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Resolving the Phylogenetic Status of *Dicrurus paradiseus* Allopecies Cluster in Sri Lanka**Weerakkody S.¹, Goodale E.², Seneviratne S.^{1*}**¹*Department of Zoology and Environment Sciences, University of Colombo, Colombo 03, Sri Lanka*²*College of Forestry, Guangxi University, Nanning, Guangxi, PR China***sam@sci.cmb.ac.lk***Abstract**

The advancement of modern molecular phylogenetic techniques allows the recognition of evolutionary relationships and the objective assessment of whether taxa should be considered as separate species. Here we studied the phylogenetic status of *Dicrurus paradiseus* allopecies complex in Sri Lanka to understand the phylogenetic relationships in a phenotypically conservative but vocally complex group of tropical songbirds. Two forms of *D. paradiseus* are found in Sri Lanka; *D. paradiseus lophorinus* (or *D. lophorinus* to some authors) found in the wet zone of the country, and *D. p. ceylonicus*, which inhabits the dry zone. Using wild-caught drongos and museum specimens across the range of *D. paradiseus*, we examined the phylogenetic relationships among these two taxa and their relative placement in the family Dicruridae. The relevant sequences of 16 species of the family Dicruridae were downloaded from GenBank to construct the phylogenetic tree along with the sequences of Sri Lankan Drongos. The phylogenetic relationship was tested using two nuclear (Myo 2, Cmos) and two mitochondrial (ND2, Cytb) markers from five individuals of *D. p. ceylonicus* and eight individuals of *D. p. lophorinus*, we analysed the phylogeny using a Bayesian inference coalescent-based species tree estimation method. The phylogenetic tree revealed that *D. p. lophorinus* and *D. p. ceylonicus* are paraphyletic with the posterior probability (pp) of 1 and showed a recent divergence. *D. annectans*, *D. p. ceylonicus* and *D. p. lophorinus* separated from the rest of the species in family Dicruridae by forming a single separate clade in the phylogenetic tree and the posterior probability (pp) of each split in this clade accounts as 1. Based on the phylogenetic analysis, we can conclude that *D. p. lophorinus* can be treated as a separate species when comparing the splitting patterns of the rest of the species in family Dicruridae.

Keywords: *Dicrurus paradiseus*, Allopecies, Phylogeny, Speciation