

GENMEDA network: results and future challenges for the conservation of the Mediterranean flora

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- *IUCN/SSC/MPSG - Mediterranean Plant Specialist Group, Switzerland*
- *Conservatoire Botanique National de Corse (CBNC), France*
- *Laboratory of Management and Valorisation of Forest Resources, National Research Institute of Rural Engineering, Water and Forestry (INRGREF), Tunisia*
- *Centre for Conservation of Biodiversity (CCB), Sardinian Germplasm Bank (BG-SAR) - Department of Life and Environmental Sciences, University of Cagliari, Italy*

GENMEDA co-organizing MPCWs

Organizers 4th MPCW



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2023

Organizing Committee



PREVIOUS EDITIONS

1st Mediterranean Plant Conservation Week

Ulcinj (Montenegro) – 24-29 october 2016



"Building a regional network to conserve plants and cultural diversity"

2nd Mediterranean Plant Conservation Week

La Valetta (Malta) – 12-16 november 2018



"Conservation of Mediterranean Plant Diversity: Complementary Approaches and New Perspectives"

3rd Mediterranean Plant Conservation Week

Chania, Creta (Grecia) – 27 sep-1oct 2021



"Plant conservation strategies: from science to practice".



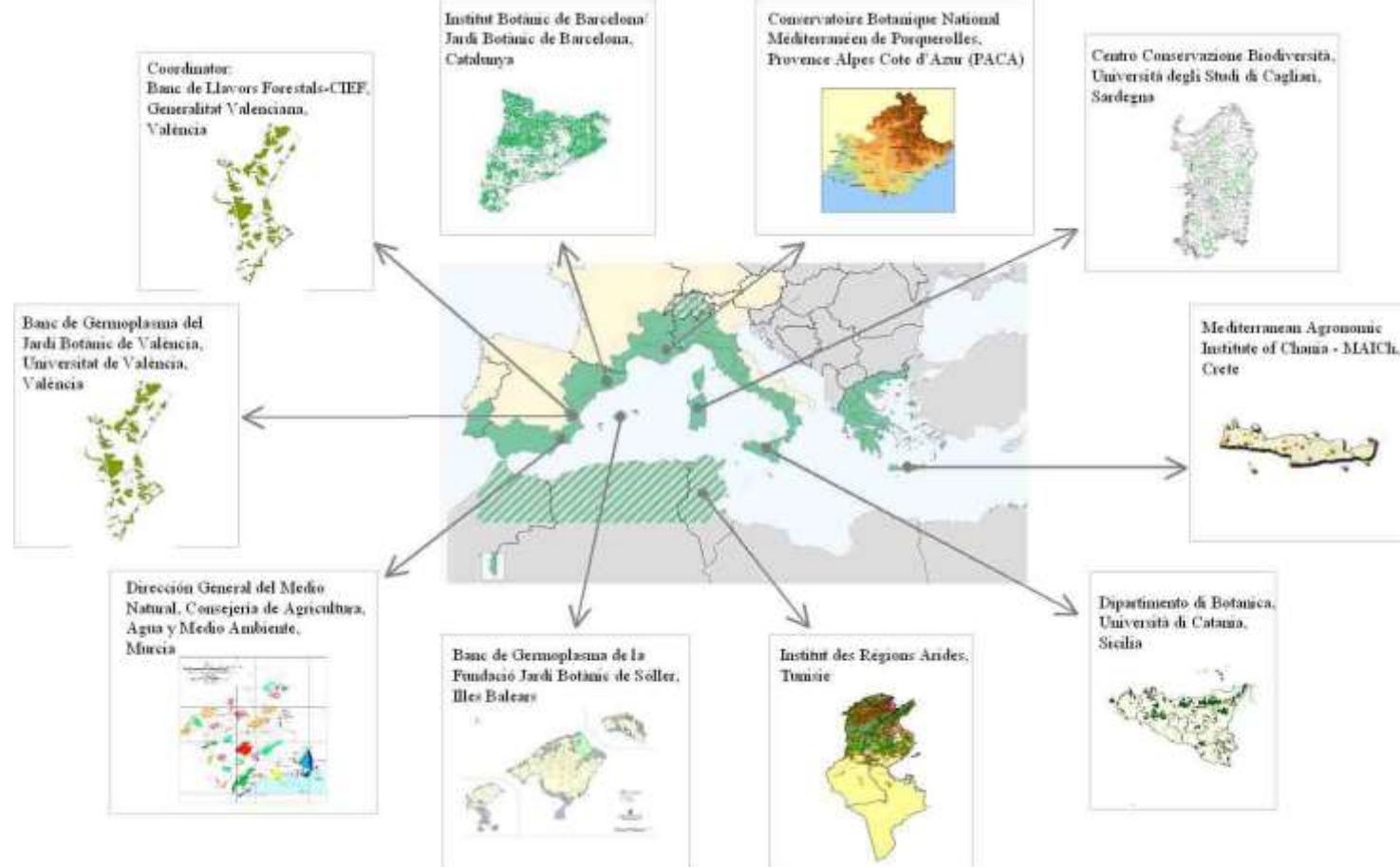
GENMEDA
NETWORK OF MEDITERRANEAN PLANT CONSERVATION CENTRES

L'Espresso

The **GENMEDA Network of Mediterranean Plant Conservation Centres** is a community of seed banks, gene banks, botanical gardens and other conservation centres of plant genetic resources, including local/regional authorities, national bodies, national/regional networks and international experts' groups and associations, all dealing with the conservation of Mediterranean plants



2004-2006

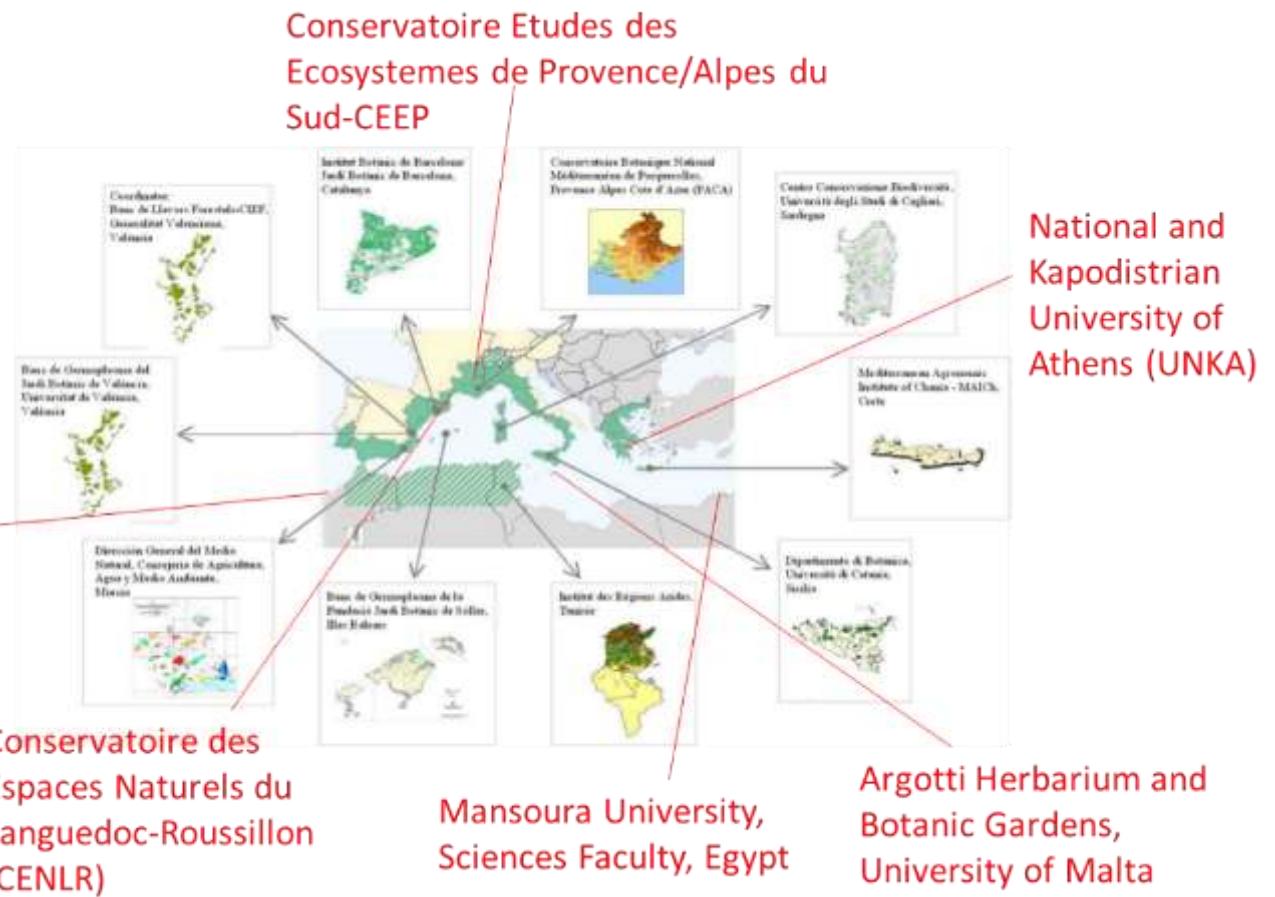


SEMCLIMED PROJECT

Coord.: CIEF

'IMPACT OF THE CLIMATIC CHANGE ON THE MEDITERRANEAN FLORA AND CONSERVATION ACTIONS'

Institut
Scientifique
de Rabat-
Département
de Botanique
et Ecologie
Végétale,
Morocco



GENMEDOC & SEMCLIMED OUTPUTS (2004-2006, 2006-2008)

ELABORATION & VALIDATION OF GERMINATION PROTOCOLS (in FR, ES, GR)

Pratiques de germination dans les banques de semences du réseau GENMEDOC



EDITION FOR THE STRUCTURAL BASE OF A HABITAT (in ES)



COMMON METHODOLOGY – MANUAL for the COLLECTION, STUDY, CONSERVATION AND MANAGEMENT OF PLANT GERMPLASM (in IT, EN, FR)



4th Mediterranean Plant Conservation Week
VALENCIA | 23-27 OCTOBER | 2008



Manuale per la raccolta, studio, conservazione e gestione del germoplasma



RAPPORTI

La base de données Genmedoc : une banque de semences en ligne

Détails de l'espèce: Bellum crassifolium Moris var. crassifolium

Cod.: R246
Famille: Asteraceae (Compositae)

Données d'identification

Nom accepté: *Bellum crassifolium* (Gmel.) Steyermark
Synonyme: *Bellum crassifolium* (Gmel.) Steyermark
Nom de référence: ICRIS 8-01 - 1827

Phénologie: Durée de floraison: Mai-Juin, Floraison: 1-20.

Données Linguistiques

Nombre d'lectures: 1

Données géographiques

Présence dans les régions GENMEDOC:

Données Biologiques

Phénologie et florification

Données Morphologiques de la plante

Données associées avec cette espèce: 0

Editions to free download at:
<http://genmeda.net/en/resources>

GENMEDOC & SEMCLIMED

OUTPUTS (2004-2006, 2006-2008)



4th Mediterranean Plant
Conservation Week
VALENCIA | 18-25 OCTOBER | 2023

- **2 new seedbanks created (Morocco, Malta)**
 - **rock botanical gardens created by several partners**
 - pilot projects with demonstration actions on **habitat restoration** (PACA, Valencia)
 - **seed germination experiments** of various species in order to evaluate the impact of climate change

L'établissement d'une banque de semences aux Jardins d'Argotti, Université de Malte

Dès nous relocalisés en 1984 comme conservateurs de l'héritage des Jardins d'Argotti à l'Université de Malte, une des mes premières tâches fut de mettre en place la première banque de semences pour faire assurer la continuité des variétés rares maltaises. À l'époque, les Conservateurs de l'Université de Malte étaient dépassés, la conservation et les techniques de conservation étaient alors surtout importants. Cependant, la réalisation de projets n'était pas toujours évidente, toutefois aussi les responsables financiers sont limités. Une nouvelle opportunité de réaliser l'objectif de graines s'est présentée en 1994, mais malgré de longs échanges avec les autorités, les toutes nécessaires, n'ont pas pu être débloquées. Il fallut alors trouver une autre source pour financer le projet, une personne connue, 2500 £, forme l'affiliation à un projet INTERREG portant sur l'effet du changement climatique sur la germination de graines.

L'Université de Malte était heureuse de pouvoir s'inscrire dans ce projet, d'autant plus qu'il relatait juste à un autre programme INTERREG intitulé GEHMDOE, qui avait notamment visité l'harmonisation des procédures techniques au sein des réseaux des banques de semences de

A photograph showing several glass jars filled with various types of seeds, likely stored in a controlled environment for a seed bank.

Nous faisions également des travaux réguliers, des analyses du sol d'herbes rares. Une fois la recherche de la meilleure méthode effectuée, nous avons pu utiliser des graines du silicium indicateur d'herbes rares. Ces herbes rares, dans des stades différents de leur élévation.

Une nouvelle banque de germoplasmes à l'Institut Scientifique (Rabat) : contribution à la conservation de la Flore Vasculaire du Maroc

Les menaces sur la flore du Maroc sont nombreuses (modernisation agricole, expansion urbaine, transformation de zones humides côtières en espaces agricoles ou touristiques, surexploitation par l'homme des ressources naturelles, etc.). De fait, que ce soit situations alarmantes, les banques de données et leurs activités associées restent les instruments les plus importants et efficaces des politiques de conservation ex-situ.

La phase III du projet Semellement a permis l'organisation d'expositions au Maroc pour recueillir les premières retombées, puis entraîner les serigneys et les conserveries dans le but d'acquérir le nouveau statut de la nouvelle banque de semences de Saladié et surtout aider les pépinières marocaines à faire démarrer leur banque avec de bonnes bases et appuis, dans une ambiance de partenariats et d'échanges. En effet, une banque de germplasmes est un long processus qui, dans la durée, Lieu de germination de différents partenaires.



www.mechanicsmag.com

La restauration d'habitat comme stratégie de conservation d'espèces végétales rares : deux exemples du Languedoc-Roussillon (France)



Impacts du Changement Climatique sur la Biodiversité Végétale et la Germination des Semences

C'est largement admis que l'augmentation des concentrations atmosphériques de gaz à effet de serre est associée avec l'élévation de la température atmosphérique et liée aux changements du climat. Il est prévu que ces changements puissent causer des impacts à la biodiversité des plantes par des répartitions géographiques altérées et du risque d'extinction élevé (Thielle et al., 2005).

L'objectif de la Phase 2 du Projet SEMCLIMED est d'évaluer l'impact des changements climatiques futurs sur le comportement génératif des semeisées d'un nombre d'espèces de plantes méditerranéennes et comme conséquence sur leur future répartition géographique ainsi que leur statut de conservation *in situ*.

Un traité synthétique récent d'Enzer & Thompson (2005) conclut que les conséquences du changement climatique



ÉDITORIAL

GENMEDA est.2010

In 2010, Signature of the
Agreement / Statute and
Internal Rules of Function of
the 'GENMEDA network'
among the 13 founding
members

(see at 'genmeda.net'/ 'members' and
'newsletter')



Toni Marzo (CIEF), GENMEDA leader



GENMEDA Network



GENMEDA NETWORK

THE NETWORK OF MEDITERRANEAN PLANT CONSERVATION CENTRES
GENMEDA Network
Internal functioning rules

Chairman: Toni Marzo
President: Toni Marzo
Secretary: Toni Marzo
Treasurer: Toni Marzo
Members: Toni Marzo, ...



INTERNAL FUNCTIONING RULES

PRELIMINARY TITLE

These internal functioning rules, in accordance with Article 1 – The network – of the Statute of the network "GENMEDA: Network of Mediterranean Plant Conservation Centres", define the structure and functioning of the network.

Article 1 – The network



2010, Barcelona meeting after signing

GENMEDA mission (art.2)



to contribute to the conservation of Mediterranean flora genetic resources, through the following objectives:

- share information and equipment among members
- promote the exchange of training and know - how
- adopt common work methodologies
- harvest genetic material of the most threatened species
- exchange duplicated seed lots/batches of threatened species
- create living plant collections and promote *ex situ* cultivation for the more threatened species in order to dispose material for reinforcement of natural populations
- create a virtual common collection of plant genetic and reproduction materials
- plan joint initiatives and projects concerning flora conservation and/or management
- support decision-making processes of flora conservation public policies
- support environmental education and public awareness for biodiversity conservation



Photos: JBS Spain



INRGREF, Tunisia



CIHEAM – MAICH, Greece



CIEF, Spain



Tuscia SB, Italy

Deuxième réunion GENMEDA

Barcelone, 10 juin 2010

Un an après la première réunion du réseau à Cagliari, les membres GENMEDA ont organisé une autre rencontre à Barcelone afin de finaliser les dernières questions nécessaires pour la mise en place effective du réseau.

Pendant ce temps, des débats et des pluies d'idées ont été menés sur toutes questions clés du réseau. Notamment en ce qui est la mission et les objectifs du réseau, l'organisation, la composition, le financement, les lignes de travail et les outils de communication. Tous ces aspects ont été formalisés dans le texte fondateur et les normes de fonctionnement interne du réseau qui ont été signés par les représentants de chaque membre.

Concernant la mission et les objectifs du réseau, l'idée principale a été celle de ne pas restreindre l'éventail de possibles actions, sans le limiter à un certain type de flore ou à un cadre strictement méditerranéen au sens géographique du terme. C'est ainsi que la mission globale du réseau est la conservation de ressources génétiques de flore méditerranéenne et que ses objectifs portent sur des actions de conservation *in situ* et *ex situ* ou des actions de communication et éducation environnemental, mais aussi sur des projets et initiatives conjointes dans le cadre de l'UE et au-delà et sur des actions de support aux décideurs des politiques de conservation de la biodiversité végétale.

La structure en charge de porter

à terme cette mission a été définie de façon classique, avec trois postes principaux - président, secrétaire et trésorier - et deux organes, le Comité de



pilotage et l'Assemblée générale. Afin de compléter cette structure et de rendre performantes les activités du réseau, des groupes de travail thématiques ont été également prévus et leur implémentation sera effective dans les mois suivants.

Ensuite, en ce qui concerne les outils de communication, efforts ont été focalisés sur le logo du réseau, le bulletin Odissea Seminum et le site web.

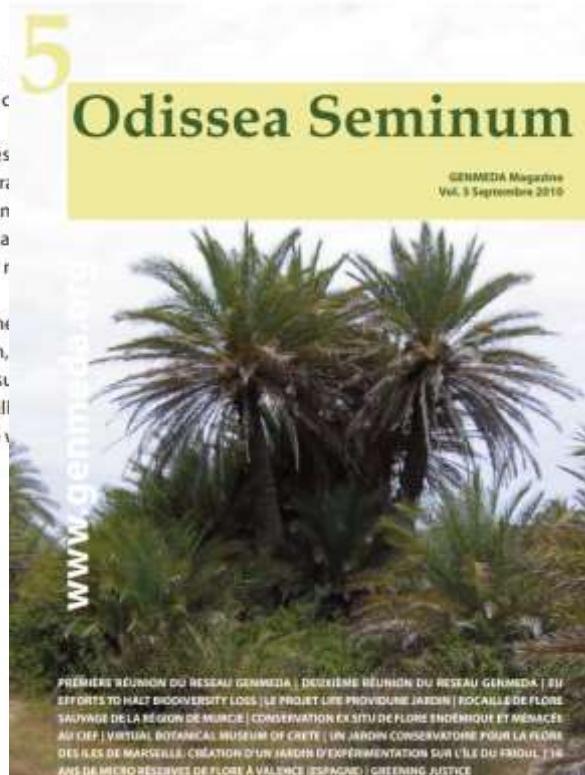


Odissea Seminum 5

2011



2010



Odissea Seminum 5



ACTIONS DE RESTAURATION AVEC DIPLOPHYLLOPSIS SCRUTINIA À VALENCIA
ET NETHOPPING FOR NATURE | EUROPEAN TERRITORIAL COOPERATION
ET DEVELOPMENT AND EUROPEAN INTEGRATION | LA CONVENTION DES
HAUTS A LA LA REGION DE VALENCE, ESPAGNE | FORMULE ANNUELLE
D'ACTION-MESURES DE GESTION POUR LA CONSERVATION

GENMEDA members on the map until the GA on 23rd October 2023:

25 numerary and 2 associate members that became numerary too: International Association of Mediterranean Forests (AIFM) and the Sicilian Plant Germplasm Repository of the University of Palermo (SPGR/PA)

Members





GENMEDA 27+ four (4) new associate members NOT yet on the map after the GA on 23rd October 2023:

- BIOPOLIS association (linked to the CIBIO Research Centre in Biodiversity and Genetic Resources, Lisbon, Portugal)
- the Forest Research Centre (CEF) of the School of Agriculture (ISA) of the University of Lisbon, Portugal
- The Marimurtra Botanical Gar2den in Blanes, Costa Brava (Girona), Spain
- The Botanical Garden of Castilla-la Mancha, Albacete, Spain

GENMEDA representatives



2021 - 2025

President

Gianluigi BACCHETTA (HBK, Universita' degli Studi di Cagliari, Italy)

Secretary/Treasurer

Adamantia KOKKINAKI (CIHEAM MAICh, Greece)

Steering Committee coordinator

Emilio LAGUNA (Centre for Forest Applied Research, Valencia, Spain)

Steering Committee members

- Lara DIXON (Conservatoire Botanique National Méditerranéen de Porquerolles, France)
- Sara MAGRINI (Rete Italiana Banche del Germoplasma - RIBES, Italy)
- Joseph BUHAGIAR (Department of Biology, University of Malta)
- Boštjan SURINA (Natural History Museum Rijeka, Croatia)
- Evangelia DASKALAKOU (Institute of Mediterranean & Forest Ecosystems-Hellenic Agricultural Organization "DEMETER", Greece)



Photo: Acis nicaeensis, IUCN EN, Katia DIADEMA, CBNMed Porquerolles

GENMEDA working groups



WG1 – Communication

(lead by Adamantia Kokkinaki,
CIHEAM-MAICH)

Newsletter Odissea

Seminum - Editor-in-chief: Issam
Touhami, INRGREF

WG2 - Database

(lead by Lara Dixon, CBNM
Porquerolles)

WG3 - Orchids and microbiota

(lead by Sara Magrini, RIBES & Tuscia
Germplasm bank)

WG4 - Seed Force International

(lead by Vito Emanuele CAMBRIA,
Botanical Garden ‘La Sapienza’, Rome)



Photo: CIEF- Generalitat Valenciana

GENMEDA figures

- A total of 27 actual members from 12 different countries of the Mediterranean
- 24 possess germplasm/seedbank
 - ✓ Total number of accessions / seed lots preserved in active and base collections: **65,066** (with only RIBES included for Italy)
 - ✓ Total number of taxa preserved: **12,300** (with only RIBES included for Italy)



Photo: CCB



Photo: Palermo seedbank



Collaborative Projects among GENMEDA members

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



2011-2013 **GARDMED** Interreg IV Italia Malta

Project on twinning botanic, public and private gardens
in Malta and Sicily as tourist, education and
conservation venues

Interreg  Finanziato dall'Unione europea
Co-financed by the European Union

Italia - Malta
Interreg Italy – Malta

www.italiamalta.eu

Programme Thematic Objectives

click for more info about the thematic objective and investment priorities

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



2011-2014 'Ensuring the survival of endangered plants in the Mediterranean' (some GENMEDA members (islands) participating (JBS, DBUC, CCB, MAICH) (coord. KEW) MAVA co-funded project

Focus on the 'ex situ' conservation (seed banking) of the most endangered plants in the Mediterranean islands-more than 900 seed accessions collected and duplicated in total

ENSURING THE SURVIVAL OF ENDANGERED PLANTS IN THE MEDITERRANEAN

Sign In →

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Royal Botanic Gardens Kew

MAVA FOUNDATION FOR NATURE

Corsica

Mallorca

Sardinia

Sicily

Cyprus

The key outcomes of the project include the protection of over 900 endangered plant taxa, the development of seed specialists in the region, increased collaboration between plant conservation agencies and public awareness of the value and vulnerability of the local flora. [Read More →](#)

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



2014-2015

ECOPLANTMED project (coord. MAICH)

Participating GENMEDA members: CIEF, CCB, MAICH;
the other two partners, INRGREF-Tunisia & USJ- Lebanon,
became later members of GENMEDA, until today

The screenshot shows the EcoplantMed website. At the top left is the URL 'ecoplantmed.eu/en'. At the top right are language links: English, Español, Italiano, Français, and Español. The main header features the 'EcoplantMed' logo in large, stylized letters. Below the logo is the tagline 'ECOlogical use of native PLANTS for environmental restoration and sustainable development in the MEDiterranean region'. A navigation bar below the tagline includes links for HOME, THE PROJECT, PARTNERS, PUBLICATIONS, NEWS & EVENTS, LINKS, CONTACT, and INTRANET. The main content area features a large image of a Mediterranean landscape with hills and a valley. Overlaid on this image is the text '1 of 3' at the top left, 'ECOPLANTMED' in large green letters, and a smaller text box containing the project's purpose: 'ECOlogical use of native PLANTS for environmental restoration and sustainable development in the MEDiterranean region'. At the bottom left of this area is a 'read more' link. At the very bottom of the page are logos for EcoplantMed, the European Union, and ENPI CBC MED.



COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2013

ECOPLANTMED OBJECTIVE

enhance the conservation of native plants and promote their use in habitat restoration and the plant production sector

- ✓ A new seed bank (with a cold room for seed storage and dry room) was set up at INRGREF facilities (Tunisia)
- ✓ Training on seed bank functioning among partners



INRGREF



CCB, BG-SAR



CIHEAM- MAICH

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS

Edition of a
**“Manual For The
Propagation of
Selected
Mediterranean
Native Plant
Species”** in English
and partners’ local
languages
(available for
downloading at
www.ecoplantmed.eu) (CCB coord.)



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2013

ECOPLANTMED

ECB, SARDINIA, IT

Fiorinella Sardica (EN)
Cardo di Casabona (IT)
Cardo de Casabona (SP)
Chenier de Casabona (FR)



Pilosostemon casabonae (L.) Greuter

Growth conditions in the wild

Ectopic species of Sardinia, Corsica, Elba island and Hyères islands.

It grows both on limestone and siliceous substrates. It occurs frequently in ravines and meadows and can be found in landfill mining (mainly seeds).

It is a perennial macrocaule herb. It is located in a wide altitudinal range, from ca. 100 m to 1300 m.s.l.m.

Seed germination

Best germination conditions: no post-treatment, light (12 h light / 12 h dark), at 15°C.

Similar results were obtained when seeds were treated with GA₃ or pre-treated at 25°C for 3 months on silica gel (Day After Ripping - DAR). Average germination: up to 100%.

Seed information and collection



Average weight for 100 seeds is 0.071 g (100 g = 140,000 seeds).

When collecting seeds, it is useful to bring a pair of scissors to cut the flower heads inside a plastic bag, in order to avoid the dispersion of the material due to wind.

Non-protected species, except inside protected areas where collection is regulated.

Seed management

Cleaning is very easy. Seeds fall apart after fruit dehiscence, just remove manually the rama (hard part) of the seed.

Seeds are orthodox, so can be stored at 15°C and 15% RH and stored at 2°C for several years, or -22°C in case collection.

J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D

Flowers and shoots are corolla in some areas of Sardinia (Atzori AD 2003).

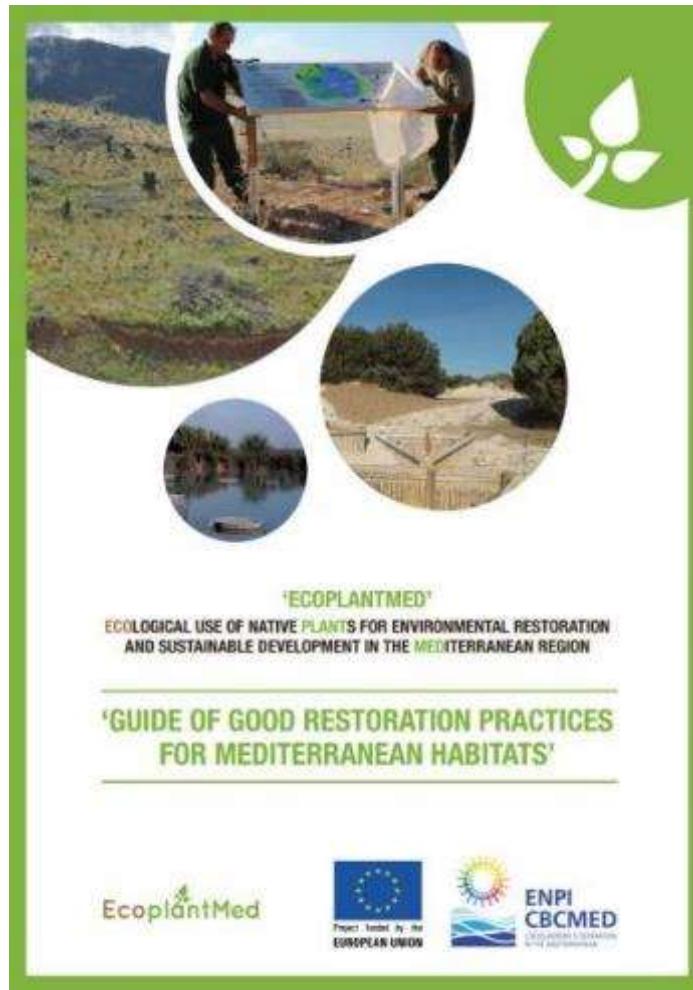
COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2011

ECOPLANTMED

Edition of a 'Guide of Good restoration Practices for Mediterranean habitats' in English and partners' local languages (available for downloading at www.ecoplantmed.eu) (CIEF coord.)



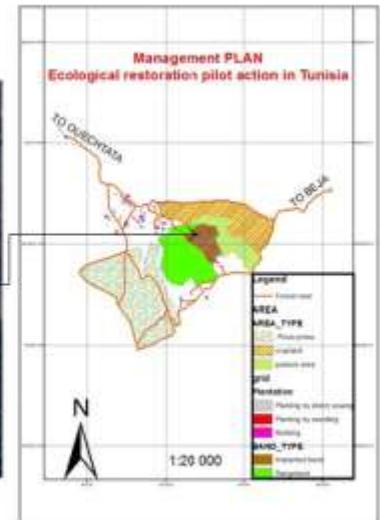
COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2011

ECOPLANTMED – pilot restoration action in Tunisia

- Location: Nefza region • Area: 7 ha • Annual rainfall: 922 mm/year
- commonly developed management plan for restoration & monitoring
- integrated approach to reduce degradation and to promote land rehabilitation using native plants of local origin (INRGREF in collaboration with the local Forest Authorities)



INRGREF

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2023

ECOPLANTMED – pilot restoration action in Lebanon

- Location: Kfardebian (Mt Lebanon) • Area: 7 ha (8 plots) • Annual rainfall: 1720 mm/year
- Commonly developed **management plan** for restoration & monitoring
- promote land restoration using native plants of local origin (USJ in collaboration with the local NGO, Jouzour Loubnan)



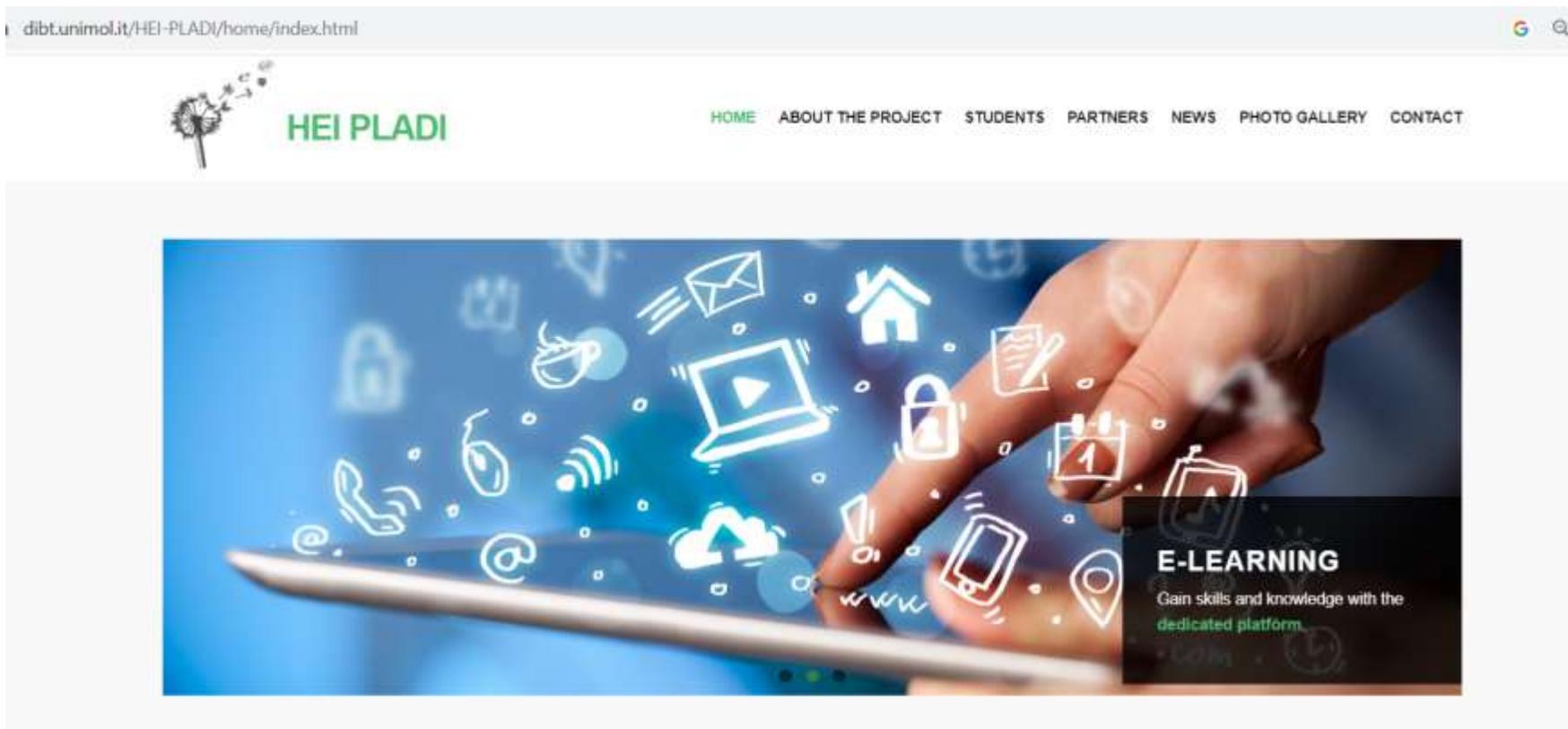
COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2018

2015 – 2018 HEI PLADI Erasmus +
e-learning platform for teaching of plant biology & ecology

Participating GENMEDA members: CCB, UoM, CIHEAM-MAICH



The screenshot shows the homepage of the HEI PLADI project. At the top left is the logo 'HEI PLADI' with a stylized flower icon. The top right features a navigation menu with links: HOME, ABOUT THE PROJECT, STUDENTS, PARTNERS, NEWS, PHOTO GALLERY, and CONTACT. A Google search bar is located at the top right corner of the page. The main content area features a large image of a hand pointing at a tablet screen. The tablet screen displays a variety of white icons on a blue background, including a padlock, a key, a mail envelope, a house, a play button, a checklist, a calendar, a smartphone, a cloud, a recycling symbol, a Wi-Fi signal, an exclamation mark, an '@' symbol, and a 'www' symbol. In the bottom right corner of the tablet screen, there is a dark overlay with the text 'E-LEARNING' in white, followed by the subtext 'Gain skills and knowledge with the dedicated platform'.

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2018

2016 -2019

CARE-MEDIFLORA project -coord.by IUCN/ SSC/ MPSG
(Bertrand de Montmollin) & MAICH (MAVA co-funded project)
Same partners as in 'MAVA-1 project'- different coordination
Participating GENMEDA members (islands): JBS, DBUC, CCB,
MAICH– two other partners, ARI-Cyprus & CBN Corse-France,
became later members of GENMEDA, until today

care-mediflora.eu

English | Español | Français | Italiano | Ελληνικά

Conservation Actions for Threatened Mediterranean Island Flora: *ex situ* and *in situ* joint actions

HOME ABOUT NEWS PUBLICATIONS PARTNERS OUTPUTS CONTACT

CARE MEDIFLORA
Conservation Actions for Threatened Mediterranean
Island Flora: *ex situ* and *in situ* joint actions

MAVA FONDATION POUR LA NATURE

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS

**2016 -2019 CARE-MEDIFLORA project
(<http://www.care-mediflora.eu/>)**

- ✓ *in situ* conservation of 51 of the most endangered plant species of the Mediterranean islands through *in situ* translocations and other management measures
- ✓ *ex situ* conservation of 429 of the most endangered plant species through the collection, seed banking and duplication of accessions representative of the overall diversity of the species
- ✓ dissemination and awareness raising of the local and institutional stakeholders
- ✓ sharing good conservation practises among the partners
- ✓ **reinforcement and enlargement of GENMEDA - Network of Mediterranean Plant Conservation Centres**



4th Mediterranean Plant Conservation Week
VALENCIA | 22-27 OCTOBER | 2018



CARE-MEDIFLORA

A conservation project for threatened plants in Mediterranean islands

2016 – 2019

PROJECT SUMMARY



COLLABORATIVE PROJECTS OF GENMEDA MEMBERS

2016 -2019

CARE-MEDIFLORA project



HOME ABOUT NEWS PUBLICATIONS PARTNERS OUTPUTS CONTACT

Conservation Actions for Threatened Mediterranean Island Flora: ex situ and in situ joint actions

In situ conservation actions by island / by taxon

By island

Balearic Islands

actions implemented by Sóller Botanic Center Foundation

In situ conservation actions
BY ISLAND
BY TAXON

Taxon	Locality
Dorpeonium luteum (Porto) Lassau	Punta Prima, Calvià
Alysma monspeliacum L.	Cap Negret, Calvià



D. cannabinum in flowering; D. cannabinum habitat; Seedlings of D. cannabinum ready to be planted



Removal of ornamental species; Light fencing and planting of D.ca cannabinum seedlings

CIHEAM-MAICH



4th Mediterranean Plant Conservation Week
VALENCIA | 22-27 OCTOBER | 2013



Anchusa crista flowers (left) & General aspect of A. crista (right)



CBNCorsica

In situ conservation actions BY TAXON

Taxon	Locality
Alismat marathicum Brullo, Favone & Salmeri	Troodos mountain, Cyprus
Anchusa crista Vier. subsp. crista	Del Sale (Alesie), Corsica
Anchusa crista Vier. subsp. crista	Grodugine (Prunelli di Fiumebus), Corsica
Anchusa syriaca Leichtw. ex Steyermark	Favone (Seri-Sulizzara), Corsica
Anthemis formosa L.	Elatonisi (Kantanos-Selino), Crete
Anthemis formosa L.	Akamas (Pafos), Cyprus
Anthemis formosa L.	Yialia (Pafos), Cyprus
Aramis intensius (Engl.) P. C. Boyce	Timi (Pafos), Cyprus
Astragalus alpecorus Hall	Akamas (Pafos), Cyprus
Istropogon georgianus Bacc. & Brullo	Planta Alta (Fagghiachio), Corsica
Stratiotes raphaelii G. Ferr	Monte Albo (Lula), Sardinia
	N.R. "Vallone Piano della Corte" (Enna), Sicily

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



2016 -2019

CARE-MEDIFLORA project



Article

A Common Approach to the Conservation of Threatened Island Vascular Plants: First Results in the Mediterranean Basin

Giuseppe Fenu ¹, Gianluigi Bacchetta ^{1,2}, Charalambos S. Christodoulou ³,
Donatella Cogoni ^{1,*}, Christini Fournaraki ⁴, Giusso del Galdo Gian Pietro ⁵,
Panagiota Gotsiou ⁴, Angelos Kyrtzis ⁶, Carole Piazza ⁷, Magdalena Vicens ⁸ and
Bertrand de Montmollin ⁹

The CARE-MEDIFLORA final publication "*Common Approach to the Conservation of Threatened Island Vascular Plants: First Results in the Mediterranean Basin.*" published in the *Diversity* journal Volume 12 (2020), Issue 4 was announced winner of the 2022 Diversity Best Paper Award.

Available online also at <http://www.care-mediflora.eu/>

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS

2016 -2019 **CARE-MEDIFLORA** project
(<http://www.care-mediflora.eu/>)

- ✓ reinforcement and enlargement of
GENMEDA - Network of Mediterranean
Plant Conservation Centres



Supporting creation of new GENMEDA website
(<http://genmeda.net/>) at CIHEAM- MAICH server
and several communication & networking activities



Supporting GENMEDA meetings



2017, BG Sapienza, Rome



2018, Malta

2019, BG Sapienza, Rome

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



SiMaSeed
Protect biodiversity in the Natura2000 network sites
in Sicily and Malta through the Germoplasm banks
and the strengthening of populations

SIMASeed Project (2018-2021)

Interreg V Italia Malta

seed banking, habitat restoration and plant conservation in
Natura 2000 sites

Participating GENMEDA members: DBUC, UoM

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2023

Partners

For many years, the University of Catania, the University of Malta, the Ministry for Gozo and the Sicilian Region have consolidated a close collaboration with the aim of protecting and safeguarding the environment.



EX SITU conservation

In implementing the ex situ conservation strategy of genetic resources, the Germplasm Banks of the University of Catania and the University of Malta have collected and stored seeds and plants (in collection fields) of Mediterranean taxa of Habitats of the Directive 92/43/EEC.



IN SITU conservation

The Germplasm Banks of the University of Catania, the University of Malta and the Centre for Germplasm Conservation in Marianelli have carried out various in situ conservation initiatives of threatened and structural species of Habitats of the Directive 92/43 / EEC.



Jan. – Oct. 2023

Simaseed Plus Interreg V Italia Malta

Capitalisation fund for purchase of more equipment for the seedbank

Participating GENMEDA members: DBUC, UoM

COLLABORATIVE PROJECTS OF GENMED MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 23-27 OCTOBER | 2023

BESTMEDGRAPE 2019-2023



New Business opportunities & Environmental suSTainability using MED GRAPE nanotechnological products

Priority: A.2.1 - Support technological transfer and commercialization of research results

Partners: 8 (Tunisia, Italy, France, Lebanon and Jordan)

University of Cagliari
ITALY

Institute for Food
Production Sciences –
National Research
Council
ITALY

National Institute for
Health and Medical
Research
FRANCE

University of Carthage
TUNISIA

Saint Joseph University
of Beirut
LEBANON

National Trade Union
Chamber of wine, beer
and spirits' producers
TUNISIA

Berytech Foundation
LEBANON

Jordan Society for
Scientific Research
JORDAN

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS

2020-2022 MEDLENTISK ERASMUS+

“Partnership for an exchange of best practices on lentisk fixed oil, an emblematic non-timber forest product in the Mediterranean”

*Participating GENMEDA members:
AIFM (coord.), HBK (CCB), CIHEAM-
MAICH, INRGREF*



MEDLENTISK: Second Joint Learning Event in Pula

MEDLENTISK: Second Joint Learning Event in Pula The second MEDLENTISK...

[Read More](#)



Presentations at the first MEDLENTISK joint learning event

Presentations at the first MEDLENTISK joint learning event The first...

[Read More](#)



MEDLENTISK: first joint learning event in Chania

MEDLENTISK: First joint learning event in Chania From Tuesday 29...

[Read More](#)

Good practice guide on lentisk fruit oil: from the field to the laboratory



in EN, FR, GR, AR

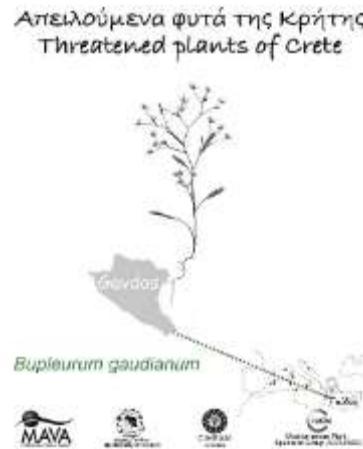
COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



2021-2022 The pilot project "**Gavdos Island - Crete - Endangered Plant Recovery Project**"

implemented in the context of the wider project "Mediterranean Islands Collective: Collaborating to protect Nature on Mediterranean Islands" (coord.PIM)

Participating GENMEDA members: CIHEAM – MAICH and IUCN/SSC/MPSG



Focus on the conservation of the two most endangered plants of the small Greek island of Gavdos,
the small annual endemic of Gavdos ***Bupleurum gaudianum*** and
the annual hygrophilous plant considered Critically Endangered ***Callitriches pulchra***

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



2021-2026 SeedForce LIFE project
on conservation of rare and threatened plant species in
Italy

*Participating GENMEDA members: CCB/HBK, DBUC,
SBTuscia, SBPalermo, BG Roma, (RIBES),
CBNMPorquerolles, UoMalta*

lifeseedforce.eu/en/

LIFE
SEED
FORCE
SAVING PLANT DIVERSITY

PROJECT ▾ PLANT SPECIES ▾ SITES PARTNERS MEDIA ▾ NEWS CONTACTS

We are saving threatened plants from extinction

through seed banks

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



4th Mediterranean Plant
Conservation Week
VALENCIA | 22-27 OCTOBER | 2023

2021-2026 SeedForce LIFE project

**Plant translocation cycle in
139 populations of 29
species in 76 SCI/SACs for a
total surface of 450,250 ha**



Linaria pseudolaxiflora –
Collecting

In 2022 in Linosa we had collected only 300 seeds of *Linaria pseudolaxiflora*, while this year, thanks to the 40 plants grown

[APPROFONDISCI](#)



Adenophora liliifolia

White August memories... *Adenophora liliifolia* from our slovenian partner.

[APPROFONDISCI](#)



Kosteletzkya pentacarpos first
reintroduction

Thanks to an interregional team coordinated by the University of Padua, our project partner, the first reintroductions of *Kosteletzkya pentacarpos* in the

[APPROFONDISCI](#)



Terme in Fiore hosts



Galium litorale Guss.



Linum muelleri in Sardinia

Conservation actions

C.1 Germplasm collection

C.2 Plant propagation

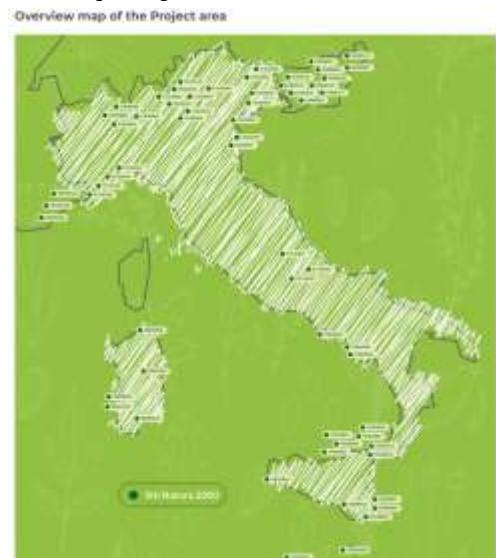
C.3 Site preparation

C.4 IAS eradication and mitigation

C.5 Plant translocation (population reinforcement/reintroduction/introduction)

C.6 Site protection

Monitoring of the impact of the project actions



COLLABORATIVE PROJECTS OF GENMEDA MEMBERS



**2021- 2023 Collaboration between CBNM
Porquerolles and the Botanical Garden Hamma in
Algiers, financed by the PACA - SUD region
for common seed collections, germination experiments**



Hamma Jardin



CBNMed

COLLABORATIVE PROJECTS OF GENMEDA MEMBERS

**2021- 2023 Collaboration
between CBNM
Porquerolles and the
Botanical Garden Hamma in
Algiers**



Hamma BG & SB

Future challenges

Challenges...

for Mediterranean Plant Conservation:

- Setting up common priorities & strategies for conservation with active involvement of local people
- Capitalizing experiences of on-going *in situ* and *ex situ* conservation actions
- Mitigation of threats and particularly of climate change, tourism, invasive species
- Other....?



Hamma BG



Orchids in vitro (S. Magrini, Toscia GB)

for Mediterranean Networks:

- Socio-political conditions
(demography, migration, wars...)
- Funding issues
- Remaining active...
- Other....?



Thank you!

Brassica villosa subsp. *drepanensis*
Germination after 26 years of conservation
at -20°C (Sicilian Plant Germplasm Repository
of the University of Palermo, C.Salmeri)