BIODIVERSITY HOTSPOTS OF RECENT FRESHWATER OSTRACODA IN BRAZIL

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Brazil covers almost half of the surface area of South America and comprises several climatic zones, which leads to great ecological diversifications, forming distinct biogeographical areas or biomes (Fig. 1). This reflects the megadiversity of Brazilian flora and fauna, including high levels of endemism.

A literature review in 1994 recorded 260 species in 53 genera of recent non-marine ostracods from the South America. Of these, 91 species in 32 genera occurred in Brazil according to a 1998 checklist (MARTENS & BEHEN, 1994; MARTENS *et al*., 1998).

The surveys of the expeditions of the PELD (Long-term Ecological Research Program) in the Upper Paraná River floodplain (Atlantic Forest) and SISBIOTA (National Biodiversity Research System program) in the Pantanal, Araguaia (Cerrado) and Amazon floodplains) have recorded 60 ostracod species, including the descriptions of 31 new species in nine new genera. Currently, 133 species in 41 genera of recent non-marine ostracods are known from Brazil.

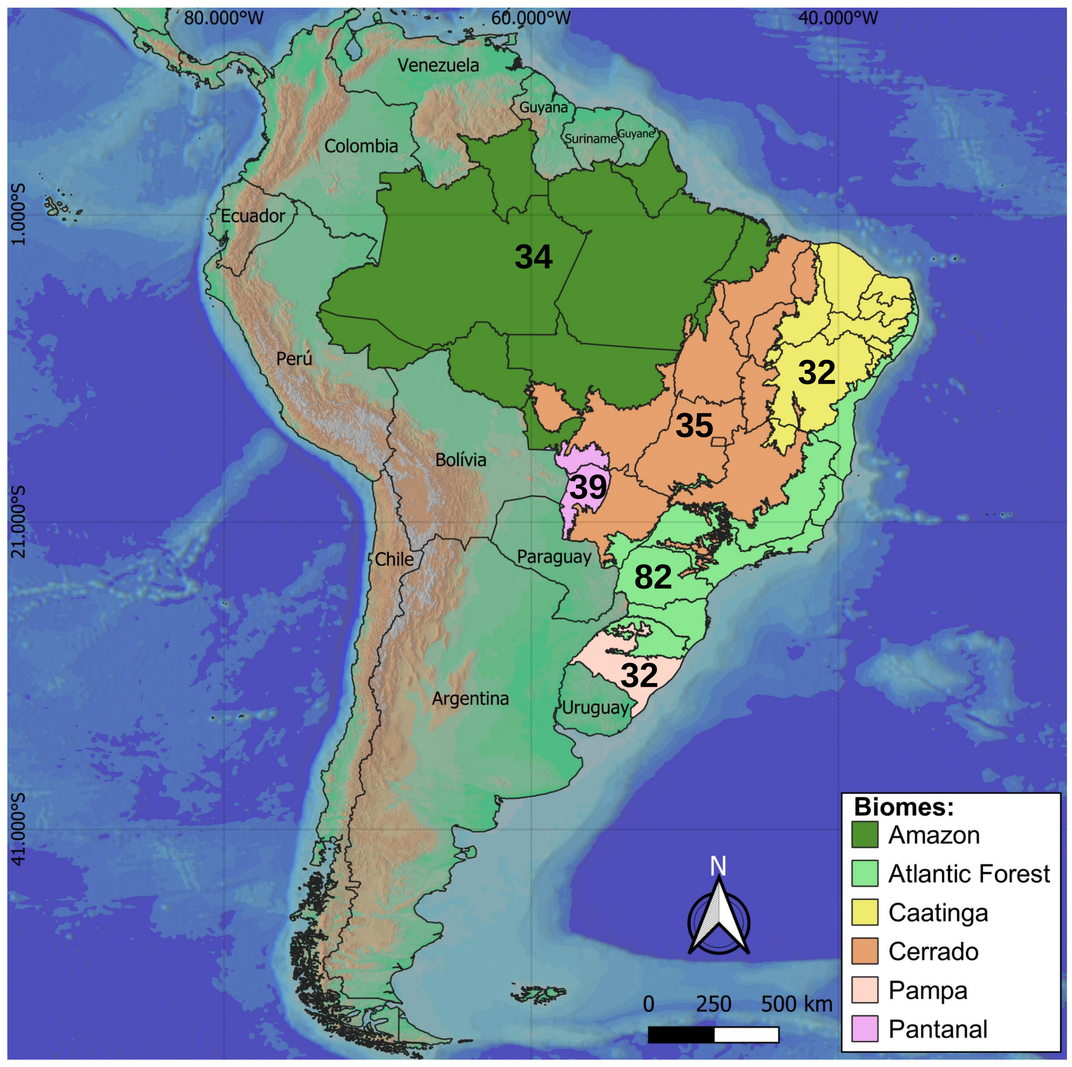

Figure 1. Map showing Brazilian biomes. The numbers in bold indicate the total number of ostracod species recorded from each biome.

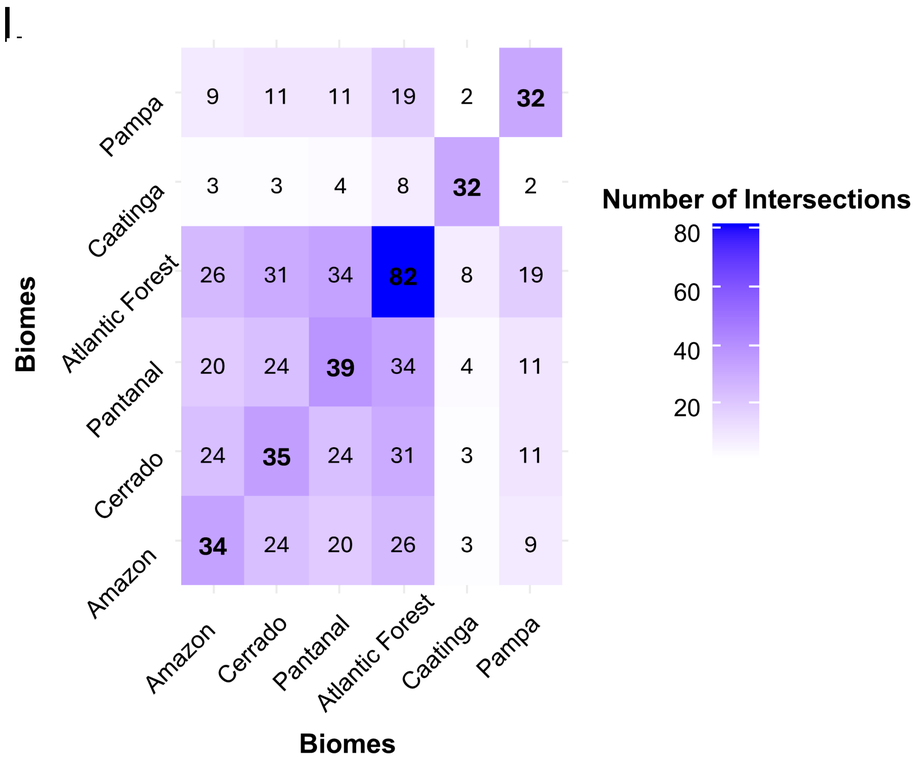

Figure 2. Intersection matrix of ostracod species in different Brazilian biomes.

The highest richness of ostracods has been found in the Atlantic Forest biome (82 species), which includes the upper Paraná River floodplain. As a result, this biome has a higher number of species shared with other biomes, unlike the Caatinga biome, which shares a smaller number of species (Fig. 2). Eight ostracod species were widely distributed, *D. meridana* and *C. vidua* were recorded in all Brazilian biomes, while *S. major*, *C. deformis*, *C. iheringi*, *B. trispinosa*, *C. ilosvayi* and *A. serricaudata* occurred in five biomes (Table 1, Fig. 3).

Table 1. Ostracod species widely distributed in Brazil's biomes.

SPECIES/BIOMES	Amazon	Cerrado	Pantanal	Atlantic Forest	Caatinga	Pampa
Diaphanocypris meridana (Furtos, 1936)	x	x	x	x	x	x
Stenocypris major (Baird, 1859)	x	x	x	x		x
Chlamydotheca deformis Farkas, 1958	x	x	x	x	x	
Chlamydotheca iheringi (Sars, 1901)	x	x	x	x		x
Cypridopsis vidua (O.F. Müller, 1776)	x	x	x	x	x	x
Bradleytriebella trispinosa (Pinto & Purper, 1965)	x	x	x	x		x
Cytheridella ilosvayi Daday, 1905	x	x	x	x		x
Alicenula serricaudata (Klie, 1935)	x	x	x	x		x

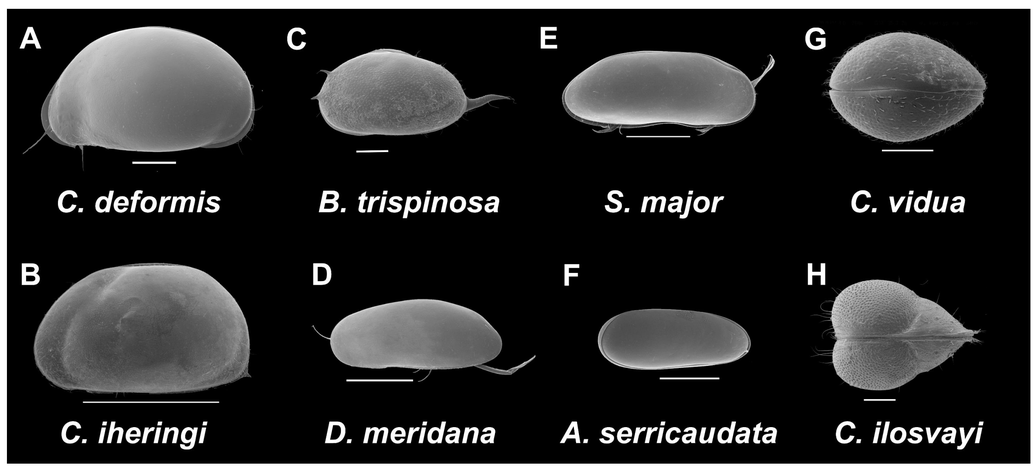

Figure 3. Ostracod species widely distributed in Brazil. Scale bars: A, C, F, G, H = 200 µm; B = 2000 µm; D, E = 500 µm.

The upper Paraná River floodplain (Atlantic Forest) has been continuously monitored since 2004 and has recorded the highest ostracod richness. These results emphasize the relevance of long-term biodiversity monitoring studies. In addition, our results show that there is still little knowledge about the biodiversity of Brazilian ostracods, given that extensive areas remain unexplored.

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