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POPULATION DENSITY OF *PHALLOCEROS HARPAGOS* LUCINDA (CYPRINODONTIFORMES: POECILIIDAE) IN NEOTROPICAL STREAMS

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The density of *Phalloceros harpagos* population tends to be high in streams belonging to the Paraná River basin. Here, our aim was to determine which environmental variables were correlated with *P. harpagos* density in different streams. Fish and limnological parameters were sampled trimonthly (from July/16 to April/17) in nine streams inserted in the Campos Gerais National Park (PR). We used Blanchet method to select the limnological variables that better explained the population density. The selected model ($Abundance = b - a \cdot width - nitrate + chlorophyll$) was assessed by a variance test, resulting in a significant regression model. The aforementioned model selected the variables stream width, nitrate and chlorophyll concentrations, being the first two negatively correlated with *P. harpagos* abundance. We highlight that only width and chlorophyll had significant values for the variance analysis. High abundance in narrow streams might be related to fish's small body size and its reduced swimming capacity. Chlorophyll concentration is an indicator of productivity and diversity in lower trophic levels, which may explain its positive effect on *P. harpagos* abundance, since this species is omnivorous feeding on debris, algae, sediment and plants. Furthermore, narrow streams receive great inputs of allochthonous material. This fact can also explain the negative correlation between abundance and nitrate concentration, which is leached into the aquatic environment. Based on our results, we conclude that *P. harpagos* is a narrow-stream-dwelling specialist fish in the Paraná drainage basin. This outcome is probably due to the low swimming capacity of this species and also because of the input of allochthonous material. Despite tolerant to environmental impacts, this species can be affected by high concentrations of nitrate ions.

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