

Potamophilops Grouvelle in French Guiana, with additional distributional records for the genus (Coleoptera, Elmidae, Larinae)

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Abstract. – *Potamophilops bostrychophallus* Maier, 2013, is reported from French Guiana, new country record. The genus has a peri-Amazonian distribution. New locality records are given for *P. cinereus* (Blanchard, 1841) and *P. bragaorum* Fernandes & Hamada, 2012.

Résumé. – Le genre *Potamophilops* en Guyane, avec de nouvelles données de répartition (Coleoptera, Elmidae, Larinae). *Potamophilops bostrychophallus* Maier, 2013, est cité de Guyane, nouvelle mention pour ce territoire français. Le genre a une répartition péri-amazonienne. De nouvelles données de répartition sont apportées pour *P. cinereus* (Blanchard, 1841) et *P. bragaorum* Fernandes & Hamada, 2012.

Keywords. – Diversity, Guiana Shield, new country record, riffle beetle.

Three species have been described in the genus *Potamophilops* Grouvelle, 1896: *P. bostrychophallus* Maier, 2013, *P. bragaorum* Fernandes & Hamada, 2012, and *P. cinereus* (Blanchard, 1841). *P. bostrychophallus* is known from Venezuela, *P. bragaorum* from Brazil (FERNANDES & HAMADA, 2012), and *P. cinereus* from Argentina, Bolivia, Brazil and Paraguay (SPANGLER & SANTIAGO, 1987; COSTA *et al.*, 1999; SHEPARD & JULIO, 2010). Adults have been described in-depth by SPANGLER & SANTIAGO (1987), FERNANDES & HAMADA (2012) and MAIER (2013). The larva has been described by VANIN & COSTA (2011). Habitat, behavior and food habits were described by FERNANDES & HAMADA (2012).

French Guiana was surveyed for Elmidae (riffle beetles) from 2003 to 2010 (QUENEY, 2012) and for all aquatic Byrrhoidea from 2016 to 2019 (BARR, 2018; SHEPARD & BARR, 2018; SHEPARD, 2019). These surveys have resulted in collection of many new genera, new species, new distributional records and new country records.

MATERIALS AND METHODS

Survey methods included aquatic netting in streams and using light sheets at night. Other specimens were donated or loaned by other collectors.

Abbreviations. – **EMEC**, Essig Museum of Entomology, University of California, Berkeley, California, USA; **FSCA**, Florida State Collection of Arthropods, Gainesville, Florida, USA; **MNHN**, Muséum national d’Histoire naturelle, Paris, France; **MZUSP**, Museu de Zoologia da Universidade de São Paulo, Brazil; **UMC**, Enns Entomology Museum Collection, University of Missouri, Columbia.

Label data are cited verbatim. Information in brackets is supplementary information. Symbols include: **A**, adult; **L**, larva.



Fig. 1. – Male *Potamophilops bostrychophallus* Maier, illustrated in QUENEY (2012).

aedeagus (fig. 2-4). One adult and one larva were collected at a cascade (fig. 5), on the rocks and emergent vegetation, while another adult flew to lights at night. Adult *P. bostrychophallus* are reported from rivers below 500 m in Venezuela (MAIER, 2013). Associated aquatic Byrrhoidea included *Phanocerus* sp. at Saut Takari Tante and *Lutrochus cauraensis* in Venezuela (MAIER, 2013).

In French Guiana, the known distribution is mainly in the middle of the country. The sites where *P. bostrychophallus* has been found are at sufficient elevation for cascades and



Fig. 2-4. – *Potamophilops bostrychophallus* Maier, aedeagus. – 2, Dorsal. – 3, Lateral. – 4, Ventral.

RESULTS

Potamophilops bostrychophallus Maier, 2013

Material examined. – French Guiana: Saut Takari Tante, 1-4.XI.2016, 62 m, N $4^{\circ}37.37'$ W $52^{\circ}55.70'$, WDS-A-2046 (on reverse), William D. Shepard leg., 1 ♂, 1 ♀, 1 L (EMEC); male collected at light, female and larva collected in white water in rapids (fig. 5). Guyane, station Nouragues, camp inselberg sur DZ, 4°05'N 52°41'W, 100 m, 6.IX.2010, piége lumineux, R. Constantin & E. Poirier, 1 ♂ (MNHN). French Guiana: NE, 25 km S of St. Laurent du Maroni, route de Paul Isnard [roughly 5°22'47.20"N 53°57'55"W], 17.I.2007, M. Snizek lgt., 1 ♂ (EMEC). French Guiana: St. Laurent Camp, 40 m, Sparouine River, 15-17.VI.2014, J. Heppner, 1 ♂ (FSCA) [this location is actually at Auberge des Chutes Voltaire, 5°03.164'N 54°05.305'W, at lights, J. Heppner, in litt.].

Remarks. – *Potamophilops bostrychophallus* Maier, 2013, is reported from French Guiana for the first time, although it was illustrated in QUENEY (2012). A total of four males, one female and one larva have been collected.

Males (fig. 1) are easily identified by their unique



Fig. 5. – Saut Takari Tante, site of the collection of a male, a female and a larval *P. bostrychophallus* Maier.



Fig. 6. – Distribution of *Potamophilops* spp. in South America.

rapids that have white-water. Hence, they are not in the north, along the coast. South of the middle of the country, there are no roads that allow vehicular access to potential collection sites. However, it is highly likely that *P. bostrychophallus* will be found further south once access to suitable collection sites is found or developed.

Potamophilops cinereus (Blanchard, 1841)

New locality record. – Paraguay: Canindeyú, 4.6 km W Cruce Curuguaty, Arroyo Itandey, S $24^{\circ}30.859'$ W $55^{\circ}43.369'$, 1 A (EMEC).

Potamophilops bragaorum Fernandes & Hamada, 2012

New locality record. – Brazil: Minas Gerais; Cachoeira Itaúna, 15 km SE Baependi, 923 m, 22°2.537'S 44°49.211'W, 4 A (MZUSP), 8 A (UMC), 7 A (EMEC).

Remarks. – Adult *P. bragaorum* Fernandes & Hamada, 2011, have been reported in cascades, on submerged wood and on riparian vegetation (FERNANDES & HAMADA, 2011).

Potamophilops spp. have a peri-Amazonian distribution (GRANVILLE, 2002; BARR, 2018) similar to *Amazonopsis* Barr, 2018 (fig. 6).

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