Semclimed, a multifunctional project on the Mediterranean seed conservation and climatic change



Emilio LAGUNA, Pedro Pablo FERRER, Antoni MARZO, Esther TORTOSA, Pilar VEINTIMILLA & Christophe ZREIK

Centro para la Investigación y Experimentación Forestal (CIEF). Generalitat Valenciana, Valencia, Spain









What is SEMCLIMED?

SEMCLIMED* (Semences - Climat - Mediterraneen / Seeds - Climate -Mediterranean) is a project funded by the EC's INTERREG funds**, developed by the network GENMEDOC. http://www.semclimed.org

GENMEDOC*** is a network of research centres and seedbanks focused on the study and conservation of Mediterranean seeds (both European and non-European countries). This network was established in 2006, at the end of the homonymous project GENMEDOC, also funded by the INTERREG funds. http://www.genmedoc.org

*The complete title of the project is: SEMCLIMED. Impact of the Climatic Change on the Mediterranean Flora and Conservation Actions **The project is financed by the programme INTERREG IIIB MEDOCC, for the cohesion of Southern European territories ***GENMEDOC is still a provisional name

****GENMEDOC project was funded by INTERREG IIB MEDOCC



MEMBERS OF THE NETWORK

Currently GENMEDOC network is compound by 16 member institutions, coming from 14 regions of 5 countries

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COUNTRY	REGION	MEMBER	ACRONYME
Spain	Valencia	Centro Investigac. Experiment. Forestal	CIEF
		Jardí Botànic Univ.ersitat València	JBUV
	Catalonia	Institut & Jardí Botànic Barcelona	IBB
	Murcia	Dir. Gen. Medi Natural - Region Murcia	DGMN
	Balearic Isl.	Fundació Jard. Botànic Sóller	JBS
France	PACA	Conserv. Bot. National Porquerolles	CBNP
		Conserv. Etudes Ecosystèmes Provence	CEEP
	LangRouss.	Conserv. Espaces Nat. Languedoc-Roussillor	CENLR
Italy	Sardinia	CCB-Dipart. Sci. Botaniche, Univ. Cagliari	CCB
	Sicily	Dipartimento. Botanica, Univ. Catania	DBUC
Greece	Attika	National & Kapodistrian Univ.Athens	UNKA
	Crete	Mediterranean Agronomic Instit. Chania	MAICh
Malta	Malta	Argotti Herbarium & Univ. Botanical Gardens	AHUM
Morocco	Rabat	Institut Scientifique Rabat	ISR
Tunisia	Médenine	Institut Régions Arides	IRAM
Egypt	Mansoura	Faculty Sciences, Mansouri University	FSUM

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GENMEDOC / SEMCLIMED members







Project scope and main traits

Time: September 2006-April 2008

Actions: 7 actions ('phases')

Main goal:

- To research about the impact of climate change on the germination processes in the Mediterranean Flora
- To generate and spread the knowledge on some resources to combat the impact of climatic change (*ex situ* and *in situ* activities)
- Going on to reach the former goals, but working as a cooperative network of seedbanks, NGOs and research centres



Phases (Actions)

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Phase 3: Resources to conserve the North-African Flora

Aid/Facilities (materials, equipment, training, collaboration in seed harvesting) to create or enhance germplasm banks in Morocco, Tunisia and Egypt

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Phase 4: In situ actions to conserve species and habitats

Restoration experiences on vegetation of temporary ponds and small islands in Southern France and Valencia
Population reinforcement of 6-10 threatened species in Southern France, Spain (Valencia and Murcia) and Malta
Habitat management experiences to benefit 9 rare or threatened species in Southern France





Phase 5: Application of innovative techniques

Training of the partners in recent techniques for plant propagation Obtention of in vitro micropropagation protocols with 5 species (*Astragalus nitidiflorus, Cistus heterophyllus, Helianthemum marminorense, Tamarix boveana, Tetraclinis articulata*) and application to obtain new plants







Phase 6: Exhibition of the Natural Heritage: Gardening with Mediterranean Flora

Trainings of the partners at the Botanical Gardens of Sóller Creation of a network of educative gardens (mainly rock gardens) of rare, threatened and endemic species around the Mediterranean (1 or more per region)

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Phase 2: Research on climatic change and its impact on germination of Mediterranean plants

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Main purpose is to know the seed germination behaviour of 68 species picked up by the partners in their region areas, simulating several scenarios of climatic change into phytotrons

- Election of 2 models*/scenarios of climatic change, to be modelised
- Seeds harvesting, storage and exchange; field monitoring with data loggers
- Simulation of the climatic scenarios in phytotrons (up to 24 steps per day to change temperature and light conditions) with seeds 68 species

*One model for Western Mediterranean and another for the Eastern side





Phase 2: Research on climatic change and its impact on germination of Mediterranean plants





Phase 2: Research on climatic change and its impact on germination of Mediterranean plants







Spreading the knowledge

Actions for public information and awareness, as well as spreading of technical and scientifical results:

-Leaflets

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- -Technical handbooks
- -Exhibitions
- -Databases
- -Workshops
- -Website:







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Webpage (under construction): <u>http://www.semclimed.org</u> / <u>www.genmedoc.org</u> News Blogspot: <u>http://semclimed.blogspot.com</u> Project explanation: <u>http://www.ccb-sardegna.it</u> (click on GENMEDOC project)



On behalf of all the SEMCLIMED/GENMEDOC partners, many thanks for your attention



For additional information, please contact: e-mail: <u>gestio.cief@gva.es</u>







