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EXPLORING TAXONOMIC AWARENESS AND RESEARCH GAPS IN WILD RICE (*ORYZA*) SPECIES OF SRI LANKA: A CASE STUDY APPROACH

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Abstract

Wild rice species play a vital role in rice breeding programs as they harbour valuable agronomic traits, such as resistance and tolerance to various biotic and abiotic stresses. However, their populations are declining due to both natural and anthropogenic factors, highlighting the urgent need for their conservation. This study aimed to gather experts and stakeholder's opinions in Sri Lanka and across the globe regarding taxonomic gaps and conservation challenges in wild rice conservation in Sri Lanka. An online questionnaire was prepared using "Google Forms" and distributed to university academics with expertise in taxonomy, researchers working on Sri Lankan wild rice, staff of the Rice Research and Development Institute (RRDI), Bathalagoda, the director and staff of the Plant Genetic Resources Centre (PGRC) and the director and staff of the International Rice Research Institute (IRRI). The survey was also shared with taxonomists, ecologists, and conservationists from other Asian countries, Europe, Australia, Africa, and North and South America, along with additional semi-structured interviews with relevant stakeholders. With 96% of respondents indicating wild rice species are very important, while only 3% believed the public is adequately aware of its value. A large majority supported its integration into national biodiversity conservation policies (82%, Q4) and recognized its potential for commercial utilization (67%, Q5). Regarding taxonomy, most respondents believed that the current system used for naming cultivars is inadequate and needs improvement (74%, Q11) and emphasized the need for molecular approaches to identify desirable traits (85%, Q15) and regular updates of international databases (87%, Q17). Conservation priorities were strongly highlighted, with 82% supporting the establishment of new protected areas (Q24) and 49% favouring expansion of existing ones (Q25). Overall, these findings underscore the pressing need for strengthened taxonomic research, updated molecular classification, enhanced conservation initiatives, and increased public awareness to safeguard the genetic diversity of Sri Lanka's wild *Oryza* species.

Keywords: Agronomic Traits, Conservation, *Oryza*, Protected Areas, Sri Lanka, Taxonomy