

**Título: AQUATIC MICROORGANISMS USED AS CHARACTER PLAYFUL IN ENVIRONMENTAL EDUCATION**

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**Resumo:**

Microorganisms are significant part of the aquatic ecosystem. However, the difficulty in observing them generates greater ignorance about its biodiversity and its importance to the survival of other organisms. The uncontrolled growth of the human population has contributed to the increase of environmental pollution and negatively affects the microbial community. Paraíba do Sul River (PSR), is one of the most important water bodies in Brazil and receives approximately one billion liters of sewage a day. Environmental education became an interesting tool to stimulate changes in population thought and behavior and induce the preservation of natural resources. In countries like Brazil, where environmental education can be approached in various levels of education it's common to play second fiddle, while other issues are addressed in teaching materials. Soon, textbooks come to meet this need for information, bringing environmental education to the population and stimulating learning through playful methods. To incite environmental conservation in the population, this study aimed to develop a children's book to convey to children the knowledge of resident's microorganisms in water bodies, the importance of the aquatic ecosystem and ways to protect the environment. For this, the first step was to develop the plot of the story, through a literature and grammar review, which language adjusted to target audience. Based in this material the illustrator was directed as intended to design the book and, finally, the material was illustrated obtaining its final shape. The produced plot tells the story of a bacterium of the genus *Bacillus* that after a heavy rain, detaches from the macrophyte which is associated and get lost in the PSR. From there the bacterium begins its journey up river where it meets the local microbial community, and learns about the RPS and the ways to minimize the impacts suffered by this ecosystem. To stimulate learning and encourage continued reading the book was split into chapters and some games have been added that help set the broadcast content. We expect that this material can be distributed on large scale for the local population, encouraging the active behavior of the population to preserve its natural resources.

**Palavras-chaves:** aquatic ecosystem, microbial community, playful methods

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