



Growing
ideas
through
networks

CONVERGES
European Riparian Ecosystems

RIPARIAN GENETIC RESOURCES CONSERVATION IN EUROPE

(GC-WG2: Progress report I)


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EUROPEAN COOPERATION
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Pruhonice 3-4 April 2019 - COST CONVERGES – Annual meeting (WGs + MC)



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Genetic Conservation group was formed during the meeting of
the WG2 that was held in 2018 in Selfoss, Iceland

2

Context

- ❑ WFD requires restoration actions for the achievement of good ecological status
- ❑ Increasing demand of riparian restoration often through reforestation, planting;
- ❑ But...what about management of target species/plant genetic material/provenances?



Aims to be achieved by Genetic Conservation group

- ❑ review the state of art in genetic conservation of riparian ecosystems/species at the European level;
- ❑ identify knowledge gaps, conservation barriers and future research and management needs;

Steps to achieve the aims (according to minutes from the meeting in Selfoss)

Expected Output	Methodology	Deadline	COST Tool
Directory of experts	Contact database	15/12/2018	N/A
List of relevant contacts, bibliography and information about most important riparian species from each country	Short Questionnaire	1/02/2019	N/A
Progress report I (here we are now)	Information analysis, literature review and structured interview	15/03/2019	N/A
Brief country reports	Structured interview	15/06/2019	N/A
Progress report II	Systematic review and data analysis	15/10/2019	Meeting (to be discussed)
Review paper on the state of art in genetic conservation of riparian ecosystems/species	Systematic review and data analysis	15/10/2020	Publication fee

Step1: Directory of experts

- ☐ We started with a list of experts involved in GENCON projects;
- ☐ 30 experts from almost all European countries;

Step2: Questionnaires



CONVERGES Genetic Conservation (GC) WG2 subgroup – 2019 02 13

SHORT QUESTIONNAIRE ON RIPARIAN GENETICS CONSERVATION IN EUROPE

I. PERSONAL DATA	
Name	
Country of work	
Affiliation	
Email	
Would you like to join the GC subgroup of CONVERGES?	
What is your main interest/motivation?	
II. RELEVANT CONTACTS ON RIPARIAN GENETICS CONSERVATION	
Are you aware of people (researchers, public administration, private company) working on genetic conservation of riparian species in your country of work? (We ask here about people who work with riparian species/vegetation and include different genetic aspects, it could be any work on genetic diversity/structure or different provenances of riparian species relevant for conservation).	
A. YES / NO	B. If you answered YES. Can you please provide the <u>contacts</u> :
	1.



You have opportunity to fill the questionnaire here during the meeting

7

Step2: Questionnaires



CONVERGES Genetic Conservation (GC) WG2 subgroup – 2019 02 13

Are you aware of any activities in your country of work addressing conservation of riparian genetic resources?	
A. YES / NO	B. If you answered YES. Can you provide a link to the project or information on the results?
	Link to project.....
	Link to output results.....
	Another information.....
	Link to project.....
	Link to output results.....
	Another information.....



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8

Step2: Questionnaires



CONVERGES Genetic Conservation (GC) WG2 subgroup – 2019 02 13

III.KNOWLEDGE OF RIPARIAN GENETICS IN YOUR COUNTRY	
Can you list up to 5 relevant native forest species in riparian ecosystems in your country of work?	
A. YES / NO	B. If you answered YES. List the name of species here:
	Sp1 – (scientific name):
	Relevance of this species is due to (choose the appropriate option(s):
	A. Conservation concern (i.e. endangered).....
	B. Functionally important (i.e. dominant species in the riparian systems).....
	C. Economically important.....
	D. Other reason (describe here).....



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9

Step2: Questionnaires



CONVERGES Genetic Conservation (GC) WG2 subgroup – 2019 02 13

Can you list up to 5 most relevant titles (scientific papers, reports, books) related to genetic conservation of riparian species in your country?	
A. YES / NO	B. If you answered YES. List the titles here, and the link to access the document, if available:
	Reference1.....
	Link to document.....
	Reference2.....
	Link to document.....

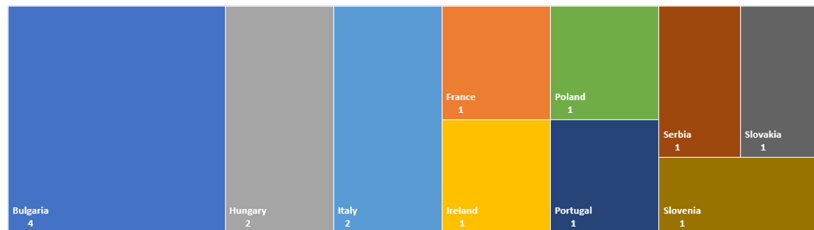


You have opportunity to fill the questionnaire here during the meeting

10

Step2: Questionnaires – preliminary results

- ❑ The questionnaire was sent to the CONVERGES network
- ❑ 16 people from 11 countries responded and sent filled questionnaires



Step2: Questionnaires – preliminary results

- ❑ 26 experts in riparian genetic conservation were recommended



Step2: Questionnaires – preliminary results

- Information about 14 projects on riparian genetic conservation across Europe

The screenshot shows the website of 'Leśny Bank Genów Kostrzyca'. The main header includes the organization's name and navigation links: 'O BANKU GENÓW', 'ZADANIA', 'ARBORETUM', 'EDUKACJA', and 'INFORMACJE'. Below this, there are tabs for 'Zadania', 'PROJEKTY', 'Projekty WFOŚiGW', and 'WIĄZY I JESION - WFOŚiGW'. The main content area features a large image of a river and text about the project: 'CONSERVATION OF THE GENETIC FUND AND RESTORATION OF PRIORITY FOREST HABITATS IN NATURA 2000 SITES'. It describes the project as a joint initiative of the Seed Control Station - Sofia, Vitosha Initiative Group, and the Executive Forest Agency, implemented with financial support from the EC LIFE + Programme. The project aims to improve the conservation status of priority forest in pilot areas and conserve the genetic fund of priority species and from NATURA 2000 network in Bulgaria. A sidebar on the left contains a search bar and a section titled 'RIPLANTE' with text in Portuguese. The bottom of the page shows the URL 'https://www.keeper.eu/project/3517/constitution-et-mise-en-oeuvre-dune-filiere-de-production-d-ecotypes-lig' and the program '2000-2006 Wallonia - Lorraine - Luxembourg (BE-FR-LU) / Ecolin'.

Step2: Questionnaires – preliminary results

- Information about 24 native taxons of riparian plants



Pictures Remigiusz Pielech

Step2: Questionnaires – preliminary results

- Information about 40 sources, including scientific papers, book chapters, project reports etc.

MOLECULAR ECOLOGY RESOURCES

Resource Article

New resources for genetic studies in *Populus nigra*: genome-wide SNP discovery and development of a 12k Infinium array

P. Faivre-Rampant, G. Zaina, V. Jorge, S. Giacomello, V. Segura, S. Scalabrini, V. Guérin, E. De Paoli, C. Aluome, M. Viger, F. Cattonaro, A. Payne, P. PaulStephenRaj, M. C. Le Paslier ... See all authors

Tree Genetics & Genomes
October 2015, 11:89 | Cite as

Indigenous forests of European black poplar along the Danube River: genetic structure and reliable detection of introgression

Authors Authors and affiliations

Mihailo Jodic, Aleksandra Patenković, Marijana Skorić, Daria Mikić, Zorana Kurbačija Novčić, Sándor Borsós, Ferenc Várhidi, Ivana Vasić, Attila Berke, Georg Frank, Branislav Šiler

Copyright © 2011 by the Italian Society of Silviculture and Forest Ecology
doi: 10.3832/for0580-004

Collection: IUFRO RG 7.01 2010 - Antalya (Turkey)
"Adaptation of Forest Ecosystems to Air Pollution and Climate Change"
Guest Editors: Elena Padellaro, Yusuf Serengil

TECHNICAL REPORTS

Population genetic structure of *Platanus orientalis* L. in Bulgaria

M. Grueva, P. Zhelev



MATERIAIS FLORESTAIS DE REPRODUÇÃO DE ESPÉCIES LENHOSAS RIBEIRINHAS – MANUAL DE BOAS PRÁTICAS

CARLA FARIA E MARIA HELENA ALMEIDA

Chapter 7 Conservation of Forest Genetic Resources

Mirjana Šijačić-Nikolić, Jelena Milovanović and Marina Nonić

Abstract Forest genetic resources represent the genetic diversity contained in thousands of tree species on Earth, and can be defined as the genetic variability of tree species, which has a potential or real value for humans (FAO, Plant genetic resources: their conservation in situ for human use, 1989). The increasing demand for wood, as a raw material for various purposes, as well as general useful forest functions, has made the protection (conservation) and directed utilization of forest genetic resources became a priority task of forestry science and profession. Conservation of forest genetic resources could be defined as a set of activities and strategies that are being implemented with the aim of ensuring the continued existence, evolution and availability of these resources for present and future generations. Conservation of these resources should be considered as the efforts to preserve specific genotypes or populations and the combination of genes within them. Therefore, the aim of genetic resources management is to improve conditions for the continuous evolution of the species, which represents the defense mechanism of organisms in suppression the environmental changes. Genetic variability, which is the result of different genetic processes: mutation, recombination, gene flow, natural selection

Next steps to achieve the aims

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Thank you for your attention!

Thank you to all contributors for filling the short Questionnaire

If you would like to join the GenCon group, contact us:

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