

Occurrence of the Afro-Asian species *Mesocyclops ogunnus* Onabamiro, 1957 (Crustacea: Copepoda) in the Amazon River basin

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The cyclopoid copepod *Mesocyclops ogunnus* Onabamiro, 1957 is an eurytopic species, with wide range distribution in the African and Asian regions (Van de Velde, 1984; Hribar and Reid, 2008). In the Americas this species has been recorded as an introduced species (Reid and Pinto-Coelho, 1994; Matsumura-Tundisi and Silva, 2002; Suarez-Morales et al., 1999; Hribar and Reid, 2008). In Brazil, *M. ogunnus* has been recorded in the Paraná River basin in hydroelectric plant reservoirs and in flood plain areas (Reid and Pinto-Coelho, 1994; Matsumura-Tundisi and Silva, 2002; Lansac-Tôha et al., 2002; Silva, 2011), in the Southeast Atlantic Coast basin in natural lakes of the Rio Doce Valley (Peixoto, et al., 2010) and in the Northeast Atlantic Coast basin in urban reservoirs (Cardôso et al., 2013). The present work records the occurrence of *M. ogunnus* for the first time in the Amazon River basin.

The sample point (geographic coordinates: 09°56'05" S and 63°04'35" W) is located on the Jamari River (Figure 1), an affluent of the Madeira River in Rondônia State. Sampling was carried out in January/2015 by filtering 100 L of surface water (using a graduated container) through a plankton net with 68µm mesh size and preserved with 8% formaldehyde solution. Identification was made following the diagnosis proposed by Van de Velde (1984) and Matsumura-Tundisi and Silva (2002). The organisms were identified using an optical microscope with an image capture system and drawing was accomplished using TurboCad 6.5 software. The distribution of the species in the Brazilian Hydrographic basins was plotted using data from Reid and Pinto-Coelho (1994), Matsumura-Tundisi and Silva

(2002), Lansac-Tôha et al. (2002), Peixoto et al. (2010), Cardôso et al. (2013) and Silva (2003).

Two adults females were found, one dissected (MZUSP 33161) and another preserved (MZUSP 33162). Mean body size was 1.16 mm (Figure 2). Identification was made using the following main differential diagnoses for the *M. ogunnus* species: longitudinal rows of spines on the frontal side of the basipodite of antenna 2 (Figure 2B), rows of spines on maxillary palp (Figure 2C), projection on the intercoxal sclerite of leg 4 (Figure 2D), seminal receptacle with lateral arms broad and slightly curved backwards (Figure 2E) and furca naked on the inner margin (Figure 2F).

Figure 1 shows the Brazilian territory with the main hydrographic river basins and the location of *M. ogunnus* in each basin. In São Paulo State, where introduction occurred towards the end of the 1980s, this species is now widespread in the reservoirs of the Paraná River basin (Matsumura-Tundisi and Silva, 2002) with high abundance and dominance in mesotrophic and eutrophic systems (Silva, 2011). In the Amazonian Jamari River, the sample point where *M. ogunnus* was found is located upstream of the Samuel Reservoir, where the water presents meso-eutrophic conditions (Matsumura-Tundisi et al., 1991; Nascimento, 2006). With this record in the Amazon River basin, *M. ogunnus* has now been found in four out of the twelve hydrographic Brazilian basins. This species was probably introduced by human aquaculture activities in the region, where the African fish Tilapia (*Oreochromis niloticus*) is reared (IBAMA, 2007).

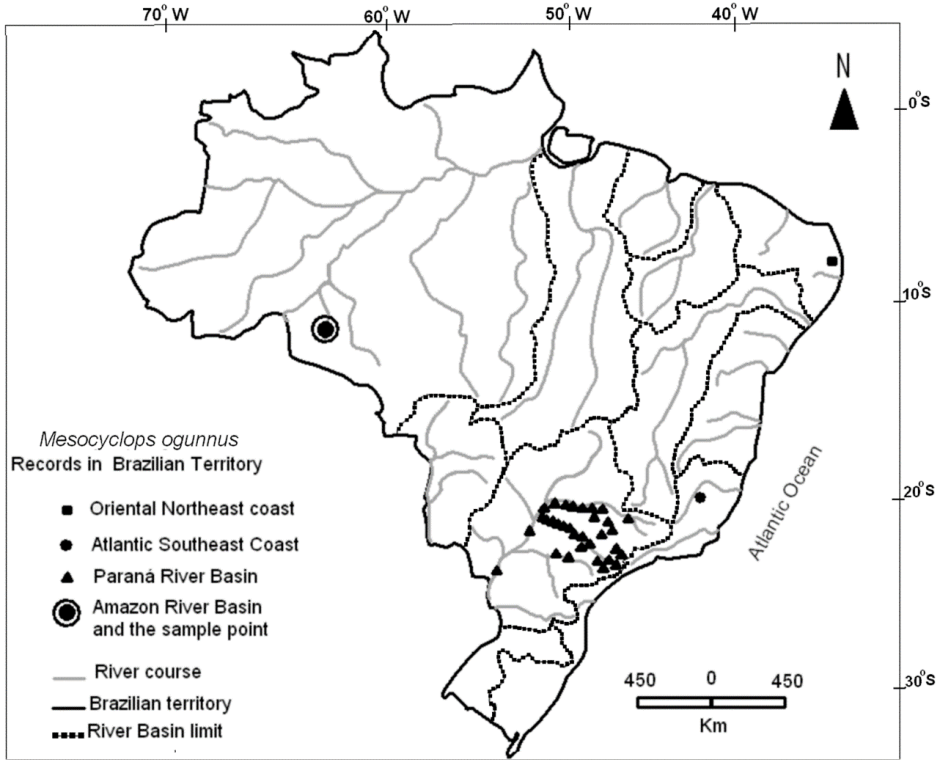


Figure 1. Brazilian territory with main hydrographic river basins and the location of the occurrence of *Mesocyclops ogunnus* in each basin.

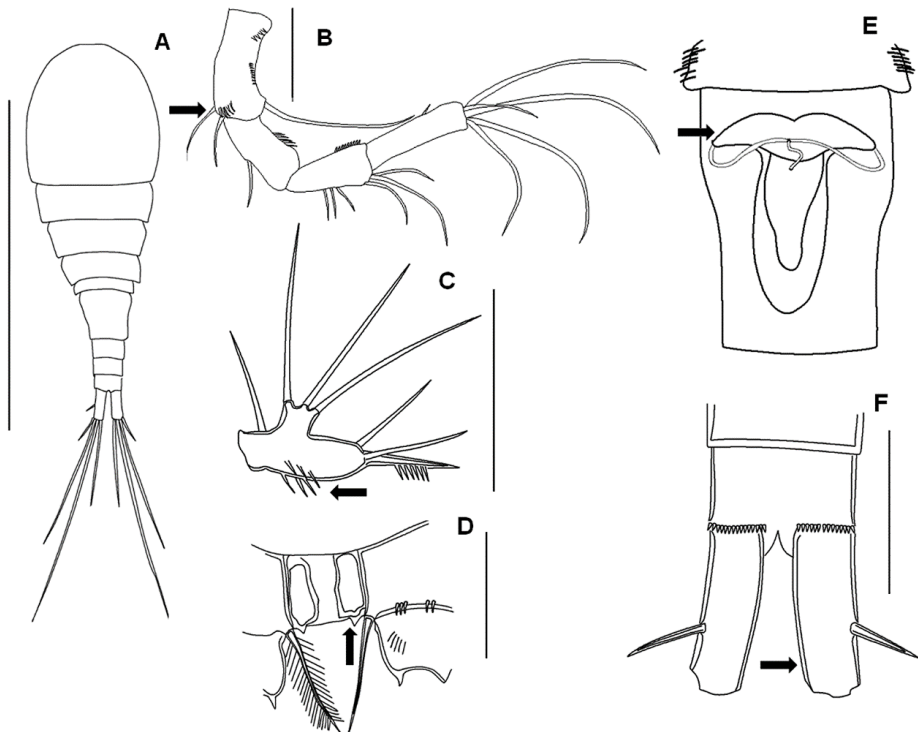


Figure 2. *Mesocyclops ogunnus* female: (A) - General aspect; (B) - Antenna 2 (setae: longitudinal spines rows); (C) - Maxillary palp (setae: rows of spines); (D) - Intercoxal sclerite of leg 4 (setae: projection); (E) - Genital segment (setae: lateral arm of the seminal receptacle); (F) - Caudal rami (setae: naked inner margin). Scale: A = 1000µm; B-F = 100µm.

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