Short Communication

Isolation of Mitochondrial Control Region for White-nest Swiftlets (*Aerodramus fuciphagus*) Using Primer Walking Techniques

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ABSTRACT

This paper reports on a novel DNA sequence located at the mitochondrial control region (D-loop) of the white-nest swiftlet (*Aerodramus fuciphagus*). This hypervariable control region sequence is potentially useful for studying genetic relationships among the white-nest swiftlet populations. The isolation of the control region involves a primer walking technique, which is simple, fast and cost-effective. In this study, the variability of the control region was assessed and discussed.

Keywords: *Aerodramus fuciphagus*, control region, Mitochondrial DNA, primer walking

INTRODUCTION

The most commonly used DNA markers in the molecular studies of swiftlets are cytochrome b of mitochondrial DNA (mtDNA; Lee *et al.*, 1996; Thomassen *et al.*, 2003; Price *et al.*, 2004; Thomessen *et al.*, 2005; Aowphol *et al.*, 2008) and NADH dehydrogenase sub-unit 2 of mtDNA (NADH-2; Price *et al.*, 2004; Thomassen *et al.*, 2005; Aowphol *et al.*, 2008). In particular, nuclear 12S and beta-fibrinogen intron regions were sequenced by Thomassen *et al.* (2005), whereas a microsatellite genotyping method was established by Aowphol *et al.* (2008). Notably, most of these markers were not specially developed for resolving the relationships of the swiftlets at lower taxonomic-levels. A non-coding region...