The PGR Forum Crop Wild Relative Information System (CWRIS): Information management for CWR populations, illustrated with case studies


Purpose of CWRIS

The PGR Forum Crop Wild Relative Information System (CWRIS) is an online information management system specifically designed to facilitate CWR conservation and use. CWRIS has two main dimensions: the CWR Catalogue for Europe and the Mediterranean, containing more than 23,000 species and in excess of 243,000 distribution records, and the CWR descriptors for management of taxon data, including detailed site and population data. Aiming to serve a diverse range of user communities, including conservationists, plant breeders, policy-makers and protected area managers, great care has been given to data standardisation. Several case studies have been developed by PGR Forum participants to test CWRIS and some snapshots are shown here to provide a sample of the capabilities of CWRIS for management of conservation data.

Structure of the CWR descriptors

The information is organised along two dimensions: taxon information (Box 1) and site and population information (Box 2).

Utilisation: a defining characteristic of crop wild relatives

A defining attribute of a CWR is its utilisation. This can be direct, for example as wild salad, or indirect, as potential breeding material for the target crop. The relationship of the CWR to the associated crop is therefore an essential piece of information that is included in the CWRIS descriptors. The information given under taxon utilisation is shown (Box 3) for Beta vulgaris subsp. maritima (L.) Arcangeli, wild or sea beet (Data: L. Frese).

Threats are documented at two levels in CWRIS: for the taxon across its whole distribution or for a population of the taxon at a specific location. The threats are categorised according to the IUCN Threat Authority File. The example of Arnica montana (Box 4) has multiple entries for taxon threat: the data for Norway provided by A. Asdal, for Lithuania by J. Labokas. For in situ conservation management of threatened species it is crucial to know the local threats to a particular population. The species illustrating this is the Western European maritime endemic Asparagus officinalis subsp. prostratus (Dumort) Corb. Local threats to this species at a particular site, Port Eynon, Wales, are shown in Box 5 (Source: Rich et al. 2002). The same IUCN threat standards are used here to classify the local threats.

For a full insight into the capabilities of CWRIS for management of CWR information, or to browse the CWR Catalogue for Europe and the Mediterranean, visit: http://www.pgrforum.org/cwris/htm

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Conserving plant genetic resources for use now and in the future