

## GENETICS IDENTIFICATION OF SEA HOLLY (*Acanthus ilicifolius*) THROUGH DNA BARCODING FROM COASTAL CILACAP, CENTRAL JAVA, INDONESIA

<b>Title</b>	GENETICS IDENTIFICATION OF SEA HOLLY ( <i>Acanthus ilicifolius</i> ) THROUGH DNA BARCODING FROM COASTAL CILACAP, CENTRAL JAVA, INDONESIA
<b>Author Order</b>	4 of 6
<b>Accreditation</b>	1
<b>Abstract</b>	<p>Sea holly (<i>Acanthus ilicifolius</i>) is an important true mangrove species commonly growing on wetlands at the river mouths and coastal areas. Very limited information is available on the molecular taxonomy of sea holly growing along the coasts of Cilacap, Central Java, Indonesia. The present study aimed to identify the sea holly in coastal Cilacap and to produce a reference library on the molecular characteristics of the species. The recently recorded species were utilized for the barcoding investigation. Genetic identification was evaluated through the <i>rbcL</i> and <i>matK</i> gene. Young leaf samples of <i>A. ilicifolius</i> were collected for DNA extraction, isolation and amplification using the <i>rbcL</i> and <i>matK</i> primer. The length of <i>rbcL</i> gene was 608 bp, and the <i>matK</i> gene was 970 bp. The evolutionary history was build using the Neighbor-Joining Method. The barcode sequences <i>rbcL</i> and <i>matK</i> were analyzed using BLAST and MULTALIN. The sequences were also submitted to NCBI. Genus <i>Acanthus</i> (<i>Acanthaceae</i>) and other genera were clustered in the same clade with high bootstrap value. The results indicated that locus of <i>rbcL</i> and <i>matK</i> gene cannot be used for species differentiation in <i>Acanthus</i>, however, these genes can be used for distinguishing the genus level within <i>Acanthaceae</i>.</p>
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