

THIS NEWSLETTER
WAS DEVELOPED
IN COLLABORATION
WITH



Odissea Seminum

GENMEDA Newsletter

ISSN: 1988-5881

Issue 9: September 2025

© 2025 GENMEDA - Network of Mediterranean Plant Conservation Centres

GENMEDA Newsletter - Odissea Seminum

ISSN: 1988-5881

Issue 9: September 2025

Editorial Board: Issam TOUHAMI (Editor-in-chief), Gianluigi BACCHETTA, Salvatore CAMBRIA, Adamantia KOKKINAKI, Marco PORCEDDU, Costas THANOS

Layout: WWF NORTH AFRICA

Cover photo: Paolo Matteo Tauriello; Dactylorhiza elata subsp. sesquipedalis (Willd.) Soó (Orchidaceae)

www.genmeda.net

Odissea Seminum = The Odyssey of Seeds

CONTENTS

EDITORIAL	2
SHORT COMMUNICATIONS	4
• Field Conservation Of Traditional Valencian Horticultural Varieties	
EVENTS	10
 The 8th Mediterranean Forest Week: A Key Event For The Future Of Mediterranean Forests 	
 The 5th Mediterranean Plant Conservation Week Building Alliances For Plant Diversity Conservation In The Mediterranean 	
Eurogard 10 - Botanic Gardens In The Un Decade Of Ecosystem Restoration	
PROJECTS	13
 LIFE RedBosques_Clima, a consolidated project for adaptive forest management in the Valencian Community (Spain) 	
Project MedFireWise. Cross-Med Resilience	
MISCELLANEOUS	15
 Biogeography and Evolution of Plants and Ecosystems-BEPE 	
Digitization of the Greek Natural History Collections through the DiSSCo Project	
 Creation of the Shared Repository on Standards and Practices in Ecological Restoration – WG4 SEED FORCETribute to a Remarkable Career 	
THE NETWORK	19
Members Associate members	
Representatives	
Steering Committee members	
Working Groups	

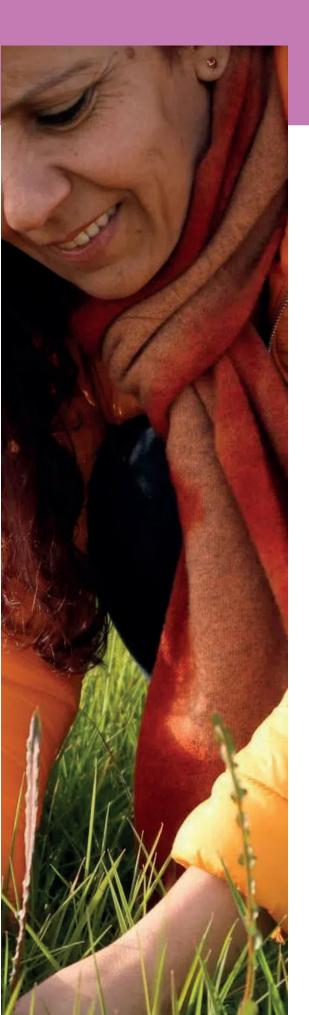
EDITORIAL

On behalf of all GENMEDA's members, I would like to extend my warmest congratulations to Prof. Gianluigi BACCHETTA for his unwavering dedication, energy, and the remarkable momentum he brought to the network, since its inception, and even more so throughout his two consecutive terms (2017-2025) as President. My sincere thanks also go to all the representatives: Secretariat, Steering Committee (SC), and Working Groups, for their invaluable contributions and commitment to the vitality and dynamism of the network. As I salute the continued engagement of Dr. Emilio Laguna, Coordinator of the SC of GENMEDA during 2021-2025, who, despite retiring, he kindly continues sharing his knowledge and expertise built over a distinguished career.

It is reassuring to build upon solid foundations, yet upholding and strengthening hard-won gains is no simple endeavour! Such is the mission and challenge entrusted to GENMEDA's newly elected representatives. I am particularly honored to represent the Mediterranean Agronomic Institute of Chania (CIHEAM-MAICh) for this new term. I wish to reiterate my deep gratitude to all members for the trust placed in our newly elected representatives, whose efforts and ambition will continue to advance the mission and strategic goals of the network for the effective conservation of plant genetic resources across the Mediterranean.

GENMEDA continues to sow the seeds of progress and extend its reach, nurturing new connections throughout the region. During its latest annual General Assembly (GA) meeting, three new full members were welcomed, bringing the total to 33 institutions and one associate member from 14 countries. It should be remembered that this GA meeting took place on April 07 in Limassol - Cyprus, as a pre-conference event of the 5th Mediterranean Plant Conservation Week (5MPCW). The week-long gathering, held until April 11, was a resounding success thanks to a warm and collegial atmosphere, offering the 175 participants from 28 countries a rich mix of scientific exchange, networking, and cultural experience. I would like to take this opportunity to once again congratulate all the organizers and express





my sincere thanks for their decision to hold the 6th MPCW in Tunisia in 2027. I will be especially delighted to welcome you there, as this will also help facilitate broader participation from North African and Middle Eastern countries. Until then, we will have the opportunity to meet again during our next GA, to be held in Hyères - Porquerolles, France to mark the 50th anniversary of the seed bank of the Conservatoire Botanique National Méditerranéen (CBNMed), a GENMEDA member whose team we sincerely thank for graciously agreeing to host our GA alongside their celebration.

Yet, during these events and beyond, we will deeply feel the absence of our dear colleague **Dr. Sara Magrini**, who recently passed away and whose loss leaves a profound void within our community. Her kindness, dedication, and remarkable contributions to plant conservation will remain a lasting source of inspiration to us all.

As a tribute to Sara's memory, we dedicate to her this orchid "Dactylorhiza elata subsp. sesquipedalis", featured on the cover, a symbol befitting her love for Orchidaceae and her tireless efforts to protect them, not only in her homeland, Italy, but also across the Mediterranean. May her beautiful soul rest in peace.



Imtinen BEN HAJ JILANI GENMEDA President

SHORT COMMUNICATIONS

FIELD CONSERVATION OF TRADITIONAL VALENCIAN HORTICULTURAL VARIETIES

Zreik. C.

Center for Forestry Research and Experimentation of Valencian Government (CIEF/VAERSA)

VALENCIAN AGRICULTURAL DIVERSITY PLAN

In 2016, the Valencian government (Generalitat Valenciana, Spain) launched the Valencian Agricultural Diversity Plan, an initiative aimed at the recovery, use, and in situ conservation of traditional horticultural varieties of agricultural interest. This initiative emerged from the need to preserve agricultural diversity in the Valencian fields and to increase awareness of its value among both farmers and consumers. The CIEF, member of Genmeda network, is one of the key actors in developing this plan.

The core tool of this plan was the creation of a seed transfer service, based on the Valencian Catalogue of Traditional Varieties of Agricultural Interest (https://mediambient.gva.es/es/web/cief/cataleg-valencia-de-varietats-tradicionals). This catalogue is available not only to the professional agricultural sector but also to gardening enthusiasts, including those involved in home gardens, community gardens, educational centers, and associations.

SEED PRODUCTION AND CONSERVATION

The seeds provided to users are produced in accordance with organic production standards at the cultivation fields of the Agricultural Experimental Stations (Valencian Department of Agriculture) and of the CIEF (Department of Environment). These seeds are characterized and analyzed following international protocols (ISTA standards) and are

subject to rigorous pest control and treatment procedures. To ensure both the conservation of these varieties and the ongoing seed supply, two seed collections have been established: an active collection, stored at 4°C for distribution purposes, and a base collection, kept at -18°C to ensure long-term preservation.

SEED TRANSFER SERVICE

The seed transfer service was launched in 2018, and during its more than five years of operation, over 13,000 seed batches have been distributed to a total of 1,462 field "guardians" of agricultural diversity. Among these recipients, 90 are professional farmers who have played a vital role in promoting the unique characteristics of these varieties to consumers. Table 1 shows the accumulated seed production and seed distribution made for the period 2018-2024.

Upon receiving the seeds, each recipient must sign a transfer agreement, committing to contribute to the conservation of the requested varieties and to refrain from using the transferred seeds for profit. These seed transfers are offered free of charge at the official agricultural experimentation centers located in 3 cities (Carcaixent, Vila-Real and Elche), as well as at the CIEF (Quart de Poblet).



Figure 1. Cover of Valencian Catalogue of Traditional Varieties of Agricultural Interest

VALENCIAN CATALOGUE OF TRADITIONAL VARIETIES OF AGRICULTURAL INTEREST

The Catalogue, available on the CIEF's website (https://mediambient.gva.es/es/web/cief/cief), was published in 2018, featuring descriptions of 45 traditional varieties from 21 different crops. Designed to be participative, dynamic, and forward-looking, this Catalogue aims to grow over time. In fact, the inclusion of 7 additional varieties is planned for 2025, and the continuous addition of other varieties is regularly under consideration.

This plan represents a critical step towards preserving Valencian agricultural heritage, promoting biodiversity, and fostering a deeper understanding of traditional crop varieties within the Valencian community.



Figure 2A. Catalogue card of peanut (Arachis hypogaea L., Fabaceae)



Figure 2B. Peanut pods

6 Odissea Seminum – Issue 9



Figure 3A. Catalogue card of pumpkin (Cucurbita maxima Duchesne, Cucurbitaceae)



Figure 3B. The traditional Valencian pumpkin variety «Calabaza de asar» (roasting pumpkin)



Figure 4A. Catalogue card of lettuce (Lactuca sativa L., Asteraceae)



Figure 4B. The traditional Valencian variety of romaine lettuce «Orella de burro»

8 Odissea Seminum – Issue 9

Table 1. Production and transfer of seeds from the Valencian catalogue of traditional varieties (September 2024).

Crop	Local Variety	Seed Production (g)	Seed Transfer (g)	Seed batches supplied
Eggplant	Berenjena blanca	3757	1498	395
	Berenjena listada de Gandía	2278	1116	441
	Berenjena roja de Gandía	3898	1228	253
Cowpea	Judía careta	12938	3422	142
Bean	Judía de herradura	16937	9964	357
	Judía manteca	9186	6900	255
	Judía roget	12706	9834	329
Chard	Acelga de Eslida	2570	2242	344
Peanut	Cacahuete "del collaret"	41910	33298	357
Peanut squash	Calabaza de cacahuete	7272	2911	223
Pumpkin	Calabaza de asar	5278	3874	239
Zucchini	Calabacín blanco	9599	4167	413
	Calabacín de Utiel	6409	2764	263
Onion	Cebolla babosa	2046	483	157
	Cebolla de grano	149	86	40
	Cebolla de medio grano	83	44	32
Cucumber	Pepino corto de vinagre	2555	866	191
	Pepino de la Nucia	3370	1115	329
Cabagge	Col de Játiva	1119	579	183
	Lechuga oreja de burro	801	183	210
	Lechuga mantecosa de Ademúz	1102	542	305
Lettuce	Lechuga maravilla de Espadán	713	382	279
	Lechuga morada de Morella	1451	602	360
Broad bean	Haba de Bétera	69736	64167	392
Lima bean	Garrofón pintado	40003	23814	396
2	Melón blanco rayado	4186	1361	241
Melon	Melón tendral negro	1816	949	198
Watermelon	Sandía pipa roja	1647	799	102
	Sandía sangre de toro	7277	4791	461
	Melona	3711	1448	174
Pea	Guisante de romper	20462	13350	266
Snow pea	Tirabeque	30526	16741	319
Show ped	Pimiento del cuerno	1246	668	407
	Pimiento 4 Morros	1126	694	401
Pepper	Pimiento ñora	1677	543	230
	Pimiento valenciano	853	571	389
Radish	Rábano rojo	13826	6440	424
Carrot	Zanahoria morada	5694	4190	403
Currot	Tomate de pera	513	244	251
Tomato	Tomate del pimiento	624	425	423
	Tomate Muchamiel	708	547	442
	Tomate cuarentena	895	534	303
	Tomate rosa de Altea	908	467	510
	Tomate valenciano blanco	304	253	243
	Tomate valenciano masclet	847	467	361
	TOTAL	356712	231563	13433





EVENTS 2024 - 2025

The 8th Mediterranean Forest Week: A Key Event for the Future of Mediterranean Forests - November 4 to 7, 2024.

By Alain Chaudron (AIFM)

The 8th Mediterranean Forest Week (8MFW), entitled "Working Together for Sustainable and Resilient Mediterranean Forests – Towards a Collaborative Roadmap", was held in Barcelona from November 4 to 7, 2024. Throughout the week, the focus was on forest ecosystem restoration, climate change adaptation, and biodiversity promotion.

A Shared Observation and a Common Message

Organized notably by FAO, EFIMED, and AIFM, the 8MFW brought together researchers, foresters, international and regional organizations, and representatives from national authorities across Mediterranean countries.

A shared and concerning observation emerged: climate change, wildfires, and biodiversity loss. However, growing awareness and efforts—particularly financial and legislative—offer hope for the future of forest ecosystems.

The key message of the Week was the importance of collaboration among countries and organizations to strengthen the impact and effectiveness of actions on the ground and with policymakers, launching the idea of a Mediterranean Forest Initiative (MFI) to be developed in the coming months.

The 8th Week was rich and intense, full of meetings, reunions, and new projects on the horizon. Now, it's time for action!



AIFM Committed to Biodiversity

By organizing Session 3, "From Policy to Implementation – Adapting the Global Biodiversity Framework to Preserve and Restore Mediterranean Forest Biodiversity", as well as two side events showcasing the Mediterranean Consortium for Biodiversity and the Interreg Euro-MED StrategyMedFor project, AIFM was active on all fronts in fulfilling its mission as a facilitator of exchanges among stakeholders in Mediterranean forest management.



Find all information on the 8th Week and previous editions at aifm.org.

The 5TH MEDITERRANEAN PLANT CONSERVATION WEEK Building alliances for plant diversity conservation in the Mediterranean - April 07-11, 2025-Limassol, Cyprus

By Dr Marios Andreou, Chair of the Local Organising Committee

The 5th Mediterranean Plant Conservation Week (5MPCW) was held at the five-star St. Raphael Resort and Marina in Limassol, Cyprus. This important scientific event aimed to "build alliances for plant diversity conservation in the Mediterranean" and brought together 175 participants from 28 countries, making it a record-breaking edition in terms of attendance, number of countries and scientific engagement.

The conference served as an opportunity for researchers and scientists from different geographic and cultural backgrounds - but with shared fields of interest - to come together, creating fertile ground for discussion and future collaboration. The programme featured 80 oral presentations and 94 poster presentations, highlighting research and best practices across a wide range of topics - from plant and ecological sciences to citizen science, ethnobotany, and the sustainable management of plant resources.

In addition, the academic programme included a rich variety of sessions and workshops, such as:

- The Critical Ecosystem Partnership Fund (CEPF) Workshop, which emphasized grassroots efforts to protect biodiversity hotspots.
- A Miyawaki Workshop.
- A workshop focused on developing new plant conservation projects in Europe, organized by Costantino Bonomi.
- Two well-attended poster sessions, offering researchers the opportunity to present and discuss their work with peers and experts.

At the closing ceremony, three remarkable scientists whose dedication and contributions have left a lasting mark on the preservation of our natural heritage - were honoured. The Mediterranean Plant Conservation Award, known this year as the Golden Oak Award, was presented to Emilio Laguna Lumbreras, Kyriacos Georghiou, and Gianluigi Bacchetta, recognizing their outstanding contributions to the conservation of Mediterranean flora.

A field trip offered to the participants the chance to explore the rich biodiversity, unique habitats, and endemic species of the Troodos Mountain region while immersing themselves in Cyprus's natural beauty. The itinerary included three remarkable stops, followed by a choice of hiking trails to further connect with the area's distinct habitat types. All visits took place within the Natura 2000 site, Troodos National Forest Park (CY5000004).

The 5MPCW was organized by:

- IUCN Centre de coopération pour la Méditerranée / SSC / Mediterranean Plant Specialist Group.
- Minstry of Agriculture, Rural Development and Environment, Cyprus.
- Critical Ecosystem Partnership Fund.
- Nature Conservation Unit Frederick University Cyprus.

The organizing committee would like to thank the generous sponsors and supporters who made this event possible:

- Korantina Homes: Supporting sustainable housing and eco-friendly living.
- RIBES: The Italian Network of Germplasm Banks.
- Visit Cyprus: The Deputy Ministry of Tourism.
- EUROGARD10: The European Botanic Gardens Consortium.
- Bioland Energy Ltd: Promoting green energy solutions.
- Ergo Energy: Supporting sustainable energy solutions
- Cyprus Biological Society: Promoting biological research and education.
- Ideopsis: Strategic support in science communication.
- IUCN Centre de coopération pour la Méditerranée.

Plans are already underway for the next 6th Mediterranean Plant Conservation Week, which will take place in Tunisia.

A conference photo album is available here: https://bit.ly/5MPCWphotos.

Please visit the conference webpage:

(https://cyprusconferences.org/mpcw2025/) to access the Book of Abstracts and additional resources, including presentations and posters.

EUROGARD 10 - Botanic Gardens in the UN Decade of Ecosystem Restoration

By Fabio Attorre, and Vito Emanuele Cambria

Botanic Garden, Department of Environmental Biology, Sapienza University of Rome, Italy

The 10th European Botanic Gardens Congress, EuroGard X, will take place at the Botanic Garden of Rome from September 29 to October 2025 ,3. Set in Rome's historic Trastevere district, this congress brings together a long tradition of botanical knowledge and scientific inquiry with a modern commitment to address pressing environmental challenges. European Botanic Gardens, like Rome's, have a storied history rooted in conservation and education, making them uniquely positioned to contribute to ecological restoration and sustainability initiatives.

In 2019, the United Nations General Assembly declared 2030–2021 as the UN Decade on Ecosystem Restoration, a global call to action for protecting and reviving ecosystems essential for human and planetary health. This objective was further strengthened within Europe by the 2024 Nature Restoration Law, a landmark piece of legislation that aims to restore degraded ecosystems, aligned with the EU Biodiversity Strategy's climate and biodiversity goals and efforts to safeguard food security.

EUROGARD 10's theme, "Botanic Gardens in the UN Decade of Ecosystem Restoration," reflects this mandate. The congress will explore the expanded role of botanic gardens in restoring ecosystems, alongside traditional functions like in situ and ex situ plant diversity conservation, taxonomy, horticulture, and the development of policies and standards. Emphasis will be placed on the new Global Biodiversity Framework and Global Strategy for Plant Conservation, public engagement, education, and scientific dissemination. Together, these activities serve to advance the broader goal of creating a more sustainable future.

Botanic gardens have a unique capacity to foster collaboration, both within the scientific community and with external stakeholders, which is essential given today's complex environmental challenges. EuroGard X is not only a meeting point for experts but also a call for stronger partnerships and cooperative efforts in ecosystem restoration.

We look forward to welcoming you to Rome for this pivotal event in botanical science and conservation. See you in Rome!





View of the iris collection in full blossom. In the background the ancient roman wall.



A XVIII staircase surrounded by monumental specimens of Platanus orientalis.

12

PROJECTS

1. LIFE RedBosques_Clima, a consolidated project for adaptive forest management in the Valencian Community (Spain).

Sela E. Huesca (1, 3), Sara Rosell (2), Gloria Romero (2), Daniel Arizpe (1, 3), Ana Cebrián (1, 3), Alejandro Rubio (2, 3), and Emilio Laguna (2, 3)

(1) VAERSA; (2) Generalitat Valenciana. Department of Environment, Infrastructures and Territory; (3) CIEF

Since 2022, the Centre for Forestry Research and Experimentation (CIEF), as a representative of the Generalitat Valenciana -government of the Valencian Community-, is actively working for the EU's funded LIFE project RedBosques_Clima CCA/ES001624). CIEF develops at the same time the joint efforts of VAERSA, the Generalitat's public enterprise for environmental works. Generalitat and VAERSA are 2 of the 6 beneficiary partners of this project, whose coordinator partner is Inter-University Foundation Fernando González Bernáldez for Natural Areas (FUNGOBE), based in Madrid. In addition to FUNGOBE, Generalitat Valenciana and VAERSA, the remainder beneficiary partners are the CREAF (Centre for Ecological Research and Forest Applications, Catalonia) and the services for the management of natural protected areas in the regional governments of Castilla-La Mancha (Junta de Comunidades de Castilla-La Mancha) and Catalonia (Generalitat de Catalunya). The Department of Environment, Land Planning and Housing of the Basque Government (Basque Country) collaborates as financial partner.

RedBosques_Clima aims both to generate technical tools and to assay innovative forestry techniques to get a bigger adaptive capacity of forests to climate change, mainly targeting Mediterranean pinewoods, under the framework of ecosystem-based adaptation. The purpose is to generate more resilient forests to climate change, thanks to human interventions on their structure and inner biological relationships, focusing on the reduction of vulnerability against the drought, fires and plagues.

CREAF is taking in charge the creation of "adaptometers", simple tools to estimate the vulnerability of forests to the effects of drought and fires, and FUNGOBE is setting up quality standards for adaptative forestry activities. The remainder beneficiary partners, including the activity of CIEF, are mainly focused on the development of experiences to reduce the risks caused by the tree hyper-density, the excessive flammability and the lack of fine equilibriums between trees and plagues. All these characteristics are frequent in some types of ancient reforestations in Spain, as well as in post-fire young pinewoods whose traditional forestry practices have been abandoned. This project is being developed between 2022 and 2025, and it has a global budget of 1,569,661 euros, cofinanced at 55% by the European Union (863,313 euros). The budget for the Valencian partners, executed by CIEF, reaches 332,405 euros.

The CIEF's main activities for the project are developed on 80 hectares scattered in 3 sites. They aim to enhance the capacity of Maritime Pine forests (Pinus pinaster subsp. escarena (Risso) K.Richt.) to adapt to climate change effects. This species has been chosen because of the strong decline of their natural communities during the 20th century, after suffering successive waves of forest fires in the Valencian area. Currently, most populations of P. pinaster survive as a part of hyperdense reforestations, suffering the excessive exposition to fires, plagues and massive death caused by severe droughts. All the CIEF's experiences are carefully developed, measuring several parameters at the initial and final stages, and foreseeing their long-term monitoring.

These experiences are preceded participatory processes, explaining the project to forest owners, local managers, etc. In all cases, mixed stands coming from aged reforestations have been chosen, and two main techniques have been combined: 1) to clearcut the forest, setting up small, circular areas equivalent in radius to 1.5-2.5 times the highest height of dominant trees; there, the tree density is notably reduced, trying to benefit both P. pinaster and native broadleaves (i.e. Quercus spp.). 2) to reach low levels of some plagues and enough presence of their natural predators, thanks to the maintenance of moderate amounts of died wood, both as standing dead trees -ringed trees-, and as fallen trees or stacked firewood. Clearcut areas can act in a future as small biodiversity hotspots, broking former uniformity of these reforestations, increasing the presence of other tree species, and generating discontinuities to difficult the advance of forest fires. Complementary management of open cut areas to avoid the excessive recruitment of some species, can be needed in a close future.

Combining the aforementioned actions and parallel activities of applied research, all partners of LIFE RedBosques Clima develop joint experiences of knowledge transfer by means of technical courses, training exchanges, workshops and webinars. A set of selected results and publications such as an e-bulletin, manuals, factsheets and posters, are available through the project webpage (https://redbosquesclima.eu/en/home/).

LIFE RedBosques_Clima (LIFE20 CCA/ES/001624)

Funded by the European Union through the LIFE20 Climate Action Programme Duration: September 2021 – August 2025

2. Project MedFireWise. Cross-Med Wildfire Resilience:

Harnessing Nature-Based Solutions for Wildfire Risk Mitigation.

Interreg NEXT MED

Programme.2025-2028. Budget: 2.272.700,00 €

By Issam Touhami (INRGREF, Tunisia)

Project objective:

The MedFireWise addresses the escalating threat of wildfires in the Med forests by promoting prescribed burning & silvopasture as Nature-based Solutions (NbS) for wildfire risk management (WRFM). Through transnational cooperation, it aims to mitigate wildfire risk in ecosystems, leveraging ecological processes to enhance resilience & reduce fire intensity & severity. The development of innovative tools & frameworks will enhance situational awareness for evaluating sustainable interventions in strategic forest management areas, thereby refining risk management systems. The implementation in 7 regions will demonstrate the effectiveness of the NbS, benefiting local communities, economies & ecosystems. It will provide tools for more effective WRFM, increase stakeholder capacity, raise public awareness & transfer its outcomes to regions among & beyond the project areas, contributing to more resilient Med forests to confront the climate change impacts

Partners:

- 1.THE NATIONAL OBSERVATORY OF ATHENS. Greece.

 Leader
- 2. PAU COSTA FOUNDATION (PCF). Spain. Partner 1
- D.R.E.Am. Italia società cooperativa agricolo forestale. Italy. Partner 2
- 4. Edirne Orman Isletme Mudurlugu (EOIM). Turkey. Partner 3
- National Research Institute for Rural Engineering, Water, and Forestry (INRGREF) Tunisia. Partner 4
- 6. Algerian Space Agency (ASAL), Algeria. Partner 5
- 7. University of Balamand (UOB), Lebanon. Partner 6

14

MISCELLANEOUS

1. Biogeography and Evolution of Plants and Ecosystems-BEPE:

A new group created by the Research Centre in Biodiversity and Genetic Resources (CIBIO) - InBIO Associate Laboratory Portugal.

Group coordinator: Carlos Martins Vila-Viçosa - cvv@cibio.up.pt https://www.cibio.up.pt/en/groups/biogeography-and-evolution-of-plants-and-ecosystems-bepe/

Mission Overview:

BEPE (Biogeography, Evolution and Plant Ecology) is dedicated to exploring and characterizing the biotic components that sustain Earth's habitats, focusing on sessile organisms such as vascular plants, fungi, algae, and soil microbial life. Rooted in natural history and botanical expertise, BEPE aims to generate actionable scientific knowledge to support habitat conservation and ecological restoration through the lens of applied biogeography.

Core Research Themes:

1. Conservation and Evolution in Action

Focus on the conservation of Western Mediterranean native forests, especially oak-dominated systems, but also including riparian, aquatic, and xerophytic ecosystems — creating a comprehensive view from riverbanks to mountain peaks

2. Natural History through Botanical Collections:

Investigation of botanical museum collections (herbaria and literature), using museomics and herbariomics to explore plant evolution and taxonomy. Special attention is given to the unique flora of Portuguese-speaking countries.

3. Linking Evolutionary Processes to Taxonomy:

Bridging evolutionary mechanisms (speciation, hybridization, adaptation) with the Linnaean system, to reconstruct the historical biogeography of vascular and non-vascular plants, fungi, algae, and lichens.

4. Past and Future Environmental Dynamics:

Combining archaeo- and paleobotany with climate reconstructions (past and projected), BEPE studies

species range shifts and the drivers behind evolutionary and biogeographic patterns.

5. Developmental Approaches to Plant Evolution:

Integrating plant morphological and anatomical studies with modern tools like gene expression and bioinformatics, to monitor biodiversity from communities to individual organisms.

6. Species Interactions and Community Ecology:

Investigating biotic and abiotic drivers of diversity, with an emphasis on rare, endemic, and threatened species, using community-level ecological approaches.

7. Vegetation Ecology, Alien Plants & Novel Ecosystems:

Tackling plant invasions and the rise of novel ecosystems, especially in peri-urban areas. This includes the interaction between ornamental and native flora, taxonomy of invasive species, and increasing public awareness through habitat assessment and monitoring.

Scientific Vision and Collaborations:

BEPE aims to become a national and international reference group in plant diversity and conservation. The group actively seeks collaborations with other institutions, particularly within the BIOPOLIS network, and is open to research involving low-dispersal organisms (e.g., insects, amphibians) sharing similar ecological and phylogeographical dynamics. The team combines classical botanical disciplines (taxonomy, syntaxonomy, phytogeography) with cutting-edge molecular tools, GIS, and computational modeling, striving to optimize scientific innovation across plant biology and biodiversity conservation.

2. Digitization of the Greek Natural History Collections through the DiSSCo Project

Fournaraki Ch, Choreftakis M, Markaki E CIHEAM - Mediterranean Agronomic Institute of Chania (MAICh), 73134, Chania

Greece is actively participating in the digitization of a significant portion of its Natural History Collections, housed in universities and other scientific institutions across the country. This effort includes the creation of a database that meets international standards.

The initiative brings together eight institutions from across Greece that hold Natural History Collections: the Museum of Natural History of Crete at the University of Crete (Project Coordinator), Aristotle University of Thessaloniki, University of Patras, National and Kapodistrian University of Athens, Goulandris Museum of Natural History, Mediterranean Agronomic Institute of Chania, Museum of Natural History of the Lesvos Petrified Forest, and the University of the Aegean.

With a total budget of approximately €5.7 million, funded by the Ministry of Environment and Energy through Greece 2.0 of the National Recovery and Resilience Plan (NextGeneration EU), the project holds particular significance. These collections, apart from being part of Greece's national cultural heritage, are a vital scientific infrastructure for studying and assessing biodiversity, as well as its relationship with environmental changes over time. They also serve as a critical resource for fulfilling Greece's obligations under international agreements, such as the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Nagova Protocol on Access and Benefit-Sharing.

The project has been a long-standing priority of the Natural Environment and Climate Change Agency (NECCA), which works to protect Greece's natural environment and promote sustainable development. Recognizing the fragmentation and need for interoperability among Greek collections, NECCA played a decisive role in integrating the project into the action "Protection of Biodiversity as a Driver of Sustainable Development," under the "Green Transition" pillar of the National Recovery and Resilience Plan. From the outset, NECCA emphasized the project's importance for the country's future.



Once completed, the digitized collections will be accessible to a broad range of users and will provide a foundation of knowledge to address key environmental and societal challenges, including:

- **a)** documenting biological and geological diversity in an era of unprecedented environmental crisis,
- **b)** understanding the effects of climate change and other environmental threats,
- **c)** determining the impact of invasive species on ecosystems.
- **d)** monitoring changes in natural resources, supporting Greece's adaptation to emerging environmental and technological challenges.

As part of the project, the Mediterranean Plant Conservation Unit of the Mediterranean Agronomic Institute of Chania (MPCU-MAICh) will digitize approximately 12,600 specimens from its Herbarium and Seed Bank collections.

In recent months, MAICh has acquired state-of-the-art digitization equipment to support the successful completion of its contribution to the project.

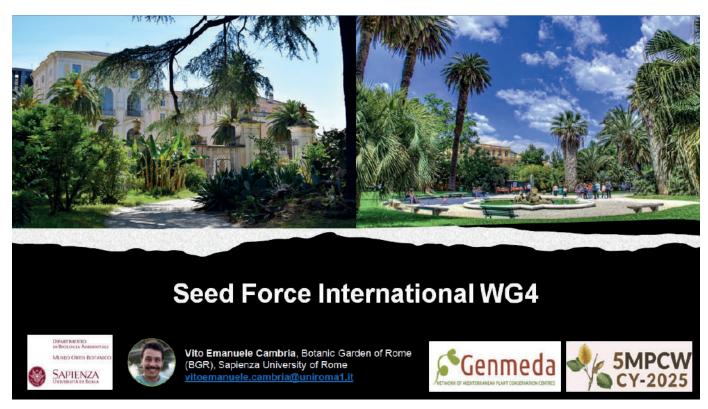


16 Odissea Seminum – Issue 9

3. Creation of the Shared Repository on Standards and Practices in Ecological Restoration – WG4 SEED FORCE

By Vito Emanuele Cambria

The common repository on Standards and Practices in Ecological Restoration is now live and accessible via Google Drive under the section Standards and Guidelines. Designed as a dynamic and collaborative resource hub, it aims to support our shared efforts by collecting relevant documents, tools, and references. I warmly encourage all members to contribute materials to help expand and enrich its content. Please also find attached the requested.



Presentation for your review. It is accessible here: Standards and Guidelines - Google Drive,

4. Tribute to a Remarkable Career



Abdelhamid Khaldi President of AIFM and Forestry Researcher (2013-2025) INRGREF (National Research Institute for Rural Engineering, Water and Forestry – Tunisia) 1987-2025

Abdelhamid Khaldi is a forestry researcher at INRGREF (National Research Institute for Rural Engineering, Water and Forestry – Tunisia). He holds an agricultural engineering degree from the Agronomic Institute (Tunisia), obtained in 1984, and from ENGREF (National School of Rural Engineering, Water and Forestry – France), earned in 1986.

He received his PhD from the Institut National Agronomique de Tunisie (INAT, University of Carthage) in 2009. As a researcher, his work focuses primarily on the restoration Mediterranean forests and the development of forest products, particularly non-wood forest products (NWFPs). He has published more than 50 scientific articles over the past ten years. He forest ecosystem silviculture and management at the Institut National Agronomique de Tunisie. For the past twelve years (2013 – 2025),





he chaired the International Association for Mediterranean Forests (www.aifm.org), a member of the French Academy of Agriculture, and a member of the International Council of IUFRO.



Emilio Laguna Lumbreras
Former Director of CIEF
(Centre for Forestry Research
and Experimentation)
at Generalitat Valenciana

Emilio Laguna (Valencia, Spain, 1961) is a PhD biologist specializing in plant conservation. Since 1986, he has worked with the Regional Government of the Valencian Community (Generalitat Valenciana). He has served as the Technical Director of the Centre for Forestry Research and Experimentation (CIEF) and was previously the Head of the Plant Conservation Section within the Regional Wildlife Service. Dr. Laguna is widely recognized as a pioneer in conceptualizing and implementing the technical and legal framework for "Plant Micro-Reserves" (PMRs). He initiated the first PMR network in the Valencian region, which now comprises over 300 legally protected sites. To establish this network and advance forest and plant conservation, he has led seven EU LIFE projects and contributed to more than a dozen other international initiatives (LIFE, Interreg, Erasmus+, etc.) as an advisor, collaborator, or committee member. He has an extensive academic and professional output, having published over 1.000 works, including articles, books, book chapters, and reviews, with a focus on plant conservation, taxonomy, ecology, ethnobotany, and related botanical subjects. Dr. Laguna has participated in 120 conferences, presenting or co-authoring 400 papers, and has given 150 lectures at symposia and

academic courses to promote plant conservation. Dr. Laguna is an advisor to Planta Europa, coordinator of the steering committee of GENMEDA, a member of the IUCN Mediterranean Plants Specialist Group, and part of several Spanish commissions on nature conservation. He is also an active member of numerous national and international scientific societies. Notably, he was a founding member of the Spanish Society for Plant Conservation Biology (SEBiCoP) and the Ibero-American Society of Biogeography (SIB). His contributions have been recognized with awards such as the Silver Leaf Award from Planta Europa for excellence in European plant conservation and the César Gómez Campo Award from SEBiCoP in recognition of his lifetime achievements in Spanish plant conservation and recently, in april 2025, the Golden Oak Award granted during the 5th Mediterranean Plant Conservation Week held in Cyprus.

18

THE NETWORK

GENMEDA has 33 members & 1 associate member from 14 countries contributing to the conservation of the Mediterranean flora genetic resources.

Why a network?

Plant conservation centres from a same floristic region can make a large contribution to conservation by implementing both ex situ and in situ joint and coordinated actions. Cooperation allows information-sharing and developing common methodologies and applied technical and scientific know-how.

Who is involved?

Local, regional, national and international authorities & institutions, national bodies, universities and research centers.

Mission and objectives

GENMEDA aims to contribute to the conservation of Mediterranean flora genetic resources through: Enhancement of human capital, equipment and methodologies to boost flora conservation applied knowledge

- > Harvesting of most threatened species genetic materials and creating, as far as possible, living plant collections
- > Creation of a virtual common collection of vegetal genetic and reproduction materials
- > Planning of joint initiatives concerning flora conservation and/or management
- Backing-up the decision-making processes of flora conservation public policies
- > Support of environmental education and public awareness on biodiversity conservation.



Members

- Centre for Forestry Research and Experimentation (CIEF) of the Valencian Community, Spain
- National and Kapodistrian University of Athens (NKUA), Faculty of Biology – Department of Botany, Greece
- Institut Botànic Jardí Botànic de Barcelona (JBB), Spain
- Conservatoire Botanique National Méditerranéen of Porquerolles (CBNMed), France
- Center of Conservation of Wild Flora of the Region of Murcia (CCFS), Spain
- 6. Fundació Jardí Botànic de Sòller (JBS), Spain
- University of Catania Department of Biological, Geological and Environmental Sciences (DBS), Italy
- 8. CIHEAM Mediterranean Agronomic Institute of Chania (MAICh), Greece
- University of Cagliari Hortus Botanicus Karalitanus (HBK), Italy
- Botanic Garden of the University of Valencia (JBUV), Spain
- Department of Biology, University of Malta (DBUM), Malta
- **12.** Mohammed V de Rabat University, Institut Scientifique de Rabat (ISR), Morroco
- Mansoura University, Faculty of Science (FSUM), Egypt
- 14. Agricultural Research Institute (ARI), Cyprus
- **15.** Office of the Environment of Corsica, Conservatoire Botanique National de Corse, France
- National Research Institute for Rural Engineering, Water and Forests (INRGREF), Tunisia Arid Zones Research Institute (IRA), Tunisia
- 17. Arid Zones Research Institute (IRA), Tunisia
- Saint Joseph University (USJ), Laboratory for Seed Germination and Conservation and 'Jouzour Loubnan' Seed Bank, Lebanon

- 19. Hamma Botanical Garden (JEH), Algeria
- 20. Hellenic Agricultural Organization "DEMETER", Institute of Mediterranean & Forest Ecosystems (FRIA), Greece
- Rete italiana banche del germoplasma per la conservazione ex situ della flora spontanea italiana (RIBES), Italy
- 22. Natural History Museum Rijeka (NHMR), Croatia
- 23. IUCN/SCC Mediterranean Plant Specialist Group (MPSG), Switzerland
- Sapienza University of Rome, Botanical Garden of Rome (BGR), Italy
- University of Tuscia, Tuscia Germplasm Bank (TGB), Italy
- 26. International Association for Mediterranean Forests (AIFM), France
- 27. University of Palermo, Sicilian Plant Germplasm Repository (SPGR/PA), Italy
- 28. Biopolis Association, Portugal
- 29. Forest Research Center, School of Agriculture (ISA),
- 30. Marimurtra Botanical Garden, Spain
- Botanic Garden of Castilla-La Mancha (JBCLM),
 Spain
- 32. Real Jardín Botánico, CSIC, Madrid, Spain
- 33. El Centre Forestal de les Illes Balears, Spain

Associate members

34. Nature Conservation Unit, Frederick University (FredU - NCU), Cyprus

20 Odissea Seminum - Issue 9

Representatives

President

Imtinen BEN HAJ JILANI (on behalf of CIHEAM MAICh, 'Institut National Agronomique de Tunisie', University of Carthage, Tunisia).

Secretary/Treasurer

Ana CEBRIÁN (Centre for Forestry Research and Experimentation (CIEF), Valencian Region, Spain).

Steering Committee coordinator

Costantino BONOMI (RIBES, Italy).

Steering Committee members

Vito Emanuele CAMBRIA (BGR, Italy)
Michalis CHOREFTAKIS (CIHEAM-MAICh, Greece)
Evangelia DASKALAKOU (FRIA, Greece)
Alejandro Santiago GONZÁLEZ (JBCLM, Spain)
Boštjan SURINA (NHMR, Croatia).

Working Groups

WG1 - Communication: Isabel MARQUES (CEF)/Lead, Lou BARBE (CBNC), Ana CEBRIAN (CIEF), Bertrand DE MONTMOLLIN (IUCN/SSC/MPSG), Caroline FAVIER (CBNC), Adamantia KOKKINAKI (MAICh), Francesca MELONI (CCB), Joëlle SALAMEH (AIFM).

WG2 - Database: Lara DIXON (CBNMed)/Lead, Costantino BONOMI (RIBES), Lou BARBE (CBNC), Inmaculada FERRANDO (CIEF), Panagiota GOTSIOU (MAICh), Ali KHORCHANI (INRGREF), Angelos KYRATZIS (ARI), Chouaib MOUJAHDI (ISR), Marco PORCEDDU (HBK), Gianmarco TAVILLA (DBS), Cloé TROUILLET (CBNC).

WG3 - Orchids and microbiota: Sara MAGRINI (RIBES)/Lead, Fabio ATTORE (BGR), Joseph BUHAGIAR (BDUM), Vito Emanuele CAMBRIA (BGR), Jalal EL OUALIDI (ISR), Spyros OIKONOMIDIS (NKUA), Boštjan SURINA (NHMR), Magdalena VICENS (JBS).

WG4 - Seed Force International: Vito Emanuele CAMBRIA (BGR)/Lead, Mohamed ABDELAAL (FSUM), Miriam AIXART (JBB), Daniel ARIZPE (CIEF), Fabio ATTORE (BGR), Lou BARBE (CBNC), Costantino BONOMI (RIBES), Joseph BUHAGIAR (DBUM), Antonia CRISTAUDO (DBS), Evangelia DASKALAKOU (FRIA), Jalal EL OUALIDI (ISR), Elena ESTRELLES (JBUV), Christini FOURNARAKI (MAICh), Laetitia HUGOT (CBNC), Abdelhamid KHALDI (INRGREF), Sara MAGRINI (RIBES), Faten MEZNI (INRGREF), Mohamed NEFFATI (IRA), Francisco Javier SÁNCHEZ-SAORÍN (CCFS), Boutheina STITI (INRGREF), Boštjan SURINA (NHMR), Issam TOUHAMI (INRGREF), Cloé TROUILLET (CBNC), Magdalena VICENS (JBS), Nassima YAHI (JEH).



Network of Mediterranean Plant **Conservation Centres**

GENMEDA aims to contribute to the conservation of Mediterranean flora genetic resources

members

Mediterranean countries

+65,000

+12,000

plant taxa preserved

HUMAN CAPITAL Strengthening human capital, equipment, and methodologies for flora conservation

GENETIC MATERIAL Collecting genetic material from the most threatened Mediterranean plants

LIVING PLANT COLLECTIONS Establishing living plant collections

VIRTUAL COLLECTION Creating a virtual common collection

COLLABORATING ON CONSERVATION

Collaborating on joint flora conservation initiatives



PUBLIC POLICY DECISION-MAKING

Contributing to flora conservation public policy decision-making



ENVIRONMENTAL **EDUCATION**

Promoting environmental education and public awareness on biodiversity conservation

GENMEDA is a community of seed banks, gene banks, botanical gardens and other conservation centres of plant genetic resources, including authorities, national bodies, networks and international expert groups and associations.

> Visit our website to see more about GENMEDA and our publications & projects



(f) @Genmeda



www.genmeda.net





