

DNA Barcoding and Phylogenetic analysis of *Rhyothemis Variegata* (Anisoptera : libellulidae) Using Cytochrome Oxidase I Gene

Jisha Krishnan, E. K

Department of Zoology, MES KVM College Valanchery

* sajishakrishna22@gmail.com

ABSTRACT

Rhyothemis variegata is commonly known as “picture wing” or “variegated flutter”. This species is known to be widely distributed in South Asian countries and usually found associated with marshes, ponds and paddy fields. It can be easily diagnosed by the presence of iridescent green thorax, black legs, black abdomen, transparent and golden yellow wings with a characteristic “w” shaped brown mark with a black coloured wing spot on hindwings. In the present study I had PCR amplified the coding sequence of mitochondrial COI gene using suitable primer and which yielded a product having 450 bp length amplified DNA. The sequence was deposited in both NCBI and BOLD databases having the respective accession numbers KP938530 and ABX802 for public accession. Both BLAST and BOLD analysis of nucleotide and protein sequences showed 100% sequence similarity to the same species reported from Mizoram having the accession number KC287151. Also it has been found that phylogenetically this species is very close to *Rhyothemis Phyllis* with an indication of conformation of genus taxonomy. Hence the present study provided a unique DNA barcode to this species from Kerala and it is taxonomically more close to *Rhyothemis Phyllis* than other Libellulidae members.