

**MORPHOLOGICAL CHARACTERIZATION AND MOLECULAR  
IDENTIFICATION OF MICROALGAE COLLECTED FROM  
TABEYO LAKE, KABAYAN, BENGUET PROVINCE**

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## ABSTRACT

**ESTEBAN, SAMANTHA PATRICIA C.**, Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, MORPHOLOGICAL CHARACTERIZATION AND MOLECULAR IDENTIFICATION OF MICROALGAE ISOLATED FROM TABEYO LAKE, KABAYAN, BENGUET PROVINCE**

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The present study was conducted to purify, describe and identify the microalgae strains collected from Tabeyo Lake, Kabayan, Benguet Province. The study aims to increase the gene bank that can serve as resource to select suitable strain for any practical applications which will greatly benefit the society considering that microalgae play an important role in science and technology today. Two microalgae were described and molecularly identified as *Scenedesmus acutus* (Meyen) and *Desmodesmus denticulatus* (Lagerheim), respectively. DNA sequences of *D. denticulatus* (Lagerheim) was analyzed and confirmed through the BLAST online tool with a percentage identity of 92.51%. The bootstrap value of every organism were shown in the phylogenetic tree analysis and results show that the value of *D. denticulatus* (Lagerheim) with *Acutodesmus deserticola* and *Scenedesmus bijugus* is 70% which confirms that they belong to the same species. Lastly, the *D. denticulatus* is monophyletic with *Desmodesmus baconii*, paraphyletic with *S. bijugus* and polyphyletic with *Daedalea flavida* strain.

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