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A preliminary floristic study of Chundikulam forest reserve in Jaffna peninsula

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Chundikulam sanctuary is a reserve which is located in the Northern Province, in Jaffna peninsula. This reserve is situated in the dry zone of Sri Lanka and the area consists of mangroves along the shores and scrub lands in the sandy areas. The Jaffna peninsula, including Chundikulam, faced an ecological destruction due to the Sri Lankan civil war which prevailed for almost three decades. Therefore, due to the paucity of data of this arid vegetation, this current study was carried out as the first investigation after war. According to the surveys, Chundikulam covers an area of 19,000 hectares in vegetation. A systematic study on the vegetation of this dry arid zone forest was carried out using randomly selected representative sampling sites to document the vegetative diversity of the region, through a field survey conducted in the peripheral areas of this reserve in March 2016. Five quadrates (10m×10m) per site were placed totaling to 25 random sample collections. Eighteen different plant species were collected during the study and herbarium specimens were prepared and submitted to the Department of Botany herbarium, University of Kelaniya, Sri Lanka. The plant species sampled were trees (8 species), shrubs (4 species) and creepers (6 Species). Among them *Carissa spinarum, Borassus flabellifer, Drypetes sepiaria, Stereosperum colais, Prosopis juliflora. Dillenia* sp., *Pterocarpus* sp. were tree species and *Atalantia ceylanica,*and *Memwcylon umbellatum* were recorded as shrubs and *Euphorbia antiquorum, Jasminum officinale, Hardenbergia* sp. were identified as creepers. The dominant plant species of the vegetation was *Drypetes sepiaria* (Putranjivaceae) while *Borassus flabellifer* (Arecaceae) was the most abundant.The total vegetation cover was estimated by the mean number of individuals (30.4%). The plant communities that have been recognized in this study within the arid and dry forest in Chundikulam forest reserve will provide preliminary scientific data for a systematic review of the changes in their vegetation after the war which prevailed for almost three decades.

Keywords: Chundikulam reserve, Dominant, Floristic study, Plant species