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**The Implications of Religious Practices on *Loxococcus rupicola* (Thw.) H. Wendl. and Drude,
A Critically Endangered, Endemic Palm Species in Sri Lanka**

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Abstract

Sri Lanka is rich in biodiversity and traditional, religious, and cultural practices. However, some of these traditional beliefs could lead to decline of the local biodiversity. Ran-Dotalu (*Loxococcus rupicola* (Thw.) H. Wendl. & Drude,) is one of the sacred groves among the Buddhists and Buddhism is the major religion followed in Sri Lanka. *L. rupicola* (Family Arecaceae), is a palm listed as Critically Endangered and Endangered on the global and national red lists respectively. *Loxococcus* is an endemic genus and Ran-Dotalu is also protected under the Flora and Fauna Protection Ordinance. It confines to rainforests in central highlands of Sri Lanka as small populations on shady rocky outcrops. Therefore, the objective of this study was to explore the religious beliefs, and cultural practices, and document the present state of the wild collection of Ran-Dotalu to identify the threats related to religious activities. Sociocultural data on Ran-Dotalu and its uses in the rituals were collected based on semi-structured questionnaire interviews via formal discussions, telephone conversations, and emails. Out of 114 respondents there were Buddhist priests (n=03), plant collectors (n=07), and users and or worshipers (n=104). Among them 36% were males and 64% were females. According to the results, flowers, seeds, seedlings, and saplings collections were reported from Peak Wilderness sanctuary, Erantha-Gilimale Forest reserve, and Knuckles Forest Reserve. Ran-Dotalu. Flowers were mainly collected for religious activities and rituals (42.3%), medicinal purposes (26.3%), as a substitute for Areca nut (23.6%), and to sell (7.8%). Worshipping with Ran-Dotalu flowers was common at Sri Padasthanaya, Temple of Tooth, Ruwanweliseya and Jayasrima Bhodiya, Saman Devalaya, and Katharagama Devalaya. On average 10-12 flowers were collected by a collector per month and, sold for a price ranging from Rs. 500 to Rs. 5,000. On average 10-15 flowers (per month) were brought to above-mentioned religious places. According to the legends god Sumana-Saman offered Ran-Dotalu flowers to Buddha for establishing Sri Padasthanaya. Therefore, worshipers believe that offering Ran-Dotalu flowers is a great act of charity and pays off all sin. The palm recently become a popular ornamental plant (9%) despite its protected status. Around 78% of the respondents were not aware of the conservation status of *L. rupicola*. Thus, seed production and young generations in the wild populations are in danger. The study suggests that understanding of practices that may threaten local biodiversity and immediate actions are needed to conserve the *L. rupicola* wild populations.

Keywords: *Loxococcus rupicola*, Sacred groves, Ran-dotalu, Critically endangered