

Final technical report

TITLE of AGREEMENT	CWR in Eurisco
AGREEMENT NUMBER	L24ROM205
IMPLEMENTING PARTNER	Plant Breeding and Acclimatization Institute – National Research Institute (IHAR-PIB)
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TYPE OF REPORT	Final report
ABSTRACT (maximum 200 words)	This final technical report covers the activities carried out on the period July 15 th and December 31 st , 2024. The main objectives were to identify the priority taxa and populations, to prepare the national database structure, to collect and organise the data according to the agreed principles and data exchange format and to provide the data to EURISCO.
KEYWORDS	Country/region: Poland, Central Europe Crop(s): Crop Wild Relatives Subject: Extension of EURISCO for Crop Wild Relatives (CWR) in situ data and preparation of pilot countries' data sets: Poland

Final Report

Background

The term Crop Wild Relatives (CWR) is used to define wild plant species that are more or less genetically related to cultivated plants, but unlike them have not been domesticated. Thus, these are all wild species that are to some extent genetically related to plants grown for food, fodder and forage crops, medicinal plants, spices, ornamental and forest species used by mankind. Most of them occur as weeds in such habitats as wastelands, roadsides, field edges, orchards and traditionally managed farmland. The flora of Poland's vascular plants is estimated at about 3,500 species and lower-ranking taxa of varying geographic and historical status. Of these, 1,458 were recognized as species related to cultivated plants (Fu-Dostatny 2020).

The CWRs found in the country are observed and harvested during field expeditions organized annually. Seeds collection in the field is preceded by the preparation of a habitat card containing a physiographic description of the explored habitat, geographical data (passport data) and list of associated species. The study of plant communities during expeditions not only contributes to the conservation of rare and declining species in *ex situ* collections, but also protects species that are disappearing due to anthropogenic environmental changes.

Currently the CWR in *ex situ* genebank collections are included in the Polish documentation system EGISET and thus annually uploaded to EURISCO.

According to the agreement the activities that has to be reported in this report are as follows:

1) Identify priority taxa and populations

- The checklist of crop wild relatives occurring in Poland was published in 2020 and it was prepared in framework of Multiannual Programme financed by the Ministry of Agriculture and Rural Development.
- The CWR-National Inventory was made based on the existing activities of collecting missions and CWR collections in the Polish genebank.
- Focus on collecting missions from last five years, where the crop wild relatives were observed, described and/or collected.
- Prioritization was done according to the practical use of each CWR genera.
- Distribution data of CWR are not too old.

2) Prepare the national database structure;

According to preparation of the national database structure, the existing database has been used. Data is transformed in EURISCO *in situ* CWR data standard data format.

The concept of the data structure was created (Fig. 1 & 2).

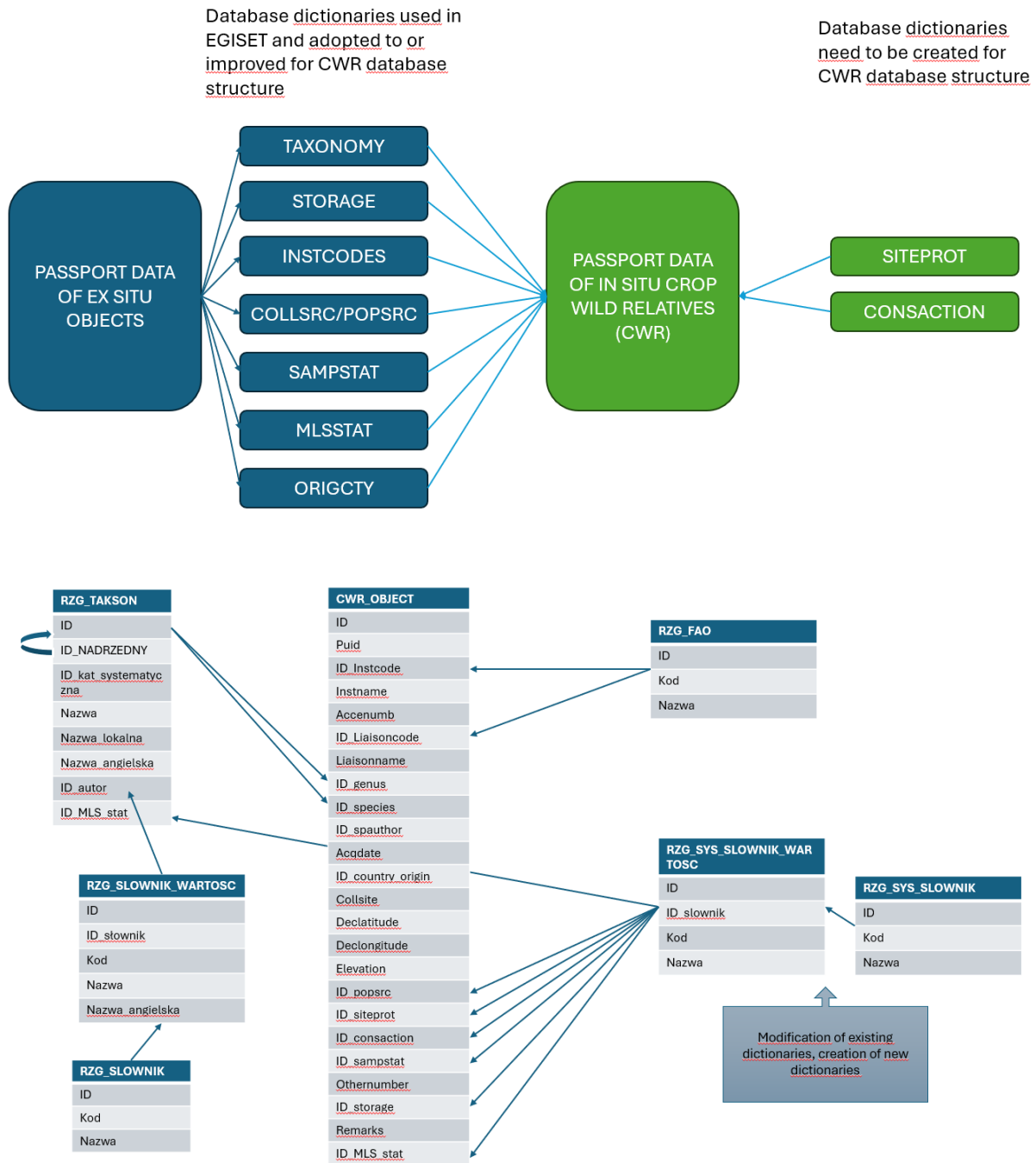


Fig. 1 & 2. The concept of the database structure.

There is a need to modify/complete and create new dictionaries used in the current data format.

In future new datasets of CWR populations will be added to the same database.

3) Collect and organize the data according to the agreed principles and data exchange format + future plans

Data were collected and organized according to the 'Descriptors for uploading *in situ* CWR passport data to EURISCO'.

111 populations from 43 genera (58 species) were prepared.

Future plans:

- To check the occurrence and verify/complete the collected data of CWR observed *in situ* during collecting missions older than 5 years.
- In order to improve the addition of new datasets on CWR occurring *in situ* in Poland to the existing database, the addition of a new module to the data management system is being considered.

4) Provide the data to EURISCO.

Msc. Eng. Renata Kowalik was nominated as CWR National Focal Point.

The passport data describing 111 populations of crop wild relatives from 43 plant genera: *Achillea*, *Allium*, *Alopecurus*, *Angelica*, *Arrhenatherum*, *Artemisia*, *Brachypodium*, *Bromus*, *Butomus*, *Camelina*, *Chaerophyllum*, *Cichorium*, *Cirsium*, *Daucus*, *Descurainia*, *Festuca*, *Glyceria*, *Hypericum*, *Juncus*, *Leucanthemum*, *Lithospermum*, *Lotus*, *Lythrum*, *Medicago*, *Melandrium*, *Milium*, *Oenothera*, *Pastinaca*, *Plantago*, *Poa*, *Polygonum*, *Potentilla*, *Prunella*, *Rumex*, *Saponaria*, *Stipa*, *Tanacetum*, *Tragopogon*, *Trifolium*, *Trisetum*, *Valerianella*, *Verbascum*, *Vicia* were uploaded to EURISCO on 11th of December 2024 using the standard data format described in 'Descriptors for uploading *in situ* CWR passport data to EURISCO'.

Table 1. Number of accessions in CWR-NI per family and genus.

Families and Genera	No. of accessions	Families and Genera	No. of accessions
Alliaceae	2	Juncaceae	1
Allium	2	Juncus	1
Apiaceae	13	Lamiaceae	1
Angelica	1	Prunella	1
Chaerophyllum	1	Lythraceae	1
Daucus	7	Lythrum	1
Pastinaca	4	Onagraceae	1
Asteraceae	12	Oenothera	1
Achillea	5	Plantaginaceae	4
Artemisia	1	Plantago	4
Cichorium	1	Poaceae	16
Cirsium	1	Alopecurus	1
Leucanthemum	1	Arrhenatherum	2
Tanacetum	2	Brachypodium	1
Tragopogon	1	Bromus	5
Boraginaceae	2	Festuca	2
Lithospermum	2	Glyceria	1
Brassicaceae	3	Milium	1
Camelina	1	Poa	1
Descurainia	2	Stipa	1
Butomaceae	1	Trisetum	1
Butomus	1	Polygonaceae	8
Caryophyllaceae	4	Polygonum	1
Melandrium	2	Rumex	7
Saponaria	2	Rosaceae	1
Fabaceae	28	Potentilla	1
Lotus	3	Scrophulariaceae	1
Medicago	1	Verbascum	1
Trifolium	23	Valerianaceae	2
Vicia	1	Valerianella	2
Hypericaceae	10	TOTAL	111
Hypericum	10		

All of these accessions are included in the CWR-National Inventory of the genebank in NCPGR, Radzikow and were originally collected from their wild habitats (Fig. 3). Most of the populations are preserved as seed collection. Some of them are in living collection.

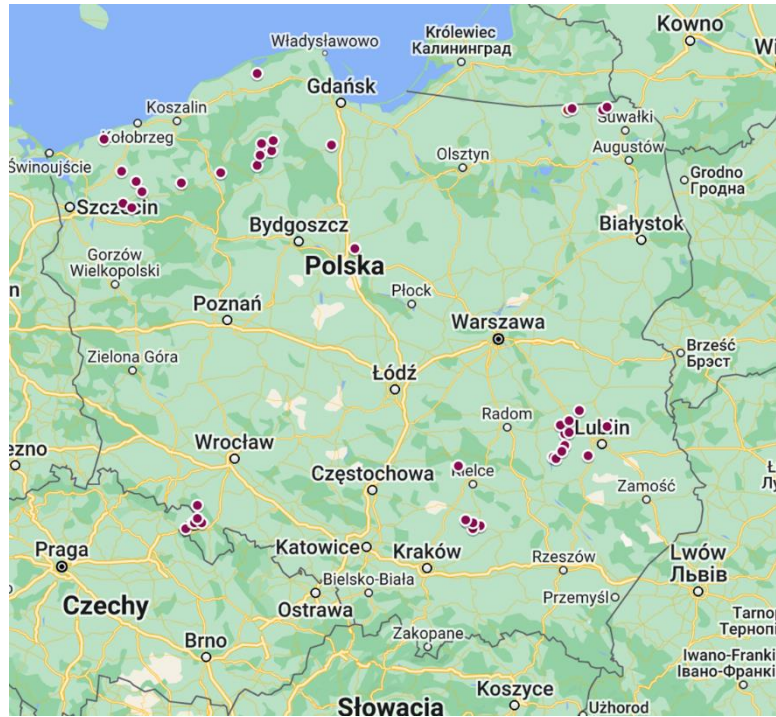


Fig. 3. Map of the distribution for CWR species in Poland reported in 2024.

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Descriptors for uploading in situ CWR passport data to EURISCO. 2024-01-04

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