

# Insecta, Coleoptera, Elmidae, Amazon region

Maria Inês da Silva dos Passos<sup>1\*</sup>, André Silva Fernandes<sup>2</sup>, Neusa Hamada<sup>2</sup> and Jorge Luiz Nessimian<sup>3</sup>

1 Universidade Federal do Estado do Rio de Janeiro, Instituto de Biociências, Departamento de Zoologia. Avenida Pasteur, 458, Urca. CEP 22290-240. Rio de Janeiro, RJ, Brazil.

2 Instituto Nacional de Pesquisas da Amazônia, Coordenação de Pesquisa em Entomologia. Caixa Postal 458. CEP 69060-001. Manaus, AM, Brazil.

3 Universidade Federal do Rio de Janeiro, Instituto de Biologia, Departamento de Zoologia. Caixa Postal 68044. CEP 21944-970. Rio de Janeiro, RJ, Brazil

\* Corresponding author. E-mail: [minespasos@gmail.com](mailto:minespasos@gmail.com)

**ABSTRACT:** A list of Elmidae species from Amazon is presented. The list was prepared based on a literature survey and examination of the entomological collection of Instituto Nacional de Pesquisas da Amazônia (INPA). The list includes 102 species, with ten new occurrences recorded, being one for the Amazon (which includes areas of Brazil, Bolivia, Colombia, Guyana, French Guyana, Peru, Suriname and Venezuela) three for the Amazonas state, and six for other localities in Brazil. Reports about species bibliography contents were also included, as well as available species municipalities distributional data.

## INTRODUCTION

Elmidae Curtis, 1830 is constituted of small aquatic beetles that inhabit preferentially running waters. Elmidae, Psephenidae, Ptilodactylidae, Dryopidae, Lutrochidae, Limnichidae and Eulichadidae together constitute the Dryopoidea (Hunt *et al.* 2007). Adult Elminae present plastron, a respiratory structure which allows the beetle stay submerged for a longer time. Larvae present branchial tufts that open externally by an operculum. Both adult and larvae generally occur in the same habitats, are mainly scappers and only genus *Lara* LeConte, 1852 (White and Brigham 1996) are known to be herbivores. Adults periodically leave their habitats to dispersal flight. The life cycle is variable, the larvae can pass by three to eight instars and spend since few months until some years to complete their development (Brown 1987; White and Brigham 1996).

The family is widely distributed, occurring in all continents except Antarctica. Presently 1,300 species are known (Ciampor and Ciamporova-Zatovicova 2008) and 101 of which are known from the Amazon region. In Brazil 160 species are known and 24 of them recorded for Amazonas state. This work presents a list of all known Amazonian Elmidae species with new records for the region and distributional notes.

## MATERIALS AND METHODS

The list is based on the available literature and material deposited in the Invertebrates Collection of the Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, state of Amazonas.

This list integrates data collected from the research project 'Insetos aquáticos: biodiversidade, ferramentas ambientais e a popularização da ciência para melhoria da qualidade de vida humana no estado do Amazonas'

(Pronex/CNPq/FAPEAM), The goal of this work is mainly to catalogue and study the aquatic insects distributions in the Amazon Forest.

The term Amazon is used in this work based in Mittermeier *et al.* (2003), which applies to the area that includes the following countries, Brazil, Bolivia, Colombia, Guyana, French Guyana, Peru, Suriname and Venezuela. In Brazil, Amazon includes Tropical Rain Forest areas of Acre, Amazonas, Amapá, a portion of Maranhão, a portion of Mato Grosso, Pará, Rondônia, Roraima and Tocantins (Mittermeier *et al.* 2003). When possible, names of the municipalities where the species were registered were cited, although, in some cases just the regional reference or the country was informed in the literature.

## RESULTS AND DISCUSSION

*Gyrelmis nubila* Hinton, 1940, *Phanocerus clavicornis* Sharp, 1882 and *Pilielmis halia* Hinton, 1971 were recorded for the first time for the Amazonas state; *Xenelmis granata* Grouvelle, 1889 for the Amazon; and *Gyrelmis glabra* Hinton, 1940, *Gyrelmis obesa* Hinton, 1940, *Gyrelmis spinata* Hinton, 1940, *Hintonelmis delevei* Hinton, 1940, *Neoelmis opis* Hinton, 1972 and *Stegoelmis stictoides* Spangler, 1990 for Brazil.

With these new data, the number of species in the Amazon region rise to 102, in Brazil to 166, and in the Amazonas state to 34. Figure 1 shows all known Elmidae occurrence localities in the Amazon region with the number of species recorded for each locality. This report provides the most comprehensive distributional database and is the first checklist of Amazonian Elmidae species.

An alphabetical list, by subfamily, genus and species, containing the species recorded for the Amazon region, including the occurrence localities and bibliographical information follows below.

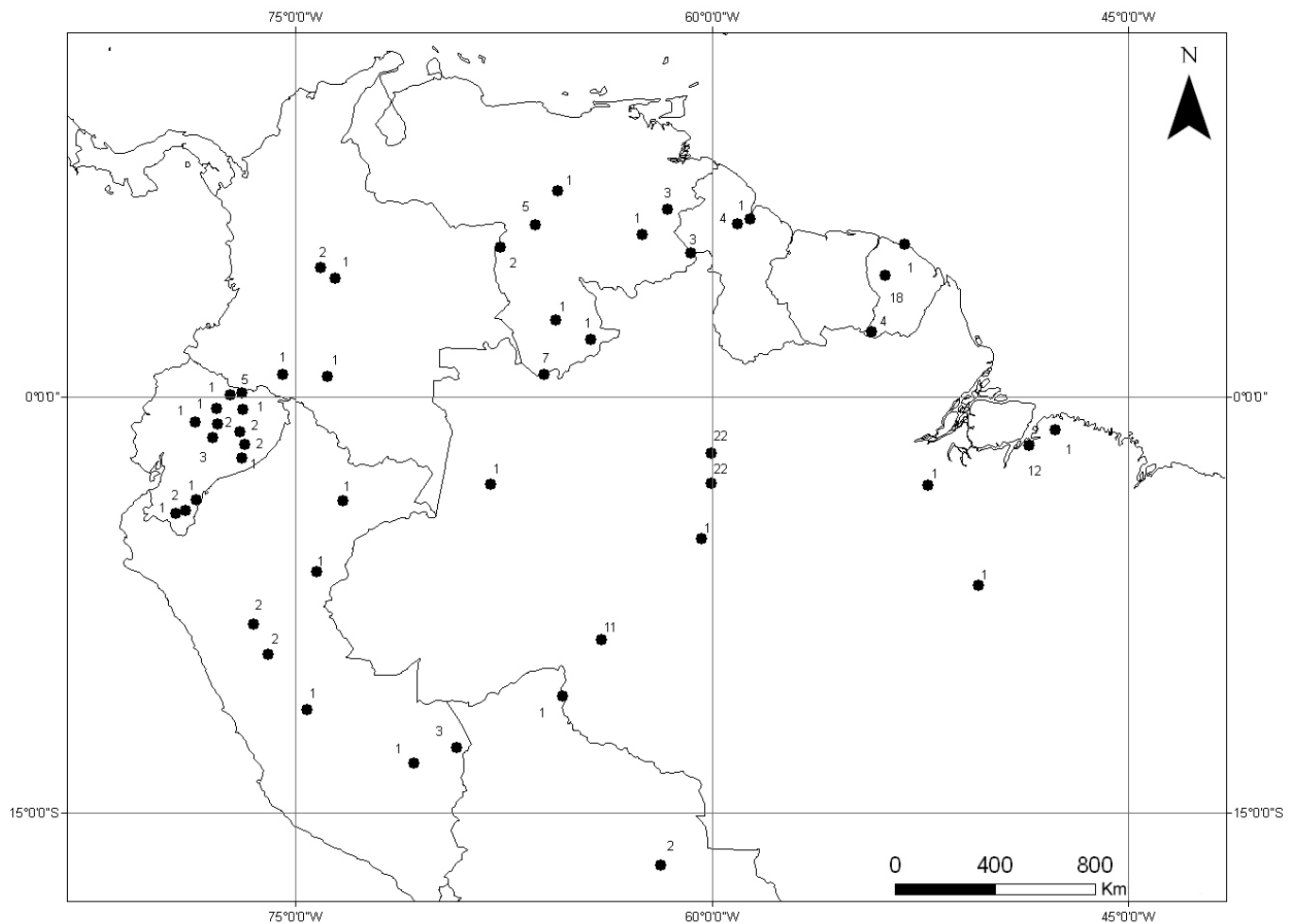


FIGURE 1. Areas in the Amazon region where Elmidae (Insecta: Colopetera) species are recorded, with number of species.

### Elminae Curtis, 1830

*Austrelmis* Brown, 1984

*Austrelmis woytkowskii* (Hinton, 1937)

PERU: Distrito de Satipo: Sani Beni [in *Macrelmis*] – Hinton (1937a, 1940a), Brown (1984).

*Cylloepus* Erickson, 1847

*Cylloepus olenus* Hinton, 1945

BRAZIL: Amazonas: Manaus – Hinton (1945a).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Recanto da Pantera, Ana Maria Oliveira Pes *leg*, 4-5/VII/2000, Pennsylvania light trap; André Silva Fernandes *leg*, 14-15/VI/2008; Sítio do Sr. Clovis, Ana Maria Oliveira Pes *leg*, 2-3VII/2000, Pennsylvnia.

*Epodelmis* Hinton, 1973

*Epodelmis rosa* Hinton, 1973

BOLIVIA: Santa Cruz: Provincia Sara, Santa Rosa – Hinton (1973).

*Gyrelmis* Hinton, 1940

*Gyrelmis brunea* Hinton, 1940

BRAZIL: Pará: Belém, Estrada de Ferro de Bragança. GUIANA FRANCESA, St Laurent du Maroni. – Hinton (1940b).

*Gyrelmis glabra* Hinton, 1940

GUIANA FRANCESA: St Laurent du Maroni. – Hinton (1940b).

BRAZIL: Amazonas: Presidente Figueiredo: Igarapé da Onça, André Silva Fernandes *leg*, 20/X/2008, litter retained in riffle.

*Gyrelmis longipes* Hinton, 1940

BRAZIL: Pará: Belém; Mato Grosso (?); Porto Velho. GUIANA FRANCESA: St Laurent du Maroni. – Hinton (1940b).

*Gyrelmis maculata* Hinton, 1940

BRAZIL: Amazonas: Manaus; Pará: Belém, Estrada de Ferro de Bragança.– Hinton (1940b).

Amazonas: Presidente Figueiredo: Cachoeira da Onça, André Silva Fernandes *leg*, 24/VIII/2008, litter retained in riffle.

*Gyrelmis nubila* Hinton, 1940

BRAZIL: Mato Grosso(?); Porto Velho. – Hinton (1940b). Amazonas: Presidente Figueiredo: Cachoeira da Onça,

André Silva Fernandes *leg*, 24/VIII/2008, litter retained in riffle.

*Gyrelmis obesa* Hinton, 1940

GUIANA FRANCESA: St Laurent du Maroni. – Hinton (1940b).

BRAZIL: Amazonas: Presidente Figueiredo: Cachoeira da Onça, André Silva Fernandes *leg*, 24/VIII/2008, litter retained in riffle.

*Gyrelmis pulchela* Hinton, 1940

GUIANA FRANCESA: St Laurent du Maroni. – Hinton (1940b).

*Gyrelmis pusio* Hinton, 1940

BRAZIL: Amazonas: Manaus; Mato Grosso; Porto Velho – Hinton (1940b).

*Gyrelmis simplex* Hinton, 1940

BRAZIL: Amazonas: Manaus – Hinton (1940b).

*Gyrelmis spinata* Hinton, 1940

GUIANA FRANCESA: St Laurent du Maroni. – Hinton (1940b).

BRAZIL: Amazonas: Presidente Figueiredo: Sítio da Dona Maroca, Igarapé da esquerda, AM 240, KM 13, André Silva Fernandes *leg*, 26/VIII/2008, roots in riffle.

*Gyrelmis thoracica* Hinton, 1940

GUIANA FRANCESA: St Laurent du Maroni. – Hinton (1940b).

*Gyrelmis thoracica basalis* Hinton, 1940

BRAZIL: Amazonas: Manaus; Mato Grosso (?); Porto Velho; Pará, Bélem. GUIANA FRANCESA, St Laurent du Maroni. – Hinton (1940b).

*Hintonelmis* Spangler, 1966

*Hintonelmis atys* Hinton, 1971

BRAZIL: Amazonas: Manaus – Hinton (1971a).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*; 4-5/IX/2000; Pennsylvania; André Silva Fernandes *leg*, 12-13/VI/2008, light trap; VI/2008, stones in riffle; Dona Maroca, 18/X/2008.

*Hintonelmis carus* Hinton, 1971

BRAZIL: Amazonas: Manaus – Hinton (1971a).

*Hintonelmis delevei* Hinton, 1971

GUIANA FRANCESA: St Lareunt. – Hinton (1971a).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*; 4-5/IX/2000; Pennsylvania.

*Hintonelmis maro* Hinton, 1971

BRAZIL: Pará: Belém – Hinton (1971a).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*., 4-5/IX/2000, Pennsylvania; Igarapé do Sr. José, André Silva Fernandes *leg*., 12-13/VI/2008, woods in riffle.

*Hintonelmis messa* Hinton, 1971

BRAZIL: Pará: Belém – Hinton (1971a).

*Hintonelmis opis* Hinton, 1971

BRAZIL: Amazonas: Manaus, Tarumã – Hinton (1971a).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*, 4-5/IX/2000, Pennsylvania; André Silva Fernandes *leg*., 12-13/VI/2008, light trap; stones in riffle; Igarapé do Sr. José, woods in riffle; Manacapuru, Banho do vovô, VII/2008, light trap.

*Hintonelmis perfectus* (Grouvelle, 1908)

GUIANA FRANCESA: (?) [in *Ancyronyx*] – Grouvelle (1908), Hinton (1971a).

*Hintonelmis sandersoni* Spangler, 1966

PERU: near Iquitos: Rio Nanay – Spangler (1966).

*Hintonelmis sloanei* Hinton, 1971

BRAZIL: Pará: Belém – Hinton (1971a).

*Hintonelmis sul* Hinton, 1971

BRAZIL: Pará: Belém – Hinton (1971a).

*Holcelmis* Hinton, 1973

*Holcelmis woodruffi* Hinton, 1973

BOLIVIA: Santa Cruz: Provincia Sara, Santa Rosa – Hinton (1973).

*Holcelmis mamore* Hinton, 1973

BOLIVIA: Rio Mamoré próximo a Guyara-Mirim – Hinton (1973).

*Jolyelmis* Spangler and Faitoute, 1991

*Jolyelmis auyana* Spangler and Faitoute, 1991

VENEZUELA: Bolivar: Auyantepuy. - Spangler and Faitoute (1991).

*Jolyelmis derkai* Ciampor and Kodada, 1999

VENEZUELA: Bolivar: Monte Roraima. - Ciampor and Kodada (1999).

*Jolyelmis reitmaieri* Ciampor and Kodada, 1999

VENEZUELA: Bolivar: Monte Roraima. - Ciampor and Kodada (1999).

*Macrelmis* (Motschulsky, 1839)

*Macrelmis amazonica* (Hinton, 1945)

BRAZIL: Porto Velho [in *Elsianus*] – Hinton (1945a), Brown (1984).

*Macrelmis antiqua* (Grouvelle, 1896)

BRAZIL: (?) [in *Elsianus*] – Grouvelle (1896a), Brown (1984).

*Macrelmis peruviana* (Hinton, 1945)

PERU: Huallaga: Tocache [in *Elsianus*] – Hinton (1945), Brown (1984).

*Macrelmis terea* (Hinton, 1946)

GUIANA FRANCESA: St Laurent du Maroni [in *Elsianus*] – Hinton (1946a), Brown (1984).

*Macrelmis thorpei* (Hinton, 1946)

BRAZIL: Amazonas: Manaus [in *Elsianus*] – Hinton (1946a), Brown (1984).

Amazonas: Presidente Figueiredo, Cachoeira da Onça, Recanto da Pantera, André Silva Fernandes *leg*, 24VIII/2008, litter retained in riffle; Sítio da Dona Maroca, Igarapé da esquerda; AM 240, KM 13, 26/VIII/2008, roots in riffle; Igarapé da Onça, Recanto da Pantera, 18/X/2008, roots in riffle.

*Macrelmis tityra* (Hinton, 1946)

BRAZIL: Amazonas: Manaus [in *Elsianus*] – Hinton (1946a), Brown (1984).

Amazonas: Presidente Figueiredo, Cachoeira da Onça, Recanto da Pantera, André Silva Fernandes *leg*, 24/VIII/2008, litter retained in riffle; Sítio da Dona Maroca, Igarapé da esquerda; AM 240, KM 13, 26/VIII/2008, roots in riffle; Igarapé da Onça, Recanto da Pantera, 18/X/2008, roots in riffle.

*Microcyloepus* (Hinton, 1935)

*Microcyloepus dolon* Hinton, 1945

BRAZIL: Amazonas: Manaus – Hinton (1945b), Bug (1973).

*Microcyloepus latus* Bug, 1973

PERU: Huallaga – Bug (1973).

*Microcyloepus nomia* Hinton, 1945

GUIANA FRANCESA: St – Hinton (1945b), Bug (1973).

*Microcyloepus pustulatus* Hinton, 1940c

BRAZIL: Amazonas: Manaus – Hinton (1940c), Bug (1973).

*Microcyloepus steffani* Bug, 1973

PERU: Chillon – Bug (1973).

*Neelmis* Musgrave, 1935

*Neelmis anytis* Hinton, 1972

EQUADOR: Rio Cusuimi, 150 Km do sudeste de Poyo – Hinton (1972).

*Neelmis fossa* Hinton, 1940

BRAZIL: Rondônia: Ji-Parana – Hinton (1940d).

*Neelmis maculata* Hinton 1940

BRAZIL: Amazonas: Manaus – Hinton (1940d).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Recanto da Pantera, Ana Maria Oliveira Pes *leg*, 4-5/VII/2000, Pennsylvania; André Silva Fernandes *leg*, 13-14/VI/2008.

*Neelmis mamorata* Hinton, 1940

BRAZIL: Amazonas: Manaus – Hinton (1940d).

*Neelmis opis* Hinton, 1972

Amazonas: Presidente Figueiredo, Igarapé da Onça, Recanto da Pantera, Ana Maria Oliveira Pes *leg*, 4-5/VII/2000, Pennsylvania; André Silva Fernandes *leg*, 13-14/VI/2008, Pennsylvania.

*Neelmis thyas* Hinton, 1972

BRAZIL: Rondônia, Porto Velho – Hinton (1972).

*Neolimnius* Hinton, 1939

*Neolimnius palpalis* Hinton, 1939

BRAZIL: Amazonas: Manaus; Pará. GUIANA FRANCESA: St Laurent du Maroni – Hinton (1939).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*, 4-5/IX/2000, Pennsylvania; André Silva Fernandes *leg*, 17/X/2008, light trap; Dona Maroca, André Silva Fernandes *leg*, 18/X/2008; Novo Aripuanã, Reserva Soka Gakkai, Ulisses Gaspar Neiss *leg*, 10-11/V/2008, Pennsylvania.

*Onychelmis* Hinton, 1941

*Onychelmis whiteheadi* Spangler and Santiago, 1991

COLOMBIA: Bogotá: Rio Gachetá - Spangler and Santiago (1991).

*Pagelmis* Spangler, 1981

*Pagelmis amazonica* Spangler, 1981

EQUADOR: Provincia Pastaza: Tzapino. – Spangler (1981).

*Phanoceroides* Hinton, 1939

*Phanoceroides acuatica* Hinton, 1939

BRAZIL: Amazonas: Manaus; Pará – Hinton (1939).

Presidente Figueiredo: Cachoeira da Onça, André Silva Fernandes *leg*, 24/VIII/2008, stones in riffle; Sítio do Sr. Francisco Lobo (Caverna), KM 61, André Silva Fernandes *leg*, 15/ I/2009, litter retained in riffle.

*Pilielmis* Hinton, 1971

*Pilielmis abdera* Hinton, 1971

BRAZIL: Manaus; Pará – Hinton (1971b).

*Pilielmis apama* Hinton, 1971

GUIANA FRANCESA: St Laurent – Hinton (1971b)

*Pilielmis clita* Hinton, 1971

BRAZIL: Pará: Belém – Hinton (1971b).

*Pilielmis halia* Hinton, 1971

BRAZIL: Pará: Belém. – Hinton (1971b).

Amazonas: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*, 4-5/IX/2000, Pennsylvania; André



Silva Fernandes *leg*, 17/VI/2008, Light trap.

*Pilielmis murcia* Hinton, 1971

BRAZIL: Amazonas: Manaus. GUIANA FRANCESA: St Laurent. – Hinton (1971b).

*Pilielmis sara* Hinton, 1971

BRAZIL: Amazonas: Manaus – Hinton (1971b)

BRAZIL: Amazonas: Presidente Figueiredo: Igarapé da Onça, Recanto da Pantera, Ana Maria Oliveira Pes *leg*, 4-5/VII/2000, Pennsylvania; André Silva Fernandes *leg*, 12-13/VI/2008, Pennsylvania.

*Portelmis* Sanderson, 1953

*Portelmis gurneyi* Spangler, 1980

EQUADOR: Provincia Napo: Lago Agrio; Provincia Pastaza: Tzapino [in *Stenelmis*] – Hinton (1936), Spangler (1980).

*Stegoelmis* Hinton, 1939

*Stegoelmis andersoni* Spangler, 1990

COLOMBIA: Caqueta, rio Orteguzaza. EQUADOR: Napo: Rio Yasuni. PERU: Madre de Dios: Puerto Maldonado, Rio Tambopata – Spangler (1990).

*Stegoelmis crinita* Spangler, 1990

EQUADOR: Napo: Aguarico. – Spangler (1990).

*Stegoelmis ensi* Spangler, 1990

VENEZUELA: Amazonas Territorio Federal: Culebra. – Spangler (1990).

*Stegoelmis fera* Spangler, 1990

VENEZUELA: Amazonas Territorio Federal: Cerro de la Neblina. – Spangler (1990).

*Stegoelmis geayi* (Grouvelle, 1908)

? [in *Stenelmis*] – Grouvelle (1908).

EQUADOR: Oriente (Napo): Rio Napo. GUIANA FRANCESA: St Laurent du Maroni. GUIANA: Distrito de Mazaruni-Potaro: Monte Takatu. VENEZUELA: Amazonas Territorio Federal: Cerro de la Neblina.- – Spangler (1990).

- *Stegoelmis geayi* (new combination) – Hinton (1939), Blackwelder (1944), Sanderson (1953).

- *Stegoelmis hintoni* (synonymy) – Sanderson (1953).

*Stegoelmis ica* Spangler, 1990

BRAZIL: Amazonas: Boca da rio Iça – Spangler (1990).

*Stegoelmis selva* Spangler, 1990

VENEZUELA: Amazonas Territorio Federal: Cerro de la Neblina. - Spangler (1990).

*Stegoelmis sticta* Spangler, 1990

COLOMBIA: (?). EQUADOR: Napo: Lago Agrio.- Spangler (1990).

*Stegoelmis stictoides* Spangler, 1990

GUIANA: Distrito de Mazaruni-Potaro: Monte Takatu. VENEZUELA: Bolivar: El Dorado. – Spangler (1990).

BRAZIL: Amazonas: Manaus: Presidente Figueiredo, Igarapé da Onça, Ana Maria Oliveira Pes *leg*., 4-5/IX/2000, Pennsylvania.

*Stegoelmis tuberosa* Spangler, 1990

VENEZUELA: Amazonas Territorio Federal: Cerro de la Neblina. – Spangler (1990).

*Stegoelmis verrucata* Hinton, 1939

BRAZIL: Pará: Belém, Altamira. GUIANA FRANCESA: Santo Laurent du Maroni. – Hinton (1939), Blackwelder (1944), Sanderson (1953), Spangler (1990).

*Stenelmoides* Grouvelle, 1908

*Stenelmoides antennarius* Spangler and Perkins, 1989

EQUADOR: Napo: Lago Agrio - Spangler and Perkins (1989).

*Stenelmoides beebei* Spangler and Perkins, 1989

GUIANA: Mazarunipotaro: Kartabo. VENEZUELA: Bolivar: Las Cocuizas - Spangler and Perkins (1989).

*Stenelmoides grandis* Spangler and Perkins, 1989

BRAZIL: Amazonas: Manaus. GUIANA FRANCESA: Rivière Lunier. VENEZUELA: Territorio Federal Amazonas: Cerro de la Neblina; Bolivar: El Dorado; Las Cocuizas - Spangler and Perkins (1989).

*Stenelmoides grouvellei* (Pic, 1923)

GUIANA FRANCESA: St Laurent du Maroni: Nouveau Chantier. – Spangler and Perkins, 1989.

- *Stenelmoides grouvellei* Pic, 1923 – Hinton (1937b), Blackwelder (1944) (misspelled).

- *Stenelmoides grouvellei* – Delève- 1970

*Stenelmoides guyanensis* Grouvelle, 1908

GUIANA FRANCESA: Rivière Lunier; Bas-Carsevenne. - Spangler and Perkins (1989).

- *Stenelmoides guyanensis* - Hinton (1937a, b), Blackwelder (1944) (misspelled).

*Stenelmoides inconscriptus* Spangler and Perkins, 1989

EQUADOR: Provincia Napo: Lago Agrio – Spangler and Perkins (1989).

*Stenelmoides mimicus* Spangler and Perkins, 1989

VENEZUELA: Territorio Federal Amazonas: Porto Ayacucho, Tobogán; Cerro de la Neblina, Rio Baria - Spangler and Perkins (1989).

*Stenelmoides platysternum* Spangler and Perkins, 1989

EQUADOR: Provincia Pastaza: 70 milhas SE Limoncocha, Rio Cononaco. - Spangler and Perkins (1989).

*Stenelmoides pubipes* Spangler and Perkins, 1989

EQUADOR: Provincia Pastaza: confluencia of Rio Macuma with Rio Morona. PERU: Loreto: colônia Calleria, Rio Calleria; Madre de Dios: Porto Maldonado, Rio Tambopata - Spangler and Perkins (1989).

*Stenelmoides rufulus* (Hinton, 1934)

COLOMBIA: Antioquia: Rio Anori; Cessar: Becerril; Putamayo: Santa Rosa; Valle de Cauca: Cisneros. EQUADOR: Manabi: Santo Domingo, Rancho Ronaldo; Napo: Lago Agrio; Pastaza: Puyo, Estação Fluv. Metrica; Pichincha: Via Porto Quito (113km); Zamora-chinchi: Yanzatza. GUATEMALA: Retalhuleu: Finca St Rafael Olimpo, Cuyitenango such. PERU: Huanuco: Tingo Maria. VENEZUELA: Zulia:Tucuco. - Spangler and Perkins (1989). - in *Stenelsianus rufulus* - Hinton (1934). - *Stenelmoides rufulus* (new combination) - Hinton (1937a), Blackwelder (1944).

*Stenelmoides stegastus* Spangler and Perkins, 1989  
VENEZUELA: Bolivar: Las Cocuizas - Spangler and Perkins (1989).

*Stenelmoides strictifrons* Grouvelle, 1908  
BRAZIL: Mato Grosso; Pará: Canindé, Rio Gurupi. GUIANA FRANCESA: Rivière Lunier. GUIANA: Kartabo: Takutu Lumber Camp, Takutu Mts.; Takutu Mountains. PERU: Madre de Dios: Porto Maldonado, Rio Tambopata Reserva. VENEZUELA: Bolivar: Las Cocuizas; Território Federal do Amazonas: Cerro de la Neblina, Rio Baria; Julian: Cunucunuma; Puerto Ayacucho: Rio paria Chico, Ria Gavilán. - Grouvelle 1908, Delève 1970, Spangler and Perkins (1989). - *Stenelmoides strictifrons* - Blackwelder (1944) (misspelled).

*Stenelmoides variabilis* Spangler and Perkins, 1989  
VENEZUELA: Bolivar: Las Cocuizas; El Dorado; Território Federal Amazonas - Spangler and Perkins (1989).

*Tyletelmis* (Hinton, 1972)

*Tyletelmis mila* (Hinton, 1972)  
BRAZIL: Mato Grosso; Porto Velho - Hinton (1972). Amazonas: Presidente Figueiredo, Igarapé da Onça, Recanto da Pantera, André Silva Fernandes *leg*, 02-03/VII/08, Pennsylvania.

*Xenelmis* Hinton, 1936

*Xenelmis granata* Grouvelle, 1889  
BRAZIL: Amazonas: Presidente Figueiredo, Sítio da Dona Maroca, Igarapé da esquerda; AM 240, KM 13, André Silva Fernandes *leg*, 26VIII/2008, roots in riffle.

*Xenelmis laura* Brown, 1970  
BRAZIL: Pará: Água Azul, Rio Bananal - Brown (1970), Manzo (2006).

*Xenelmis leechi* Perkins and Stainer, 1981  
PERU: Cuzco - Perkins and Stainer (1981), Manzo (2006).

*Xenelmis marcapata* Perkins and Stainer, 1981  
PERU: Cuzco - Perkins and Stainer (1981), Manzo (2006).

*Xenelmis rufipes* Delève, 1968

EQUADOR: Provincia Canar: Rte Guayaquil - Cuenca - Delève (1968), Manzo (2006).

*Xenelmis tarsalis* Hinton, 1940

BRAZIL: Rondônia: Porto Velho - Hinton (1940e), Manzo (2006).

*Xenelmis teres* Hinton, 1946

BRAZIL: Porto Velho - Hinton (1946b), Manzo (2006).

### Larinae (LeConte, 1861)

*Disersus* (Sharp, 1882)

*Disersus ambocheilus* Spangler and Santiago, 1987  
EQUADOR: Morona-Santiago: El Pincho; Zamora-Chinchi: Yanzatza, Rio Yanzatza. PERU: Cuzco: Cuzco; Huanuco: Tingo Maria. - Spangler and Santiago (1987)

*Disersus cacticus* (Coquérel, 1851)  
COLOMBIA: Meta: Queb. Blanca, Restrepo. EQUADOR: Pastaza: Puyo. - Spangler and Santiago, 1987 - in *Polamophilus cacticus* - Coquérel, 1851 - *Disersus cacticus* (new combination) - Grouvelle (1896b), Zaitzev (1908 1910), Blackwelder (1944), Brown (1981).

*Disersus chibcha* Spangler and Santiago, 1987  
COLOMBIA: Valle (Del. Cauca): Cisneros. - Spangler and Santiago (1987).

*Disersus dasycolus* Spangler and Santiago, 1987  
EQUADOR: Pastaza: Puyo, Rio Puyo - Spangler and Santiago (1987).

*Disersus inca* Spangler and Santiago, 1987  
COLOMBIA: Antioquia: El Retiro. EQUADOR: Tungurahua: Banos; Napo: San Francisco de Borja; Pastaza: Puyo. PERU: Cuzco: Valle de Lares, Calca. - Spangler and Santiago (1987).

*Disersus pilitibia* Spangler and Santiago, 1987  
COLOMBIA: Antioquia; Rio Anori. EQUADOR: Cotopaxi, Latacunga. - Spangler and Santiago (1987).

*Disersus quincemil* Spangler and Santiago, 1987  
PERU: Cuzco: Quince Mil - Spangler and Santiago (1987).

*Disersus saxicola* Spangler and Santiago, 1987  
EQUADOR: Napo: Tena (17 km SW); Zamora-Chinchi: Yanzatza, Rio Yanzatza - Spangler and Santiago (1987).

*Neblinagena* Spangler, 1985

*Neblinagena prima* Spangler, 1985.  
VENEZUELA: Território Federal do Amazonas: Cerro de la Neblina - Spangler (1985).

*Phanocerus* Sharp, 1882

*Phanocerus clavicornis* Sharp, 1882  
BRAZIL: Amazonas: Presidente Figueiredo, Igarapé da

Onça, Recanto da Pantera, André Silva Fernandes *leg*, 15/VI/2008, litter retained in riffle; Sítio Sr. José, André Silva Fernandes *leg*, 22/X/2008, litter retained in riffle.

*Pseudodisersus* Brown, 1981

*Pseudodisersus goudotii* (Guérin-Méneville, 1843)

COLOMBIA: Bogotá; EQUADOR: Napo: Tena, Morona; Santiago: El Pincho; Zamora-Chinchipe: Zumbi – Spangler and Santiago (1987).

- in *Potamophilus goudotii* - Guérin-Méneville (1843), Coquérel (1851).

- in *Disersus goudotii*. - Sharp (1882), Blackwelder (1944).

- in *Disersus goudoti*. - Zaitzev (1908 1910).

- in *Pseudodisersus coquereli* - Brown (1981).

*Roraima* Kodada and Jäch, 1999

*Roraima carinata* Kodada and Jäch, 1999

VENEZUELA: Estado Bolivar, Monte Roraima – Kodada and Jäch (1999).

**ACKNOWLEDGMENTS:** The authors are grateful to Ana Maria Oliveira Pes and Ulisses Gaspar Neiss for collecting the Elmidae. The manuscript benefited from the useful comments of two anonymous reviewers. Financial support was provided by a research project supported by PRONEX-CNPq (MCT)-FAPEAM and INPA (MCT).

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RECEIVED: September 2009

REVISED: September 2010

ACCEPTED: September 2010

PUBLISHED ONLINE: October 2010

EDITORIAL RESPONSIBILITY: Ana Lúcia Tourinho