Penggunaan Marka RAPD Sebagai Penduga untuk Membedakan Jenis Kelamin pada Kantung Semar Nepenthes Gymnamphora Koleksi Kebun Raya Baturraden

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Abstract	Nepenthes gymnamphora is an endemic pitcher plant species in Java Island and one of the plant collections of Baturraden Botanical Garden. N. gymnamphora is a dioecious plant and its sex cannot be differed in vegetative development. Conservation efforts can be carried out more efficiently when sex identification is performed earlier thus leading to effective development of particular sexes. Random Amplified Polymorphic DNA (RAPD) technique is one molecular approach that can be employed in early identification of N. gymnamphora sex. The aims of this study are to assess whether there is difference of RAPD patterns between male and female N. gymnamphora and to find out how the difference is. Explorative method was applied to this study involving five N. gymnamphora individuals of Baturaden Botanical Garden collection of different sexes as samples. Genomic DNAs were extracted from youngest leaves of the five samples (two males, two females and one individual of unknown sex) and then used as templates to amplify RAPD markers. Five random primers were used in the amplification, i.e. OPK-16, OPP-15, OPA-15, OPP-08, and OPD-20. Two primers, i.e. OPP-08 (5Ã¢Â€Â™-ACATCGCCA-3Ã¢Â€Â™) and OPD-20 (5Ã¢Â€Â™-ACTTCGGCCAC-3Ã¢Â€Â™), produced RAPD bands of approximately 300 bp in males and sexually unknown individual. These bands did not appear in females, so that it can be presumably related to sex determination genes in N. gymnamphora. Primer OPP-08 also produced RAPD bands of approximately 250 bp in females individual. These bands did not appear in males, so it can be presumably related to sex determination genes in N. gymnamphora.
Publisher Name	Fakultas Biologi Universitas Jenderal Soedirman
Publish Date	2019-11-04
Publish Year	2019
Doi	DOI: 10.20884/1.bioe.2019.1.2.1778
Citation	
Source	BioEksakta : Jurnal Ilmiah Biologi Unsoed
Source Issue	Vol 1 No 2 (2019): BioEksakta
Source Page	36-43
Url	http://jos.unsoed.ac.id/index.php/bioe/article/view/1778/1203
Author	Prof. Dr. Drs AGUS HERY SUSANTO, M.S