A new species of the genus *Pimelerodius* Vanin from the Amazon Region, with notes on the geografic distribution of *Pimelerodius motacilla* (Boheman) (Coleoptera, Curculionidae, Otidocephalini)

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ABSTRACT. A new species of the genus *Pimelerodius* Vanin from the Amazon Region, with notes on the geografic distribution of *Pimelerodius motacilla* (Boheman) (Coleoptera, Curculionidae, Otidocephalini). *Pimelerodius punctiventris* sp. nov. (type locality Brazil, Amazonas, Itacoatiara) is described and illustrated. The new taxon is compared with similar species, being distinguished from the other 12 known species of the genus by the presence of punctures in ventrite I. The available published key for identification of species of *Pimelerodius* is adapted to include the new species. A modification of the generic description of the aedeagus of *Pimelerodius* is provided, a necessity due to the differences observed in the aedeagus of the new species. The occurrence of *P. motacilla* (Boheman, 1843) in the Amazon Region, recorded in sympatry with *P. punctiventris* in Itacoatiara, AM, is discussed and confirmed, based on the study of 41 available specimens.

KEYWORDS. Brazil; Erodiscina; Neotropical Region; taxonomy; weevils.

RESUMO. Nova espécie do gênero *Pimelerodius* Vanin da Região Amazônica, com comentários sobre a distribuição geográfica de *Pimelerodius motacilla* (Boheman) (Coleoptera, Curculionidae, Otidocephalini). *Pimelerodius punctiventris* sp. nov. (localidade-tipo, Brasil, Amazonas, Itacoatiara) é descrita e ilustrada. O táxon novo é comparado com espécies semelhantes, diferindo das outras 12 espécies conhecidas do gênero pela presença de pontuações no ventrito I. A chave disponível para a identificação das espécies de *Pimelerodius* é adaptada para incluir a nova espécie. A descrição do edeago do gênero *Pimelerodius* precisou ser alterada, conseqüência das diferenças observadas no edeago da nova espécie. A ocorrência de *P. motacilla* (Boheman, 1843) na Região Amazônica, registrada em simpatria com *P. punctiventris* em Itacoatiara, AM, é discutida e confirmada, com base em 41 exemplares examinados.

PALAVRAS-CHAVE. Brasil; gorgulhos; Erodiscina; Região Neotropical; taxonomia.

During the task of identification of the indeterminate Erodiscina-Oditocephalini specimens deposited in the collections of the Museu de Zoologia da Universidade de São Paulo (MZSP), since the publication of the last review (Vanin, 1986), the first author (DSC) came across several specimens of the genus *Pimelerodius* Vanin, 1986 collected in Itacoatiara, AM. All specimens belonged to the ex-collection Von Diringshoffen, acquired by the Museu de Zoologia in the decade of 1980 and mounted in subsequent years.

Alonso-Zarazaga and Lyal (1999) published a world catalogue of families and genera of Curculionoidea, which introduced some changes at the higher systematic levels in the classification of weevils. The Otidocephalinae and Erodiscini, taxa considered till then respectively at subfamily and tribe levels, were treated as tribe Otidocephalini and subtribe Erodiscina. After Vanin (1986), only two papers on Erodiscina taxonomy were published (Vanin, 1989; Anderson, 1998), but none of them reported new data concerning *Pimelerodius*, a genus with 12 species (Vanin, 1986; Wibmer & O'Brien, 1989). Nine species ranges in the Atlantic Forest, from Rio Grande do Norte to Paraná, 2 in the Amazon Region (Huanuco, Peru and Amazonas, Brasil), and 1 in Central America (Panama).

The careful study of the assembled material made possible to confirm the hitherto controversial occurence of *P. motacilla* in the Amazonian Region, and to describe a new Amazon species for the genus.

The methods for measurements, preparation of male genitalia and illustrations, and the taxonomic description follow Vanin (1986).

Pimelerodius motacilla (Boheman, 1843)

Erodiscus motacilla Boheman, 1843: 210; Chevrolat, 1879: 10; Voss, 1935: 11 (cat.); Blackwelder, 1947: 836 (cat.); Wibmer & O'Brien, 1986: 201 (cat.).
Erodiscus gallinago Kirsch, 1874: 427; Voss, 1935: 10 (cat.); Blackwelder, 1947: 836 (cat.); Wibmer & O'Brien, 1986: 201 (cat.); Vanin, 1986: 479 (syn.).
Pimelerodius motacilla Vanin, 1986: 479-481 (redescription); Wibmer & O'Brien, 1989: 32 (cat.).

According to Vanin (1986), *P. motacilla* is a widespread species in South America. Its geographic distribution includes

the Atlantic Forest (States of Pernambuco and Bahia), localities of Central Brazil placed near the edges of the Amazon Forest (States of Mato Grosso and Goiás), and even the Amazon Forest. However, the Amazon records were based on 2 doubtful labelled old specimens: the holotype of *P. gallinago* Kirsh, 1874, from Pozuzu, Peru, considered a junior synonym of *P. motacilla* by Vanin (1986), and, the other, a single specimen from Tefé, Amazonas, collected by de Mathan in 1879.

The 41 examined specimens from Itacoatiara are very similar to the specimens from Atlantic Forest and Central Brazil studied by Vanin (1986). The relationship of the size of the rostrum and the size of the elytra were compared in males and females of Itacoatiara, Amazonas, and Jataí, Goiás, but no differences were disclosed. The aedeagi of males of the 2 localities have the same morphology and proportions, excepting the phallobase. The specimens of Itacoatiara (4 aedeagi examined) have small spines in the walls of the phallobase, being placed near the base of apophysis and interspaced among the coating of microtrichiae, while in the specimens of Jataí these spines are absent (Vanin, 1986). The shape variation of sclerites and microtrichiae of the phallobase were noticed in other species of Erodiscina, as for instance in *Sicoderus ciconia* (Gyllenhal, 1836) by Vanin (1986), and this single observed difference should be considered an intraspecific variation. Thus, we are regarding the specimens of Itacoatiara and Jataí as representatives of the same species, *P. motacilla*, and confirming the occurrence of this species in the Amazon Region.

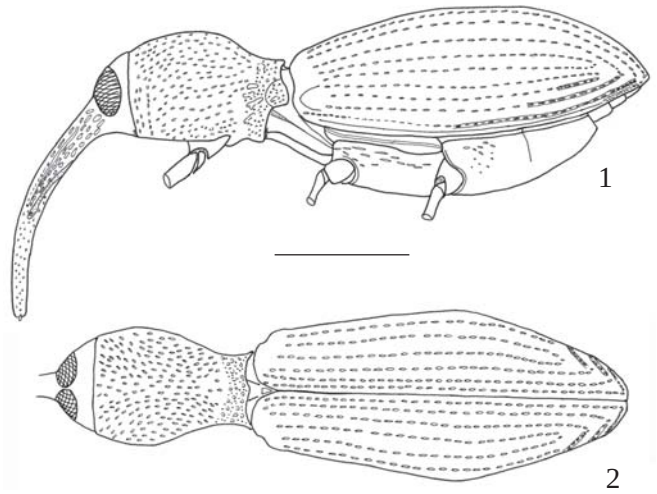
Material examined. BRAZIL. *Amazonas:* Itacoatiara, XI.1965, Von Diringshofen col. (15 exs, MZSP, 8 females, 7 males; 3 males dissected); same data, but XII.1965 (17 exs. MZSP, 10 females, 7 males; 1 male dissected); same data, but I. 1966 (9.exs, MZSP, 3 females, 6 males).

Pimelerodius punctiventris, sp. nov.

(Figs- 1-4)

Type material. Male holotype "Brasil, Amazonas. Itacoatiara, I/1963, ex Col. Dirings", MZSP, dissected.

Length (rostrum excluded): 3.5 mm. Integument shiny, reddish brown; posterior constriction of prothorax dark reddish brown. Eyes subcontiguous, separated by a distance equal to diameter of one ommatidium; greatest diameter of eye 1.8 times height of rostrum at base. Rostrum (male) 0.7 times as long as elytra, feebly curved from base to antennal insertion, thence more pronounced and regularly curved to apex; some punctures coalescent, forming one carina above each scrobe; antennal insertion pre-median (0,37). Antenna: flagellomere I 1.2 times as long as flagellomere II. Prothorax about 1.5 times as long as wide; highest convexity before middle; wholly punctate, punctures on pronotal disc weakly impressed. Elytra 2.1 times as long as wide; stria VIII with punctures coalescent in the distal third, stria IX with punctures coalescent in the distal half; stria X sulcate along entire extension and with punctures more impressed in distal extremity. Anterior coxae placed closer to prothoracic base. Metasternum with 16 punctures, very elongate and acuminate at tips, not confluent and forming 2 or 3 irregular rows parallel to metepisternum. Metepisternum with a regular, deep, longitudinal furrow. Abdomen: ventrites I and II fused, sutural line scarcely discernible; ventrite I punctate, each lateral side with 13 small, irregular and shallow punctures. Tarsal claws appendiculate, inner tooth very small and inconspicuous (50X). Aedeagus: median lobe 1.0 time as long as wide (length considered from apex of median lobe to base of apodeme); basal apodeme 3.5 times longer (length considered from apex to base of apodeme); two sclerites of the phallobase proportionally very large, their lengths about ¼ the length of aedeagus (basal apodeme included).



Figs. 1-2. *Pimelerodius punctiventris*, sp. nov, holotype male from Itacoatiara, AM. 1, lateral view; 2, dorsal view. (Scale = 1 mm).

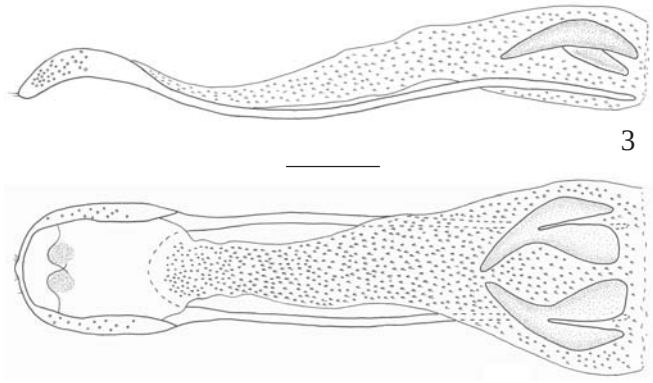
Etymology. Latin, *punctum* = puncture; *ventris* = abdomen, belly; in reference to the presence of punctures in ventrite I.

Geographic distribution. Only known from the type locality.

Type locality. BRAZIL. *Amazonas*: Itacoatiara.

Remarks

The new species is promptly distinguished from the other *Pimelerodius* species by the presence of punctures in the lateral sides of ventrite I, a characteristic not found in any other described species of the genus, all with impunctate ventrite I. Three *Pimelerodius* species which occurs in the Atlantic Forest have punctures in ventrite II: *P. gryphus* (Boheman, 1843), easily recognized by the anterior coxae placed near middle of pronotum (anterior coxae placed closer to prothoracic base in *P. punctiventris*); *P. elongatus* (Hustache, 1936), which differs maily by the elongate body, with elytra 2.3 - 2.5 times as long as wide (body shorter in *P. punctiventris*, elytra 2.1 times as long as wide); and *P. birai* Vanin, 1986, characterized by the very small eyes, the greatest diameter of eye being about equal to the height of rostrum at base (1.8 times in *P. punctiventris*).



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Figs. 3-4. Aedeagus of *Pimelerodius punctiventris*, sp. nov, holotype male from Itacoatiara, AM. 3, lateral view; 4, dorsal view. (Scale = 0.1 mm).

The new species occurs in sympatry with *P. motacilla* in Itacoatiara, AM. Both species are very similar, but the more evident difference between them, besides the presence of punctures in the lateral sides of ventrite I, is the rostrum shorter than elytra in *P. punctiventris* and longer than elytra in *P. motacilla*. Furthermore, the 2 large sclerites of the phallobase of aedeagus are proportionally much larger in *P. punctiventris* (about ¼ the lenght of aedeagus) than in *P. motacilla* (about 1/7 the length of aedagus). Other differences are presented in the key below.

Due to the discrepancies observed in the aedeagus of *P. punctiventris*, mainly related with different proportions from those previously reported by Vanin (1986), the description of the aedeagus of the genus *Pimelerodius* must be modified as follows: Aedeagus. Median lobe slender, 1.0-3.5 times as long as wide, distal margin even, not notched; basal apodeme 1.0-3,5 times longer than the median lobe; opercular plates membranous; phallobase with two large sclerites; walls of phallobase with a large and dense coating of microtrichiae.

The new species would key out to couplet 7 in Vanin's key (1986: 479), which may be modified as follows:

7(6). Rostrum (at least in male) feebly to strongly curved at base, never nearly straight. Metepisternum with a regular row of coalescent punctures, forming a deep and continuous longitudinal furrow 7a

Rostrum (male and female) nearly straight at base. Metepisternum with a row of punctures coalescent or not, but never forming a deep continuous furrow 8

7a. Rostrum (male and female) longer (about 1.1 times) than elytra, strongly curved at base; ventrite I impunctate; metasternum with a row of coalescent punctures which form a deep and continuous furrow alongside metepisternum ..... *P. motacilla* (Boheman, 1843)

Rostrum (male) shorter than elytra (0.7 times), moderately curved from base to antennal insertion, then curvature more strongly marked; ventrite I with punctures on each lateral side; metasternum with punctures not confluent which form 2 or 3 irregular rows parallel to metepisternum ..... P. *punctiventris*, sp. nov.

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