Crop Wild Relatives descriptors

How to describe and document CWRs conserved *in situ*

Introduction

The effective conservation and utilization of crop wild relatives (CWRs) in situ *depend not only on the identification and protection of populations in their natural habitats but also on the existence of data infrastructures that allow internationally standardized documentation of CWRs conserved in situ.*

Objectives

This practice abstract provides an overview of the key descriptor frameworks and documentation standards available for recording CWRs populations conserved in situ, ensuring data compatibility across national and international systems.

Results

Two complementary frameworks provide practical guidance for CWR documentation.

The FAO ITPGRFA developed the Descriptors for Crop Wild Relatives conserved in situ (CWRI v.1.1, Alercia et al. 2022), establishing a globally agreed minimum set of passport descriptors for in situ CWR populations. Building on this, the European Cooperative Programme for Plant Genetic Resources (ECPGR) elaborated additional principles for creating in situ CWR National Inventories. Organized at taxon and population levels, these passport data ensure compatibility with EURISCO, the European ex situ accession database, while allowing flexibility for national needs.

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Recommendations

These frameworks indicate that all records must mandatorily capture the taxonomic identity (genus and species), the country of occurrence, the most recent observation date, a unique population identifier, and the name of the managing institution or individual responsible for the site. It is also highly recommended to give geographic precision through latitude and longitude coordinates, elevation, coordinate datum, and a narrative location description. Ecological context should be captured via the status of the occurrence site, distinguishing wild, agricultural, and ruderal habitats, and the legal protection category of the site, following IUCN guidelines. Conservation relevance is documented through fields describing biological status of the population, conservation actions in place, and the population's status under the Multilateral System (MLS) of Access and Benefit-sharing of the ITPGRFA. Links to associated ex situ accessions or herbarium specimens provide a crucial bridge between in situ occurrence data and stored germplasm.

Further reading

- Alercia, A., López, F., Marsella, M., and Cerutti, A.L. 2022. Descriptors for Crop Wild Relatives onserved in situ (CWRI v.1.1) Revised version. Rome, FAO on behalf of the International Treaty on Plant Genetic Resources for Food and Agriculture. https://doi.org/10.4060/cb3256en

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