ESTUDIOS LIMNOLOGICOS EN UNA SECCION TRANSVERSAL DEL TRAMO MEDIO DEL RIO PARANA

VIII: Carbono orgánico en los sedimentos de fondo *

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RESUMEN

Se dan a conocer los resultados obtenidos del análisis de 153 muestras de sedimentos de fondo captadas en el “Perfil Aguas Corrientes” ubicado en el km 603 del río Paraná—tramo medio— durante los años 1977 a 1982.

El carbono orgánico osciló entre el 0,967% y el 0,061% con una media del 0,55% en las márgenes y entre el 0,013% y el 0,003% con una media del 0,006% en el centro del cauce.

De la correlación múltiple realizada entre el carbono y los parámetros profundidad de muestreo, velocidad de corriente, nivel hidrométrico, temperatura, arena, lodo y arcilla se deduce que estos explican un 85% de la variación del carbono orgánico.

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ABSTRACT


The results from 153 bottom sediments samples are supplied. The samples were obtained between 1977 and 1982 at the "Perfil Aguas Corrientes" located on the km 603 of the Paraná river middle reach.

The organic carbon in the bank verticals ranged between 0.967%o and 0.061%o with an average value of 0.55%o whereas the midchannel vertical showed fluctuations between 0.013%o and 0.003%o with an average of 0.006%o.

Through a multiple correlation between the carbon and several parameters such as the sample depth, the stream velocity, the river gage, the temperature and the percentages of sand, silt and clay it is shown that these parameters account for an 85% of the organic carbon variations.

INTRODUCTION

The great influence of the Paraná river on the local climate and on the conditions of the sediments in banks and midchannel areas has been the subject of several studies (Copes, 1984). The Paraná river is the largest in South America, with a mean discharge of 38,000 m³/s.

The Paraná river is divided into two main sections: the upper Paraná and the lower Paraná. The upper Paraná is characterized by its steep gradient and the lower Paraná by its large width and depth.

MATERIAL AND METHODS

The samples were collected from the bottom sediments of the "Perfil Aguas Corrientes" located on the km 603 of the Paraná river middle reach. The samples were collected using a Van Veen grab sampler. The organic carbon was determined using the AOAC method (1984). The results were expressed as percent of organic carbon on a dry weight basis.