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Cerambycidae (Insecta: Coleoptera) of the Parque Natural Municipal de Porto Velho, Rondônia, Western Amazon, Brazil

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Abstract: Cerambycidae is one of the largest families of beetles and it is estimated that there are about 25,000 species of longhorned beetles in the world. However, little is known about the distribution of many species in some regions, including the Amazon. The longhorned beetles are indispensable in the ecological chain, contributing mostly to the recycling of dead wood in forest. The present study is an inventory of the Cerambycidae of the Parque Natural Municipal de Porto Velho, Rondônia, Brazil. Insects were sampled from June 2008 to May 2009 using Malaise and light traps. A total of 61 species were identified, of which 33 are new records for Rondônia and one for Amazon region, i.e., *Anisopodus melzeri* Gilmour, 1965.

Keywords: longhorned beetles, new records, inventory, biodiversity.

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Resumo: Cerambycidae representa uma das maiores famílias de besouros e estima-se que existam cerca de 25000 espécies de Cerambycidae no mundo. No entanto, pouco se conhece sobre a distribuição geográfica de muitas espécies, consequência da escassez de coletas em algumas regiões, como a Amazônia. Os cerambycídeos desempenham um papel imprescindível na cadeia ecológica, contribuindo na reciclagem de madeira morta na floresta. Neste estudo, é apresentado um inventário de Cerambycidae do Parque Natural Municipal de Porto Velho, Rondônia, Brasil. As coletas foram realizadas durante o período de junho de 2008 a maio de 2009 utilizando as armadilhas Malaise e luminosa (modelo Luiz de Queiroz). Um total de 61 espécies foram identificadas, das quais 33 são novos registros para Rondônia e um para a região amazônica *Anisopodus melzeri* Gilmour, 1965.

Palavras-chave: longicórneos, novos registros, inventário, biodiversidade.

Introduction

Cerambycidae is one of the richest families among coleopterans and more than a 25,000 species were described worldwide (Galileo & Martins 2006), 9,000 of these recorded to the Western Hemisphere (Monné & Bezark 2010).

The longhorned beetles have a cosmopolitan distribution, except for the arctic regions (Vives 2000). This distribution pattern is related to the vegetation and climatic characteristics of particular regions, and the Neotropical region, especially the Amazon, displays most of these insect biodiversity (Galileo & Martins 2006).

Cerambycids have an indispensable role in the forest ecological chains due to their role in dead wood recycling. Their intimate relation with their food resources is an important feature for studies related to environmental monitoring and conservation, and also, biodiversity (Lewinsohn et al. 2005). According to Brown Jr. (1991), the cerambycids have a high ecological fidelity, are highly diversified and are an important set in the ecosystems.

The Neotropical fauna of Cerambycidae is currently under study and new species have been frequently described, but there is also a lack of information and data collection from several large areas. In Brazil, some areas such as Southeast and South regions, have a good data set of the Cerambycidae fauna, but the Caatinga, Pantanal biomes and even the Amazon forest are poorly studied (Martins 1999).

In Rondônia State, only a few insect inventories can be retrieved from published data. An important contribution was provided by Monné (1990) concerning the zoological data of the influence area of the BR-364 highway construction (from Cuiabá, Mato Grosso to Porto Velho, Rondônia) and some information on the Cerambycidae fauna from 1980 to 1986.

Fauna inventories are important tools to acquire information related to the biodiversity (Ganho & Marinoni 2003). Besides,

biodiversity studies and their data set banks contribute and guide environmental policies and plans. The present study is an inventory of the Cerambycidae fauna of the Parque Natural Municipal de Porto Velho, Rondônia, Brazilian Western Amazon.

Material and Methods

The studied area was the Parque Natural Municipal de Porto Velho (08° 41' 10.26" S, 63° 52' 01.98" W) forest located 14 km from Porto Velho downtown in Rondônia, Brazil and characterized by a lowland (less than 100 m) ombrophilous open forest with palms.

Insect captures, under IBAMA license (SISBIO 19871-1), were performed from June 2008 to May 2009 using six Malaise (Townes 1972) and three light traps ("Luiz de Queiroz" model). Insect traps were set in different landscapes and environmental conditions, i.e., forest border, flooded and upperland area. The Malaise traps were monitored monthly along the year, while light traps were set once a month for a night (6:00 PM to 6:00 AM).

The longhorned beetles up to subfamily and tribe were identified using the dichotomic keys of Galileo & Martins (2006) and species were identified using different available publications (Marques & Napp 1996, Martins 1997, Martins & Galileo 2006, Napp & Monné 2006, Napp 2007, Galileo et al. 2008, Napp & Martins, 2009). The species identification was supervised and confirmed by Dr. Ubirajara Ribeiro Martins (MZUSP). The specimens were deposited in the Entomological Collection of the Universidade Federal de Rondônia (UNIR) and in the Museu de Zoologia da Universidade de São Paulo (MZUSP).

Species distribution data is described in the catalogs of Cerambycidae (Monné 2005a, b, 2006) and other references that include species cited in Rondônia, such as Monné (1990), Napp (2007), Napp & Martins (2009) e Monné & Bezark (2010).

Table 1. Cerambycidae species collected in the Parque Natural Municipal de Porto Velho from June/2008 to May/2009. *New record to Rondônia; **New record to Amazonia.

Family	Subfamily	Tribe	Species
Cerambycidae	Cerambycinae	Bothriospilini	<i>Chlorida festiva</i> (Linnaeus, 1758)
			<i>Chlorida curta</i> Thomson, 1857
		Callichromatini	<i>Callichroma sericeum</i> (Fabricius, 1792)
			<i>Mionochroma vittatum</i> (Fabricius, 1775)
		Clytini	<i>Mecometopus wallacei</i> (White, 1855)
		Compsocerini	<i>Aglaoschema cyaneum</i> (Pascos, 1860)
			<i>Orthostoma abdominale</i> (Gyllenhal, 1817)
		Dodecosini	<i>Dodecosis saperdina</i> Bates, 1867*
		Eburiini	<i>Eburodacrys sexmaculata</i> (Olivier, 1790)
			<i>Opades costipennis</i> (Buquet, 1844)*
		Elaphidionini	<i>Anelaphus robi</i> Hrabovsky, 1987*
			<i>Paranyssicus conspicillatus</i> (Erichson, 1847)*
		Heteropsini	<i>Chrysoprasis abyara</i> Napp & Martins, 1998
		Ibidionini	<i>Compsibidion charile</i> (Bates, 1870)*
			<i>Compsibidion maronicum</i> (Thomson, 1867)
			<i>Gnomidolon conjugatum</i> (White, 1855)*
		Rhinotragini	<i>Odontocera furcifera</i> Bates, 1870*
			<i>Odontocera molorchoides</i> (White, 1855)*
			<i>Ommata (Agaone) notabilis</i> (White, 1855)*
			<i>Oxylymma telephorina</i> Bates, 1870*

Tabela 1. continuação...

Family	Subfamily	Tribe	Species
		Rhopalophorini	<i>Coremia plumipes</i> (Pallas, 1772)* <i>Cosmisoma argyreum</i> Bates, 1870*
		Tillomorphini	<i>Epropetes metallica</i> Martins, 1975*
		Trachyderini	<i>Batus barbicornis</i> (Linnaeus, 1764)* <i>Ceragenia bicornis</i> (Fabricius, 1801) <i>Sternacanthus picticornis</i> Pascoe, 1857*
	Disteniinae	Disteniini	<i>Distenia (Distenia) suturalis</i> Bates, 1870*
	Lamiinae	Acanthocinini	<i>Anisopodus melzeri</i> Gilmour, 1965** <i>Nyssocarinus humeralis</i> Monné, 1985 <i>Nyssodrysina sprete</i> (Bates, 1864) <i>Nyssodrysternum serpentinum</i> (Erichson, 1847) <i>Nyssodrysternum signiferum</i> (Bates, 1864)* <i>Palame anceps</i> (Bates, 1864) <i>Toronaeus perforator</i> Bates, 1864
		Acanthoderini	<i>Ateralphus senilis</i> (Bates, 1862) <i>Macropophora worontzowi</i> Lane, 1938* <i>Aegoschema moniliferum</i> (White, 1855)* <i>Oreodera bituberculata</i> Bates, 1861 <i>Oreodera undulata</i> Bates, 1861* <i>Psapharochrus longispinis</i> (Bates, 1861) <i>Helvina lanuginosa</i> (Bates, 1865)* <i>Hippopsis (Hippopsis) truncatella</i> Bates, 1866*
		Agapanthiini	<i>Anisocerus stellatus</i> Guérin-Méneville, 1855 <i>Gounellea bruchi</i> (Gounelle, 1906) <i>Onychocerus aculeicornis</i> (Kirby, 1818)
		Anisocerini	<i>Drycothaea anteochracea</i> (Breuning, 1974)* <i>Drycothaea ochreoscutellaris</i> (Breuning, 1940)
		Calliini	<i>Colobothaea bisignata</i> Bates, 1865 <i>Colobothaea decemmaculata</i> Bates, 1865* <i>Colobothaea eximia</i> Aurivillius, 1902* <i>Colobothaea macularis</i> (Olivier, 1792)* <i>Cristaerenea cognata</i> (Pascoe, 1859)* <i>Hesychotypa liturata</i> (Bates, 1865) <i>Hypsioma sororcula</i> Martins, 1981* <i>Jamesia globifera</i> (Fabricius, 1801) <i>Oncideres crassicornis</i> Bates, 1865* <i>Paratrachysomus huedepohli</i> Monné & Fragoso, 1984* <i>Trestonia frontalis</i> (Erichson, 1847)
		Colobothaeini	<i>Ataxia obscura</i> (Fabricius, 1801)
		Pteropliini	
	Prioninae	Callipogonini	<i>Callipogon (Orthomegas) cinnamomeus</i> (Linnaeus, 1758)*
		Mallaspini	<i>Esmeralda laetifica</i> Bates, 1869*

Results and Discussion

A total of 171 specimens of 61 different species, mostly Cerambycinae and Lamiinae were collected during one year (Table 1). Were recorded the subfamilies: Disteniinae and Prioninae (less than 5%), Cerambycinae (41%) and Lamiinae (54%).

Among the 61 species collected, one, *Anisopodus melzeri* Gilmour, 1965 (Figure 1) is a new record for Rondônia and for the Amazon region and 33 species were not previously collected in Rondônia State (see asterisks in Table 1).

According to Monné & Bezark (2010), *Anisopodus melzeri* was previously recorded in the Southeast and South of Brazil (Rio de Janeiro to Rio Grande do Sul) and also Bolivia Argentina.



Figure 1. *Anisopodus melzeri* Gilmour, 1965, 8.6 mm. Porto Velho (Parque Natural Municipal), 30.IV.2009, light trap, 08° 41' 02,57" S, 63° 51' 59,47" W. (UFRO-E 73).

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