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## ***Memoan ciceroi* gen. et sp. nov., a remarkable new firefly genus and species from the Atlantic Rainforest (Coleoptera: Lampyridae)**

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### **Abstract**

A species of firefly discovered in a fragile and rapidly disappearing Atlantic Rainforest biome in Brazil does not fit into any of the existing subfamilies nor described generic categories in the Lampyridae and is described here as *Memoan ciceroi* gen. et sp. nov. and classed as Lampyridae *Incertae sedis*, as it exhibits features of both the Amydetinae and Lampyrinae. An overview of subfamily arrangements and relevant generic characters is given to support this action. *Memoan* gen. nov. can be distinguished by its alveolate pronotum and elytra; subserrate antennae, antenomerres II–IX compressed, antennal sockets obliquely inserted on tubercles; labial palp one-segmented and obconic, and by its conspicuous pleuroventral suture.

**Key words:** Amydetinae, Fireflies, Lampyrinae, Neotropical, systematics

### **Resumo**

Uma espécie de vagalume descoberta no frágil e evanescente bioma da Mata Atlântica não se enquadra nas categorias genéricas e sub-familiares conhecidas, e é descrita aqui como *Memoan ciceroi* gen. et sp. nov., e classificada como Lampyridae *Incertae sedis*, por ter características tanto de Amydetinae quanto Lampyrinae. Fornecemos uma sinopse dos arranjos das subfamílias e caracteres genéricos relevantes para sustentar esse ato. *Memoan* pode ser diagnosticado por possuir: pronoto e élitros alveolados; antenas subserreadas, antenômeros II–IX comprimidos, soquetes antenais obliquamente inseridos nos tubérculos; palpos labiais uniarticulados e obcônicos, e por uma sutura pleuroventral distinta.

### **Introduction**

Lampyridae Rafinesque, 1815 have ca. 2000 species on 83 genera (Branham 2011), traditionally belonging to eight subfamilies (Crowson 1972; Lawrence & Newton 1995). Bouchard *et al.* (2011) listed but five, arbitrarily positioning Otoretinae, Otoretadrillinae and Pteronotinae under Cantharidae Imhof, 1856, which is a mistake (Bouchard 2012, per. comm.). There is no phylogenetic support for the majority of subfamilies, perhaps saving Luciolinae and Photurinae (Branham & Wenzel, 2003; Stanger-Hall *et al.* 2004, Jeng 2008, unpublished). The family has cosmopolitan distribution, and the most of its known diversity belongs to the Neotropics and Asian Southeast (Lawrence e Newton 1995). There are 350 species and 31 genera listed for Brazil, belonging to three subfamilies: Amydetinae Olivier, 1907, Lampyrinae Olivier, 1907 and Photurinae Olivier, 1907 (Costa 2000). The imagos, when luminescent, are known mainly as “vagalumes” (Brazilian Portuguese), and have great cultural appealing, being represented on poems, songs, paints, among other arts (Harvey 1957; Lenko & Papavero 1996). Lampyrid taxonomy was revised by McDermott in 1964, and since then, despite the efforts of great taxonomists (*e.g.* Ballantyne, Bocakova, Jeng, Geisthardt and their respective co-workers), no one has comprehensively revised the family ever since. The Neotropical lampyrid fauna lacks revisional taxonomic work, and could be a rather