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New and additional records of Aradidae from French Guyana (Hemiptera: Heteroptera)

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A b s t r a c t : Only 36 species classified in 19 genera of Aradidae are reported to date from French Guyana. Now we present collecting data for 8 species new to this country belonging to 5 genera and additional 4 records of rare species raising the number to 44 species and 22 genera.

K e y w o r d s : Hemiptera, Heteroptera, Aradidae, distribution, Neotropical Region, French Guyana.

Introduction

The first and only preliminary list of Aradidae from French Guyana was published by the authors (HEISS & MORAGUES 2009) and included 36 species belonging to 19 genera. Because of unclear descriptions based on single specimens and lack of comprehensive updated keys, several species can presently not be identified eg. *Mezira*, *Neuroctenus*, *Notapictinus*, or *Notoplocoris*.

These records are also included in the most recent Catalog of Aradidae for the Neotropical Region (COSCARON & CONTRETRAS 2012), however no further records are reported since.

The collections of the authors contain unreported taxa from French Guyana which constitute new and additional records, comprising eight new and 4 rare species, raising the number to 44 species of 22 genera. Their collecting data and habitus photos are presented here.

In the frame of the ongoing long term project "Inventaire Entomologique" in French Guyana supported by the Société Entomologique Antilles – Guyane (SEAG) since several years, numerous Aradidae specimens were collected from different localities and collecting methods, which were sent to and will be identified by the first author. The final results and a checklist will be published later.

Material and methods

The specimens upon this study is based are held in the collections of the authors (CEHI = collection Ernst Heiss, Innsbruck; CGM = collection Gérard Moragues, Marseille). The sometimes incrustate specimens were cleaned for the study of body structures.

When citing the text on the labels of a pin attached to the specimens / separates the lines and // different labels.

Taxonomy

In the list of species, new records for French Guyana are marked with an asterisk (*).

Subfamily *C a r v e n t i n a e* USINGER, 1950

**Neoproxius amazonicus* (KORMILEV, 1976) (Fig. 1)

The genus *Neoproxius* USINGER & MATSUDA 1959 comprise 12 neotropical species (COSCARON & CONTRERAS 2012), most of them rarely recorded. *N. amazonicus* was described from Brazil (Manaus) based on the single female holotype. No further records known.

M a t e r i a l : 1♂ labelled: ♂ / Guyane Roura / RN2 PK22 / Mgne des Chevaux // 9 VIII 2009, piège / vitre d'interception / P.H.Dalens rec. // (CGM). 2♀ ♀: ♀ / Guyane Roura / RN2 PK22 / Mgne des Chevaux // 1 XI 2009, piège / vitre d'interception / P.H.Dalens rec. // (CGM). 1♀: ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 22 IX 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CEHI).

N o t e : The female from Régina, Mgne de Kaw PK 37 reported as *Neoproxius* sp., and figured in HEISS & MORAGUES 2009: 1661, 1664 is now recognized as *amazonicus*.

**Neoproxius incaicus* (KORMILEV, 1975) (Fig. 2)

Described as *peruvianus*, which was preoccupied, was later renamed *incaicus* by KORMILEV 1976. Only the female holotype from Peru (E Tingo Maria) is known to date.

M a t e r i a l : 1♀ labelled: ♀ / Guyane, Roura / RN2 PK22 / Mgne des Chevaux // 18 V 2009, piège / vitre d'interception / P.H.Dalens rec. // (CGM).

**Neoproxius personatus* (CHAMPION, 1898) (Fig. 3)

This species was described from Panama and Guatemala (COSCARON & CONTRERAS 2012) but no further records are reported to date. The female corresponds to the illustration given by CHAMPION 1898: vol. II, Tab. 5, Fig.6 although the cleft of the anterior pronotal elevation seems more developed in the Guyana's specimen.

M a t e r i a l : 1♀ labelled: ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 22 IX 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM).

**Neoproxius peruvianus* (KORMILEV, 1966) (Fig. 4)

The single female holotype was recorded from Peru (Satipo) but never reported again.

M a t e r i a l : 1♂ labelled: ♂ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 22 IX 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM). 1♀: ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 20 X 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM). 1♀: Französisch Guyana / Piste N2 Roura env. / 4°46.52 N, 52°24.38 W / 6 X 2009 A.Dostal // (CEHI).

Subfamily *Mezirinae* OSHANIN, 1908

Aphleborrhhis pubescens (WALKER, 1873)

M a t e r i a l : Guyane, Régina / Réserve des Nouragues / Saut Pararé – / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM). 1 ♂ 4 VIII 2009; 2 ♀ ♀ 11 VIII 2009; 1 ♀ 18 VIII 2009; 1 ♂ 13 IX 2009; 1 ♂ 30 IX 2009; 1 ♂ 10 X 2009. Guyane, Roura / RN 2 PK 22 / Mgne des Chevaux // piège / vitre d'interception / P.H. Dalens rec // (CGM). 1 ♀ 8 II 2009; 1 ♂ 1 ♀ 23 II 2009; 1 ♂ 11 IV 2009; 1 ♀ 18 IV 2009; 1 ♀ 16 V 2009; 1 ♀ 6 VI 2009; 1 ♀ 11 VII 2009; 1 ♀ 1 VIII 2009; 1 ♀ 16 VIII 2009; 2 ♀ ♀ 24 X 2009.

Species of wide spread distribution from Brazil to Mexico (COSCARON & CONTRERAS 2012).

**Coloborrhinus pumilio* (CHAMPION, 1898) (Fig. 5)

(syn. *Halaszfyia elongata* KORMILEV, 1960)

Champion described this species based on a single male from Panama (Bugaba). Kormilev's specimen of *H.elongata* was from Brazil (Belo Horizonte) and later (KORMILEV 1974) synonymized with Champions *pumilio*. No further records are published to date.

M a t e r i a l : 1 ♂ labelled: Guyane, Roura / RN2 PK 22 / Mgne des Chevaux // 11 VII 2009 piège / vitre d'interception / P.H.Dalens rec. // (CGM). 1 ♀ : ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 30 IX 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM). 1 ♀ : ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 21 XI 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM). 1 ♀ : Französisch Guyana / Piste N2 Roura env. / 4°46.52 N, 52°24.38 W / 6 X 2009 A.Dostal // (CEHI).

Helenus hesiformis WHITE, 1879

The suspected synonymy of *Helenus hirsutus* CHAMPION 1898, which differs mainly in coloration is still not confirmed and needs comparison of the types.

M a t e r i a l : 1 ♀ labelled: ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 30 IX 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM); same locality, 1 ♀ 20 X 2009 (CGM). Guyane, Roura / RN 2 PK 22 / Mgne des Chevaux // piège / vitre d'interception / P.H. Dalens rec // (CGM). 1 ♂ 28 XII 2008; 1 ♂ 10 I 2009; 1 ♀ 8 II 2009; 1 ♀ 23 II 2009; 1 ♀ 16 V 2009; 1 ♂ 23 V 2009; 1 ♀ 9 VIII 2009.

Melanosterphes spinosus (FABRICIUS, 1803)

This monobasic genus was described from French Guyana and only few records are reported from there (HEISS & MORAGUES 2009) and Brazil (DRAKE & HARRIS 1944; KORMILEV 1962).

M a t e r i a l : 1 ♀ labelled: Französisch Guyana / Piste N2 Roura env. / 4°46.52 N, 52°24.38 W / 6 X 2009 A.Dostal // (CEHI). 1 ♀ : ♀ / Guyane, Roura / RN 2 PK 22 / Mgne des Chevaux // 6 VI 2009, piège / vitre d'interception / P.H. Dalens rec // (CGM).

**Miorrhynchus championi* KORMILEV, 1959a (Fig. 7)

Described from Bolivia. Additional records are from there and Peru. The female specimen from Guyana corresponds to the description of *championi* and runs in the key presented by KORMILEV 1973, to this taxon.

M a t e r i a l : 1 ♂ labelled: ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 20 X 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM).

****Nannium brasiliense* KORMILEV, 1959b (Fig. 6)**

The genus comprises 7 species. *Nannium brasiliense* was described from Brazil (Santa Catarina) and no further records are reported since.

M a t e r i a l : 1 ♀, labelled: ♀ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 20 X 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM)

****Psorosoma forficulum* CHAMPION, 1898 (Fig. 8)**

This conspicuous monobasic genus is based on the female holotype from Panama (Bugaba) and was never again reported since.

M a t e r i a l : 1 ♀ labelled: Französisch Guyana / Piste N2 Roura env. / 4°46.52 N, 52°24.38 W / 6 X 2009 A. Dostal // (CEHI).

***Santaremia robusta* KORMILEV, 1960**

Only few records known from Guyana and Brazil (HEISS & MORAGUES 2009).

M a t e r i a l : 1 ♂ labelled: Guyane (Régina) / Montagne de Kaw / PK 36, 26 VI / 2003 J.A.Cerda // à vue / en forêt // (CGM). 1 ♀: Guyane (Roura) / PK 57.5 RN2 / (crique Morpho) / 16 VIII 1999 // à vue / G.Moragues // (CGM). 1 ♂: ♂ / Guyane, Régina / Réserve des Nouragues / Saut Pararé – 23 XI 2009 / N 4°02.268', W 52°40.362' / piège vitre P.H.Dalens rec. // (CGM). 2 ♀ ♀: ♀ / Guyane, Roura / RN 2 PK 22 / Mgne des Chevaux // 6 XII 2008, piège / vitre d'interception / P.H. Dalens rec // (CGM); 1 ♂ 5 IX 2009 (CGM).

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Zusammenfassung

Von Französisch Guyana sind bisher nur 36 Arten der Heteropterenfamilie Aradidae gemeldet, welche 19 Gattungen angehören. In der vorliegenden Arbeit werden 8 Neumeldungen und 4 Ergänzungsmeldungen seltener Arten angeführt, wodurch sich die bekannte Artenzahl auf 44 und 22 Gattungen erhöht. Es ist zu erwarten, dass im Zuge der systematischen Aufsammlungen für das Projekt "Inventaire Entomologique" in French Guyana zahlreiche weitere Taxa festgestellt werden.

Résumé

36 espèces réparties dans 19 genres sont actuellement recensées de Guyane. Dans ce travail, les auteurs ajoutent 8 espèces nouvelles appartenant à 5 genres ainsi que des données supplémentaires pour 4 rares autres, portant ainsi le nombre d'espèces guyanaises connues à 44 pour 22 genres.

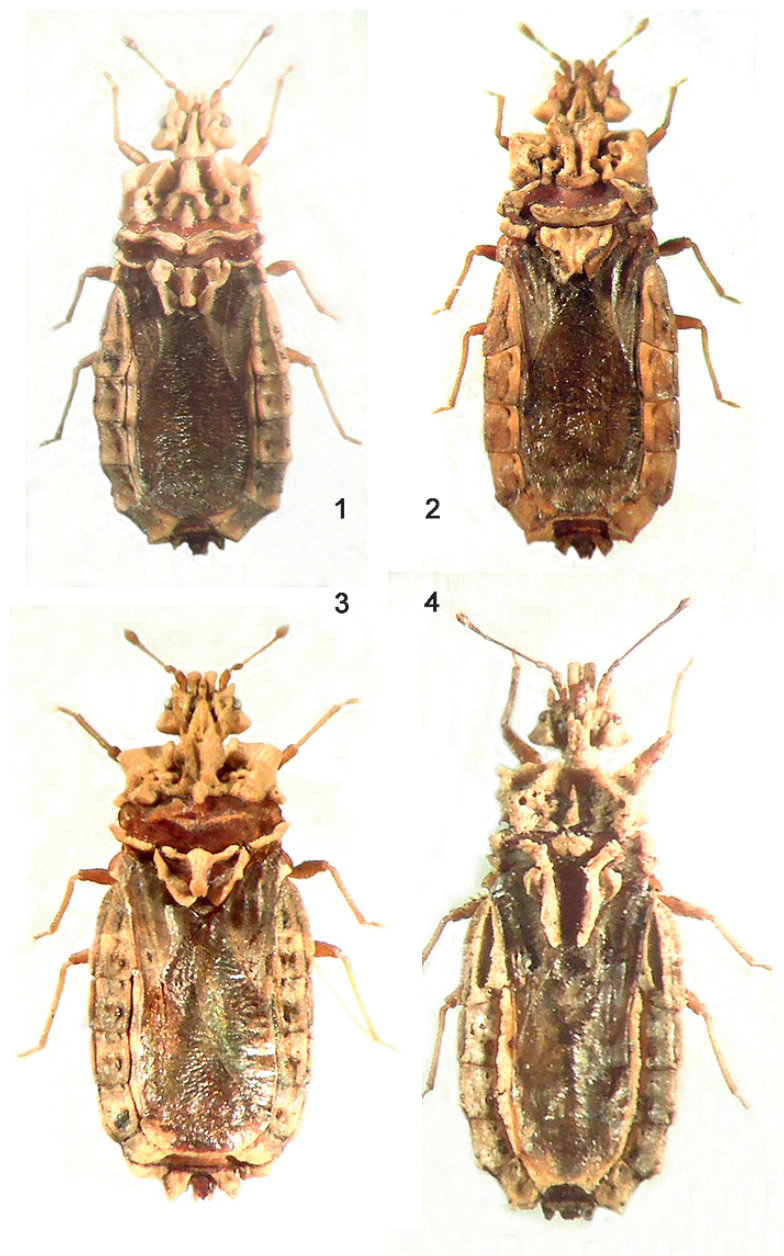
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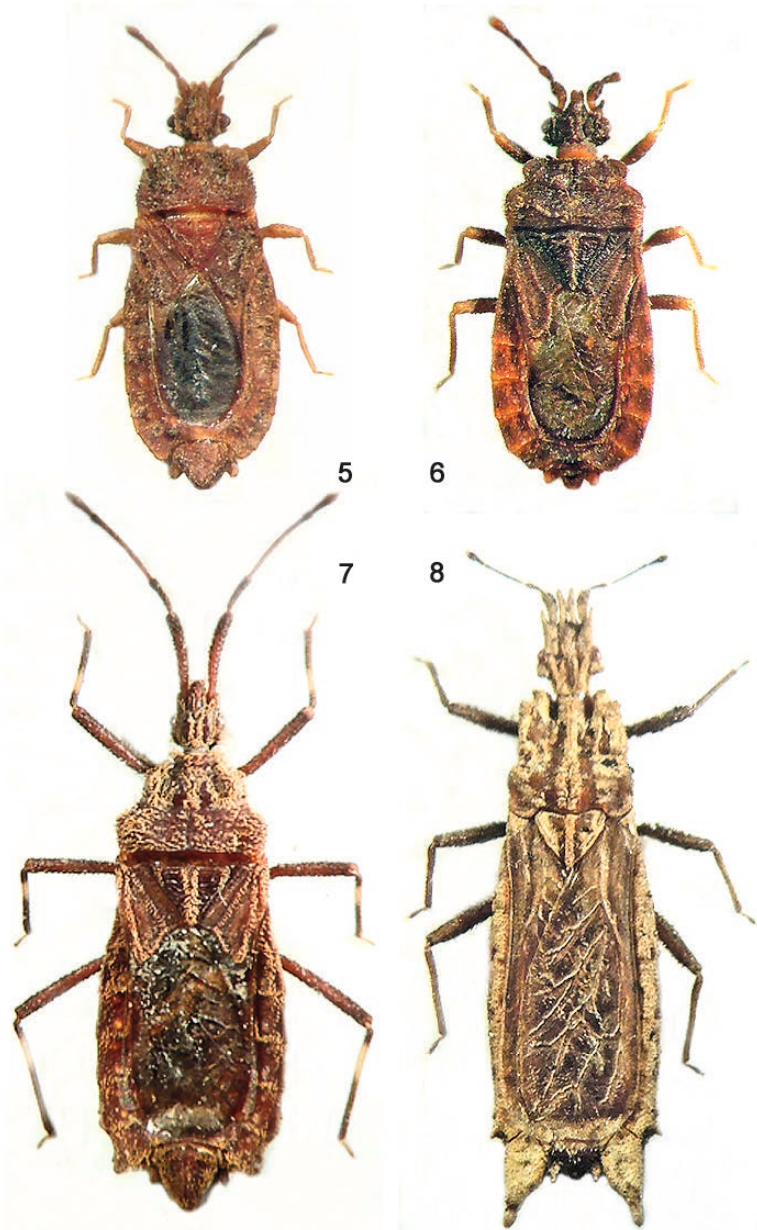
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Figs 1-4: Habitus of *Neoproxius* species (1) *N. amazonicus*, female; (2) *N. incaicus*, female; (3) *N. personatus*, female; (4) *N. peruvianus*, female.



Figs 5-8: Habitus of neotropical Aradidae (5) *Coloborrhinus pumilio*, male; (6) *Nannium brasiliense*, female; (7) *Miorrhynchus championi*, male (8) *Psorosoma forficulum*, female.

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