

## Parasites in *Astronotus crassipinnis* (Pisces: Cichlidae) from the Jari River, a tributary of the Amazon River in state of Amapá, Northern Brazil

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*Astronotus crassipinnis*, popularly known as apaiari or Oscar, is a freshwater fish with wide distribution in the system of the Amazon River. From October to November 2014, 35 specimens of *A. crassipinnis* were caught of the Jari River (1° 7'26.21" S; 52° 0'40.59" W) using gill net. After capture, all fish were measured in standard length ( $17.5 \pm 1.1$  cm) and total weight ( $303.5 \pm 51.8$  g) and submitted to parasitological analysis. Gills and viscera were examined for parasites that were fixed in formalin 5% for 24 hours and conserved alcohol 70%. The prevalence (P), mean intensity (MI), mean abundance (MA) and total number of parasites (TNP) were determined. The dispersion index (ID), *d*-statistic and discrepancy (D) were calculated to show the distribution pattern of the parasite infracommunities. All specimens of *A. crassipinnis* (100%) and 9788 parasites were collected. This fish had the gills parasitized by *Gussevia asota*, *Gussevia astronoti*, *Gussevia rogersi* (P = 97.1%; MI = 213.8, MA = 207.7, TNP = 7268), *Posthodiplostomum* sp. (P = 85.7%, MI = 69.8, MA = 59.8, TNP = 2094), *Dolops longicauda* (P = 5.7%; MI = 1.5, MA = 0.09, TNP = 3), the intestine by *Posthodiplostomum* sp. (P = 14.3%, MI = 6.6, MA = 0.9, TNP = 33), *Contracaecum* sp. (P = 22.9, MI = 2.9, MA = 0.7, TNP = 23) and *Gorytocephalus* sp. (P = 11.4, MI = 1.0, MA = 0.1, TNP = 4). The stomach had *Contracaecum* sp. (P = 5.7%, MI = 2.5, MA = 0.1, TNP = 5), and liver *Contracaecum* sp. (P = 2.9%, MI = 1.0, MA = 0.03, TNP = 1) and mesentery *Contracaecum* sp. (P = 91.4%; MI = 11.1, MA = 10.2, TNP = 356) and *Gorytocephalus* sp. (P = 2.9%; MI = 1.0, MA = 0.03, TNP = 1). *Gussevia asota*, *G. astronoti* and *G. rogersi* were dominant parasites, followed by *Posthodiplostomum* sp. The parasites presented aggregate dispersion, except for infection by *Contracaecum* sp. in the intestine that had was random dispersion. The endoparasites community presented low prevalence and abundance. The presence of endoparasites with a complex life cycle indicates that the diet of *A. crassipinnis* consists mostly of mollusks and microcrustaceans. This fish species is an intermediate or paratenic host for *Posthodiplostomum* sp., *Contracaecum* sp. and *Gorytocephalus* sp., parasites found in larval stage. Finally, the behavior and availability of infective stages, which are intermediate hosts for endoparasites, were factors structuring the communities of endoparasites in this Amazonian cichlid.

**Keywords:** Aggregation, Amazon, parasites, freshwater fish