ISOLATION AND MOLECULAR IDENTIFICATION OF MICROALGAE COLLECTED IN MINALUNGAO NATIONAL PARK, NUEVA ECIJA

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ABSTRACT

BALTAZAR, MARISOL M., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, ISOLATION AND MOLECULAR IDENTIFICATION OF MICROALGAE COLLECTED IN MINALUNGAO NATIONAL PARK, NUEVA ECIJA.**

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Microalgae are a diverse group of prokaryotic and eukaryotic photosynthetic microorganisms that grow rapidly in a simple and efficient way. This study was conducted to collect, isolate and molecularly identify the microalgae in Minalungao National Park, Nueva Ecija. Microalgal cultures were incubated with temperature of 27^0C-30^0 C with an aerator and urea to promote the growth of microalgae. Isolation of microalgae was identified using morphological and molecular approach by PCR using rbcL primer.

Two species of microalgae were collected and isolated from Minalungao National Park. They were identified as *Desertella yichangensis* (94.46% identity) and *Chlorophyta* sp. (99.18% identity) based on the BLAST analysis. The result of phytochemical screening showed the presence of active components such as essential oils, triterpenes, phenols, fatty acids, anthraquinones, tannins, flavonoids, alkaloids, steroids and coumarins in *D. yichangensis* and *Chlorophyta* sp. On the other hand, anthrones is absent in *D. yichangensis* and sugars in *Chlorophyta* sp.

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