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Nucleotide Diversity of Mitochondrial DNAs Between the Swamp and the River Types of Domestic Water Buffaloes, *Bubalus bubalis*, Based on Restriction Endonuclease Cleavage Patterns

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Cleavage patterns of mitochondrial DNAs (mtDNAs) by 15 restriction endonucleases were analyzed for 10 swamp and 13 river types of domestic water buffaloes. Digestions with nine enzymes exhibited polymorphisms giving two or three kinds of cleavage patterns. Five mtDNA types were identified, three types in the swamp buffaloes of the Philippines, Vietnam, and Indonesia (S-types) and two types in the river buffaloes of Bangladesh and Pakistan (R-types). Nucleotide diversities ranged from 0.2 to 0.6% within the S- and R-types and from 1.9 to 2.4% between the R-types and the S-types. These values indicated that R-type and S-type mtDNAs differentiated at the subspecific *level of other mammalian* species *reported. The possibility of polyphyletic domestication in different places is discussed for the origin of two distinct types of domestic water buffaloes.*

KEY WORDS: *Bubalus bubalis;* mitochondrial DNA; nucleotide diversity; water buffalo.

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