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Diet and feeding dynamic of the bumblebee catfish *Microglanis garavelloi* (Teleostei: Pseudopimelodidae) in a degraded stream from southern Brazil

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This study investigated the diet and feeding dynamics of the catfish *Microglanis garavelloi* over a year. Five hundred and fifty specimens were captured, and gastrointestinal tracts were analyzed, of which 407 presented some contents. Although the specimens were collected from a degraded stream in an agricultural region devoid of riparian vegetation, the specimens consumed 31 food items, 27 of which were autochthonous. The species is predominantly insectivorous, with a high frequency of occurrence and prey-specific abundance of Ephemeroptera, a group of grazing species. Chironomidae was the most frequent item but had medium to low dominance, and Cladocera was frequent but not abundant. The specimen's behavior oscillated from generalist to specialist over time, but the specimens tended to behave more frequently as specialists. Furthermore, each specimen of the population differed in food consumption, characterizing the species as opportunistic and with a high between-phenotype component. The flexibility of consumption of autochthonous items may be the key to understanding the species abundance in that deforested stream. The occurrence of *M. garavelloi* seems to be favored in open habitats, in which the primary productivity related to the periphyton leads to an increase in the abundance of grazers.

Introduction

Fish feeding habits are influenced by the interaction between preferences, availability, and food accessibility (Angermeir & Karr, 1984). Studies in the Neotropics show the importance of riparian vegetation as a supplier of food resources for fish (Goulding, 1981; Alvim & Peret, 2004; Freitas et al., 2011; Lo et al., 2020) or of fish to the forest dynamics (Reys et al., 2009). The degradation of aquatic environments is a common phenomenon in the world, including Brazil, due to anthropogenic actions related to land use for pastures, agriculture, forestry, the increase in urban and mining areas, which promote negative changes in water quality (Mello et al., 2020). In addition, areas with intact forests contribute more allochthonous items to the fish diet, and degraded areas contribute more autochthonous items (Viana et al., 2013). Knowing food habits also allows for identifying factors affecting the distribution and abundance of species (Deus & Petrere Júnior, 2003).

Therefore, studies on feeding constitute the necessary knowledge about species' biology, without which it is not easy to understand general ecological mechanisms (Esteves & Aranha, 1999).

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