

**Second meeting of the EUFORGEN Working Group on genetic conservation strategies**  
Casale Monferrato, Italy, 14-16 February 2012.

**Summary of the meeting**

**Opening of the meeting**

S. de Vries, Leader of the Working Group welcomed the members to the second meeting of the working group and thanked L. Vietto for the logistic arrangements

G. Nervo, Director of the Research Unit for Intensive Wood Production of the Agricultural Research Council of Italy (CRA) welcomed the participants in Casale Monferrato and wished the Working Group a fruitful meeting.

M. Bozzano, on behalf of the EUFORGEN Secretariat, welcomed the participants, and presented the meeting agenda which was modified in order to make better use of everyone's presence and allow more time for the discussion of priorities for the selections of the units. M. Bozzano and J. Cottrell were nominated as rapporteurs of the meeting.

**Background**

During the previous meeting of the working group<sup>1</sup> the outline of the report entitled "Pan-European Strategy for Genetic Conservation of Forest Trees: establishment of a core network of dynamic conservation units" was developed. The draft report will be presented by the Working Group Leader (S. de Vries), for further discussion, to the EUFORGEN workshop on Conservation and Monitoring of Forest Genetic Diversity, Helsinki, Finland, 18-20 September 2012 and, later, for further action, to the EUFORGEN Steering Committee in November 2012.

The participants during the first meeting had developed the outline and identified lead authors from amongst the working group who would be responsible for writing the various chapters of the Working Group Report (see Annex 1).

**Overview of material received for the Working Group Report**

To date nearly all contributions had been received. S. de Vries provided an overview of these contributions: and made suggestions on how to improve the drafts. All the participants were invited to comment on the material received.

**Improvement and further development of the Working Group Report**

During the two days of the meeting most of the time was devoted to the analysis of the draft document and agreement was found for its further development.

In particular, it was agreed that the entire Working Group membership will be listed as authors of the report with their names appearing in alphabetical order. Authors will be listed at the beginning of the report and not at the top of each chapter.

***Distribution maps and their characterisation based on the Environmental stratification.***

The distribution maps of the relevant species produced by the EUFORGEN programme in the past ten years will form the basis for the development of this strategy.

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<sup>1</sup> The Minutes of First meeting of the EUFORGEN Working Group on Genetic Conservation Strategies, held in Maccarese (Rome), Italy on 2-4 November 2011 are available at:  
[http://www.euforgen.org/about\\_euforgen/working\\_groups/wg1.html](http://www.euforgen.org/about_euforgen/working_groups/wg1.html)

In order to characterize the range of ecological conditions in which each species currently occurs, the distribution map of each of the selected species has been overlaid on to the map of the environmental stratification of Europe developed by Metzger et al. (2005).

Currently, the environmental stratification map only covers West and Central Europe. It was therefore decided that M. Bozzano should contact Metzger et al. in order to determine when they intend to release the maps for the countries omitted from their first maps. As soon as the new map becomes available, the characterisation of the distribution ranges will be extended.

These maps will be used as a basis for the development of the strategy for selecting gene conservation units, but the maps will not be included in the publication

### ***Definition of the Dataset***

It was decided to use the dataset as downloaded from the EUFGIS portal on 23 April 2012.

### ***Cleaning of the EUFGIS Dataset***

It was noted that the EUFGIS database includes entries of many units that fail to meet the minimum requirements (ie clonal archives, provenance trials, missing total area, etc). Before starting the analysis, such units will be removed from the dataset, as far as possible. In addition, all National Focal Points will be reminded of the importance of respecting the minimum requirements. The Secretariat will investigate a system to flag the Units that have been excluded from the analysis so that the Focal Points are alerted that they should consider deleting or amending these entries.

### ***Selection of the Units for the core network of dynamic conservation units***

As a general principle, for the establishment of the core network of dynamic conservation units, it was decided to select one unit per country per climate zone per species. Countries will be allowed to choose extra units based on the presence of a different lineage per species if this is not already covered in the zone.

### ***Prioritisation in the Units selection***

In cases of which there is more than one unit for each species x country x zone, the following principles on how to select the most appropriate unit (in the following order) will be applied:

- i. Eliminate *ex situ* units. Since these are to be considered only if *in situ* conservation is not possible ,
- ii. Eliminate all "introduced" (retain only those that are either of unknown or autochthonous origin),
- iii. Prefer publicly-owned units to those that are privately owned<sup>2</sup>,
- iv. Order the units in descending order of their total area and give preference to those that are larger; also consider the estimated percentage of the unit where the species occurs.

Once the units have been selected, all the related Focal Points will be informed, in order to offer them the opportunity to add another unit on the basis of each additional lineage or neutral DNA variation, as appropriate.

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<sup>2</sup> Still prefer large privately owned Units to publicly owned small (i.e. less than 500 reproducing trees for stand forming and 50 trees for scattered)

**Gap analysis**

The gap analysis will be presented whilst stressing the fact that only 33 countries have made information on dynamic conservation units for the given species available to the EUFGIS database. Consequently, the gap analysis will reveal two different kinds of gaps: (i) those due to countries not having entered the information in the system, and (ii) those where countries that have entered information into the system, but have not established a conservation unit in a specific country-zone.

**Areas excluded by the gap analysis**

It was agreed that those “species x country x zone” units which have total areas of less than 50 km<sup>2</sup> will be excluded from the gap analysis, since these areas are often the result of map approximations.

**Recommendations**

During the analysis of the compiled material, the following recommendations have been formulated:

- a. In order to permit a list of genuine gaps to be compiled (ie those due to missing information in the EUFGIS database), all countries will be encouraged to meet previous commitments, by entering the relevant information they have available on Dynamic Conservation Units.
- b. The Steering Committee is asked to undertake adequate actions to urge the countries to fulfill the commitments (ie letter from the Steering Committee should be sent to National Coordinators or Implementing Agencies as appropriate)
- c. The monitoring of data entered in the system as well as its analysis, must be continued in order to maintain an adequate overview of the conservation effort and its progress at European level.
- d. Adequate resources should be allocated for the future maintenance and development of the EUFGIS database. This database is a key factor to the continuation and improvement of the pan-European strategies for genetic conservation of forest tree species.
- e. Similar assessment should be extended to relevant other species in the EUFGIS database within the framework of a new anticipated AGRIGENRES programme.
- f. In the future, the impact of climate change on conservation units should be further analyzed by identifying vulnerable species/populations, and developing potential indicators and active management strategies.

It was agreed that these recommendations will be included in the final report.

**Wrap-up and next steps**

The draft contributions, including all corrections made during the meeting will be incorporated by M. Bozzano and sent to the Group Leader by the end of February.

S. De Vries will revise the document and send it back to the Secretariat by 15 March. M. Bozzano will revise and update all figures and tables by 20 April, when they will be circulated to all Working Group Members. All Members will incorporate the new figures into their contributions, and return the contribution to M. Bozzano by 27 April. The Secretariat will send the draft report to e-mail contributors on 27th April for their comments. It was stressed that coordination at national level will be needed, as only one feedback per country will be considered. The comments from the e-mail contributors will be submitted to

S. De Vries (Cc to the EUFORGEN Secretariat) by 1 June 2012. E-mail contributors will also be asked to further integrate the Table 3 (list of genetic diversity maps and broad-scale genetic studies for the selected species).

The revised report will be circulated to Working Group Members by 15 June, in order to agree the final wording and maps needed by 30 June.

The report will be presented by S. De Vries in November at the Steering Committee meeting. Once approved by the Steering Committee, the report will be published on the EUFORGEN website. Additionally, the working group may also consider developing a paper for a scientific journal.

### **Closure of the meeting**

S. de Vries thanked all participants for their inputs to the discussions and L. Vietto for organizing the meeting. With no other business, he then closed the meeting.

## **Annex 1. Revised Outline of the Working Group report and lead authors for different chapters.**

### **Pan-European Strategy for Genetic Conservation of Forest Trees: establishment of a core network of dynamic conservation units**

(Overall coordination: S. de Vries, Working Group Leader)

Preface (J. Koskela)

#### **1. INTRODUCTION (J. Koskela)**

#### **2. OBJECTIVES**

- a. What do we propose to conserve (E. Collin, P. Rotach)**
  - i. Adaptive diversity (introduce also the Environmental stratification of Europe) and
  - ii. Genetic diversity
- b. Targeted level of conservation for the Pan-European Network point of view (core network) (J. Cottrell, L. Yrjänä)**
  - i. Overall goal: to maintain adaptive and genetic diversity of forest trees at pan-European level?
  - ii. Species target(s): country x zones
  - iii. The approach: dynamic conservation units

#### **3. METHODS**

- c. Selection of the groups of species (V. Buriánek, M. Ivankovic)**
  - Widely distributed stand forming
  - Widely distributed scattered
  - Restricted-distribution locally common
  - Restricted-distribution locally scattered
- d. Selection of units for the core network (M. Alan, M. Ivankovic)**
- e. Genetic conservation status of model tree species (C. Kelleher, L. Vietto)**
- f. Identification of gaps (L. Yrjänä, M. Bozzano)**

#### **4. RESULTS (authors as above)**

- a. Selection of the groups of species (V. Buriánek, M. Ivankovic)**
- b. Selection of units for the core network (M. Alan, M. Ivankovic)**
- c. Assessment of genetic conservation status of model tree species (C. Kelleher, L. Vietto)**
- d. Identification of Gaps (L. Yrjänä, M. Bozzano)**

#### **5. IMPLEMENTATION / ACTION PLAN (Management of conservation networks) (P. Rotach, M. Alan)**

- a. Climate Change (E. Collin, C. Kelleher)**

- b. Monitoring of progress** (L. Vietto, E. Collin)
- c. Revision of the strategy** (L. Yrjänä, J. Cottrell)
- d. Resources needed?** (P. Rotach, M. Alan)

## **6. RECOMMENDATIONS**

**References**

**Annexes**

## Annex 2. Agenda of the meeting

<b>Monday 13 February</b>		
15:00-	Arrival to Milano Malpensa Airport	
	Dinner on your own	
<b>Tuesday 14 February</b>		
08.30	Bus transportation from hotel	Hotel Candiani
08:40	Opening of the meeting <ul style="list-style-type: none"> <li>Welcome to the Research Unit for Intensive Wood Production (Dr. Giuseppe Nervo)</li> <li>Introduction to the meeting (M. Bozzano / S. De Vries)</li> <li>Adoption of the agenda</li> <li>nomination of rapporteurs</li> </ul>	CRA- Research Unit for Intensive Wood Production - Strada Frassineto 35 - 15033 Casale Monferrato (AL) Italy
09:15	EUFORGEN update (M.Bozzano) <ul style="list-style-type: none"> <li>Discussion</li> </ul>	
09:30	Overview of material received for the Working Group report (S. De Vries) <ul style="list-style-type: none"> <li>Discussion</li> </ul>	
10:30	Coffee/tea break	
11:00	Presentation of the various chapters of the Working Group report  OBJECTIVES  What do we propose to conserve (E. Collin, P. Rotach) Targeted level of conservation for the Pan-European Network point of view (core network) (J. Cottrell, L. Yrjänä)	
12:30	Lunch	
14:00	METHODS /RESULTS  Selection of the groups of species (V. Buriánek) Selection of units for the core network (G. Kandemir) Genetic conservation status of model tree species (C. Kelleher, L. Vietto) Identification of gaps (L. Yrjänä, M. Bozzano)	
15:30	Coffee/tea break	
16:00-17:30	Overview of the units for the selected species and discussion on the selection principles (M. Bozzano)	
20:00	Social dinner	Restaurant Ariotto
<b>Wednesday 15 February</b>		
08:30	IMPLEMENTATION / ACTION PLAN  (Management of conservation networks) (P. Rotach, G. Kandemir) Monitoring of progress (L. Vietto, E. Collin) Revision of the strategy (L. Yrjänä, J. Cottrell)	CRA- Research Unit for Intensive Wood Production

	Climate Change (E. Collin, C. Kelleher)	
10:30	Coffee/tea break	
11:00	Discussion on needs for improvement of the present draft, conclusions and recommendations	
12:30	Lunch	
14:00	WG tasks (Continued) <ul style="list-style-type: none"> <li>• Compilation of data, relevant publications, bibliography etc.</li> </ul>	
15:30	Coffee/tea break	
16:00-17:30	Finalisation of the WG tasks (Continued) <ul style="list-style-type: none"> <li>• Compilation of data, relevant publications, bibliography etc.</li> </ul>	
17.30	Visit to a local enterprise and dinner	(tbc)

<b>Thursday 16 February</b>		
08:30	Presentation of the WG tasks <ul style="list-style-type: none"> <li>• Compilation of data, relevant publications etc.</li> <li>• Discussion</li> </ul>	CRA- Research Unit for Intensive Wood Production
10:30	Coffee/tea break	
11:00	Next steps before the September workshop <ul style="list-style-type: none"> <li>• Tasks and deadlines</li> </ul>	
12:15	Wrap-up session <ul style="list-style-type: none"> <li>• Any other business</li> </ul>	
12:30	Lunch	
13:00-	Transport to Milano Airport, or Train Stations as needed	

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