

**MOLECULAR IDENTIFICATION OF FRESHWATER MICROALGAE FROM
THE WATERFALLS OF PARACELIS, MT. PROVINCE**

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ABSTRACT

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Microalgae, is diverse and the species is present in all existing earth ecosystems. The distribution of microalgae are everywhere and be found in saltwater, brackish or freshwater. The study focused on the isolation and cultivation of the microalgae, describe the morphological characteristic and identification of the microalga strain through molecular technique. Three species of microalgae was isolated from the three waterfalls of Paracelis, Mt. province, namely Canabo Falls, Iyo Falls and Maalinsawang Falls. Isolated microalga from each falls was labelled as CS2, MF1 and IF. Microalga strain from CS2 is spherical, MF1 isolate is thread-like shape, while IF strain is sickle-shape. All of the isolate color is green. Through molecular technique the isolated microalgae is identify, using the 16s rRNA and *rbcL*. The CS2 amplified by using *rbcL* gene marker and MF1 was amplified using 16S gene marker. While, IF microalga strain was not amplified at 16S rRNA and *rbcL*. BLAST analysis of the sample showed that CS2 has 100% similarity to *Micractinium* sp. and MF1 has a 92.12% similarity *Leptolyngbya laminosa* with similar samples deposited at Genbank. The similarity of the morphological characters of the two supports the successful molecular identification of the microalgae with the use of 16S and *rbcL* gene markers.

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