

Sex identification in *Nepenthes adrianae* from Baturraden Botanical Garden: Genetic analysis using RAPD Markers

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Author Order	1 of 3
Accreditation	2
Abstract	<p><i>Nepenthes adrianae</i> is one of pitcher plant species that grows endemically in Mount Slamet, Central Java. At present, it is one of pitcher plant collections of Baturraden Botanical Garden. Since <i>N. adrianae</i> is dioecious and both sexes are difficult to distinguish morphologically, early sex determination supporting its conservation at Baturraden Botanical Garden is needed. One approach can be performed with the use of RAPD molecular markers. Hence, this study aims to know whether differences in RAPD pattern between male and female <i>N. adrianae</i> exist or not and also to find out what the differences are. Genomic DNAs were extracted from leaves of 4 males, 2 females, and 2 sexually unidentified individuals. The extracted DNAs were then used to analyze DNA variation between male and female <i>N. adrianae</i> employing RAPD technique. As many as five oligonucleotide primers (OPA-15, OPK-16, OPP-15, OPP-08, and OPO-08) were used to amplify <i>N. adrianae</i> DNA. The results showed that one primer, i.e. OPK-16 (5'-GAGCGTCGAA-3'™), produces a specific band of approximately 290 bp which is only found in female plants. It is assumed that this band is related to gene(s) controlling sex determination in <i>N. adrianae</i>. The RAPD marker can be used for the sex determination of young <i>N. adrianae</i> seedlings.</p>
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