

New records and distribution expansions for Neotropical water-striders (Insecta: Heteroptera: Gerromorpha)

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ABSTRACT: Based on material from several collections, summarized distributions and new records are presented for selected Neotropical species of Gerromorpha of the families Gerridae (*Brachymetra albinervis albinervis*, *B. furva*, *B. lata*, *B. shawi*, *Cylindrostethus erythropus*, *C. linearis*, *C. palmaris*, *C. regulus*, *Halobatopsis platensis*, *Limnogonus aduncus aduncus*, *L. hyalinus*, *L. ignotus*, *L. profugus*, *L. recurvus*, *Neogerris lubricus*, *N. magnus*, *N. lotus*, *N. visendus*, *Ovatametra gualeguay*, *Rheumatobates crassifemur crassifemur*, *R. c. esakii*, *Tachygerris adamsoni*, *T. celocis* and *T. surinamensis*), Hydrometridae (*Hydrometra guianana* and *H. sztolcmani*) and Mesoveliidae (*Mesovelvia amoena*, *M. mulsanti* and *Mesoveloidea williamsi*).

The infraorder Gerromorpha includes about 2,100 extant species, described from all zoogeographic regions, except Antarctica. The group is divided into eight families and approximately 160 genera (Polhemus and Polhemus 2008). There are about 500 Gerromorpha species described from the Neotropics, but the knowledge on their diversity and distribution is by no means complete (Polhemus and Polhemus 2007; 2008).

As for Brazil (Figure 1), recent papers revealed several new records at state and municipality levels (Melo and Nieser 2004; Souza *et al.* 2006; Moreira *et al.* 2006; 2008; 2009; Moreira and Ribeiro 2009), but some areas remain virtually unstudied, such as the Northeastern Region of the country. Besides, many Neotropical species are known only from type-localities or display fragmentary distributional records.

In an attempt to clarify or expand the known geographic distributions of some Neotropical Gerromorphan species, especially those occurring in Brazil, we report new state records for *Brachymetra albinervis albinervis* (Amyot and Serville, 1843), *B. lata* Shaw, 1933, *B. shawi* Hungerford and Matsuda, 1957, *Cylindrostethus erythropus* (Herrich-Schäffer, 1850), *C. palmaris* Drake and Harris, 1934, *C. regulus* (White, 1879), *Limnogonus aduncus aduncus* Drake and Harris, 1933, *L. ignotus* Drake and Harris, 1934, *L. profugus* Drake and Harris, 1930, *L. recurvus* Drake and Harris, 1930, *Neogerris lubricus* (White, 1879), *N. magnus* (Kuitert, 1942), *Rheumatobates crassifemur crassifemur* Esaki, 1926 and *Mesovelvia mulsanti* White, 1879.

Additional new municipality records are presented for some of the species above, and for *B. furva* Drake, 1957, *C. linearis* (Erichson, 1848), *Halobatopsis platensis* (Berg, 1879), *L. hyalinus* (Fabricius, 1803), *N. visendus* (Drake and Harris, 1934), *Ovatametra gualeguay* Bachmann, 1966, *R. c. esakii* Schroeder, 1931, *Tachygerris adamsoni* (Drake, 1942), *T. celocis* (Drake and Harris, 1931), *Hydrometra guianana* Hungerford and Evans, 1934, *H. sztolcmani* Jaczewski, 1928, *Mesovelvia amoena* Uhler, 1894, and

Mesoveloidea williamsi Hungerford, 1929. Finally, new collecting localities are listed for at least part of the species above, and also for *N. lotus* (White, 1879) and *T. surinamensis* Hungerford and Matsuda, 1958.

Material from the following Brazilian institutions have been examined: Coleção Entomológica Professor José Alfredo Pinheiro Dutra, Departamento de Zoologia, Instituto de Biologia, Universidade Federal do Rio de Janeiro (DZRJ); Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ); Departamento de Biologia, Instituto de Biociências, Letras e Ciências Exatas de São José do Rio Preto, Universidade Estadual Paulista (IBILCE); and Instituto Nacional de Pesquisas da Amazônia (INPA).

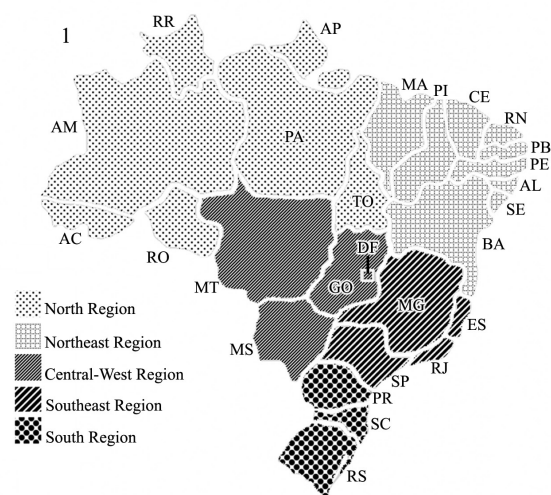


FIGURE 1. Map of Brazil showing the five administrative regions and all federative units [North Region - Roraima (RR), Amapá (AP), Pará (PA), Amazonas (AM), Tocantins (TO), Rondônia (RO), Acre (AC); Northeast Region - Maranhão (MA), Piauí (PI), Ceará (CE), Rio Grande do Norte (RN), Paraíba (PB), Pernambuco (PE), Bahia (BA), Alagoas (AL), Sergipe (SE); Central-Western Region - Mato Grosso (MT), Goiás (GO), Distrito Federal (DF), Mato Grosso do Sul (MS); Southeastern Region - Minas Gerais (MG), Espírito Santo (ES), São Paulo (SP), Rio de Janeiro (RJ); South Region - Paraná (PR), Santa Catarina (SC), Rio Grande do Sul (RS)].

In the following transcriptions of label data, a comma (,) separates different information, a period mark (.) separates information on different specimens, and a semicolon (;) separates different specimens with same information. All localities are organized by north to south order. Names of collectors or deposition institutes appear inside parenthesis. The geographical distribution of all species herein treated were reviewed and detailed by Moreira (2010).

Family Gerridae

Brachymetra albinervis albinervis (Amyot and Serville, 1843)

Known geographic distribution. Guatemala, Honduras, Dominica, Martinique, St. Vincent and Grenadines, Colombia, Grenada, Venezuela, Trinidad and Tobago, Panama, Suriname, Brazil, Ecuador, Peru and Paraguay.

New municipality records. Brazil: Pará – Parauapebas, Canaã dos Carajás. Amazonas – Benjamin Constant. Minas Gerais – Carmo do Rio Claro. São Paulo – Jales, Ubatuba. Rio de Janeiro – Macaé, Nova Iguaçu, Angra dos Reis, Maricá, Mangaratiba, Parati.

Examined material. BRAZIL: **Pará** – Parauapebas, FLONA Carajás, buritizal II [06°4'10.56" S, 49°56'59.39" W, 200 m a. sl.], 05.III.2008, (N. Ferreira-Jr. and A. P. M. dos Santos): 2 apterous males, 1 apterous female (DZRJ). Canaã dos Carajás, FLONA Carajás, stream at road to Serra Sul [06°15'48.89" S, 50°18'51.84" W, 363 m a. sl.], 29.II.2008, (N. Ferreira-Jr. and A. P. M. Santos): 1 macropterous female (DZRJ). **Amazonas** – Benjamin Constant, Itacoai River, no date, (J. C. M. Carvalho): 3 apterous males (MNRJ). **Minas Gerais** – Carmo do Rio Claro, I.1958, (Carvalho and Becker): 11 apterous males, 1 macropterous male, 12 apterous females (MNRJ). **São Paulo** – Jales, Fazenda Furnas, 12.III.2010, (M. M. U. Castanhole and L. L. V. Pereira): 8 males, 7 females (IBILCE). Ubatuba, Serra do Mar State Park, Fazenda River, 20.I.1993, (E. R. Calil and J. R. Pereira): 1 macropterous male, 1 apterous female, 2 macropterous females (DZRJ); Fazenda River, water source, 30.X.2004, (F. F. F. Moreira): 6 apterous males, 1 apterous female, 1 macropterous female (DZRJ); Fazenda River, 28.X.2005, (F. F. F. Moreira): 2 apterous females, 1 macropterous female (DZRJ). **Rio de Janeiro** – Macaé, Macaé River, 29.VII.2003, (N. Ferreira-Jr.): 2 males (DZRJ); 28.VII.2004, (N. Ferreira-Jr.): 1 male (DZRJ). Nova Iguaçu, D'Ouro River, (E. F. Almeida): 1 male (DZRJ). Rio de Janeiro, Jacarepaguá, Pau da Fome, (Machado): 2 apterous males (MNRJ), 1 apterous female (INPA). Rio de Janeiro, Campo Grande, Rio da Prata, Represa da Batalha, IV.1986, (Heber Cunha): 4 males, 3 females (DZRJ). Rio de Janeiro, Tijuca, Represa da Solidão, 17.VI.1976, (N. Santos): 2 apterous males (MNRJ). Rio de Janeiro, Parque Lage, 12.XII.1981, (D. L. Machado): 1 male (DZRJ); 10.IV.1983, (A. B. Kury and A. P. A. Dias): 3 males, 1 female (DZRJ). Rio de Janeiro, Jardim Botânico, 21.XI.1982, (R. C. Vasconcelos): 1 male, 1 female (DZRJ); 10.IV.1983, (S. T. G. Leal): 2 males (DZRJ). Angra dos Reis, Ariró, 28.III.1948, (A. L. Carvalho): 2 apterous males, 2 apterous females (MNRJ). Angra dos Reis, Perequê, Itapetinga Stream, 46 m a.s.l., 03.IX.2004, (A. L. Henriques-Oliveira): 1 male (DZRJ). Angra dos Reis, Ilha Grande, stream on way to aqueduct, 09.I.2003: 4 males, 1 female (DZRJ). Maricá,

Ubatiba River, 26-28.IX.1986, (Heber Cunha): 2 males (DZRJ). Maricá, stream, 28.XI.1988, (J. L. Nessimian and N. Ferreira-Jr.): 4 males, 2 females (DZRJ). Mangaratiba, Rio das Pedras Ecological Reserve, Grande River, 14.V.2000: 1 male (DZRJ). Mangaratiba, Marambaia Island, stream, 31.VII.1976, (J. L. Nessimian): 3 males, 1 female (DZRJ). Parati, Barra Grande River, 24.X.1992: 1 male (DZRJ).

Brachymetra furva (Drake, 1957)

Known geographic distribution. Southeastern Brazil and Argentina.

New municipality record. Brazil: Rio de Janeiro – Itatiaia.

Examined material. BRAZIL: **Rio de Janeiro** – Itatiaia, 700 m, (W. Zikan): 1 apterous male, 2 apterous females (MNRJ). Rio de Janeiro, Represa dos Ciganos, I.1977 (J. L. Silveira): 1 apterous female; 12.IV.1978, (A. C. Matos): 1 macropterous male (MNRJ).

Brachymetra lata Shaw, 1933

Known geographic distribution. Colombia, Suriname and Northern Brazil.

New state records. Brazil: Amapá, Rondônia.

New municipality records. Brazil: Pará – Santa Isabel do Pará, Parauapebas. Amazonas – Itacoatiara. Mato Grosso – Aripuanã.

Examined material. BRAZIL: **Amapá** – Serra do Navio, II.1961, (J. C. M. Carvalho): 1 apterous male, 1 apterous female (MNRJ), 1 apterous male (INPA). **Pará** – Santa Isabel [Santa Isabel do Pará], 10.XI.1976, (B. Mascarenhas): 1 apterous male, 1 apterous female (INPA). Parauapebas, FLONA Carajás, buritizal II [06°4'10.56" S, 49°56'59.39" W, 200 m a.s.l.], 05.III.2008, (N. Ferreira-Jr. and A. P. M. dos Santos): 1 apterous female, 1 macropterous female (DZRJ); buritizal I, fourth order stream [06°6'14.15" S, 50°8'12.98" W, 642 m a.s.l.], 16.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 macropterous male (DZRJ); 05-07-III-2008, (N. Ferreira-Jr. and A. P. M. Santos): 4 apterous males, 6 apterous females (DZRJ). Parauapebas, FLONA Carajás, Águas Claras Stream [06°10'3.86" S, 50°21'0.68" W, 384 m a.s.l.], 07.III.2008, (N. Ferreira-Jr. and A. P. M. Santos): 1 macropterous female (DZRJ). **Amazonas** – Manaus, AM-010, km 32, 29.IV.1979 (B. Mascarenhas): 1 apterous male, 1 macropterous male (INPA). Itacoatiara, AM-010, km 125, 10.VIII.1968, (E. V. Silva): 4 apterous females (INPA). **Mato Grosso** – Aripuanã, Humboldt Reserve [10°11' S, 59°48' W], 21-III-1977 (B. Mascarenhas): 1 apterous female (INPA); 15.XI.1976, (B. Mascarenhas): 1 apterous male, 2 apterous females (INPA). **Rondônia** – Porto Velho, 31.III.1979, (R. Yaddaca): 1 apterous male (MNRJ), 1 apterous male, 4 apterous females (INPA).

Brachymetra shawi Hungerford and Matsuda, 1957

Known geographic distribution. Colombia, Trinidad and Tobago, Guyana, Suriname, French Guiana, Northern and Central-Western Brazil, and Bolivia.

New state records. Brazil: Mato Grosso, Rondônia.

New municipality record. Brazil: Pará – Belém.

Examined material. BRAZIL: **Pará** – Belém, Outeiro, stream flowing on forest, 25.VII.1974, (B. Mascarenhas): 2 macropterous females (INPA). **Amazonas** – Manaus, BR-174, Campina Reserve, 21.IX.1977, (B. Mascarenhas): 1 macropterous female (INPA). Manaus, Adolpho Ducke

Forest Reserve, 18.VI.1976, (Nilo): 2 macropterous females (INPA); Ipiranga Stream, (B. S. Godoy): 1 macropterous male (INPA). Manaus, AM-010, km 30, CEPLAC, 04.VIII.1977, (N. D. Penny): 1 macropterous female (INPA); 07.V.1976, (Paraluppi): 1 macropterous male (INPA); 18.VI.1976, (A. P. A. Luna-Dias): 1 macropterous female (INPA). **Mato Grosso** – Aripuanã, Humboldt Reserve [10°11' S, 59°48' W], 14.VII.1977, (N. D. Penny): 1 macropterous male (INPA). **Rondônia** – Pacaás Novos National Park, stream, 14.VIII.1985: 1 apterous female (INPA).

Cylindrostethus erythropus (Herrich-Schäffer, 1850)

Known geographic distribution. Colombia, Northern Brazil, Ecuador and Peru.

New state record. Brazil: Roraima.

New municipality records. Brazil: Pará – Almeirim. Amazonas – Manaus, Careiro da Várzea, Tefé.

Examined material. BRAZIL: **Roraima** – Boa Vista, Uraricoera River, Grande Stream, 22.X.1987: 4 apterous males, 6 apterous females (INPA). **Pará** – Almeirim, Parú River, VII.1952, (J. C. M. Carvalho): 17 apterous males, 8 apterous females (MNRJ). **Amazonas** – Manaus, AM-010, km 45, 04.XII.1976 (M. Dantas): 1 apterous male (INPA). Careiro da Várzea, Careiro Island, 20.IX.1976, (B. Mascarenhas): 2 apterous females (INPA). Tefé, Solimões River, 18.IV.1977, (Eduardo): 1 apterous male (INPA); XII.1976: 1 apterous female (INPA). Eirunepé, Juruá River, 1950, (J. C. M. Carvalho): 3 apterous females (MNRJ).

Cylindrostethus linearis (Erichson, 1848)

Known geographic distribution. Guyana, Northern Brazil, Peru and Bolivia.

New municipality record. Brazil: Pará – Almeirim, Tucuruí. Amazonas – Itacoatiara.

Examined material. BRAZIL: **Pará** – Almeirim, Parú River, 1950, (J. C. M. Carvalho): 1 apterous male (MNRJ). Tucuruí, 20.X.1977, (R. B. Neto): 1 apterous male, 1 apterous female (INPA). **Amazonas** – Itacoatiara, 15.VI.1952, (O. M. Rego): 11 apterous males, 6 apterous females (MNRJ). Eirunepé, Juruá River, 1950, (J. C. M. Carvalho): 12 apterous males, 15 apterous females (MNRJ).

Cylindrostethus palmaris Drake and Harris, 1934

Known geographic distribution. Colombia, Venezuela, Trinidad and Tobago, Guyana, Suriname, French Guiana, Brazil, Ecuador, Bolivia and Argentina.

New state records. Brazil: Amapá, Rio de Janeiro.

New municipality records. Brazil: Pará – Almeirim, Barcarena, Ananindeua, Mocajuba, Parauapebas, Canaã dos Carajás. Amazonas – São Gabriel da Cachoeira, Manaus/Rio Preto da Eva. Mato Grosso – Aripuanã. São Paulo – São Simão.

Examined material. BRAZIL: **Amapá** – Serra do Navio, 9.XII.1959, (R. Arle): 3 apterous males, 3 apterous females (MNRJ). **Pará** – Almeirim, Parú River, no date, (J. C. M. Carvalho): 1 apterous male, 1 macropterous male, 6 apterous females (MNRJ). Barcarena, Dendê Stream, north channel [01°33'57.92" S, 48°44'48.12" W], 18.IX.2006, (J. L. Nessimian): 1 apterous female (DZRJ); Pramajó Stream, tributary to Parú River [01°34'2.24" S, 48°43'15.24" W]: 1 apterous male (DZRJ). Ananindeua, Seminário São Pio X, 11.VI.1975, (B. Mascarenhas): 4 apterous males, 2

apterous females (INPA). Mocajuba, Mangabeira, XI.1952, (O. Rego): 5 apterous males, 4 apterous females (MNRJ). Parauapebas, FLONA Carajás, Serra Norte, Buritizal II [06°4'10.56" S, 49°56'59.39" W, 200 m a. sl.], 08.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 2 macropterous males, 1 macropterous female (DZRJ); Buritizal I [06°6'14.15" S, 50°8'12.98" W], IX.2007, (N. Ferreira-Jr. and V. P. Alecrim): 4 macropterous males, 2 apterous males, 3 macropterous females, 2 apterous females (DZRJ); 05.III.2008, (A. P. M. Santos and N. Ferreira-Jr.): 1 apterous male (DZRJ). Canaã dos Carajás, FLONA de Carajás, stream at road to Serra Sul [06°15'48.89" S, 50°18'51.84" W, 363 m a.s.l.], 13.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 3 macropterous females (DZRJ). **Amazonas** – São Gabriel da Cachoeira, Pico da Neblina [00°40' N, 66°00' W], 5-12.XI.1977, (R. Best): 1 apterous female (INPA). Manaus/Rio Preto da Eva, Road BR-174, 61 km from Manaus, 24.I.1977, (B. Mascarenhas): 1 apterous male (INPA). Manaus, Cuieiras River [03°27'32.47" S, 60°20'47.40" W], (B. S. Godoy): 1 apterous male (INPA). Manaus, Urubu River [02°18'34.09" S, 59°40'23.92" W], (B. S. Godoy): 1 apterous female (INPA). Manaus, Adolpho Ducke Forest Reserve, Ipiranga Stream, (B. S. Godoy): 2 macropterous males (INPA). Manaus, Road AM-010, km 30, 18.VI.1976, (M. Dantas): 1 apterous female (INPA). **Mato Grosso** – Aripuanã, Humboldt Reserve [10°11' S, 59°48' W], 15.VII.1977, (N. D. Penny): 4 apterous males, 4 apterous females (INPA). Koluene, 1947, (J. C. M. Carvalho): 3 apterous males, 2 apterous females (MNRJ). **São Paulo** – São Simão, Tamanduá River, 31.III.1998, (C. N. Francischetti): 1 apterous male (DZRJ). **Rio de Janeiro** – Macaé, Córrego das Aduelas [22°12'27.9" S, 41°50'24.2" W], 15.IV.2009, (V. P. Alecrim): 1 apterous male, 2 apterous females (DZRJ). Silva Jardim, São João River, Barragem CEDAE, I.1977, (N. Santos): 1 apterous female (MNRJ). Rio de Janeiro, Represa dos Ciganos, 12.IV.1978, (A. C. Matos): 1 apterous female (MNRJ).

Cylindrostethus regulus (White, 1879)

Known geographic distribution. Amazonas State, Brazil.

New state record. Brazil: Pará.

Examined material. BRAZIL: **Pará**, Almeirim, Parú River, no date, (J. C. M. Carvalho): 2 apterous males, 1 apterous female (MNRJ).

Halobatopsis platensis (Berg, 1879)

Known geographic distribution. Central-Western, Southeastern and Southern Brazil, Argentina and Uruguay. One questionable record from Paraguay.

New municipality records. Brazil: São Paulo – Jales, Mirassol, Ubatuba.

Examined material. BRAZIL: **Minas Gerais** – Viçosa, UFV, Agronomia, Reservatório de Sedimentação, 24.V.1993, (E. R. da Silva): 1 apterous female (DZRJ). **São Paulo** – Jales, Fazenda Furnas, 12.III.2010, (M. M. U. Castanhole and L. L. V. Pereira): several males and females (IBILCE). Mirassol, Estância Santo Antônio, 05.III.2010, (M. M. U. Castanhole and L. L. V. Pereira): several males and females (IBILCE). Ubatuba, Serra do Mar State Park, Picinguaba, Fazenda River, 05.III.2004, (F. F. F. Moreira): 1 apterous male (DZRJ); 28.X.2005: 2 apterous males, 2 apterous females (DZRJ); temporary stream on way to manguezal, 28.X.2005: 1 apterous male, 1 apterous female (DZRJ). **Rio**

de Janeiro – Rio de Janeiro, Campo Grande, Rio da Prata, Represa da Batalha, IV.1986, (H. Cunha): 3 apterous males, 1 apterous female (DZRJ). D'Ouro River [no municipality given], IX.1971, (A. Fontes): 12 apterous males, 10 apterous females (MNRJ).

Limnogonus aduncus aduncus Drake and Harris, 1933

Known geographic distribution. Colombia, Venezuela, Trinidad and Tobago, Panama, Guyana, Suriname, Brazil, Ecuador, Peru, Bolivia, Paraguay and Argentina.

New state record. Brazil: Santa Catarina.

New municipality records. Brazil: Pará – Almeirim, Belém, Marituba, Canaã dos Carajás. Amazonas – Santa Isabel do Rio Negro, Iranduba, Benjamin Constant, Eirunepé. Mato Grosso – Aripuanã. São Paulo – Américo de Campos, Ubatuba. Rio de Janeiro – Rio de Janeiro, Maricá.

Examined material. BRAZIL: **Pará** – Almeirim, Parú River, 1952, (J. C. M. Carvalho): 2 apterous males, 1 macropterous male, 2 macropterous females (MNRJ). Belém, MPEG, 19.VIII.1975, (B. Mascarenhas): 2 apterous males, 1 macropterous male (INPA). Marituba, 10.X.1975, (B. Mascarenhas): 1 apterous female (INPA). Canaã dos Carajás, FLONA Carajás, Serra Sul, Leito de Ferro stream, 15.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 2 apterous males, 1 apterous females (DZRJ); Serra Sul, S11A-A, III.2006, (N. Ferreira-Jr.): 2 apterous males, 1 apterous female (DZRJ). **Amazonas** – Tapuruquara [Santa Isabel do Rio Negro], 18.I.1978 (N. D. Penny): 4 macropterous males, 2 apterous females (INPA). Iranduba [Manaus on label], Comprido Lake, Marchantaria, macrophytes [03°14'14" S, 59°57'12" W], 30.IX.2002, (D. L. V. Pereira): 1 apterous male (INPA). Manaus, Japiim, Cohabam, 05.VI.1976, (Dellome): 1 apterous male (INPA). Manaus, 31.VIII.1955, (Elias and Roppa): 1 macropterous male (MNRJ). Benjamin Constant, Itacoai River, no date, (J. C. M. Carvalho): 1 macropterous male (MNRJ). Eirunepé, Juruá River, 1950, (J. C. M. Carvalho): 1 macropterous male, 1 macropterous female (MNRJ). **Mato Grosso** – Aripuanã, Humboldt Reserve [10°11' S, 59°48' W], (N. D. Penny): 1 macropterous female (INPA). [Nova] Xavantina, 1947, (J. C. M. Carvalho): 2 macropterous males, 2 macropterous females (MNRJ), 1 macropterous male (INPA). **Minas Gerais** – Manga, no date, (no collector data): 1 apterous female (DZRJ). **São Paulo** – Américo de Campos, artificial pool: 1 apterous male, 2 apterous females (IBILCE). Ubatuba, Serra do Mar State Park, Picinguaba, Fazenda River, near Casa da Farinha, 28.X.2004, (no collector data): 1 apterous female (DZRJ); Picinguaba, pond, (F. F. F. Moreira): 1 apterous male (DZRJ); 29.VI.2004: 1 apterous male, 1 apterous female (DZRJ); 02-06.XI.2005 (F. F. F. Moreira): 1 apterous male (DZRJ). **Rio de Janeiro** – Rio de Janeiro, Jacarepaguá, Pau da Fome, no date, (N. Santos): 1 apterous male, 1 apterous female (MNRJ). Rio de Janeiro, Barra da Tijuca, IX.1959, (J. Becker): 1 apterous male, 1 apterous female (MNRJ). Rio de Janeiro, Jacarepaguá, Represa dos Ciganos, 12.IV.1978, (A. C. Matos): 1 macropterous male (MNRJ). Maricá, 26.IX.1986, (E. Arcoverde and R. M. A. de Lemos): 1 macropterous female (DZRJ). **Santa Catarina** – Blumenau, II.1977, (A. C. Matos): 1 apterous female (MNRJ).

Limnogonus hyalinus (Fabricius, 1803)

Known geographic distribution. Colombia, Trinidad

and Tobago, Panama, Guyana, Suriname, French Guiana, Northern Brazil, Ecuador and Bolivia.

New municipality record. Brazil: Amazonas – Manaus.

Examined material. BRAZIL: **Amazonas** – Manaus, road AM-010, CEPLAC, 07.V.1976, (M. Dantas and Paraluppi): 3 apterous males (INPA). Manaus, Adolpho Ducke Forest Reserve, 12.V.1977, (Paraluppi): 1 apterous male (INPA). Manaus, INPA, 10.V.1976, (M. Dantas): 1 apterous male (INPA).

Limnogonus ignotus Drake and Harris, 1934

Known geographic distribution. Colombia, Guyana, Suriname, Brasil, Peru, Bolivia, Paraguay, Argentina and Uruguay.

New state records. Brazil: Pará, Santa Catarina, Rio Grande do Sul.

New municipality record. Brazil: Minas Gerais – Carmo do Rio Claro

Examined material. BRAZIL: **Pará** – Parauapebas, FLONA Carajás, Serra Norte, N4A, 09.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 apterous male, 2 macropterous males, 6 apterous females, 1 macropterous female (DZRJ). **Minas Gerais** – Carmo do Rio Claro, (J. C. M. Carvalho): 1 apterous female (INPA). **Santa Catarina** – Seara, Nova Teutônia, (F. Plaumann): 1 macropterous male, 1 macropterous female (INPA). **Rio Grande do Sul** – Pinhal Grande, Itaúba, 19.IV.1978, (H. Bischoff): 1 macropterous male, 2 macropterous females (INPA).

Limnogonus profugus Drake and Harris, 1930

Known geographic distribution. Central-Western and Southern Brazil, Peru, Paraguay and Argentina. One questionable record from Venezuela.

New state record. Brazil: Goiás.

New municipality records. Brazil: São Paulo – São Simão. Rio de Janeiro – Itatiaia, Rio Claro.

Examined material. BRAZIL: **Goiás** – Goiânia, 06.II.1977, (N. D. Penny): 1 macropterous male (INPA). **São Paulo** – São Simão, Tamanduá River, 31.III.1998, (C. N. Francischetti): 1 apterous male (DZRJ). **Rio de Janeiro** – Itatiaia, Penedo, artificial pools with macrophytes [22°26'17.6" S, 44°31'33.9" W], 01.I.2007, (F. F. F. Moreira and V. P. Alecrim): 2 apterous males (DZRJ). Rio Claro, Pirai River, 30.VII.1975: 1 apterous male (MNRJ), 1 apterous female (INPA).

Limnogonus recurvus Drake and Harris, 1930

Known geographic distribution. Brazil and Bolivia.

New state record. Brazil: Amazonas.

New municipality record. Brazil: Mato Grosso – Colíder, Nova Xavantina.

Examined material. BRAZIL: **Amazonas** – Manaus, Adolpho Ducke Forest Reserve, 14.V.1976, (Nilo): 1 apterous female (INPA). Manaus, Road AM-010, km 30, CEPLAC, 18-19.VI.1976, (M. Dantas): 2 apterous males (INPA). **Mato Grosso** – Colíder, Matrinchã River [10°52'30.09" S, 55°18'57.15" W], 21.I.2002, (P. A. Buckup, A. Aranda, C. A. Figueiredo and F. P. Silva): 1 apterous male (DZRJ). Nova Xavantina, 1947, (J. C. M. Carvalho): 1 macropterous male (MNRJ).

Neogerris lotus (White, 1879)

Known geographic distribution. Colombia, Trinidad and Tobago, Guyana, Suriname, Northern and Central-Western Brazil, and Peru.

Examined material. BRAZIL: **Amazonas** - Manaus, Cuieiras River [02°30'56.45" S, 60°15'46.19" W], (B. S. Godoy): 1 apterous female (INPA). Manaus, Negro River, Anavilhanas Archipelago, Xidaua Lake, 20.XI.1981, (J. L. Nessimian): 1 apterous male (DZRJ).

Neogerris lubricus (White, 1879)

Known geographic distribution. Colombia, Trinidad and Tobago, Guyana, Suriname, Brasil, Ecuador, Peru, Bolivia, Paraguay and Argentina.

New state record. Brazil: São Paulo.

New municipality records. Brazil: Pará - Almeirim, Curionópolis, Parauapebas. Amazonas - Benjamin Constant. Mato Grosso - Aripuanã. Rondônia - Vilhena.

Examined material. BRAZIL: **Pará** - Almeirim, Parú River, no date, (J. C. M. Carvalho): 1 apterous male (MNRJ), 1 apterous female (INPA). Curionópolis, FLONA Carajás, Serra Leste, LA, 20.III.2006, (N. Ferreira-Jr.): 2 apterous males, 2 apterous females (DZRJ). Parauapebas, FLONA Carajás, Serra Norte, N4A, 09.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 4 apterous males, 2 apterous females (DZRJ).

Amazonas - Manaus, Adolpho Ducke Forest Reserve, 22.IX.1973, (no collector data): 1 macropterous female (INPA); light trap, 31.V.1979, (J. Arias): 1 macropterous male (INPA). Manaus, Aleixo Lake, Negro River [02°07'02" S, 59°52'22" W], 05.X.2002, (D. L. V. Pereira): 2 apterous female (INPA). Benjamin Constant, Itacoai River, no date, (J. C. M. Carvalho): 1 macropterous male (MNRJ), 1 apterous male (INPA). **Mato Grosso** - Aripuanã, Humboldt Reserve [10°11' S, 59°48' W], 14.VII.1977, (N. D. Penny): 1 macropterous male (INPA). **Rondônia** - Vilhena, BR-174, 16.VI.1977, (B. Mascarenhas): 1 apterous female (INPA). **São Paulo** - Américo de Campos, 03.V.2009, (M. M. Itoyama): 1 apterous male, 1 apterous female (IBILCE). São José do Rio Preto, municipal reservoir, 20.XI.2009, (M. M. U. Castanhole): 1 macropterous male (IBILCE). Ubatuba, Serra do Mar State Park, Picinguaba, 19.VI.2004, (F. F. F. Moreira): 1 apterous male, 1 apterous female (DZRJ); 09.VI.2005: 1 apterous female (DZRJ); Picinguaba, pond, 28-29.X.2004, (F. F. F. Moreira): 2 apterous males, 2 apterous females (DZRJ).

Neogerris magnus (Kuitert, 1942)

Known geographic distribution. Colombia, Venezuela, Guyana, Suriname, Northern Brazil and Bolivia.

New state record. Brazil: Amapá.

New municipality record. Brazil: Pará - Parauapebas.

Examined material. BRAZIL: **Amapá** - Serra do Navio, 10.XII.1959, (R. Arlé): 3 apterous male, 6 macropterous male, 15 macropterous female (MNRJ). **Pará** - Parauapebas, FLONA Carajás, Serra Norte, Buritizal 2, III.2006, (N. Ferreira-Jr.): 1 apterous male (DZRJ); Buritizal 1, 02.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 macropterous male, 1 macropterous female (DZRJ).

Neogerris visendus (Drake and Harris, 1934)

Known geographic distribution. Colombia, Suriname, Northern and Central-Western Brazil, and Peru.

New municipality records. Brazil: Pará - Almeirim. Amazonas - Santa Isabel do Rio Negro, Itacoatiara, Careiro. Mato Grosso - Aripuanã.

Examined material. BRAZIL: **Pará** - Almeirim, Parú River, no date, (J. C. M. Carvalho): 2 apterous females, 1 macropterous female (MRJ). **Amazonas** - Santa Isabel do Rio Negro, Tapuruquara, 18.I.1978, (N. D. Penny): 1 apterous male, 1 macropterous male, 1 apterous female, 1 macropterous female (MNRJ); 1 apterous male, 1 macropterous male, 3 apterous females, 3 macropterous females (INPA). Manaus, Negro River, Anavilhanas Archipelago, Xidaua Lake, 02.V.1981, (J. L. Nessimian): 1 apterous female (DZRJ). Manaus, CEPLAC, AM-010 km 32, 5.V.1977, [illegible collector]: 1 macropterous male, 1 macropterous female (INPA). Manaus, Adolpho Ducke Forest Reserve, 15.X.1976, (B. Mascarenhas): 1 macropterous female (INPA); 12.V.1977, (B. Mascarenhas): 1 macropterous male (INPA); 14.VI.1979, (J. Arias): 1 macropterous male (INPA). Manaus, Praia do Brito, Negro River [03°09'05" S, 60°06'19" W], 3.X.2002, (D. L. V. Pereira): 1 apterous male (INPA). Itacoatiara, light trap, 3.IX.1977, (B. Mascarenhas): 2 macropterous males, 1 macropterous female (INPA). Careiro, 20.XI.1975, (B. Mascarenhas): 2 apterous males, 1 apterous female (INPA). Eirunepé, Juruá River, 1950, (J. C. M. Carvalho): 2 macropterous females (INPA). **Mato Grosso** - Aripuanã, Humboldt Reserve [10°11' S, 59°48' W], 13-XI-1976 (no collector data): 1 apterous male (INPA).

Ovatametra gualeguay Bachmann, 1966

Known geographic distribution. Southeastern Brazil, and Argentina.

New municipality record. Brazil: São Paulo - Américo de Campos.

Examined material. BRAZIL: **São Paulo** - Américo de Campos, Preto River, 25.X.2009, (M. M. Itoyama): apterous males and females (IBILCE).

Rheumatobates crassifemur crassifemur Esaki, 1926

Known geographic distribution. Colombia, Panama, Brazil, Bolivia, Paraguay and Argentina.

New state record. Brazil: Pará.

New municipality records. Brazil: São Paulo - Guaraci, Olímpia, Mirassol, Sales, Ubatuba.

Examined material. BRAZIL: **Pará** - Parauapebas, FLONA Carajás, Serra Norte, ETA 1, 19.III.2006, (N. Ferreira-Jr.): 4 apterous males, 14 apterous females (DZRJ); 06.XI.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 apterous male, 1 apterous female (DZRJ); Serra Sul, S11A-A, III.2006, (N. Ferreira-Jr.): 2 apterous males, 18 apterous females (DZRJ). **São Paulo** - Guaraci, 18.III.2010, (M. M. U. Castanhole and L. L. V. Pereira): several males, females and nymphs (IBILCE). Olímpia, Ribeiro dos Santos, 18.III.2010, (M. M. U. Castanhole and L. L. V. Pereira): several males and females (IBILCE). Mirassol, Estância Santo Antônio, 05.III.2010, (M. M. U. Castanhole and L. L. V. Pereira): several males and females (IBILCE). Sales, 08.VII.2009, (M. M. U. Castanhole, L. L. V. Pereira and A. S. M. Lima): several apterous males and females (IBILCE). Ubatuba, Serra do Mar State Park, Picinguaba, pond, 28.X.2004, (F. F. F. Moreira): 1 apterous male (DZRJ); 02-06.XI.2005: 1 apterous male, 1 apterous female (DZRJ).

Rheumatobates crassifemur esakii Schroeder, 1931

Known geographic distribution. Colombia, Trinidad and Tobago, Guyana, Suriname, Northern Brazil, Ecuador and Peru.

New municipality records. Brazil: Amazonas – Manaus, Iranduba.

Examined material. BRAZIL: **Amazonas** – Manaus, Adolpho Ducke Forest Reserve (light trap), 31.V.1979, (J. Arias): 5 macropterous females (INPA); 14-19.VI.1979, (J. Arias and N. Penny): 29 macropterous males, 54 macropterous females (INPA). Iranduba [Manaus on label], Marchantaria, macrophytes [03°14'14" S, 59°57'12" W], 30.IX.2002, (D. L. V. Pereira): 1 apterous male (INPA).

Tachygerris adamsoni (Drake, 1942)

Known geographic distribution. Colombia, Venezuela, Trinidad and Tobago, Suriname, French Guiana, Brazil, Peru, Bolivia and Paraguay.

New municipality record. Brazil: Pará – Parauapebas. Rio de Janeiro – Niterói.

Examined material. BRAZIL: **Pará** – Parauapebas, FLONA Carajás, Serra Norte, Buritizal 2, 08.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 macropterous male (DZRJ); Buritizal 1, 02.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 macropterous male (DZRJ). **Rio de Janeiro** – Niterói, Itaipu, 30.X.1960, (H. Schubart): 1 macropterous male, 2 macropterous females (MNRJ).

Tachygerris celocis (Drake and Harris, 1931)

Known geographic distribution. Colombia, Venezuela, Brazil, Peru and Bolivia.

New municipality record. Brazil: Pará – Parauapebas.

Examined material. BRAZIL: **Pará** – Parauapebas, FLONA Carajás, Serra Norte, Buritizal 2, 08.IX.2006, (N. Ferreira-Jr. and L. L. Dumas): 1 macropterous male, 1 macropterous female (DZRJ).

Tachygerris surinamensis Hungerford and Matsuda, 1958

Known geographic distribution. Suriname and Northern Brazil.

Examined material. BRAZIL: **Amazonas** – Manaus, road BR-174, Reserva Campina, Jibóia Stream, 23.VIII.1989, (R. Sampaio): 2 apterous females (INPA).

Family Hydrometridae

Hydrometra guianana Hungerford and Evans, 1934

Known geographic distribution. Colombia, Venezuela, Trinidad and Tobago, Guyana, Suriname, Northern and Central-Western Brazil, and Peru.

New municipality record. Brazil: Amazonas – Eirunepé.

Examined material. BRAZIL: **Amazonas** – Eirunepé, VI.1950, (J. C. M. Carvalho): 1 macropterous male (MNRJ).

Hydrometra sztolcmani Jaczewski, 1928

Known geographic distribution. Southeastern and Southern Brazil, Paraguay and Argentina. Existing records from Guatemala and Colombia are based on listing error and misidentification, respectively.

New municipality record. Brazil: Minas Gerais – Ervália.

Examined material. BRAZIL: **Minas Gerais** – Ervália, Cachoeira da Usina, 16.VII.1997: 1 female (DZRJ).

Family Mesoveliidae

Mesovelia amoena Uhler, 1894

Known geographic distribution. Canada, United States (including Puerto Rico), Mexico, Cuba, Dominican Republic, Jamaica, Belize, St. Eustatius, Martinique, St. Vincent and Grenadines, Colombia, Curaçao, Bonaire, Grenada, Costa Rica, Trinidad and Tobago, Panama, Brazil and Ecuador. Introduced on the Hawaiian Islands.

New municipality record. Brazil: Rio de Janeiro – Nova Iguaçu.

Examined material. BRAZIL: **Rio de Janeiro** – Nova Iguaçu, D'Ouro River [22°38'53.92" S, 43°32'57.70" W], 07.I.2010, (F. F. F. Moreira and B. Clarkson): 2 females (DZRJ). Boa Vista River, 1974, (illegible collector): 1 apterous female (MNRJ).

Mesovelia mulsanti White, 1879

Known geographic distribution. Canada, United States (including Puerto Rico and U.S. Virgin Islands), Mexico, Cuba, Dominican Republic, Jamaica, Belize, Guatemala, Honduras, St. Martin, St. Kitts and Nevis, Antigua and Barbuda, Guadeloupe, Dominica, St. Vincent and Grenadines, Barbados, Aruba, Colombia, Curaçao, Klein Bonaire, Bonaire, Grenada, Venezuela, Costa Rica, Trinidad and Tobago, Panama, Guyana, Brazil, Peru, Bolivia, Paraguay and Argentina. Introduced on the Hawaiian Islands.

New state record. Brazil: Goiás.

New municipality record. Brazil: Rio de Janeiro – Seropédica. Minas Gerais – Nova Lima (?).

Examined material. BRAZIL: **Goiás** – Formosa, (Exp. Formosa): 9 apterous males, 6 apterous females (MNRJ). **Minas Gerais** – Águas Claras [probably São Sebastião das Águas Claras, District of Nova Lima Municipality], XII.1983, (Alvarenga): 3 macropterous male, 5 macropterous females (MNRJ). **Rio de Janeiro** – Macaé, Lagoa Imboassica, 08.II.2001, (Oliveira and Carvalho): 1 apterous female (DZRJ). Seropédica, Road Rio São Paulo, km 47, 26.XII.1944, (collector illegible): 1 macropterous female (MNRJ). Rio de Janeiro, X.1951, (J. C. M. Carvalho): 6 apterous male, 3 apterous female (MNRJ); no date, (J. C. M. Carvalho): 2 macropterous males (MNRJ).

Mesoveloidea williamsi Hungerford, 1929

Known geographic distribution. Mexico, Guatemala, Colombia, Venezuela, Costa Rica, Trinidad and Tobago, Suriname, Brazil, Ecuador and Peru.

New municipality record. Brazil: Rio de Janeiro – Macaé, Nova Friburgo, Nova Iguaçu.

Examined material. BRAZIL: **Rio de Janeiro** – Macaé, Trapiche, tributary to São Pedro River, U.V. light trap, 22.III.2009: 1 macropterous female (DZRJ). Nova Friburgo, Cascata, Macaé River [22°22'03.2" S, 42°15'27.8" W], 08.III.2009, (V. P. Alecrim): 1 macropterous female (DZRJ). Nova Iguaçu, Santo Antônio River [22°38'58.70" S, 43°32'5.00" W], 07.I.2010, (F. F. F. Moreira and B. Clarkson): 2 macropterous specimens (DZRJ); D'Ouro River [22°38'53.90" S, 43°32'57.70" W]: 4 macropterous specimens (DZRJ).

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