The new species of the genus *Atanygnathus* Jacobson, 1909 (Coleoptera: Staphylinidae: Staphylininae) from Réunion Island

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New species *Atanygnathus poussereaui* Kocian & Hlaváč, sp. n. from Réunion is described and illustrated. Key to all species of *Atanygnathus* (Coleoptera, Staphylinidae, Staphylininae, Tanygnathinina) of Réunion is presented.

**Key words:** Coleoptera, Staphylinidae, Staphylininae, *Atanygnathus*, Réunion, new species

The genus *Atanygnathus* Jacobson, 1909 is a genus of the tribe with the worldwide distribution and with approximately 50 known species (Hermann 2000). Many species from the Afrotropical and Oriental region were formerly attributed to the European *Atanygnathus terminalis* (Erichson, 1839) but this species is exclusively restricted to the central and western Europe. Thus we can expect many new species in above mentioned regions (Uhlig 1995). The genus *Atanygnathus* was studied in detail for America north of Mexico (Smetana 1971), the Himalaya (Smetana 1988) and Taiwan (Smetana, 1995).

Species of the genus *Atanygnathus* are externally very uniform, differing from each other only by male sexual characters. Most of species are macropterous with elytra distinctly widened posteriad and having shoulders more slender than pronotum. The generic diagnosis of the genus is given in Smetana (1971).

To this paper Réunion has been hosting two endemic species, both described by J.-C. Lecoq, namely *Atanygnathus gomyi* Lecoq, 1990 and *A. variegatus* Lecoq, 1990. The aim of this paper is to provide the description of third species as well as to give the key to all *Atanygnathus* of Réunion.

**Material and methods**

Abbrevations for collections:

<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>NMP</td>
<td>Národní Muzeum Praha, The Czech Republic (J. Hájek)</td>
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<tr>
<td>MHNRM</td>
<td>Muséum d‘Histoire Naturelle de La Réunion, Saint-Denis, Réunion (G. Cazanove)</td>
</tr>
<tr>
<td>cKoc</td>
<td>private collection of Matúš Kocian, Prague, Czech Republic</td>
</tr>
<tr>
<td>cBan</td>
<td>private collection of Petr Baňař, Strážnice, Czech Republic</td>
</tr>
<tr>
<td>cJan</td>
<td>private collection od Jiří Janák, Rtyně nad Bilinou, Czech Republic</td>
</tr>
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Permanent preparations of abdominal segment and aedeagus were made in PVP (Polyvinylpyrrolidone). The morphological studies and measurements were conducted using STM 822 5410 stereo microscope. Drawings of abdominal segment and aedeagus were done using a Meopta microscope and a Zeiss drawing tube. Habitus images were taken with a Canon EOS 5D mark II in combination with a Canon MP-E65 1–5x macro lens.

The study was carried out under the following research permits: Arrêté No DIR-I-2017-097 issued on 7th June 2017 by Parc national de La Réunion.
Results

Atanygnathus poussereaui Kocian & Hlaváč, sp. n. (Figs 1–4)

Description. Body (Fig. 3) rufobrunneous, brunneous to piceous. Pronotal margins, scutellum, elytra around scutellum, along suture and in posterior margin paler, brownish-yellow. Abdomen uniformly rufobrunneous, only anterior part of tergites VII and VIII darker. Legs, palpi and antennae yellowish, antennomeres 2–9 slightly darker, brownish.

Head 0.45–0.5 mm wide, 0.46–0.46 mm long. Surface shiny, but with well perspicuous, extremely fine and shallow microsculpture formed by polygonal to slightly transverse meshes. Eyes small, approximately 1.2 times shorter than temples, formed by about 30 ommatidies. Antennae 1.25–1.36 mm long, filiform, all antennomeres longer than wide.

Pronotum 0.79–0.9 mm wide, 0.65–0.73 mm long, in average 0.9 times as wide as long. Surface shiny, with similar microsculpture as in head. Inner pair of anterior punctures separated from pronotum margin by distance 1.5 times longer than puncture diameter. Discal area with one pair of punctures, situated almost in middle of length of pronotum or (more usually) slightly before the middle. Outer anterior, lateral and posterior punctures situated precisely on the pronotum margin.

Elytra short, distinctly widened posteriad, broadest in posterior angles, 0.85–1.0 mm wide, in suture 0.35–0.41 mm long, slightly wider than pronotum, at suture approximately 0.6 times shorter than pronotum. Surface, including scutellum smooth, lacking microsculpture, with dense, tight and light pubescent. Distance between punctures slightly longer than puncture diameter. Wings atrophied, with visible residuals.

Abdomen at base parallel-sided, as wide or slightly wider than elytra, tapering toward apex from visible tergite V. Tergites densely punctate and pubescent. Surface with fine transverse microsculpture. Apical margin of visible tergite VII with rudiments of palisade fringe.

Male: Apical margin of sternite VIII slightly concave (Fig. 1). Aedeagus with broadly rounded apex with two pairs of shorter subapical setae and two pairs of longer apical setae. Structures of internal sac of aedeagus as in Fig. 2.

Female: Female lacking modifications of sexual characters.


Distribution: Réunion.

Etymology: The species is dedicated to Jacques Poussereau, specialist on Coleoptera of Réunion to recognize his kind help with the organization of our short trip to the island.

Comparative notes and remarks. Both known species from Réunion island, A. gomyi and A. variegatus differ remarkably from A. poussereaui sp. n. The differences in habitus are present especially in the colouration, form of body and wings. Both known species are conspicuously bi-coloured, with dark brunneous to piceous head and anterior part of elytra, rufotestaceous and vaguely anteriorly darkened pronotum, and rufotestaceous, sharply distinguished posterior part of elytra, the colouration of A. poussereaui sp. n. is more uniform, generally brunneous without any part of body with paler colour. Body of A. poussereaui sp. n. is smaller and slender, elytra are in shoulders narrower and generally much shorter. The surface of elytra is more coarse, punctures are larger and slightly rasper. Abdomen of A. possereaui sp. n. is more parallel-sided and wider basally. A. poussereaui sp. n. is apterous species while A. gomyi and A. variegatus have normally developer wings.

Clear differences are also in the shape of aedeagus. Aedeagi of A. gomyi and A. variegatus were illustrated by Lecoq, (1990). A. variegatus has aedeagus very slender, strongly narrowed apically. On the contrary, the aedeagus of A. gomyi is short, basally wide, apically with broadly rounded apex and three pairs of long apical setae. Aedeagus of A. poussereaui sp. n. is also rounded apically, but in contrast to A. gomyi is more slender, with completely different inner structures and apical pubescence.

In comparison to Himalayan species described by Smetana, 1988, the male genitalia of A. poussereaui sp. n. is similar to A. purba Smetana, 1988. Both species are similar in shape of aedeagus, similarly organised structures of internal sac of aedeagus, and theirs bodies are similarly uniformly coloured. In contrast, A. purba is macropterous, identically as all other Asian and Reunionian species.

Biology: A. poussereaui sp. n. was collected in unique isolated locality in central-western part of the island, in Plaine des Palmisters (Fig. 4), in medium altitude, by sifting of wet humus and leaf litter. The type locality is very dense rain forest situated in most rainy part of Réunion. It seems, that this species is in locality very abundant and dominant. It was found in each sifting-sample made there and occurrence of other staphylinids was minimal.
FIGURES 1–4. *Atanygnathus poussereaui* sp. n. Male sternite VIII (1); aedeagus from ventral view (2); habitus (3); type locality, Plaine des Palmisters (4).

**Key to the *Atanygnathus* species of Réunion**

1. Body perspicuously bi-coloured, pronotum distinctly lighter than head. Elytra longer, wings fully developed .......................... 2
   - Coloration of body more uniform, generally brunneous to piceous, pronotum not distinctly lighter than head, wings missing absent .......................................................... *A. poussereaui* sp. n.

2. Aedeagus slim, strongly narrowed apically .......................................................... *A. variegatus* Lecoq
   - Aedeagus wider, broadly rounded apically ......................................................... *A. gomyi* Lecoq
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References
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