

RAPID PROTOCOL FOR SPECIES DISCRIMINATION OF ORANGUTANS (*PONGO SP.*)

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Currently orangutans exist in increasingly fragmented and isolated populations. While Sumatran orangutan is primarily found in northern Sumatra, the Bornean is distributed in Central, West, and East Kalimantan, Sarawak and Sabah. The determination of intra- and inter-species variation between Bornean and Sumatran orangutans has been stated to be essential for both the management of orangutan reintroduction projects and the planning of conservation strategies to preserve the remaining wild populations. This study aimed to identify two species of Orangutans (*Pongo sp.*) by means of RFLP (Restriction Fragment Length Polymorphisms) analyses of mitochondrial DNA (mtDNA). An approximately 540 bp single fragment of the ND5 gene near the 5'-region was PCR amplified for all samples tested. Digestion pattern for both *AfuI* and *MseI* were different between two groups of ND5 fragments in this study. Present result showed a rapid protocol to identify these two species by means of RFLP (Restriction Fragment Length Polymorphism) analyses of mtDNA (mitochondrial DNA). This technique can be applied easily to rehabilitation centres and zoos to resolve species discrimination problem.

Keywords: Orangutans, *Pongo sp.*, species discrimination, PCR-RFLP