

**AN ETHNOBIOLOGICAL ANALYSIS OF TRADITIONAL RITUALS IN
PALUGASWEWA CASCADED TANK-VILLAGE SYSTEM, A GLOBALLY
IMPORTANT AGRICULTURAL HERITAGE SITE IN SRI LANKA**

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The lack of systematic documentation on the ethnobiological aspects of traditional rituals in Sri Lanka limits the understanding of their role in biodiversity conservation and preservation of cultural heritage. In this, the use of biological materials in rituals within the *Palugaswewa* Cascaded Tank-Village System (CTVS) was investigated. Three villages: *Palugaswewa*, *Udakadawala*, and *Horiwila*, were selected based on their geographical proximity to the CTVS concerned and their continued practice of traditional rituals. Informants aged 50–80 years were included assuming elderly people carry extensive knowledge and experience. Twenty-eight informants faced semi-structured interviews, focus group discussions, and participatory observations. Twenty rituals were identified, including agriculture-based (6), religious (4), healing (3), social (3), and other (4), with 19 involving biological materials. Quantitative analysis revealed the usage of 90 plant species from 79 genera and 41 families and six animal species from six genera. Trees (47%) were predominantly used, often for their structural or symbolic relevance, followed by shrubs (22%), lianas (15%), herbs (12%), and grasses (4%). The most utilized plant parts included leaves, fruits, seeds, flowers, and stems. Notably, minimal habitat disruption was observed during the extraction process, with only 21 species collected from forests and six from tank boundaries. Findings highlight patterns linking rituals to species characteristics, such as the prevalence of Fabaceae in agricultural rituals due to its symbolic association with fertility and productivity. This research highlights the intricate links between traditional rituals and biodiversity, emphasizing the role of cultural practices in conserving ecological resources. The findings underscore the importance of traditional beliefs and present an alternative view of conservation not primarily driven by governmental policies. Collaborative efforts with local communities to document and sustainably manage biological materials can help preserve biodiversity and cultural heritage. Further research is recommended to deepen understanding of traditional beliefs in biodiversity conservation.

Keywords: Ethnobotany, Ethnozoology, Biodiversity conservation, Ritual practices, Traditional ecological knowledge