AUTOECOLOGY OF THE INVASIVE PIRANHA, SERRASALMUS MARGINATUS (VALENCIENNES 1847), ACTINOPTERYGI, IN THE PARANAÍBA RIVER

Mariana O. Côrtes*, Alexandre Peressin & Alexandre L. Godinho
Departamento de Zoologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais. 31270-901 Belo Horizonte, MG, Brazil.* Mail to: marianacrts@ufmg.br

Theme/Presentation type: Ecologia de populações/Poster

Piranha, fish natural from the middle Paraná River, invaded the upper Paraná River in the earlier 1980s after the inundation of the Sete Quedas Falls by the Itaipu Reservoir. In this study, we analyzed feeding and reproduction of piranhas just downstream the Emborcação Dam, situated in the upper Paranaíba River, the major river that forms Paraná River. We analyzed 708 piranhas sampled with gillnets every two months since the first occurrence register, between February/2014 and December/2016. We determined standard length (SL), body weight, and Fulton condition factor (K) for every captured piranha. We classified the celomatic fat of 185 fish in none (0), low (1), medium (2), and high (3) and then we calculated the mean per SL class to represent the celomatic fat index. We classified the gonadal maturation stage of 117 fish as resting, maturation (initial, intermediate or advanced) or spawned. We captured a higher number of fish in the rainy season (November to April) than during the dry season (May to October). Piranhas smaller than the maturity size (< 78 mm SL) occurred in the sample, indicating recruitment in the study area. The weight-length relationship did not differ significantly between males and females (Ancova, P = 0.18). Except for females < 140 mm SL, the celomatic fat index was greater than two for all size classes of both sexes. All piranhas smaller than 130 mm SL showed resting gonads, while those larger than 189 mm SL were in maturation. All gonadal maturation stages occurred in all samples. This research shows piranha has successfully invaded the upper Paranaíba River.

We thanks Peixe Vivo Program (CEMIG) for funding.