ABIS: AN AQUATIC BIODIVERSITY INFORMATION SYSTEM FOR LAKE LANAO

A Capstone Project
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Bachelor of Science in Information Technology

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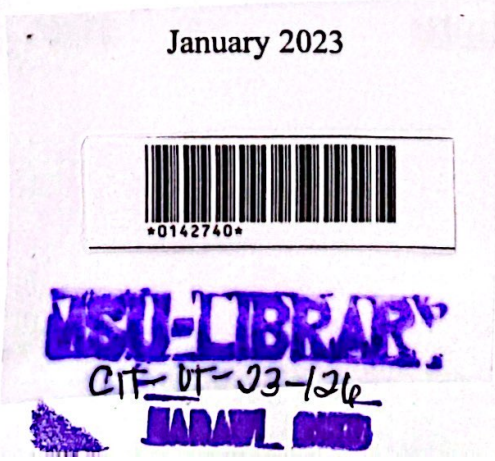

ABSTRACT

This study presented a project focused on addressing the challenges faced by many researchers studying the aquatic biodiversity of Lake Lanao in the Philippines which is a vital resource for the Maranao community. It aimed to develop, design, and customize open access web-based system for the aquatic biodiversity of Lake Lanao which will enable the users to identify different species in Lake Lanao.

The project was developed using ExpressJS, HTML, CSS, Bootstrap and Chart.js as the programming and scripting languages, with MySQL serving as the database for data storage. The system's successful completion was confirmed through positive responses from respondents during usability tests.

This study concluded that the project successfully achieved its objectives. The system offered a convenient infrastructure for researchers to store, manage, reuse, and curate digital materials related to Lake Lanao's aquatic biodiversity. In fact, usability tests yielded high scores, indicating a positive impact. This project provided a valuable system to manage existing research at the College of Fisheries and Aquatic Sciences and other libraries within Mindanao State University, addressing researchers' data archiving challenges.

Lastly, further improvements were recommended to enhance the system's functionality. Future developments should include 3D mapping to locate species habitats within the lake, the incorporation of additional features for end-users, an enhanced user interface, and the development of a mobile application. These enhancements would contribute to establishing the best repository system for Lake Lanao, supporting research and conservation efforts effectively.