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ALLOCHTHONOUS ORGANIC MATTER AND RIPARIAN VEGETATION COVER: WHICH RELATIONSHIP PARANÁ BASIN STREAMS REVEALS?

Hugo Bampi¹, Francisco Leonardo Tejerina-Garro^{2,3}, Rodrigo Assis de Carvalho⁴, Nicelly Braudes
Araújo Rodrigues⁵

¹Curso de Ciências Biológicas, Centro de Biologia Aquática, Escola de Ciências Agrárias e Biológicas, Pontifícia Universidade Católica de Goiás; Goiânia, Goiás, 74885-460, Brazil; ²Centro de Biologia Aquática, Escola de Ciências Agrárias e Biológicas, PUC Goiás; ³Programa de Mestrado em Sociedade, Tecnologia e Meio Ambiente, UniEvangélica; ⁴Universidade Estadual de Goiás, Polo de Palmeiras de Goiás, Brazil; ⁵Pós-doutoranda, Programa de Pós-Graduação em Ciências Ambientais e Saúde, PUC Goiás. *Correspondence to hugo.paleozoology@gmail.com

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Allochthonous organic matter from riparian vegetation is an important source of energy in freshwater ecosystems. The aim of this study was to evaluate the influence of the riparian vegetation cover on the amount of organic matter in streams from the Upper Paraná basin, Goiás State. It was sampled 18 stream stretches distributed in 10 basins (Corumbá, Verde, Veríssimo, Piracanjuba, Meia Ponte, São Francisco, São Bento, Bois, Santa Maria, and Preto rivers). Along a 50m stretch in each stream, five transversal transects were delimited. At first, third and fifth transect, nine samples of organic matter (three per transect) were collected using a Surber; the riparian vegetation over the stream was measured (by percentage) with a convex densitometer at each transect. In the laboratory, the content of organic matter was determined by the loss of ignition method. Both variables data (organic matter and riparian vegetation cover) were tested for normality and transformed (log x). The linear regression analysis conducted using the R software indicated a positive relationship between the organic matter and the riparian vegetation cover ($f = 4.117$; $df = 1; 52$; $p = 0.048$). Most of the stream stretches sampled displayed high values of riparian vegetation cover (60-100%) in relation to the other ones (00-10%), but organic matter does not decrease linearly from the first (0.5-1.0 g) to the second group (0.1-1.7 g). The results suggests that available organic matter in the bed stream is influenced by surrounding riparian vegetation, stressing the interference of riparian vegetation suppression on aquatic ecosystems ecological processes.

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