

EUBRASWILD

Capturing **Brassica Wild** Relatives Diversity in the South Eastern Europe



Project details:

- Duration: 24 months - **1 October 2020 – 1 August, 2023**
- Working group: *Brassica*
 - Working group chair: **Ferdinando Branca**
 - Activity Coordinator: **Smiljana Goreta Ban**



Project details

- Activity Partners (ECPGR-funded):

1. Ferdinando Branca <ul style="list-style-type: none">University of Catania (UNICT)Italy	2. Smiljana Goreta Ban <ul style="list-style-type: none">Institute of Agriculture and Tourism (IPTPO)Croatia	3. Sokrat Jani <ul style="list-style-type: none">Agricultural University of Tirana, Institute of Plant Genetic Resources (IPGR)Albania	4. Ana Marjanović Jeromela <ul style="list-style-type: none">Institute of Field and Vegetable Crops (IFVO)Serbia	5. Vladimir Meglič / Barbara Pipan <ul style="list-style-type: none">Agricultural Institute of Slovenia (KIS)Slovenia	6. Nataša Mirecki <ul style="list-style-type: none">University of Montenegro Biotechnical Faculty (UNIMO)Montenegro	7. Georgia Ntatsi <ul style="list-style-type: none">Institute of Plant Breeding and Genetic Resources (IPBGR)Greece
---	--	--	--	---	---	---

- Self-funded partners:

1. Nikola Major <ul style="list-style-type: none">Institute of Agriculture and TourismCroatia	2. Nevena Nagl <ul style="list-style-type: none">Institute of Field and Vegetable CropsSerbia	3. Bernard Prekalj <ul style="list-style-type: none">Institute of Agriculture and TourismCroatia	4. Dragana Rajković <ul style="list-style-type: none">Institute of Field and Vegetable CropsSerbia	5. Di Bella Maria Concetta <ul style="list-style-type: none">University of CataniaItaly	6. Lorenzo Maggioni <ul style="list-style-type: none">ECPGRItaly
---	---	--	--	---	--

Project activity description

- **Eastern Europe** is rich in **wild *Brassica* relatives**, but there is a lack of information on existing species and their distribution
- Previously mentioned species: *Brassica rupestris* Raf., *B. villosa* Biv., *B. macrocarpa* Guss., *B. drepanensis* (Caruel) Damanti , *B. incana* and related endemic species such are *B. botterii* Vis., *B. cazzae* Ginzb. & Teyb and *B. mollis* Vis
- No known cultivation in the area, but utilized as food by the local population
- *Brassica* wild species used as leafy vegetables: *Eruca* spp., *Diplotaxis* spp., *Sinapis* spp., *Isatis* spp., *Hirschfeldia* spp.

Aims:

- **to contribute to knowledge on presence, distribution and biodiversity status of wild *Brassica* relatives in the Eastern Europe**
- **filling the gaps of wild *Brassica* in genbanks and AEGIS**

Project activities justification

- **Crop wild relatives (CWRs)** = carriers of desirable agronomic/quality properties →→ breeding programs
- *Brassica* wild relatives are endangered (climatic changes, enlargement of urban areas, tourism, summer fires) due to their specific habitat (coastal cliffs/rocky terrains)
- **AEGIS database** contains 2 273 *Brassica* accessions (UK 909, Netherlands 673, Italy 256) → none from the geographical area that will be covered by **EUBRASWILD**

Expected products and related ECPGR objectives



Expected products/results	Corresponding ECPGR output, activity
1 Defined accessions for inclusion in AEGIS	Output 1.2.; Activity 1.2.1 - identification of new EU accessions for inclusion into AEGIS
2 Update on crop-specific gen-bank standards for Brassica CWRs	Output 1.6; Activity 1.6.2 - standards – agree on crop-specific gene bank standards
4 Seeds available for exchange among partners and available for AEGIS	Output 1.8; Activity 1.8.3 - ECPGR-mediated regeneration of AEGIS accessions

Genetic material

- **Genetic material** in national collections of participated countries + samples collected during this project will be biochemically and molecularly analyzed at UNICT, IPTPO and/or IPBGR
- Obtained results = comparison with already analyzed samples characterized by the partners

= Evaluation and description of the genetic diversity and relationships between *Brassica* CWRs in SE EU

*costs funded by the H2020 BRESOV project and other interested partners

Expected impact

- 1.** widening activities of Brassica working group to members of underrepresented genebanks in EURISCO and particularly AEGIS
- 2.** capturing of Brassica CWRs diversity in SE Europe
- 3.** exploration and identification of new accessions of Brassica CWRs for inclusion into AEGIS
- 4.** improvement of genebank management in accordance with principles of AEGIS
- 5.** recommendations for future activities contributing to long-term in situ and ex situ conservation of Brassica CWRs