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# Habitat Destruction of Wild Rice Germplasm and Their Impact on Future Crop Improvement

Anjan Kumar Sinha

Department of Botany, Raghunathpur College, Raghunathpur, Purulia-723133

Email- anjansinha06@gmail.com

**Abstract:** Whole eastern region including West Bengal of India is a home land of a large number of wild rice species. Among the 24 wild rice species two wild rice species i.e. *Oryza rufipogon* and *O.nivara* has been found abundantly in various districts of West Bengal like Bankura, Purulia, Bardhaman and Birbhum etc. Habitat of the wild rice varieties has been declining very fast. Extensive survey has been conducted in the district of Bankura and Purulia of West Bengal and found various patches of wild rice population. Due to the biotic and abiotic stress factor and anthropogenic activities these wild rice germplasm resources have been rapidly declining from their natural habitat. Present investigation shows the periodical decline of a wild rice population from the seasonal pond near the Jaychandi foothills of Purulia district of West Bengal. Data from three consecutive years from 2023-2025 is clearly indicating that the wild rice population is declining from their natural habitat very fast and proper conservation strategies should be adopted urgently or we may lose these valuable genetic resources from this region in near future.

**Keywords:** Wild rice, West Bengal, destruction, germplasm, conservation.

\*Corresponding author: A. K. Sinha

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## 1. Introduction

From morphology to the genetic configuration Wild rice is closely related to the cultivated rice. Due to natural selection cultivated rice had evolved from the wild rice varieties. Eastern part of India is a home land of a large number of wild rice species population. Among the 24 wild rice species two wild rice species i.e. *Oryza rufipogon* and *O.nivara* has been found abundantly in Eastern part of India (Sing, 2013). Wild rice germplasm resources consist of diverse genetic diversity into their gene pool (Samal, 2018). Most of the wild rice germplasm have excellent adaptability towards the various abiotic and biotic stress conditions. These genetic resources will play a pivotal role in future crop improvement as the climate is gradually