DEVELOPMENT AND CHARACTERIZATION OF 11 MICROSATELLITE MARKERS FOR THE *Babylonia areolata* USING NEXT GENERATION SEQUENCING MISEQ

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Summary

Spotted Babylon (*Babylonya areolata*) is a economic value species and has been identified as a mainly species of mollusc in Vietnam. Microsatellite markers can be used to differentiate the genetic characteristics of animal and plant populations. Fourty eight Microsatellite markers which were scaned by Next generaton Sequencing (NGS) , was used to analyze 90 samplings collected from 6 coastal provinces in Vietnam including: Quang Ninh, Thanh Hoa, Quang Tri, Khanh Hoa, Binh Thuan, Ba Ria Vung Tau. The results of the study led to the development of 11 microsatellite markers effective in evaluating genetic diversity with 5-20 alleles/locus. Observed (Ho) and expected (He) heterozygote were ranging from 0.333 to 0.939 and 0.532 to 0.923 respectively. All Microsatellite markers were high polymorphic information (PIC), ranging from 0.326 to 0.83. New Microsatellites molecular markers have been found to be an effective tool for studying the genetic diversity, pedigree and relationship of Spotted Babylon populations in Vietnam in future.

Keywords: *Babylonya areolata, NGS, Microsatellite markers.*