Z100R/Z100T (100–1000×). Processing of images was performed with Adobe Photoshop 7.0.

## Taxonomy

### Tribe Clivinini, subtribe Schizogena n.

Type genus: *Schizogenius* PUTZEYS, 1846

Genera and subgenera included:

*Baehrogenius* gen.n.

*Coryza* PUTZEYS, 1866c: 194

*Halocoryza* ALLUAUD, 1919a: 100

*Lophocoryza* ALLUAUD, 1941: 6

*Paracoryza* BASILEWSKY, 1952

*Psammocoryza* HOGAN, 2006

*Schizogenius* PUTZEYS, 1846

Subgenus *Genioschizus* WHITEHEAD, 1972

Subgenus *Listropus* PUTZEYS, 1863

Subgenus *Schizogenius* PUTZEYS, 1846

**Diagnosis:** Head: Scape of antenna visible from above, with one setiferous pore on upper side; antennomeres without glossy area in middle; antenna pubescent from 3<sup>rd</sup> antennomere onwards; form of antennomeres globose to longitudinal, but not transverse. Mandible without seta in scrobe. Clypeus narrower than distance between antennal sockets, differentiated from frons usually by a more or less clear transversal furrow, or fused with frons. Frons with central or more or less sharp longitudinal carinae. Clypeus distinctly dentate, teeth narrow-based and slender; if bidentate, teeth closer to midline than to sides.

Body shape pedunculate, anterior part of mesothorax with extreme base of elytra constricted, forming peduncle on which the visible scutellum is situated. Elytra convex from one side to other, with a deep marginal channel extending from humerus to apex and separating the mesal elytral intervals from lateral margin, with continuous row of umbilical pores in entire length of marginal channel.

Legs: Fore tibia with one spur apically and another one distally, towards antenna-cleaner. Meso- and metatibia on flexor side without setae, rarely with a single seta.

Lower surface: Ventral surface of head without furrow for reception of antenna. Maxillary cleft extended posteriorly beyond base of mentum. Intercoxal process of prosternum not

enlarged. Anterior coxal cavities closed posteriorly. Abdomen with six sterna normally exposed.

**Distribution:** The subtribe reaches the greatest number of species in the Americas within its largest genus *Schizogenius* comprising about 75 species. The other genera are restricted to South America and Africa, except *Coryza*, which also spreads into the Palaearctic and Oriental regions.

**Remarks:** The frontal carinae, a conspicuous character, are not exclusive to Schizogeina. There are some species among Clivinini from the Australian region, which also carry frontal carinae (e.g., *Clivina mjoebergi* BAEHR, 2008, *C. morosa* BAEHR, 2008, *C. sulcaticeps* SLOANE, 1923, or more irregularly in *Clivinarchus perlongus* SLOANE, 1896), but not in combination with a dentate clypeus. The latter occurs also in the Australian *Clivina coronata* PUTZEYS, 1873, which has two slender denticles on each side and a more triangular one in the middle, but vice versa, not in combination with frontal carinae.

**Key to the genera of the subtribe Schizogeina n.**

- 1 Head with one central frontal carina and one pair of oblique carinae on each side, in most cases forming a distinct arrowhead structure. Pronotum without paramedian sulci. Ethiopian, Oriental, and Palearctic regions. .... *Coryza*
- Frontal carinae of head not forming an arrowhead structure. Pronotum with or without paramedian sulci. .... 2
- 2 Pronotum without longitudinal sulci or carinae. .... 3
- Pronotum with longitudinal sulci or carinae. .... 4
- 3 Head with 4 frontal carinae. Ethiopian Region: Djibouti, Seychelles, Madagascar. .... *Lophocoryza*
- Head with 3–4 frontal carinae. Very small species, body length 1.98–2.26 mm. Amazonian Basin. .... *Baehrogenius* gen.n.
- 4 Pronotum with 12 longitudinal, subparallel carinae. Profemur with conspicuous row of 8 round tubercles basally. Median frontal sulcus narrower than paramedian sulci. Second antennomere unisetose. Colour pale testaceous, body length 3.6 mm. Brazil: Pernambuco, Atlantic coast. .... *Psammocoryza*
- Pronotum with at most 1 paramedian carina on each side and / or with or without paramedian sulci. Profemur without tubercles at base. Median frontal sulcus almost equally wide or wider than first paramedian sulcus. Second antennomere uni-, bi-, or plurisetose. .... 5
- 5 Antennomere 2 plurisetose. Pygidium without series of longitudinal, paramedian, fine striae. Smaller species, body length below 2.7 mm. Africa, Pacific Coast of Mexico, West Indies (WHITEHEAD 1966: 217–228). .... *Halocoryza*
- Antennomere 2 asetose except tactile setae. .... 6
- 6 Head with a V-shaped elevation on clypeus which is more or less elongated to a short carina posteriorly on frons. Pronotum with one to two paramedian longitudinal sulci on each side, sometimes very slightly impressed. Body length 2.5–2.8 mm. Tropical Africa: Bioko Island, Ivory Coast, Cameroon, Democratic Republic of Congo, Uganda (Ruwenzori), Kenya (Taita Hills). .... *Paracoryza*
- Head without V-shaped elevation on clypeus, but with 8–10 longitudinally oriented carinae. Pygidium with series of longitudinal, paramedian, fine striae consisting of small tubercles. Larger species, body length 3.2–7.9 mm. Americas. .... *Schizogenius*

### Tribe Clivinini, subtribe Sparostesina n.

Type genus: *Sparostes* PUTZEYS, 1866

Genera included:

*Bohemaniella* BUSQUET, 2002 (= *Bohemannia* PUTZEYS, 1863)

*Pseudoclivina* KULT, 1947

*Sparostes* PUTZEYS, 1866

**Definition:** Head: Scape of antenna visible from above, with one setiferous pore on upper side. Antenna pubescent from 3<sup>rd</sup> antennomere onwards; antennomeres 4–10 distinctly transverse, wider than long, in the middle with a glossy area with reduced pubescence. Mandible without seta in scrobe. Clypeus narrower than distance between antennal sockets, differentiated from frons usually by a more or less clear transversal furrow, or fused with frons. Frons with central carina, or more or less sharp longitudinal carinae and clypeus distinctly dentate; teeth narrow-based and slender, if bidentate, teeth closer to midline than to sides.

Body shape pedunculate, anterior part of mesothorax with extreme base of elytra constricted, forming peduncle on which the scutellum is situated. Elytra convex from one side to other, with deep marginal channel extending from humerus to apex, separating inner elytral intervals from lateral margin; with continuous row of umbilical pores in entire length of marginal channel.

Legs: Fore tibia with one spur apically and another one distally, towards antenna-cleaner. Flexor side of meso- and metatibia more or less densely bristled, additionally to the setae on extensor edge.

Lower surface: Ventral surface of head without furrow for perception of antenna. Maxillary cleft extended posteriorly beyond base of mentum. Intercoxal process of prosternum not enlarged. Anterior coxal cavities closed posteriorly. Abdomen with six sterna exposed.

**Distribution:** The subtribe is distributed in Africa (*Bohemaniella* and some species of *Pseudoclivina*) and in the Oriental region (*Pseudoclivina* and *Sparostes*).

**Remarks:** The diagnostic characters are sometimes less pronounced, especially with smaller species of *Pseudoclivina*: The flexor sides of meso- and metatibia are set with a few setae only, and the glossy area of antennomeres is not very well differentiated from pubescent sides.

#### Key to the genera of the subtribe Sparostesina n.

- 1 Supraorbital setae originating from a strong tubercle. Lateral parts of clypeus acute triangular and strongly produced anteriorly. Ligula short and dilated. Pronotum without anterior transversal furrow. Scutellar striole indistinct, slightly indicated close to suture. East Asia. .... *Sparostes*
- Supraorbital setae not originating from tubercles. Lateral parts of clypeus produced anteriorly as rounded lobes or clypeus in the middle slightly concave with lateral parts not distinctly separated from middle part. Ligula narrow and slender. Pronotum with anterior transversal furrow, which may sometimes be indistinct or interrupted for a short distance. Scutellar striole always distinct. .... 2
- 2 In dorsal view mandibles in the middle with two longitudinal, equally developed, convergent carinae. Left mandible with two basal teeth. Proepisternum smooth or

with fine transversal wrinkles, with or without microscopic puncturation, but never with coarse punctures. Lateral part of clypeus anteriorly strongly produced as rounded lobe, median part straight or slightly concave, clearly differentiated from sides. Elytra without a tubercle at base of 3<sup>rd</sup> interval. Africa. .... **Bohemaniella**

- In dorsal view mandibles in the middle with one longitudinal carina. Left mandible with one basal tooth only, proximal of this tooth with conspicuous incision. Proepisternum coarsely punctured, in some African species (*P. mandibularis* and *P. testacea*) somewhat finer, but always well visible and not microscopically fine. Lateral part of clypeus not strongly produced anteriorly and not clearly differentiated from the middle part; middle part slightly concave or more produced than sides. Elytra with a mostly conspicuous longitudinal tubercle at base of 3<sup>rd</sup> interval. Africa, East Asia, Australia. .... **Pseudoclivina**

#### Preliminary key to the subtribes of the tribe Clivinini

- 1 Flexor side of meso- and metatibia with numerous setae in addition to setae on extensor edge. Antenna pubescent from 3<sup>rd</sup> antennomere onward; antennomeres in middle less densely pubescent and glossy, shape transverse to globose (especially in smaller *Pseudoclivina* species these characters are not so pronounced: flexor side of meso- and metatibia set with few additional setae; middle area of antennomeres less clearly distinguished from more densely pubescent side parts). .... **Sparostesina n.**
- Flexor side of meso- and metatibia without numerous setae; setae restricted to extensor edge (in *Rugiloclivina* number of setae on extensor edge increased). Antenna pubescent from 2<sup>nd</sup> or 3<sup>rd</sup> antennomere onward; glossy areas in middle of antennomeres present or absent; shapes of antennomeres variable. .... 2
- 2 Frons with one or more longitudinal carinae, and clypeus distinctly dentate, dentition small, narrow-based; if bidentate, teeth close to midline; clypeus divided from frons by distinct furrow in most cases. .... **Schizogeina n.**
- Structure of frons variable, but never carinate in combination with a dentate clypeus; in dubious cases clypeus truncate and/or sides of clypeus pronounced as lobes. .... 3
- 3 Lateral border of pronotum building contour of pronotum as seen from above (proepipleura not visible from above). Antenna pubescent from 3<sup>rd</sup> antennomere onwards (except for *Brachypelus* from Madagascar with reduced, narrow slit-like or missing eyes, and for *Cryptomma* from north-western South America, with strongly wrinkled surface and deeply notched sides of pronotum). .... **Clivinina**
- Lateral border of pronotum bent inwards in posterior half and not building contour of pronotum as seen from above (proepipleura more or less distinctly visible from above). Antenna pubescent from 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> antennomere onwards. .... 4
- 4 2<sup>nd</sup> antennomere shorter or about as long as 3<sup>rd</sup> one, and distinctly shorter than scape. Antennomeres 3–10 distinctly longer than wide. Antenna pubescent from 2<sup>nd</sup> antennomere onwards. Posterior angles of pronotum rounded, never dentate. Fore tarsus of males dilated. Colour brown to black, often with metallic shine and/or apical macula on elytra. Larger species, body length above 3.5 mm. .... **Ardistomina**
- 2<sup>nd</sup> antennomere distinctly longer than 3<sup>rd</sup> one, about as long as scape. Antennomeres 3–10 globose or slightly longer than wide. Antenna pubescent from 1<sup>st</sup>, 2<sup>nd</sup> (mostly) or 3<sup>rd</sup> antennomere onwards. Posterior angles of pronotum rounded or with a more or less distinct denticle. Fore tarsus of males not dilated. Colour yellowish to dark brown, never black, piceous, or with metallic shine, or with apical macula. Eyes often reduced or missing. On average small to very small species, body length below 5.0mm ... **Reicheiina**



### Tribe Forcipatorini BÄNNINGER, 1937 (1866), stat. rev.

Oxystomides PUTZEYS, 1866: 4; ANDREWES 1929: 209, 339.

Oxystomina CSIKI, 1927: 491; BLACKWELDER 1944: 25.

Forcipatorina BÄNNINGER, 1937: 83; BARR 1967: 69; REICHARDT 1977: 387, 389–390; PERRAULT 1994a: 27; 1994b: 683.

Forcipatorini JEANNEL, 1946: 221; BASILEWSKY 1973: 10.

Type genus: *Forcipator* MAINDRON, 1904: 265 (syn.: *Oxystomus* LATREILLE, 1825)

Genera provisionally included:

*Camptidius* PUTZEYS, 1866

*Camptodontus* DEJEAN, 1826

*Forcipator* MAINDRON, 1904

*Kultianella* PERRAULT, 1994

*Mesus* CHEVROLAT, 1858

*Obadius* BURMEISTER, 1875

*Oxygnathopsis* LOUWERENS, 1953

*Oxygnathus* DEJEAN, 1826

*Scolyptus* PUTZEYS, 1861

*Stratiotes* PUTZEYS, 1846

Remarks: The tribe first was introduced by PUTZEYS (1866: 4) and named Oxystomides, based on the type genus *Oxystomus* LATREILLE, 1825, which was later renamed by MAINDRON (1904: 265) with the replacement name *Forcipator*, because of preoccupation. For this reason BÄNNINGER (1937: 83) replaced Oxystomides by Forcipatorina. Following the International Code of Zoological Nomenclature (article 40.1) the taxon Oxystomides (or Oxystomina) should persist and should not be changed. However, since the introduction of the Forcipatorina this taxon has been in prevailing usage as family group name (e.g., JEANNEL 1946: 221, BARR 1967: 69, BASILEWSKY 1973: 10, REICHARDT 1977: 387, 389–390, ERWIN & SIMS 1984: 369, 373, PERRAULT 1994a: 27, 1994b: 683, VIEIRA & DE MOURA BELLO 2004: 243) and has to be maintained according to ICZN, article 40.2.

The main characters on which Putzeys based his group on are an asetose glossa and conspicuous long and acute, saber-like mandibles. The classification as an independent group was accepted in subtribal rank and followed by subsequent authors (e.g., CSIKI 1927: 491, BLACKWELDER 1944: 25, PERRAULT 1994a: 27, 1994b: 683 ff.) or in higher rank (JEANNEL 1946: 212 ff., BASILEWSKY, 1973: 9 ff.).

BÄNNINGER (1937: 83) mentions an important character, the missing seta on the scape, related to his subtribe Forcipatorina, which he treats in the same rank as Clivinina.

Based on Putzeys' proposal to use the numbers of setae of the glossal sclerite as one of the main characters to define forcipatorines, PERRAULT (1994b: 693) divides the subtribes Forcipatorina and Clivinina, in combination with the missing seta on the scape and the shape of the gula. The examination of the numbers of glossal setae lead to partially different results, as these characters vary, e.g., within the genus *Camptodontus* from 0 to 2, while in other genera the glossa is more or less hidden by the mental tooth and difficult to investigate. It may also happen that the glossal seta is lost or very small, so it can be overlooked very easily. The number of glossal setae and shape of gula are a subject for further investigations within all scaritine genera.

Depending on the weighting of the characters used, there will be of course a difference in ranking of groups. Further detailed investigations will elucidate whether Forcipatorini are to be ranked as a tribe equal to Clivinini or as a subtribe of them. Nevertheless, it is a well-defined group, characterized by the asetose scape in combination with conspicuous long and acute, saber-like mandibles. Other characters, such as the length of the median tooth on the mentum, the numbers of setae on the penultimate labial palpomere, the setae of the glossa, or the number of supraorbital setae do not provide a unique combination of characters for this group and therefore cannot be used consequently to differentiate these genera from other Clivinini, because of a certain tendency toward variability within the genera themselves.

The posteriad prolongation of the maxillary cleft occurs in all Clivinini and in most genera of the other tribes, except for *Distichus* subgen. *Baeningostichus* DOSTAL, 1999, *Passalidius* CHAUDOIR, 1863, Carenini SLOANE 1920 (except some species of the genus *Scaraphites* WESTWOOD, 1842 with prolonged cleft), and Pasimachini PUTZEYS, 1866, and is also present in all genera of Forcipatorini.

The number of setae on the penultimate labial palpomere varies within the group from asetose (*Oxygnathus*, *Scolyptus*, *Stratiotes*; most probably also *Oxygnathopsis*, not examined) to unisetose (*Camptidius*, *Mesus*, *Obadius*), bisetose (*Camptodontus*, *Kultianella*), or multisetose (*Forcipator*).

The pubescence of the antenna is usually a more or less constant character within groups, and also within Forcipatorini. In general, the antennomeres are pubescent from the 3<sup>rd</sup> antennomere onwards, except for *Kultianella*, where the antenna is pubescent from the 2<sup>nd</sup> onwards in some species, and in *Forcipator*, where it is pubescent from the 4<sup>th</sup> or 5<sup>th</sup> one onwards. *Kultianella* is also the only genus of this group which is conspicuous by its setose last palpomeres, which leads to a somewhat instable positioning within this group.

The missing seta on the scape is an important character within the subfamily Scaritinae, as it divides the big groups of Clivinini, Dyschiriini and Salcediini (with seta) from all other Scaritini (without seta), a circumstance that causes me to treat Forcipatorini by no means as different from all other Clivinini, and in any case equally to them. From the other tribes, *Salcedia* FAIRMAIRE, 1899 seems to be the only exception, where a seta is also missing on the scape (only one species examined: *Salcedia perrieri* FAIRMAIRE, 1899; *Holoprizus* PUTZEYS, 1866 not examined). Recently the character state of a missing seta has also been verified for the poorly known genus *Oxygnathopsis* by BULIRSCH (2016: 310).

The analysis of the 18S rRNA gene sequence of some species of Clivinini supports a separate clade with the exception of *Camptodontus*, which was placed as sister group to Scaritini sensu stricto (HOGAN 2012: 216). In this analysis a sample of *Scolyptus* was included into the Clivinini clade, but morphologically the asetose penultimate labial palpomere and the saber-like mandibles would more strongly support a position within Forcipatorini. HOGAN (2012: 216) indicates Forcipatorini as a subtribe, which is somewhat isolated morphologically from other clivinines.

### ***Baehrogenius* gen.n.**

Type species: *Baehrogenius martini* sp.n.

Generic epithet: Latinized adjective, an eponym based on the surname of my friend and colleague, the very well-known specialist of Carabidae, Dr. Martin Baehr (Munich).

**Recognition:** A small clivinine genus of the new subtribe Schizogeina, distinguishable by its quadridentate clypeus, carinate frons, a pronotum without paramedian sulci, and conspicuously small body length below 2.5 mm.

**Description:** Body shape: elongated, pedunculate, convex from side to side, slightly flattened from above. Colour yellow-brown translucent. No external sexual differences visible.

**Head (Figs. 3–5):** Eyes fully developed, convex, orbits not developed. Mandibles more or less symmetrical, keeled in basal half of upper surface, lateral groove triangular, more or less oblique-vertically oriented, without setae. Labrum symmetrical, basal membrane not visible from above, 6-setose, anterior border bisinuate. Clypeus quadridentate, with one seta on each side; lateral teeth somewhat bigger than middle ones (Figs. 3, 4). Preorbital plate covering base and insertion of scape. Head without arcuate frontal furrows separating eyes and temples from frons. Frons with a longitudinal supraorbital carina on each side and 2–3 longitudinal carinae in anteriomedial part of frons; two supraorbital setae. Scape of antenna unisetose, antennomeres 2–11 pubescent, without glossy areas in middle.

Palpomeres without pubescence. Maxillary palps not longer than head; last palpomeres pear-shaped, outer edge more or less straight, inner one enlarged, last maxillary palpomere about twice as long as penultimate one, continuously narrowed towards apex (Fig. 7). Last labial palpomere with pin-like deduction of apical third (Fig. 8), penultimate labial palpomere bisetose. Apex of glossa truncate, bisetose. Galea straight, apex hooked inwards with a narrow, sharp tip, inner edge with 2–3 thick, dentiform setae and several smaller setae; lacinia long and slender, slightly longer than galea; stipes with 3 setae in basal half.

Pronotum slightly smaller than elytra, moderately convex. Basal angle without denticle. Lateral margin bordered from anterior angle to postangular seta, and from postangular seta to peduncle; two marginal setae, one just behind anterior angle, the other one at posterior angle. Base bordered between posterior angle and peduncle, and above peduncle. Posterior part of proepisterna slightly bullous and visible from above. Medial and anterior transversal sulcus clearly impressed.

Elytra covering abdomen, as seen from above; apices jointly rounded. Scutellum visible, restricted to peduncle. Scutellary pore present; scutellary striole lacking. Base of elytra distinctly bordered from humerus to peduncle. Humerus with or without humeral denticle. Elytra with deep lateral channel extending from humerus to apex, separating inner elytral intervals from margin, with continuous row of umbilical pores in entire length of marginal channel. Elytra 8-striate; intervals of elytra of about the same width; apex without recurrent groove; third interval with five setiferous pores; 8<sup>th</sup> interval carinate in front of apex and sharply bordering lateral channel, which is somewhat enlarged before apex. Hind wings fully developed.

**Ventral surface:** Intercoxal part of prosternum not sulcate, prosternal process unbordered. Metepisternum long and narrow, slightly longer than twice length of anterior margin. Metacoxa posteriorly passing posterior margin of first visible abdominal sternum. Abdomen with six visible sterna; visible ventral sternum 2 with paramedian, oblique intercoxal sulcus (in the sense of BALL 2001), Sternum 3–6 with basal transversal sulcus and a paramedian setiferous pore on each side. 6<sup>th</sup> abdominal sternum bisetose on each side of outer margin; pores widely distant from each other.

**Legs:** Tarsi dorsally asetose except for tactile setae. Claws simple, without serrulation. Protibia with a cleaning incision in distal part of flexor side; extensor edge distally pro-

longed into a conspicuous tooth, with two distal teeth (protibia tridentate); protibia not sulcate on dorsal surface. First protarsomere as long as tarsomeres 2–4 together. Meso- and metacoxa bisetose. Meso- and metatrochanter unisetose. Meso- and metatibia without additional setae on flexor side; mesotibia without distal spur on extensor edge. Metatarsus about as long as half-length of metatibia.

Genitalia: Male: Median lobe laterally flattened, internal sac with hook-shaped basal sclerite; parameres with round apex, with two strong setae at top, left one about 4–5 times wider than the right one. Female: 2<sup>nd</sup> stylus narrow, pin-shaped, with two small setae on lateral edge before apex, behind middle with ensiform seta on outer edge.

Geographical distribution: Central Amazonian basin.

***Baehrogenius martini* sp.n.** (Figs. 1, 3, 5–9, Tab. 1)

Specific epithet: Latinized adjective, an eponym based on the given name of my friend and colleague, the very well-known specialist of Carabidae, Dr. Martin Baehr (Munich).

Material examined: Holotype (male): Bras. R. Cuieiras, Igarape Cachoeira, A556, 29.07.1965, leg. Fittkau, coll. Baehr (Munich). Paratypes: 1 male, same data as holotype, coll. Dostal (Vienna); 1 female, Brasilien, Amazon., Rio Cuieiras b. Manaus, 29.07.1965, A556, leg. Fittkau, coll. Baehr (Munich); 1 female, Amazon, Santarem, coll. Dostal (Vienna).

Diagnosis: A very small and narrow schizogaine species, distinguishable by its quadridentate clypeus and four more or less parallel frontal carinae; the lateral ones are connected with the paramedian ones with an oblique carina at front-eye level.

Description: Measurements (see also Tab. 1): length 1.98–2.26 mm, width 0.56–0.65 mm.

Colour: Unicolorous reddish-brown, antennae and mouthparts except mandibles lighter, yellowish-brown.

Microsculpture: Glossy. Head with traces of microreticulation on clypeus and anterior part of frons. Sterna 2–6 glossy, with slight isodiametric microreticulation.

Head (Figs. 3, 5): Antenna short, reaching about postangular seta of pronotum. Antennomeres 4–10 globose, about as wide as long; antennomeres 2–11 pubescent; 2<sup>nd</sup> antennomere as long as scape and as long as antennomeres 3 and 4 together. Mandibles long and slender, narrow-based, about as long as distance between anterior edge of clypeus and hind margin of eye; mesal edge more or less straight, without denticulations; apical fourth sharpened and bent inwards; lateral edge slightly rounded. Anterior margin of labrum bisinuate, with slightly produced middle part, with 6 setae. Clypeus middle part fused with lateral wings, delimited from frons by a slight transversal furrow incising the paramedian frontal carinae, which are elevated to a small longitudinal tubercle on clypeus. Supraantennal plate bullously enlarged, lateral margin finely bordered and somewhat upturned; surface in middle with fine, in cross-section triangular longitudinal ridge, obliquely joining anterior supraorbital setae. Frons with two paramedian carinae, which are continued anteriorly on clypeus to a longitudinal tubercle, posteriorly ending before eye hind margin; laterally paramedian carina connected with an oblique carina at anterior eye level to lateral supraorbital carina, which starts in front at the level of the second quarter of eye-length and ends at hind eye margin level. Inner margin of eye with longitudinal bordering ridge, extending from anterior to posterior supraorbital seta. Frontal furrow very deep and conspicuously broad, extending anteriorly from basal clypeal seta to hind margin of eye, bearing two supraorbital setae, which are not inserted on a tubercle.

Tab. 1: Measurements and indices of *Baehrogenius martini* sp.n. (N = 4) and *B. tricarinatus* sp.n. (N = 1). L, W, PL, and PW in millimetres.

specimens	sex	P-LW	E-LW	L	W	PL	PW	DI	Dr
<i><b>martini</b></i>									
1 holotype	♂	1.09	1.93	1.98	0.56	0.49	0.45	5	5
2 paratype	♀	1.10	1.80	(2.26)	0.65	0.50	0.60	–	5
3 paratype	♂	1.09	1.86	(2.11)	0.57	0.49	0.45	5	5
4 paratype	♀	1.08	1.91	2.15	0.61	0.54	0.50	5	5
<i><b>tricarinatus</b></i>									
1 holotype	♀	1.11	2.04	2.26	0.61	0.59	0.53	4	4

Neck not constricted, without puncturation. Eye slightly spherical; postorbital area weakly developed, just completing the outline of eye; posterior edge and neck forming an obtuse angle. Ventral surface of head (Fig. 5): Gula wide, glossy with slight microreticulation paramedian, smooth in middle. Submentum with two setae at each side. Median tooth of mentum triangular, at base with one pair of setae, as long as lateral wings of mentum; mentum wings more or less straight at sides, anteriorly broadly rounded, surface smooth, sides unbordered. Mentum basally with convex transversal torus.

Pronotum (Fig. 1) more or less quadrangular, 1.08–1.10× as long as wide (Tab. 1), with convex declivity to base, convex from one side to the other, sides more or less straight, very slightly convex. Surface glossy, without microreticulation on disk. Anterior angle not produced forward. Posterior angle completely rounded, not breaking outline of pronotum. Sides with fine, elevated margin between anterior angle and postangular pore, with distinct lateral channel, between postangular pore and peduncle indicated as fine line. Basal border above peduncle, basal channel somewhat broader than lateral one. Anterior transversal sulcus oblique, deep, somewhat crenulate. Median line deeply impressed, conspicuously deep at base, disk beside it slightly bullous. Epipleura narrow, smooth and glossy. Proepisternum broad, wider than half of the thickness of pronotum in lateral view; surface smooth and glossy, separated from prosternum by a distinct suture. Proepisternum bullous in basal part and building the contour at sides and base. Prosternum smooth and glossy, with deep transversal furrow along anterior margin; prosternal process keel-like before procoxae, between them enlarged, flattened, slightly bordered, without setae.

Elytra (Fig. 1) 1.8–1.93× as long as wide (Tab. 1), sides slightly convex, convex from one side to the other; basal declivity to peduncle obliquely vertical. Surface glossy, smooth, without microreticulation. Base bordered from humerus to peduncle, lateral channel with umbilical pores ending at humerus joining stria 5, striae 1–4 free at base. Scutellar striole missing. Scutellar pore faint, situated at the end of first stria, close to peduncle. Striae straight, engraved from base to apex, with coarse punctures, first stria more deeply engraved than others, stria 2 and 3 obsolete near base. Elytra with 5 dorsal pores (including preapical pore) in third interval. Umbilical pores in lateral channel (9<sup>th</sup> interval) close together over entire length; lateral channel and umbilical pores enlarged at humerus and before apex. Humerus with fine, but distinct denticle.

Legs (Fig. 1): Protibia with three teeth, proximal denticle small, more triangular; upper surface glossy with fine microreticulation, without longitudinal sulcus; surface of posterior side with two sharp denticles at middle. Basal tarsomere of foreleg conically shaped, not incised or petiolate, about as long as tarsomeres 2–4 together, without setae or pubescence

on dorsal surface. Upper edge of mesotibia with 7–8 tubercular pores carrying short and broad setae, without distal setiferous spur. Meso- and metatibia at flexor side asetose.

Ventral surface: Peduncle glossy. Mesosternum without setae. Elytral epipleura broader in basal quarter, then abruptly narrowed, towards apex evenly narrowed; glossy, with traces of microreticulation, with an oblique midline at anterior third. Metepisternum with lateral margin about 2.4× as long as anterior one, constricted towards apex, glossy, finely microreticulated, anteriorly finely bordered. Metasternum glossy and finely microreticulated, behind mesocoxa about 1.6× as long as mesocoxa, median sulcus distinct and deeper in posterior half. Metasternum between mesocoxae broadly triangular, distinctly bordered, without setae. Abdominal sterna (Fig. 6) glossy, finely microreticulated, without puncturation; sterna 4–6 with basal transversal sulcus. Sterna 3–5 each with one pair of paramedian setae. Lateral margins of anal sternum each with two setae, far apart from each other in both sexes.

Male genitalia (Fig. 9): Median lobe of aedeagus slightly curved, dorsally open in distal half; distal half dorsoventrally flattened; apex broadly rounded and upturned in dorsal aspect. Left paramere slender, rhomboid-shaped, about 5× as wide as right one, apex rounded and bisetose. Right paramere narrow, apex truncated and bisetose.

Female genitalia: Last stylomere straight, cylindrical, outer edge obliquely narrowed to rounded apex, similar to *B. tricarinatus* sp.n. (comp. Fig. 10).

Geographical distribution: Central Amazonian basin.

Differential diagnosis: This new species is conspicuously different from *B. tricarinatus* sp.n. by the number of frontal carinae, and the head sculpture which is distinctly microreticulated in the middle. The pronotum is more convex, its lateral border finer, especially between postangular pore and peduncle, where it is only indicated as a fine line. The scutellar pore is very faint and the humerus bears a distinct denticle. From species of *Oxydrepanus*, *B. martini* sp.n. differs by its quadridentate clypeus and four frontal carinae, from the species of subgenus *Neoreicheia* KULT, 1950 (following ANICHTCHENKO et al. 2017) by its fully developed eyes, while they are reduced to a few ommatidia in *Neoreicheia*.

***Baehrogenius tricarinatus* sp.n.** (Figs. 2, 4, 10, Tab. 1)

Specific epithet: Latinized adjective, compiled from tres, tria (three) and carina, -ae (ridge, keel, carina), referring to the number of frontal carinae.

Material examined: Holotype (female): Bras. Res. Duke, Igarape da Acara, A193, 26.06.1961, leg. Fittkau, coll. Baehr (Munich). The Duke Reservation is located at the northern border of Manaus (HOPKINS 2005: 9 ff.).

Diagnosis: A small and narrow schizogaine species, distinguishable by its quadridentate clypeus and three more or less parallel frontal carinae in addition to the supraorbital ones.

Description: Measurements (see also Tab. 1): length 2.26 mm, width 0.61 mm.

Colour: Unicolourous reddish-brown, antennae and mouthparts except mandibles lighter, yellowish-brown.

Microsculpture: Glossy. Head with shallow microreticulation on frons. Ventral sterna 2–5 glossy with slight isodiametric microreticulation at sides, in middle obsolete, ventral sternum 6 entirely microreticulated, glossy.

Head (Fig. 4): Antenna short, reaching about postangular seta of pronotum. Antennomeres 4–10 globose, about as wide as long; antennomeres 2–11 pubescent; 2<sup>nd</sup> antennomere shorter than scape and as long as antennomeres 3 and 4 together. Mandibles long and slender, narrow-based, about as long as distance between anterior edge of clypeus and hind margin of eye; medial edge more or less straight, without denticulations, apical fourth sharpened and bent inwards; lateral edge slightly rounded. Anterior margin of labrum bisinuate, with slightly produced middle part; lateral lobes more produced than middle, with 6 setae, 2 of which are somewhat offset backwards. Clypeus middle part fused with wings, not delimited from frons, the border to frons indicated with an incision of paramedian frontal carinae, which are elevated to a small longitudinal tubercle on clypeus. Supraantennal plate bullously enlarged, lateral margin finely bordered; surface in middle with fine, in cross-section triangular, longitudinal ridge, obliquely joining anterior supraorbital setae. Frons with two paramedian carinae, which are continued anteriorly on clypeus to a longitudinal tubercle, posteriorly ending just behind anterior eye margin. Central frontal carina finer than paramedian ones, beginning just behind clypeus and ending just behind level of anterior supraorbital seta. Inner margin of eye with low longitudinal supraorbital ridge, extending from anterior to posterior supraorbital seta. Frontal furrow deep and broad, extending anteriorly from basal clypeal seta to hind margin of eye, bearing two supraorbital setae, which are not inserted on a tubercle. Neck not constricted, without puncturation. Eye slightly spherical; postorbital area not developed; posterior edge of eye and neck forming an obtuse angle. Ventral surface of head: Gula wide, diverging posteriad, glossy and smooth, with coarse microreticulation laterally. Submentum with two setae at each side. Median tooth of mentum flat triangular, at base with one pair of setae, slightly shorter than lateral wings of mentum; mentum wings with sides more or less straight at base, anteriorly broadly rounded, surface smooth and glossy, sides unbordered. Mentum basally with convex transversal torus, which is bullous paramedially, beside it with basal seta on each side, below the bullous enlargement with deep transverse-oval fovea on each side.

Pronotum (Fig. 2) more or less quadrangular, 1.11× as long as wide (Tab. 1), with convex declivity to base, convex from one side to the other, but somewhat flattened from above; sides very slightly convex, widest behind middle; surface glossy, without microreticulation on disk. Anterior angle not produced forward. Posterior angle completely rounded, not breaking outline of pronotum. Sides finely bordered and elevated between anterior angle and postangular pore, with distinct lateral channel, and in the same way between postangular pore and peduncle. Basal border above peduncle; basal channel somewhat broader than lateral one. Anterior transversal sulcus oblique, deep, somewhat crenulate. Median line deeply impressed. Epipleura narrow, smooth and glossy. Proepisternum broad, wider than half of the thickness of pronotum in lateral view; surface smooth and glossy, separated from prosternum by a distinct suture. Proepisternum bullous in basal part and building the contour at sides and base. Prosternum smooth and glossy, with deep transversal furrow along anterior margin; prosternal process keel-like before procoxae, between them enlarged, flattened, unbordered, without setae.

Elytra (Fig. 2) 2.04× as long as wide (Tab. 1), sides straight and more or less parallel, convex from one side to the other; basal declivity to peduncle strongly vertical. Surface glossy, smooth, without microreticulation. Base bordered from humerus to peduncle, lateral channel with umbilical pores ending at humerus in the middle of interval 5, striae 1–4 free at base. Scutellar striole missing. Scutellar pore large, inserted in a distinct fovea, not connected with first stria, located at the upper edge of basal declivity. Striae straight, engraved from base to apex, with coarse punctures, ending before apical sixth except stria

one, which is distinct in its entire length. Elytra with 4 dorsal pores (including preapical pore) in third interval. Umbilical pores in lateral channel (9<sup>th</sup> interval) close together over entire length; lateral channel and umbilical pores enlarged at humerus and before apex. Humerus rounded, without denticle.

Legs (Fig. 2): Protibia with three teeth; proximal denticle small, more triangular; upper surface glossy with fine microreticulation, without longitudinal sulcus; surface of posterior side with two sharp denticles at middle. Basal tarsomere of foreleg conically shaped, not incised or petiolate, about as long as tarsomeres 2–4 together, without setae or pubescence on dorsal surface. Upper edge of mesotibia with 7–8 tubercular pores carrying short and broad setae, without distal setiferous spur. Meso- and metatibia at flexor side asetose.

Ventral surface: Peduncle glossy. Mesosternum without setae. Elytral epipleura broad in basal quarter, then abruptly narrowed, towards apex evenly narrowed; glossy, with traces of microreticulation, with an oblique midline at anterior third. Metepisternum with lateral margin about 2.4× as long as anterior one, constricted towards apex, glossy, finely microreticulated, anteriorly finely bordered. Metasternum glossy, behind mesocoxa about 1.5× as long as mesocoxa, median sulcus anteriorly obsolete, distinct and deeper in posterior half. Metasternum between mesocoxae broadly triangular, distinctly bordered, without setae. Abdominal sterna 2–5 glossy, finely microreticulated at sides, without puncturation; sternum 6 entirely microreticulated; sterna 4–6 with basal transversal sulcus. Sterna 3–5 each with one pair of paramedian setae. Lateral margins of anal sternum (Fig. 10) each with two setae, far apart from each other.

Male genitalia: Unknown.

Female genitalia (Fig. 10): Last stylocere straight, cylindrical, lateral edge obliquely narrowed to rounded apex, which bears two short hairs, behind middle with a short and broad ensiform seta on outer edge.

Geographical distribution: Central Amazonian basin.

Differential diagnosis: This new species is conspicuously different from *B. martini* sp.n. by the three frontal carinae and the head that is not distinctly microreticulated in the middle. The pronotum is less convex, the lateral border distinct, and also elevated between postangular pore and peduncle. The scutellar pore is very large and the humerus is rounded, without denticle. For differences with *Oxydrepanus* and subgenus *Neoreicheia* see the Differential diagnosis of *B. martini* sp.n.

#### Key to the species of *Baerogenius*

- 1 Frons (Fig. 3) with two paramedian carinae which are obliquely connected to supraorbital carina in anterior eye-level. Head with traces of microreticulation. Elytron with 5 dorsal pores in 3<sup>rd</sup> interval. Border between postangular seta of pronotum and peduncle formed as fine line, not elevated like the border of lateral margin. Body length 1.98–2.26 mm. Central Amazonian basin: Rio Cuieras. .... ***B. martini* sp.n.**
- Frons (Fig. 4) in addition to supraorbital carinae with 3 carinae, a central one and paired paramedian ones; central carina not connected with paramedian carinae. Head with distinct microreticulation. Elytron with 4 dorsal pores in 3<sup>rd</sup> interval. Border between postangular seta of pronotum and peduncle distinct, elevated like the border of lateral margin. Body length 2.26 mm; Central Amazonian basin: Manaus. .... ***B. tricarinatus* sp.n.**



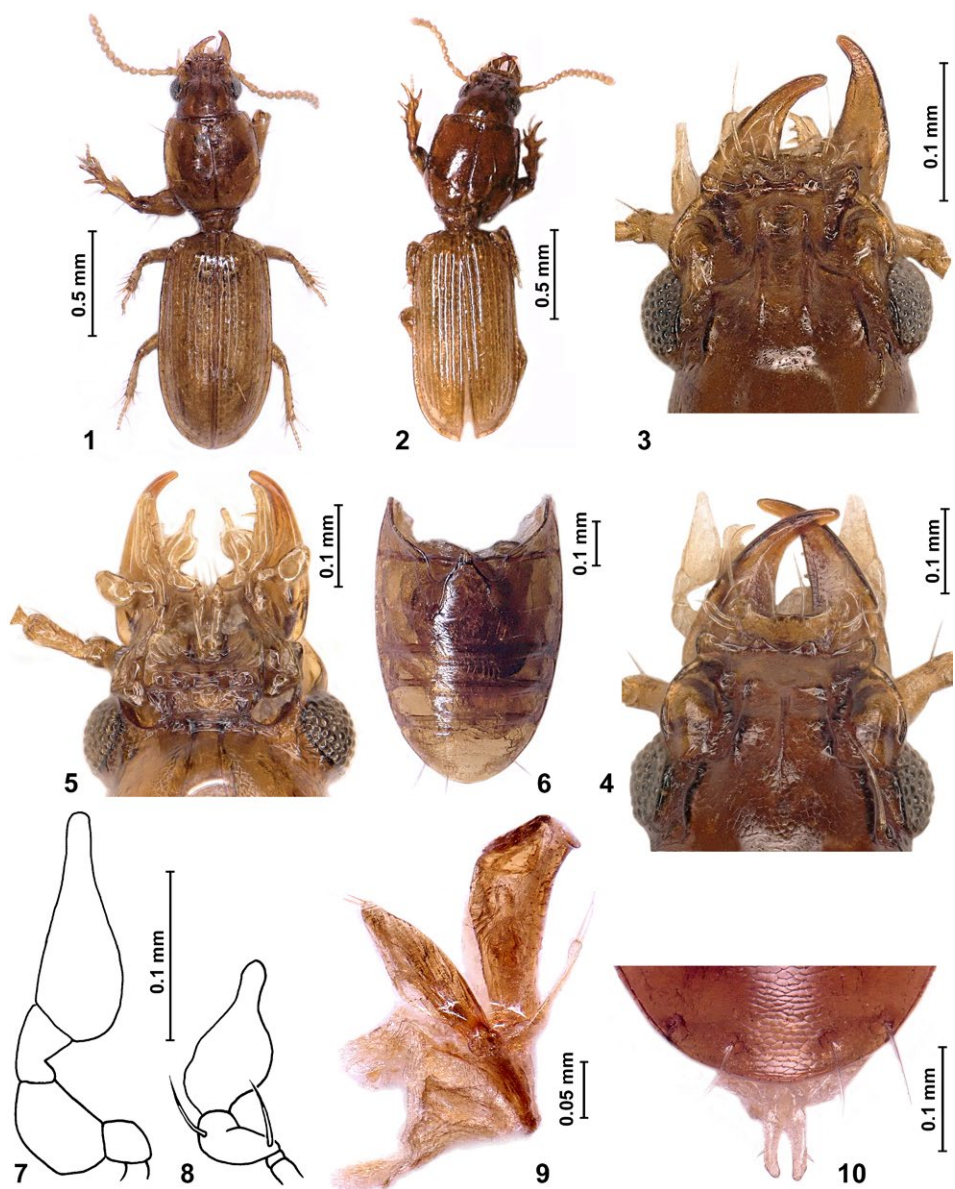
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Figs. 1–10: Habitus of *Baehrogenius martini* sp.n. (1) and *B. tricarinatus* sp.n. (2). Head, dorsal view, of *B. martini* sp.n. (3) and *B. tricarinatus* sp.n. (4). (5) Head of *B. martini* sp.n., ventral view. (6) Abdomen of *B. martini* sp.n., ventral view. (7) Right maxillary palp of *B. martini* sp.n., ventral view. (8) Right labial palp of *B. martini* sp.n., ventral view. (9) Aedeagus, (median lobe and parameres) of *B. martini* sp.n., ventral view. (10) Styli of *B. tricarinatus* sp.n., ventral view. Images taken from holotypes, except (5) from paratype.

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