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**Taxonomy of the Brazilian species previously placed in  
*Mantispa* Illiger, 1798 (Neuroptera: Mantispidae), with the  
description of three new species**

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## Abstract

Here we update the status of Brazilian Mantispidae (Neuroptera) species originally placed in the Old World genus *Mantispa* Illiger, 1798. We revised 15 species: *Buyda phthisica* (Gerstaecker, 1885), *Dicromantispa debilis* (Gerstaecker, 1888) (= *Mantispa* (*Mantispa*) *lineaticollis* Enderlein, 1910, **n. syn.**), *Dicromantispa gracilis* (Erichson, 1839), *Dicromantispa hyalina* **n. sp.**, *Dicromantispa leucophaea* **n. sp.**, *Dicromantispa moulti* (Navás, 1909) **n. comb.**, *Dicromantispa synapsis* Hoffman, 2002, *Haematomantispa amazonica* **n. sp.**; *Leptomantispa ariasi* (Penny, 1982) **n. comb.**, *Leptomantispa axillaris* (Navás, 1908) **n. comb.**, *Leptomantispa catarinae* Machado & Rafael, 2007, *Leptomantispa chaos* Hoffman, 2002, *Leptomantispa nympha* Hoffman, 2002, *Zeugomantispa compelens* (Walker, 1860) (= *Mantispa parvula* Penny, 1982, **n. syn.**), *Zeugomantispa virescens* (Rambur, 1842). We also provide an illustrated key to subfamilies, genera and species.

**Key words:** Brazil, lacewings, mantis flies, Mantispinae, Neotropical

## Introduction

The genus *Mantispa* Illiger, 1798 was originally used for one European species of lacewings, *M. pagana* Fabricius, 1775 (= *M. styriaca* (Poda, 1761)), in the family Mantispidae (Neuroptera), but new species were described worldwide and placed in this genus, which then became the most speciose in the family (Ohl 2004). In the neotropics, the genus was also the most species-rich (Penny 1977; 1982a, b; Penny & Costa 1983) until Hoffman (2002) proposed a new classification that restricted *Mantispa* to the Old World and moved the putative *Mantispa* species from the New World to six other genera: *Buyda* Navás, 1926, *Dicromantispa* Hoffman, 2002, *Haematomantispa* Hoffman, 2002, *Leptomantispa* Hoffman, 2002, *Xeromantispa* Hoffman, 2002 and *Zeugomantispa* Hoffman, 2002. Although Hoffman (2002) applied this new classification only for the species from Costa Rica, he suggested that it should be adopted for the entire New World fauna and other studies soon followed suite (Ohl 2004; 2005; Cannings & Cannings 2006; Engel & Grimaldi 2007; Machado and Rafael 2007; Reynoso-Velasco & Contreras-Ramos 2008).

According to the Mantispidae catalog by Ohl (2004) part of the Brazilian fauna was already classified in Hoffman (2002) while the remaining species are still in need to reclassification. Thus, here we revise the Brazilian species, including redescription and keys to subfamilies, genera and species.

## Material and methods

About 800 specimens were loaned from the main collections of the five geographic Brazilian regions: CZMA, Coleção Zoológica do Maranhão–Caxias; DZUP, Coleção Entomológica Pe. Jesus Santiago Moure–Curitiba; INPA, Coleção de Invertebrados do Instituto Nacional de Pesquisas da Amazônia–Manaus; MNRJ, Museu Nacional do Rio de Janeiro–Rio de Janeiro; MPEG, Museu Paraense Emílio Goeldi–Belém; MZUEFS, Coleção Entomológica Professor Johann Becker do Museu de Zoologia da Universidade Estadual de Feira de Santana–Feira de Santana; MZUSP, Museu de Zoologia da Universidade de São Paulo–São Paulo; UnB, Coleção de Invertebrados da Universidade de Brasília–Brasília.

Terminalia, when dissected, were macerated in hot 85% lactic acid according to Cumming (1992) and examined in glycerin on excavated slides using an optic microscope with a camera lucida. After examination detached parts were placed in microvials with glycerin and pinned with their associated specimen. External characters were photographed with a digital camera on a stereoscopic microscope and edited in the program CombineZM. Morphological terminology follows Lambkin (1986a; b) and Hoffman (2002). Species were identified using Penny & Costa (1983) and Hoffman (2002) keys and also comparisons with type specimens or with specimens previously identified by specialists.

Here, only species once included in the genus *Mantispa* are treated. An identification key is provided for genera with more than one species. All species proposed by Hoffman (2002) that occur in Brazil are redescribed because their terminalia were not illustrated. Synonymic lists are based on Ohl (2004).